

GAZETTEER OF INDIA

WEST BENGAL

24-PARGANAS

WEST BENGAL DISTRICT GAZETTEERS



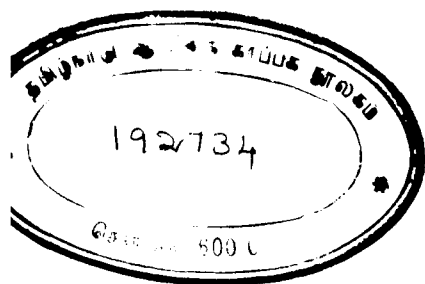
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24-PARGANAS

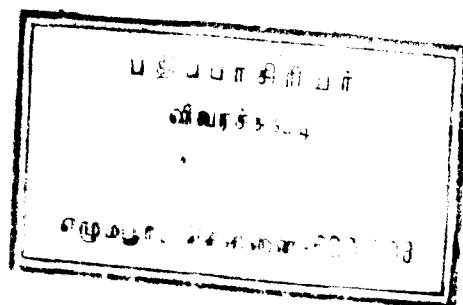
EDITED BY
DR. BARUN DE,
FORMER HONORARY STATE EDITOR.

March 1994

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PRICE [REDACTED] IN INDIA.
US \$ 25 ABROAD.



Published by Sri K. R. Biswas, I. A. S., State Editor, West Bengal District Gazetteers, Education Department, Government of West Bengal, Bikash Bhavan, North Block, 8th Floor, Salt Lake City, Calcutta-700 091. Printed by Saraswati Press Ltd. (Government of West Bengal Enterprise), 11, B. T. Road, Calcutta-700 056.

P R E F A C E

The 24-Parganas District Gazetteer is the thirteenth volume in the series of West Bengal District Gazetteers, written in accordance with the Scheme for Revision of Gazetteer, launched by the Government of India in 1959. The Central Government Scheme, however, having come to an end in 1981, the present volume has been prepared and is being presented solely by the Government of West Bengal.

The work on the volume was initiated in 1979, by Dr. Barun De the then Honorary State Editor. Necessary research work for the volume and its drafting were completed under his able guidance. In 1985 his successor, Shri N. N. Sen, sent the manuscript to the press. By the time (1986) the district was bifurcated, approximately three-fourths of the printing had been completed and it would not have been practicable to attempt fresh publication of separate Gazetteers for the newly bifurcated districts.

Apart from the research and editorial staff of this office a number of scholars and officials have made valuable contribution to this volume. This is gratefully acknowledged. Late Dinan Som, one of the ablest and oldest Research Assistants who had been working in this office since its inception expired on the 26th July 1981 when the preparation of the volume was in progress. With deep sense of grief I record my gratitude for his contributions.

I feel honoured in recording my gratitude to the Chairman and the members of the State Advisory Committee for Gazetteers Shri Asok Mitra I. C. S. (Retd.), Prof. Sunil Munshi, Dr. Ladli Mohan Roychowdhury, Shri Atish Dasgupta and Dr. Barun Mukherjee, for going through the manuscript and offering valuable suggestions for the improvement of the quality of the volume.

I must thank the research and the editorial staff who made major contributions to the volume and the members of the staff of this office particularly of the publication section, who provided ungrudging supporting services. Lastly, I should be failing in my duty if I do not express our gratitude to the management and the workers of Saraswati Press Ltd., specially Shri Sunil Modak, Sales Executive who not only have creditably produced the volume but also have solved a number of problems regarding the production of the book. Special thanks are due to Shri Asoke Bhattacharya and Shri Niranjan Kumar Mallick, Joint Secretaries of Education Department (Higher Education) and Finance Department respectively for their help.

There has been inordinate delay in the printing of this volume for reasons beyond our control. It is hoped that it will still be useful to the interested readers. Any errors if pointed out will be rectified in future editions.

16 March, 1994
Calcutta.

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NOTIFICATIONS REGARDING BIFURCATION OF THE DISTRICT 24-PARGANAS

The final manuscript of this volume of the 24-Parganas District Gazetteer was sent to press for printing prior to the formation of the two new districts—North 24-Parganas and South 24-Parganas by dividing the existing district of 24-Parganas with effect from 1st March, 1986. Under the circumstances, no fresh attempt was practicable for publishing separate Gazetteers for the newly bifurcated districts. So, for convenience of the readers of this volume, the Government Notifications in connection with the bifurcation of the 24-Parganas district and the boundaries of the newly formed North 24-Parganas and South 24-Parganas districts are quoted below :

[1]

The Calcutta Gazette, Extraordinary, Tuesday, February 18, 1986. Government of West Bengal, Land and Land Reforms Department : Land Revenue. Notification No. 212-L.R./6M-15/83-17th February, 1986—In exercise of the power conferred by the Bengal District Act of 1836 (21 of 1836), read with the Bengal District Act of 1864 (Ben. Act IV of 1864) and sub-section (2) of Section 7 of the Code of Criminal Procedure, 1973 (2 of 1974), and in cancellation of all previous notifications relating to the area included in the district of 24-Parganas and the boundaries thereof, the Governor is pleased hereby to create, with effect from the 1st day of March 1986, two districts named as North 24-Parganas and South 24-Parganas by dividing the existing district of 24-Parganas, the former having the headquarters at Barasat and the latter at Alipore.

The Governor is further pleased to direct that with effect from the aforesaid date, the limits of the district of North 24-Parganas shall include the local areas comprised in the subdivisions, and the police stations comprised in each such subdivision as shown in Schedule 'A' and the limits of the district of South 24-Parganas shall include the local areas comprised in the subdivisions, and the police stations comprised in each such subdivision as shown in Schedule 'B'.

Schedule 'A'

Name of Subdivision	Police-Station
1. Bangaon	Bangaon, Bagdah, Gaighata
2. Basirhat	Swarupnagar, Baduria, Basirhat, Haroa, Minakhan, Hasnabad, Hingalganj, Sandeshkhali.
3. Barasat	Habra, Amdanga, Barasat, Rajarhat, Deganga.

Name of Subdivision	Police-Station
4. Barrackpore	Bijpur, Naihati, Jagaddal, Noapara, Barrackpore, Titagarh, Khardah, Baranagar, Belgharia, Dum Dum, Nimta, Airport, Lake Town, Salt Lake.

Schedule 'B'

Name of Subdivision	Police-Station
1. Sadar	Jadavpur, Kasba, Tiljala, Regent Park, Behala, Metiabruz, Bishnupur, Sonarpur, Budge-Budge, Maheshtala, Baruipur, Joynagar, Bhangore, Canning, Kultali, Basanti, Gosaba.
2. Diamond Harbour	Mograhat, Falta, Mandirbazar, Diamond Harbour, Kulpi, Mathurapur, Patharpratima, Kakdwip, Namkhana, Sagar.

By Order of the Governor,
B. C. MUKHERJEE,
Secy. to the Govt. of West Bengal.

The Calcutta Gazette, Extraordinary, Tuesday, February 18, 1986. Government of West Bengal, Home Department, Personnel and Administrative Reforms :
A. R. Cell.

NOTIFICATION

No. 89-P & AR(AR)—17th February 1986—In exercise of the power conferred by sub-section (3) of section 7 of the Code of Criminal Procedure, 1973 (2 of 1974), and in supersession of all previous notifications relating to the area included within the Alipore Sadar subdivision in the district of 24 Parganas and the boundaries of that area, the Governor is pleased to declare that the limits of the Alipore Sadar Subdivision in the district of 24-Parganas shall, with effect from the 1st day of March 1986, include the local areas of the following police-stations :—

Name of the police-stations

- | | |
|-----------------|-----------------|
| 1. Kasba, | 9. Budge-Budge, |
| 2. Tiljala, | 10. Mahestala, |
| 3. Jadavpur, | 11. Baruipur, |
| 4. Regent Park, | 12. Jayanagar, |
| 5. Behala, | 13. Bhangar, |
| 6. Metiabruz, | 14. Canning, |
| 7. Vishnupur, | 15. Kultali, |
| 8. Sonarpur, | 16. Basanti and |
| | 17. Gosaba. |

By Order of the Governor,
S. V. KRISHNAN,
Chief Secy. to the Govt. of West Bengal.

NOTIFICATION

No. 90-P & AR(AR)—17th February 1986—In exercise of the power conferred by sub-section (3) of section 7 of the Code of Criminal Procedure, 1973 (2 of 1974), and in supersession of all previous notifications relating to the area included within the Basirhat subdivision in the district of 24-Parganas and the boundaries of that area, the Governor is pleased to declare that the limits of the Basirhat Subdivision in the district of 24-Parganas shall, with effect from the 1st day of March 1986, include the local areas of the following police-stations :—

Name of the police-stations

- | | |
|-----------------|-------------------|
| 1. Basirhat, | 5. Minakhan, |
| 2. Baduria, | 6. Hasnabad, |
| 3. Swarupnagar, | 7. Hingulganj and |
| 4. Haroa, | 8. Sandeskhali. |

By Order of the Governor,
S. V. KRISHNAN,
Chief Secy. to the Govt. of West Bengal.

The Calcutta Gazette, Extraordinary, Friday, February 28, 1986.
Government of West Bengal, Judicial Department.

NOTIFICATION

No. 4382-J.—27th February 1986.—In exercise of the power conferred by sub-section (3) of section 7 of the Code of Criminal Procedure, 1973 (2 of 1974), the Governor is pleased hereby to divide, with effect from 1st March, 1986, the district of North 24-Parganas and the district of South 24-Parganas mentioned in column (I) of the schedule below, which constitute the sessions division formed as per this department notification No. 3107-J, dated the 20th February, 1986, into subdivisions, mentioned respectively against the districts in column (II) of the said schedule, comprising the areas included within the jurisdictions of the police-stations mentioned in column (III) of the said schedule and specified from time to time under clause (s) of section 2 of the Code of Criminal Procedure, 1973 (2 of 1974).

Schedule

Name of District (I)	Name of subdivision (II)	Police-station (III)
1. North 24-Parganas	(i) Barasat Sadar	Habra, Amdanga, Barasat, Rajarhat, Deganga.
	(ii) Barrackpore	Bijpur, Naihati, Jagaddal, Noapara, Barrackpore, Titagarh, Khardah, Baranagar, Belgharia, Dum-Dum, Nimta, Airport, Lake Town, Salt Lake.
	(iii) Bongaon	Bongaon, Bagdah, Gaighata
	(iv) Basirhat	Swarupnagar, Baduria, Basirhat, Haroa, Minakhan, Hasnabad, Hingalganj, Sandeshkhali.
2. South 24-Parganas	(i) Alipore Sadar	Jadavpur, Kasba, Tiljala, Regent Park, Behala, Metiabruz, Bishnupur, Sonarpur, Budge Budge, Maheshkola, Baruipore, Joynagar, Bhangore, Canning, Kultali, Basanti, Gosaba, Chitpore, Cossipur, Manicktola, Ultadanga, Narkeldanga, Beleia-ghata, Fulbagan, Entally, Benia-pukur, Tollygunge, Ballygunge,

Name of District (I)	Name of subdivision (II)	Police-station (III)
		Gariahat, Lake, Bhowanipur, Karaya, Alipore, New Alipore, Watgunge, Ekbalpur, Garden Reach, South Port.
	(ii) Diamond Harbour	Magrahat, Falta, Mandirbazar, Diamond Harbour, Kulpi, Mathurapur, Patharpratima, Kakdwip, Namkhana, Sagar.

By Order of the Governor,
S. K. GUIN,
Secy. to the Govt. of West Bengal.

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CHAPTER I

GENERAL

The nomenclature 24-Parganas has been in vogue since 15 July 1757 when Mir Jafar whom the East India Company had just established as Nawab of Bengal ceded to the Company the rights of 24 *mahals*. The treaty by which the cession is recorded¹ says that "all the land lying to the south of Calcutta as far as Culpee, shall be under the Zemindari of the English Company; and all the officers of this Zemindari shall be under their jurisdiction. The revenue to be paid by it (the Company) in the same manner with other Zemindars". The Parwana notifying effect to the Treaty mentions the name of the 24 units of granted land:

INTRODUCTORY
Origin of the name of the district

"... Know that the Zemindary, Chowdhary, and Talukdarry, of the countries in the subjoined list hath been given by Treaty to the most illustrious and most magnificent English Company, ...

Twenty-four Mahals

The Pergunnah of Mugra

Ditto Khaspoor

Ditto Mudenmull

Ditto Ekktiarpoor

Ditto Burjuttu

Part of the Pergunnah of Ghur

The Pergunnah of Karee Juree

Ditto Deccan Sagar

Part of the Pergunnah of Calcutta

Part of the Pergunnah of Paikan

Part of the Pergunnah of Munpoor

Part of the Pergunnah of Amcerabad

The Pergunnah of Azeemabad

Ditto Moodagotaha

Ditto Putcha Kolin

Part of the Pergunnah of Shah Nagur of Shahpur

Part of the Pergunnah of Mahmud Ameepoor

Mellang Mahal

¹ C. U. Aitchison—*A Collection of Treaties, Engagements and Sanads*, Vol. I (Calcutta 1892), 1920, p. 17, Article IX.

The Pergunnah of Hattiajur
Ditto Moida
Part of the Pergunnah of Akbarpur
Part of the Pergunnah of Bellia
Part of the Pergunnah of Bussindarry"

Thus the name of the district should really have been 24-Mahals since each unit of granted land was treated as Mahal, some being full *parganas*, others being parts of *parganas* and one being Malang Mahal.¹ Perhaps "24 part Parganas" was found too cumbersome and the name was elided into 24-Parganas.

Location and
general boundaries

This active delta district lies between 21°25'30" & 23°16'50" north latitudes and 88°01'10" & 89°06'15" east longitudes.² The district, largest in West Bengal, resembles an irregular triangle in shape. It has artificial land frontiers as well as natural water boundaries. Nadiya district lies to its north and the Bay of Bengal to its south. Much of its eastern boundary with Bangladesh runs along river channels, which being distributaries, often shift and raise problems of border demarcation. On the west, it is bounded by Calcutta and the river Hugli, which proceeding from north to south, separates it from the districts of Hugli, Haora and Medinipur.

Lying at the apex of the funnel shaped Bay of Bengal and serving as the immediate hinterland of Calcutta, this sensitive border district commands a vital strategic area not only for West Bengal but also for the entire country, in war as well as in peace.

Total area and
population of the
district

The 24-Parganas is one of the largest of the border districts having an area of 14,136 sq. km. and a total population of 1,07,26,751 of which 41,72,619 or 38.90% were urban according to the 1981 Census.³ Only 9 other border districts viz., Ladakh, Kutch, Jaisalmer, Barmer, Bikaner, Ganganagar, Lohit, Siang, Subansiri are larger in size. But their total population is less than half of 24-Parganas. So, by strength of population both quantitatively and qualitatively (by virtue of its large urban sector,

¹ The terms *pargana* is derived in H. H. Wilson's *Glossary of Judicial Revenue Terms* (second edition, New Delhi, 1968) as, "a district, province, a tract of country comprising many villages, but at which several go to constitute a *Chakla* or a *Zilla*: the actual extent varies but the distinction is permanent." Mahals on the other hand are defined as, "a division of a Taluk or district, yielding revenue according to assessment. ... Under the Mohammedan Government the term was also applied to a head of department of miscellaneous revenue, derived from a tax on some particular class of person as ... *Nimakmahal*, the revenue derived from the monopoly of the sale of salt."

² Source: Survey of India.

³ For further details see Chapter III on People.

next only to Bombay, Calcutta and Delhi), 24-Parganas outranks all other border districts.

Both in terms of area (15.70% of the State's area) and population (19.69% of the State's population) it ranks first among the districts of West Bengal. That the district is going through major demographic changes since the Independence will be evident from the following tables.

1. Decennial growth of population	Total	Rural	Urban
1941-1951	+23.50%	+15.94%	+49.50%
1951-1961	+40.84%	+32.05%	+64.29%
1961-1971	+34.53%	+27.93%	+48.67%
1971-1981	+26.95%	+19.62%	+40.48%*
2. Percentage of workers to total population in 1981	28.13%	16.74%	11.39%
3. Density of population per sq. km. in 1941	251	110	2,274
-do- 1951	315	232	3,563
-do- 1961	430	303	4,475
-do- 1971	612	412	6,130
-do- 1981	759		
4. Percentage of literates	Persons	Males	Females
1941	15.82	23.00	7.06
1951	24.40	35.90	10.60
1961	32.48	43.86	19.33
1971	33.45	48.44	27.13
1981	45.91	55.41	35.40

The urban population of the district in 1981 Census accounted for

* Census of India 1981 : Series 23 West Bengal : Paper 1 of 1981--Provisional Population Totals. Calcutta, 1981.

The history of the district as an administrative unit and changes in its component parts

38.90% (against the State's 26.49% only) as against 35.15% in 1971, 31.8% in 1961 and 27.3% in 1951. Of the 241 towns of West Bengal, 70 were counted in this district. Also in 1981, there were 3,875 villages of which 83 were uninhabited.

The 1757 treaty vested the Company with zamindari rights, with the obligation of paying land revenue to the Nawab. By a *sanad* in 1759, Robert Clive was granted the 24-Parganas as a *jagir*, i.e. assignment of revenue in return for the services which he had rendered to the new Nawab. Clive thus became potentially a superior revenue collector over his own masters, the Company; until his death in 1774, his claims had not been fully settled by them. During this period most of the district was *terra incognita*—inaccessible, under dense forests, tidal swamps and a maze of channels. Major James Rennell's atlas based on scientific surveys between 1764 and 1777 were the early graphic portrayals of the district. The Company's Board of Revenue in Calcutta depended on Rennell's maps for quite some time.

But the "revenue and civil jurisdictions of the district did not coincide for many years, owing to the fact that, at the time of the Decennial Settlement of 1787, the landed property in this part of the country was chiefly held by the Rajas of Burdwan, Nadia, and Jessore. For convenience of collection, the revenues of their whole estates were made payable to the treasuries nearest to their principal places of residence; while, for police and general administrative purposes, it was deemed expedient to divide the territory without reference to the boundaries of estates or the treasuries into which their revenues were payable. Originally the district contained only 444 estates, but in 1816, when some estates were transferred from Burdwan, the number had risen to 564; these estates were retransferred to Burdwan in 1862."¹

In the 1780s reclamation and development of the Sundarbans was initiated by Tillman Henckell, Judge and Magistrate of Jessore. Many tribal people from the Chhotanagpur plateau and peasants from the adjoining districts were brought and settled here. Henckell's object was to introduce a body of peasant proprietors, holding directly under the Government. Gradually, vast forests changed into fertile rice fields and with the mixture of various ethnic and culture groups among the tenure holders, this frontier settlement evolved a distinct cultural personality of its own.

Regulations II, III and IX of 1793 defined the jurisdiction of

¹ L.S.S. O'Malley—*Bengal District Gazetteers: 24-Parganas*, Calcutta, 1914, pp. 56-7.

the civil, criminal and revenue courts established in the 24-Parganas, but it was expressly ruled that jurisdiction of these tribunals should not extend to the town of Calcutta. The arrangements of 1793 continued in force till 1800 when the Civil Courts of the 24-Parganas were abolished and their jurisdiction was made over to Judges of Hugli and Nadiya. The *Diwani*, or Civil Court was re-established in 1806. In 1811 the offices of the Judge and the Magistrate were united in the same person. Regulation XIV of 1814 divided the 24-Parganas into two *zilas*; one comprising the suburbs of Calcutta (thanas of Chitpur, Maniktala, Tazerhat, Nauhazari and Salkhia) and the other rest of the district. Regulation VIII of 1832 again merged the two *zilas*.¹

The Survey and Settlement operations were both the cause and effect of administrative changes. In the northern and north-eastern parts of the district, Thak maps (16" = 1 mile) showed all the estates within the village and contained a statement recording the areas of the Thak *mouzas* and Thak *chaks*. These were an improvement upon the previous *khassra*² survey map (or *Kalmi Naksha*) and the village record called village *chitta*. Yet they were rather imperfect. So, a more scientific Revenue Survey was carried out between 1838-78 with the help of theodolite, chain and plain-table and maps were prepared on the scale of 4" = 1 mile. At the same time (1830-67) the Great Trigonometrical Survey, which covered the whole of India by a series of triangles, was carried out in Bengal. After the Revenue Survey, came the Settlement or cadastral survey. The word *cadastral* is derived from the French word '*cadastre*', meaning a register of the survey of lands. The mosaics on the cadastral maps were checked by aerial photographs since World War I. These were introduced into Bengal by Col. J. R. Sandeman, the first Director of Surveys. The first revenue survey of 24-Parganas was made by Captain Smyth between the years 1847-52. But prior to that, between 1829-1831, Lieut. Alexander Hodges had surveyed and compiled a map to the scale of 1" = 2 miles of the whole of the Sundarbans. The *Diara* Survey was carried out in accordance with the provision of Act IX of 1847 in order to show fluvial changes of large rivers. Prepared on the scale of 1" = 4 miles, in the same scientific manner as the revenue survey, it extended over a period of 20 years from 1862 to 1883 and included villages on both sides of the rivers.

¹ L.S.S. O'Malley, *op. cit.* p. 56.

² *Khassra* is an index to the plots; in which the various crops grown are entered; it is not a legal document.

estuary is about 2.05 million hectares (3,089 sq. miles or 8000.51 sq. km.) out of which 0.791 million hectares (800 sq. miles or 2,072 sq. km.) lie in the district of 24-Parganas.¹

The Sundarbans grants-system of the 1770s and its various modifications in 1830, 1853, 1863, 1879 and 1897 (which have been described in Ch. XI) were in force till the abolition of the zamindari system under the Estate Acquisition Act of 1955, when there were 384 estates in addition to 40 khasmahal (i.e., Government-managed) estates in the colonization area i.e., south of the Dampier-Hodges line in 24-Parganas.²

With the Partition of India, the 24-Parganas became an important border district. Sir Cyril Radcliffe's award dated 12 August 1947 affecting the boundary of the district is reproduced below.

"... the boundary between East and West Bengal shall run along the boundaries between the thanas... Mahespur and Bangaon, Jhikargacha and Bangaon, Sarsa and Bangaon, Sarsa and Gaighata, Gaighata and Kaloroa to the point where the boundary between these thanas meets the boundary between the district of Khulna and 24-Parganas. This line shall then run southwards along the boundary between the district of Khulna and 24-Parganas to the point where the boundary meets the Bay of Bengal."

Thus the 24-Parganas became a border district and its size also increased. By notification No. 545 GA of 23.2.48, the Bangaon subdivision was created by certain additions from contiguous districts.

THE DISTRICT TILL 28.2.86 CONSISTED OF THE FOLLOWING SUBDIVISIONS AND POLICE STATIONS

Name and location of the subdivisions	Constituent police station	Area in sq.km.
1	2	3
Bangaon Subdivision is bounded on the north and east by Bangladesh, on the west by Nadiya district and on the south by Barasat and Basirhat subdivisions. It is named after its headquarters, Bangaon, a municipal town,	Bagdah Bangaon Gaighata	232.6 352.2 243.5
Basirhat Subdivision also named after its headquarters is bounded on the north by Bangaon Subdivision, on the east by Khulna (Bangladesh), on the south by the Bay of Bengal and on the west by the Sadar and Barasat subdivisions,	Swarupnagar Baduria Basirhat Haroa Minakhan Hasnabad Sandeshkhali Hingalganj Gosaba	216.0 209.8 260.3 203.3 110.1 242.2 243.2 162.1 371.4

¹ River Research Institute, Govt. of W. Bengal—*Sundarbans Delta Project, Phase I Project Report*, July 1968, p. 1.

² L.S.S. O'Malley, *op. cit.*, p. 8.

Name and location of the subdivisions	Constituent police station	Area in sq.km.
1	2	3
Barasat Subdivision, also named after its headquarters, is bounded on the north by Nadiya district and Bangaon Subdivision, on the east by Basirhat Subdivision on the south by Basirhat and Sadar subdivisions and on the west by the Barakpur Subdivision,	Habra Deganga Rajarhat Barasat Amdanga	281.5 202.0 102.6 269.6 138.8
Barakpur Subdivision is a narrow strip of land bounded on the north by Bagher Khal, on the west by the Hugli, on the east by the Barasat Subdivision and on the south by Calcutta and Salt Lake town. It is named after its headquarters,	Bijpur Naihati Jagaddal Noapara Barakpur Titagarh Khardah Belgharia* Baranagar Dam Dam	40.1 40.4 58.5 15.4 8.3 29.0 54.7 11.0 8.7 42.0
Diamond Harbour Subdivision, named after its headquarter town, is bounded on the west by the Hugli which separates it from the Medinipur district, on the north and east by the Sadar Subdivision and on the south by the Bay of Bengal. Along the sea face there are several islands, many of which lie below high water level during spring tides	Diamond Harbour Magrahat Phalta Kulpi Mandir-bazar Mathurapur Patharpratima Kakdwip Sagar Namkhana	196.3 255.1 135.7 250.7 117.3 611.8 484.6 476.8 580.9 159.8
Alipur or Sadar Subdivision is bounded on the north by the river Hugli, Calcutta and the Barasat Subdivision, on the south by the Diamond Harbour Subdivision and the Bay of Bengal and on the west by the river Hugli	Garden Reach Metiabruz Maheshtola Behala Jadavpur Bhangar Bishnupur Sonarpur Baj Baj Baruipur Canning Basanti Jaynagar Kultali	13.0 7.9 53.1 52.1 49.2 323.5 213.4 170.7 142.5 214.5 486.7 409.7 364.4 361.1

The territorial jurisdiction of 24-Parganas vis-a-vis Calcutta, and restricted areas under the control of Government of India, is very complex. For different kinds of functions, different sets of boundaries separate 24-Parganas from Calcutta. There is no common boundary as in the case of other districts i.e., boundaries of Calcutta accepted for municipal purposes, for the purposes of police administration, for administration of civil and criminal justice, land revenue,

* In terms of notification No. 769 PL, dt. 21.2.63, J.L. Nos. 1-4 of Baranagar P.S. were transferred to the new P.S. Belgharia.

postal services or different branches working under the Public Works Department are not common and there are overlapping areas. There is a wide belt of cotenancy between Calcutta and 24-Parganas, as also between the subdivisions of 24-Parganas. For example Alipur, the headquarters of the district, is part of the district for judicial and revenue purposes, but its municipal administration is under the Corporation of Calcutta, which are being governed by Calcutta Police. It forms a ward of Calcutta. Thus, the very Sadar station of the district is not a part of the urban area of the district. It is claimed that Calcutta urban tract has no agricultural area, but at the same time Dhapa dumping ground (one of the most productive agricultural tracts of West Bengal) is certainly within the limits of Calcutta Corporation for revenue collection and settlement.¹ Again, the 1971 Census reported . . . "The area of Dum Dum Aerodrome actually extends to three Police Stations viz., Dum Dum (in Barrackpore subdivision), Rajarhat and Barasat (both in Barasat subdivision), but its exact area falling under each could not be ascertained. For the purposes of dividing the area of each of these Police Stations into rural and urban, the urban portion has been computed without taking into account the Dum Dum Aerodrome Area."²

The cotenancy between Calcutta and 24-Parganas has persisted ever since the birth of these two districts. O'Malley's Bengal District Gazetteers of 1914 also distinguished the 'Suburbs of Calcutta' from the then existing 5 subdivisions viz., Alipur, Barakpur, Barasat, Basirhat and Diamond Harbour. . . "The area known as the Suburbs of Calcutta, i.e., the municipalities of Cossipure-Chitpur, Manicktola and Garden Reach, is geographically part of the Alipore or Sadar subdivision, but is classed separately as it is treated as a distinct unit for Census purposes, and its administration is, in several respects, different from that of the rest of the district. Police jurisdiction in the three towns is exercised by the Commissioner of Police, Calcutta, and the police force is drawn from the Calcutta Police, while cases occurring within their limits are tried by Deputy

¹ To our enquiry on this issue, the Census authorities replied "... changes in the boundary between Calcutta and 24-Parganas since the first Census are not available with us readily. You may kindly contact the Calcutta Corporation authorities in this matter." (No. Sp-1(V)/1313 dt. 4.6.76). The Calcutta Corporation, in its turn, was loath to give anything in writing and the office of the Director of Land Records and Survey admitted . . . "that in preparing the record of rights and maps in respect of 24-Parganas district, the area described in Schedule I of the Calcutta Municipal Act, 1951, as amended from time to time have been left out." (No. 133/893/D/76 dt. Alipore, 28th June 1976.)

² Census of India 1971, Series 22, West Bengal, Part X-B. Twentyfour Parganas District, p. 22.

Magistrates, subordinate to the District Magistrate of the 24-Parganas, who hold their courts at Alipore and Sealdah.

"For some administrative purposes the 'Added Area' of Calcutta forms part of the district. This, it may be explained, is the portion of Calcutta lying east and south of the Old Town (between the Circular Road and the Hooghly) and separated from it by the Circular Road. It includes seven entire wards, viz., Entally, Beniapukur, Ballygunge, Tollygunge, Bhawanipur, Alipore, Ekbalpur and Watganj (in which Kidderpore is situated) and also parts of four other wards, which are known collectively as the 'Fringe Area'. The latter is a strip of land lying between the Upper Circular Road and Circular Canal, which forms parts of Ward No. 1 (Shampukur), Ward No. 3 (Bartala), Ward No. 4 (Sukea Street) and Ward No. 9 (Muchipara), it is known as Ultadanga in Ward No. 1, as Maniktala in Ward No. 3 and as Beliaghata in Ward Nos. 4 and 9.

"The 'Added Area' forms part of the 24-parganas for civil and criminal purposes, criminal cases arising within its limits being tried by the Police Courts at Sealdah and Alipore, and committed if necessary, to the sessions court at Alipore; but for municipal and police purposes it is an integral part of Calcutta."³

Since 1947 there has been no change in the territorial jurisdiction of the Commissioner of Police, Calcutta. So the newly added areas to Calcutta Corporation (Wards 70, 94, 95, 96, 97, 98, 99 and 100), a triangular piece of land stretching from Ballygunge lake to Garia, still remains under the control of 24-Parganas and outside the jurisdiction of Calcutta Police.

In all, there are 32 Police Stations under Calcutta Police Jurisdiction and of these the following thanas are under the jurisdiction of the District and Sessions Judge, 24-Parganas⁴:—

- | | |
|--------------------|-------------------------------|
| 1. Cossipore P.S. | 10. Bhawanipur P.S. |
| 2. Chitpur P.S. | 11. Tollygunge P.S.* |
| 3. Manicktola P.S. | 12. Alipore P.S. |
| 4. Ultadanga P.S. | 13. New Alipore P.S. |
| 5. Beliaghata P.S. | 14. Watgunge P.S. |
| 6. Fullbagan P.S. | 15. Garden Reach P.S. |
| 7. Entally P.S. | 16. Karya P.S. |
| 8. Beniapukur P.S. | 17. Ekbalpore P.S. and |
| 9. Ballygunge P.S. | 18. A part of South Port P.S. |

³ L.S.S. O'Malley, *op. cit.*, pp. 187-88.

⁴ Source: The Commissioner of Police, Calcutta.

* In terms of Notification No. 4446 PL/P4P-25/63 dated 30.8.63, portion of Tollygunge was renamed as Jadavpur P.S.

The other 14 police stations are within the territorial jurisdiction of the City Civil & Sessions Court, Calcutta. It is concurrent with the ordinary original civil jurisdiction of the High Court at Calcutta, the jurisdictional limits of which are set out in the schedule to section 2 of the Calcutta High Court (Jurisdictional Limits) Act 1919. In 1947 the only court of original civil jurisdiction was the Calcutta High Court. The City Civil Court was established in 1957.*

It may also be noticed that the 51 development blocks in 24-Parganas, 16 in the Sadar, 7 in the Barasat, 3 in the Bangaon, 1 in the Barakpur, 13 in the Diamond Harbour and 11 in the Basirhat subdivisions, were rather arbitrarily created development regions—the convenience of treating administrative divisions as a basis was the prime consideration but the interrelationships within the said administrative divisions were absolutely overlooked. It goes without saying that the problems due to cotenancy between Calcutta and 24-Parganas are increasing dangerously and are inflicting harmful snow-ball effects, if not an explosive effect on both the districts.

TOPOGRAPHY

Relief and
physiographic
divisions

The 24-Parganas encompasses the *moribund*, *mature* as well as the *active* parts of the Ganga delta. The entire district is covered by 29 Survey of India topo-sheets of which 23 are 1:50,000 scale maps based on air-cum-ground survey and 6 (of the Sundarbans) are only graphical compilations from 1:40,000 vertical air photography.¹ The direction of flow of the tidal channels, a few surface spot heights (which is nowhere above 9 metres) or abandoned river courses, ox-bow lakes and swamps, natural levees along the rivers and artificial embankments (to protect rail and road and to reclaim low-lying arable tracts from salt water) indicate the above mentioned threefold division of one vast plain, sloping very gently towards the sea. The land boundaries do not mark off this district as a geographical unit, since the same type of relief, soil, climate and land utilization prevail in the bordering districts.

* Source: Registrar, City Civil and Sessions Court, Calcutta.

¹ The northern, moribund deltaic tract, is covered by Survey of India Topo-sheets Nos. 79A/12, A/16, 79B/5, B/9 and B/13. The central, mature deltaic tract is covered by 79B/2, B/3, B/4, B/6, B/7, B/8, B/10, B/11, B/14, B/15, 79C/1 and C/2. The southern, active delta, is covered by 79B/12, B/16, 79F/3, F/4, 79C/5, C/6, C/9, C/10, C/13, C/14, 79G/1 and G/2.

To the north of 22°45' N. is the moribund tract adjoining Nadiya. It is characterised by decaying distributaries which have lost their connection with their parent streams. The highest parts, forming the natural levees of these rivers, are thick with linear settlements, the lowest parts are shallow lakes or swamps which act as inland drainage basins and the remaining portions are under agriculture. The rivers having no off-take now from the main streams cannot bring down enough water and silt, even in flood. Being confined within high levees they are not in a position to inundate the entire country. As a result, land building has ceased and the delta has grown moribund. The highest ground, along the natural levee of the Hugli river is also very densely settled. The Hugli marginal plain slopes more steeply than the interior plains, and hence is better drained. What is interesting to note is that it is not the adjacent Hugli river to the west but the far away Mathura Bil, Birati Bil and other smaller marshes to the east, that serve to receive the drainage outfall of the congested Hugli industrial belt.

Further east another 8 km. wide strip of high ground from Haringhata to Duttapukur extends along the course of the Sunti Nadi. The Sunti plain is succeeded eastward by the Jamuna, Padma (which are of course different from the main rivers of those names) and Ichamati plains, each marked by saucer-shaped depressions with numerous crescent-shaped lakes, narrow water channels in wide river beds, high river banks and the river beds which are at higher levels than the adjacent plains. The southern limit of the moribund tract is marked by the numerous abandoned loops of the Padma just south of Habra-Bangaon railway line. Here, the south-flowing Padma turns north.

South of the moribund Amdanga-Swarupnagar plains stretches the mature deltaic plains of Barasat-Basirhat up to the Sundarbans. Here the rivers, though continuations of the dead channels from the moribund tract above, have remained flowing from the run-off of the adjacent country and tidal inflow. But they hardly raise the land since their head portions supply no silt to them. They were at one time great waterways with a good depth of water even during the dry season.

The great chain of brackish marshes stretching from the vicinity of Calcutta to Barisal in Bangladesh mark the dividing belt between the mature delta and the active delta to its south. In the last few decades due to human occupation of the active delta by construction of dykes, the process of active land building has ceased in many areas and the active delta area is rapidly shrinking in size and the bound-

The moribund
deltaic tract

Mature deltaic
tract and the
central depressed
zone

dary between mature and active delta is shifting southward. Immediately to the north of the salt marshes, a continuous belt of dry plains, without being interrupted by north-south running rivers or by their silted-up channels as in the moribund tract, enabled a railway and a metalled road to be built right across the country. These road and railway embankments rising between 7 and 9 metres and running parallel to the low line of marshes form a conspicuous feature of the landscape. The adjoining plains are nowhere above 3 metres.

The rich arable lands of the district comprising the southern plains occur to the south of Calcutta between the old and present courses of the Hugli. The surface height along the Kalighat-Phalta railway range from 4 m. in the south to 5 m. in the north. West of the railway embankments the ground level drops to only 1 m. above sea level as indicated by the Samalia Trigonometrical Station. The bank of the Hugli immediately west of this low-lying plain is still lower by another 0.6 m. The ground rises, further south in the vicinity of Diamond Harbour below the confluence of the Hugli and the Damodar rivers. The Damodar is the first important tributary to join the Hugli in its lower reaches. It is partly responsible for raising the southern flood plains of the Hugli higher than those of the north. Another 10 km. south of the Damodar confluence, the Rupnarayan enters the Hugli at the head of its funnel-shaped estuary and supplements the work of the other two rivers in raising the level of the flood plains. These plains lie mostly over 6 m. above sea level. These higher areas are referred as Kulpi-Diamond Harbour-Phalta plains. Along its eastern border an old course of the Hugli with high banks, called the Adi Ganga, is still recognizable from the linear pattern of dense settlement which grew up along its natural levee. This area is termed as the Baruipur-Jaynagar plains.

The active delta

The Sundarbans consist of low-flat alluvial plains in which the process of land making is still going on, covered, where not under cultivation, with forests and swamps, intersected from north to south, by wide tidal rivers or estuaries, and from west to east, by narrow tidal creeks. All the estuaries, rivers and creeks carry saline water; there is no current down them except tidal outflow and inflow. They are connected with each other by an intricate mesh of channels, so that the whole tract is a tangled network of estuaries, rivers and water courses which enclose a large number of islands of various shapes and sizes. Most of these islands are mere swampy morasses, covered with low forest and scrubwood jungle, but

those to the north, which are embanked, grow rich crops. "As one approaches the coast, the land gradually declines to an elevation which throughout many hundred square miles is scarcely raised above high-water mark. This seaboard area is a typical specimen of new deltaic formation. It exhibits the process of land-making in an unfinished state, and presents the last stage in the life of a great river the stage in which it emerges through a region of half land, half water, almost imperceptibly, into the sea." Along the sea face, the forest is almost everywhere composed of mangroves, which sometimes extend into tidal water, but elsewhere are separated from the sea by a line of low sand hills or dunes. The reclaimed plains along the northern and western margins may be divided into three parts, the Hasnabad Plain in the east, the Haroa Plain in the middle and the Bhangar-Rajarhat Plain in the west. The northern plains of Sundarbans have been settled so long ago that they retain very few traces of reclamation. However, in all the reclaimed tracts, villages are situated within protective embankments, near to sweet water tanks and the settlements are more dispersed than elsewhere in the district.

The chief estuaries, or tidal mouths of rivers where the channel broadens out and funnels in the bay tides, are the Muriganga or Baratala R., Saptamukhi, Thakuran or Jamira R., Matla R., Bangaduni R., Guasuba R. and Haribhanga R. on the Bangladesh border.

Sea-coast & Estuaries

These estuaries are interspersed and separated by several large islands, of which the chief, from west to east, are as follows: (1) The Khasimara, Ghoramara, Lohachara and Sagar Island group (area 580.9 sq. km.) between the Hugli and the Muriganga or Channel Creek, (2) New Island marking the southernmost limit of the State, (3) Mahisani (Brunswick) Island between Muriganga and Pitt's Creek, (4.) Fraserganj (Mecklenburg) Island encircled by Edward's Creek, Bakkhali river and Saptamukhi (West Gully) estuary, (5) The Susni Char, Lothian, Prentice, Henry's and Frederick Island group comprising an area of 15,980.66 hectares but uninhabited at the mouth of the Saptamukhi in Namkhana P. S., (6) the Bulcherry Island between the Jamira and Matla, (7) Halliday Island in the Matla, (8) Dalhousie Island between the Matla and Guasuba, (9) Bangaduni Island at the mouth of Guasuba and many others yet to be named within the Sundarbans Forest Division. At the south-western extremity of Sagar Island stands the Sagar lighthouse; a large fair, known as the Ganga Sagar *mela*, is held on its southern face every year.

Islands

Length of the coastline

It is not possible to demarcate the coastline exactly; it is not only broken but also constantly changing with high and low water of the tides. The length of the crescent seaface (i.e., overlooking the irregular outline of the projecting islands) marking the outer boundary of India is about 150 km.

RIVER SYSTEM AND WATER RESOURCES

The rivers of the district are mostly headless distributaries of the Ganga. Since the construction of Farakka barrage a greater volume of the Ganga water is flowing through the Bhagirathi-Hugli channel, but the same has adversely affected the other Gangetic distributaries further east. Except for a limited period during the flood season, even the mighty delta-builders Jalangi, Mathabhanga and Ichamati, receive no supply from the Ganga. They now merely serve to receive local drainage and carry it off into tidal waters. So many of them have turned from perennial to non-perennial water courses, flowing only during the wet monsoon and the volume of water in all of them have dwindled. The ox-bow lakes and stagnant back-swamps which they had earlier created, now contain more water than their parent streams. The slope of the country being negligible and affected by artificial embankments and as the canals transverse to the natural slope, the natural waterways have scarcely any current and their channels in course of time become choked with aquatic vegetation. The principal rivers are the Hugli, Bidyadhari, Piyali and Jamuna, but practically each river forms the centre of a minor system of interlacing distributaries of its own. Many change their names at different parts of their course, re-enter the parent channel and then break away again or temporarily combine with other distributaries or artificial canals until, approaching the sea, they are merged in the estuaries which pierce the Sundarbans.

The Hugli

The Hugli, which is the westernmost distributary of the Ganga, marks the western boundary of the district. After receiving the Bagher Khal on the left bank, a few km. north of Halisahar, it flows in a southerly direction past Garifa, Naihati, Bhatpara, Kankinara, Jagaddal, Shyamnagar, Ichapur, Barakpur, Titagarh, Khardah, Sukchar, Panihati, Agarpara, Kamarhati, Ariadaha, Dakshineswar, Baranagar and Calcutta. To the north of Calcutta Circular Canal and to its south the Tolly's Nullah take off from the Hugli and flow south-east. From the latter point the Hugli turns west and some people believe that this part of the course is an artificially dug out channel. It flows in that direction up to its confluence with the Saraswati from the right bank (Sankrail P.S. in Haora district) and

then flows almost due south past Batanagar, Baj Baj, Birlapur and Phalta. It receives the Damodar opposite the Phalta point and the Rupnarayan opposite the Hugli point. These great tributaries deflect the stream to the east for 13 km. up to Diamond Harbour and have set up in it, just above the Rupnarayan, the dreaded moving shoals known as the James and Mary Sands. In between Calcutta and Phalta point some 6 creeks controlled by sluices (except Phalta Khal) join the Hugli from the 24-Parganas side. After Diamond Harbour the river resumes a southerly direction, until it debouches in the Bay of Bengal, its breadth at that point being about 30 km. its mouth is locally known as the Burha Mantreswar. Shortly before it falls into the sea it bifurcates, the main channel passing west and the other, called Muriganga, goes east of Sagar Island. On the right or west bank the main channel receives the Haldi river from the Medinipur district opposite Mud Point, on the north of Sagar Island and about 25 km. lower down the Rasulpur joins it from the same district.¹

During the rainy season the spill streams from the Ganga-Padma and the streams descending from the Chhotanagpur plateau pour down enormous volumes of water, sand and silt which serve to scour out and maintain a deep channel on the one hand, and build up bars and sand banks on the convex meander curves on the other hand. In the dry season, when there is no such influx, the river is largely fed by percolation, and release of water of the Farakka barrage. In addition, the tides running up strongly, more

¹ O'Malley wrote, "The present channel of the Hugli is very different from that which the Ganges formerly followed. The original channel was identical with Tolly's Nullah from Kidderpore to Garia (8 miles south of Calcutta), from which point it ran to the sea in a south-easterly direction. Tradition has it that it emerged out of the Sundarbans at Kakdip, and then passed along the present Muriganga or Baratala river, after which it found a passage along a creek between Dhoblat and Monosardip, and proceeded the first in a westerly and then in a southerly direction until it fell into the Bay of Bengal at Ganga Sagar. It is still traceable as far south as the Jaynagar thana, being known variously as Adi Ganga (i.e., the original Ganges), Burha Ganga (or the Old Ganges) and Ganga Nullah. It still retains its sanctity in the eyes of Hindus, who burn their dead along its banks, whereas the present Hugli river below Tolly's Nullah is not considered a sacred stream. The old channel may still be made out at various places, such as Baruipur, Dakshin Barasat, Jaynagar and Rajpur in the Sadar subdivision and Nulti and Hansghar in the Diamond Harbour subdivision. Even in places where it is entirely silted up, tradition points to old tanks, still called Ganga, as having been excavated along its course while it was an active stream. Such tanks may be found at Jaynagar and Vishnupur (Bistupur) and Khari in the Mathurapur thana: that at the place last named has a special sanctity, and is known as Chakratirtha or Chakraghata. Their water is accounted as sacred as that of the present Ganges, and Hindus bathe in them and burn their dead on their banks with the same assurance of spiritual benefit." (Vide, L.S.S. O'Malley, *ibid.*, pp. 7-8).

especially during the dry season, provide water for navigation over the shoals.

Navigation is rendered difficult by rapid currents, shoals and shifting sandbanks. The James and Mary Sands, in particular, are most dreaded. They lie between the Hugli point and Geonkhali, and owe their formation to the Rupnarayan and Damodar, which by their combined discharge, arrest the flow of the Hugli and force it to deposit its load and form shoals. They are named after the *Royal James* and the *Mary* two ships which were lost here in 1694. Since then many ships and steamers have been wrecked on the sands here. Above the James and Mary are other bars at Mayapur, Rajpur, Phalta, Sankrail and Nainan and below them are the Upper Belari, Haldia, Cabtals, Middleton, Gasper, Kaukhali, Spence, Upper Long Sand and Lower Long Sand.

O'Malley wrote,¹ "In spite of natural difficulties, the Hooghly is navigable by large liners, and is the gateway of the foreign trade of Bengal. Fears have from time to time been expressed that the river is deteriorating, and that it may eventually become inaccessible to maritime commerce. The records of the last century however, show that the position of the Hooghly as a highway of commerce has not only been maintained but improved. How much has been done by engineering skill and systematic surveys may be realized by the following extract from a speech delivered towards the end of 1912 by Sir Frederick Dumayne, Vice-Chairman of the Commissioners for the Port of Calcutta:

"The cry that the Hooghly is deteriorating is raised every now and then. Sixty years ago it was stated that the river threatened at no distant date to render access to Calcutta altogether impracticable for any but vessels of the smallest tonnage; that several vessels had no prospects of getting to sea for over a month, and that the serious impediments in the river were progressive and inevitable and beyond the reach of removal by any engineering skill. Ten years later there was a scare that the trade of Europe with Calcutta was in danger of immediate and prolonged suspension. The calamity which had overhung the city for years, and which Lord Dalhousie had, it was said, striven in vain to divert, and the fear of which had at intervals strained and baffled the ingenuity of half the engineers of Bengal, was officially stated to be already at hand. Still, only with lessening fears, the same pessimistic views are occasionally expressed. But what are the real facts? In 1830 pilots were prohibited from moving

¹ L.S.S. O'Malley—*op. cit.*, pp. 5-7.

vessels of greater draft than 20 feet in any part of the river, even with the aid of tugs. In 1857 the permissible draft was only 22 feet. The average size of the largest vessels in the world was then about 2,500 tons burden, with a length of about 300 feet. The draft allowed has since been steadily increasing, until at the present time the river is navigated by vessels drawing up to 29 feet, of a length exceeding 500 feet, and carrying as much as 12,500 tons of cargo. The advent of steam, the great skill of the members of the Bengal Pilot Service, the elaboration of the system of surveying the river, were all factors in obtaining these results. Satisfactory as they were, further effort was demanded. Nature required assistance. The dredging of the river was undertaken in 1907. Hitherto only one dredger has been employed on this work, and her operations have been confined to the bars in upper reaches, with such success that these bars have never been in the good condition that they are in at the present time. It may be said that, by dredging, these bars have been brought under control. The dredging operations are now about to be extended, and contracts have been placed, in shipyards on the Clyde, for additional dredging plant that will cost £ 220,000, which include two very powerful dredgers, one of which will be employed on the improvement of the river within the port, and the other in dredging the bars in the lower reaches. The Commissioners confidently expect to obtain by dredging as good results in the lower as in the upper reaches, and ultimately to maintain throughout the year a clear channel from Calcutta to the sea for any vessel that can pass through the Suez Canal. The tonnage of vessels entering the port 50 years ago was 6,68,000 tons. Last year the tonnage was 6½ million tons, or ten times as much. The growth has been most rapid in the last 15 years, when the increase was 3 million tons, or a yearly expansion of 200,000 tons. The value of the trade of the port of Calcutta from imports by all routes has reached 104½ millions sterling, and from exports 107½ millions, altogether 212 millions, an increase of 77½ millions in the last eight years."

In 1968 it was reported by the Chairman of the Calcutta Port Commissioners¹ that the cost of dredging and river maintenance had gone up from about Rs. 75 lakhs at the time of Independence to about Rs. 7.5 crores which is an indication of the great efforts which the Calcutta Port Commissioners were making to keep the Hugli navigable. Though dredging operation appeared to be successful in the early days, the later period saw very rapid deterioration

¹ B. B. Ghosh—*Calcutta Port Annual*, Calcutta, 1967-68, p. 23.

of the channel and it became apparent that other methods besides dredging had to be resorted to.¹ Due to bore-tide phenomenon there is considerable reduction in the capacity of the port for almost half the number of days in a year. In the 1950s the Calcutta Port was almost on the verge of extinction. In that decade it used to get completely cut off from the parent channel for nearly 275 days every year. During this lean flow period, the lower reach of the river further deteriorated due to heavy onrush of heavy silt load brought in from the Bay of Bengal by tides and bores. The result has been that with the gradual rise of the river bed due to heavy deposition of silt, the navigable depth decreases, the tidal limits get reduced, while preponderance of bores is increased. The cumulative action hastens the decay further.² This is the usual process of decay and death of a tidal channel when there is an imbalance between the incoming tide from the sea and the quantum of fresh water-supply at its head.

The Ichamati, where it enters the district from the north, marks the trijunction of Bangladesh, Nadiya and 24-Parganas districts. From this point it serves as the district boundary between Nadiya and 24-Parganas for a few kilometres before it traverses the Bagdaha and Bangaon Police Stations in a wide meandering course from north-west to south-east. It then serves once again as the international boundary between Bangladesh and the Gaighata Police Station. The meander belt, marked by derelict water channels and ox-bow lakes, is 18 times larger than the river bed and the actual water channel is only a narrow thread in the wide river bed. From Gaighata it flows due south through Swarupnagar (where it receives the Jamuna on the right bank at Gholia), Baduriya and Basirhat Police Stations. After defining the northern boundary of the Basirhat town it again serves as the international border between Bangladesh and the Police Stations of Hasnabad and Hingalganj. From Hingalganj it gives off various tidal distributaries, the chief of which, the Raimangal, Bidya, Jhilla, Kalindi and Jamuna, ultimately fan out wide estuaries through the Sundarbans Forest Division.

¹ N. B. Bose—*Hooghly-Bhagirathi Basin*, p. xii.

² From 1958 onwards, even 10,000 tonners were not being able to enter or leave Calcutta Port, fully loaded. Moreover, the course is so meandering and bends so narrow that a ship of more than 170 m. length cannot negotiate those bends. Moreover, there are as many as 14 sand bars on way to Calcutta Port. These facts point out that larger vessels, which is the trend in the world today, cannot visit the Port of Calcutta, 200 km. upstream. Because of the handicaps of the Calcutta Port, the Haldia Port, 90 km. downstream of Calcutta, has been constructed. With release of water from the Farakka barrage the Hugli has received a new lease of life, and both the Calcutta and Haldia Ports now provide adequate draft (10 m.) for general cargo vessels all the year round.

The Bidyadhari has a very circuitous tidal course. It begins as a tidal drainage channel, called Nona Gang, a little north-east of Dogachia, which occupies a low interfluvium between the Sunti and the Padma. It flows south past Jessore Road and Barasat-Basirhat rail track. Just south of this railway track the Harua Ganj meets the Nona on the right and the combined stream is known as the Bidyadhari. The Harua itself serves as a drainage outlet of the extensive swamps to the east of Dhapa-bil around Rajarhat-Bishnupur (22°37' N & 88°30' E). On the maps the Harua appears as a continuation of the north-south flowing Sunti Nadi through these *bils*. Further south (about 20 km.) it receives the Bhangar Kata Khal (which drains the Salt Water Lakes of east Calcutta) on the right bank and the Kulti (or Chaumuha Gang) on the left bank. Below this confluence, the Bidyadhari flows south as the tidal Kumarjol Gang. The Bhangar Kata Khal in its turn is linked with the Krishnapur canal, Circular canal and New-cut canal on the north-eastern periphery of Calcutta. The sewage and storm water of Calcutta are canalized through two different channels into the Central Lake Channel which empties into another branch of the Bidyadhari south of Bamanghata (88°29' E & 22°31' N). The head-water portions of this branch has largely silted up.¹ It flows south-

¹ In this connexion O'Malley observed, "The acceleration of the silting process is attributed mainly to works in connection with local fisheries and to the reclamation of portions of the Salt Water Lakes for rice cultivation, the effect being to decrease the spill of water from the river over the adjoining land and, consequently, to increase the deposit of silt in the river bed. Other contributory causes have been the construction of the Dhapa lock, the closing of tributaries in each of which the tide used to flow and ebb freely, and the canalization of the Bhangar Khal. Observations taken between 1904 and 1912 show that, a mile below Bamanghata, the bed of the river has risen nearly 25 feet in eight years, while in the section immediately below Bamanghata lock the cross-sectional area has been reduced from 7,700 square feet to 3,870 sq. feet, giving a mean rate of contraction of 480 square feet per annum. 'It is,' says Mr. O. C. Lees, C.S.I. Special Officer, Hooghly-Bidyadhari Canal Enquiry, 'practically certain that this mean rate taken over eight years does not give the measure of the deterioration in progress to-day.' But, even if it be assumed that the rate has increased only to 590 square feet per annum, then it is apparent that the bed of the river five years hence will have risen above the level of ordinary high water of neap tides. He concludes that 'the Bidyadhari has a very short remaining lease of life, and that in six years' time it will be useless as an outfall channel for the sewage of Calcutta unless remedial measures are taken'. In his opinion, the best and indeed the only practicable way of dealing with the situation, is to canalize the channel of the Bidyadhari from Dhapa to the off-take of the Piyali river 14.50 km. (9 miles) below Bamanghata, and the channel of the Piyali river from its head to its outfall into the Matla river. A dam would be thrown across the Bidyadhari below the head of the Piyali, while the latter would be dammed at its mouth, a lock being constructed to admit boats and a large drainage sluice to discharge the drainage from the areas of which the upper Bidyadhari and the Piyali are the natural drainage channels. (*Vide*, L.S.S. O'Malley—*op. cit.*, pp. 8-9).

east, receiving the Tolly's Nulla from the east and giving off the tidal Piyali Nadi flowing south from its right bank before reaching Port Canning where it receives the other branch i.e. Kumarjol Gang referred earlier. This south-flowing branch has other names—Khutri, Karats, Kuriabhanga and Karatoya. The united stream forms the Matla river or rather estuary, which is navigable up to Canning.

he Piyali

The Piyali leaves the Bidyadhari 15 km. below Bamanghata and flows south and south-west till it joins the Matla 32 km. below Canning, through the Kultala Gang. The Kultala Gang also links the Thakuran river.

The Calchara-Curzon Creek system : The Calchara-Curzon Creek lying in between the Saptamukhi and the Thakuran deserves special mention as it is deeper, narrower and has a larger tidal basin with a greater volume of tidal influx than the two adjoining estuaries. The Curzon Creek is almost an estuary in itself, finding way into the sea in its last lap through the Saptamukhi East Gully for the last 10 km. The *Sutarbag-Mridangabhanga-Calchara-Curzon Creek Saptamukhi East Gully* constitute one continuous estuarine arm. The lateral branches or inter-connections of this arm with the Thakuran on the eastern side are the *Chatua* river, the *Nukchara* river, the *Pukhara* river, the *Chirpat* or *Pakhirali khal*, the *Chaltaboni khal*, *Jagdal Gang* and the *Kankramari khal*. On the right bank the different link channels with the Saptamukhi are the *Saralda khal*, the *Barchara*, the *Walsh Creek* and *Rakshakali khal*. The *Saralda khal* links the *Mridangabhanga* with the *Gobadia* river.

The Saptamukhi system : The Saptamukhi is wide and shallow, and as a result has a number of shoals. One such big shoal separates the main stream from the *Ghughudanga Blind Creek*. From north to south the *Banstala-Ghughudanga Gang-Saptamukhi West Gully* may be said to form one continuous arm, the *East Gully* being a distributary of the same on the other side of the Prentice and Lothian Islands. The major branches on the west are the *Kalnagini khal*, the *Ghughudanga Gang* and *Blind Creek*, Namkhana Creek, *Patibonia*, river, *Edward's Creek* and *Chandanpiri khal* and *Bagkhali* river around Fraserganj island.

The Thakuran system : The Thakuran system is also very wide near the sea-face. The major lateral branches of the Thakuran on the western side are the *Kadrakhali khal*, the *Damdama khal*, the *Moni* river, the *Pukhara*, the *Raidighi*, the *Sibua Gang* the *Pakhirali khal* and the *Ross Creek*. The link channels on the eastern side with the Matla system are mostly meander loops, such as the *Bainchapi khal*, the *Gura khal*, the *Kaikalmari-Ajmal mari-Suia* river, the

Dulibhasani Gang and the *Chulkati Gang*. These loops are interconnected amongst themselves by an intricate mesh of tidal channels.

The Matla system : The Matla is a very wide estuary comparable, near the seaface, with the Hugli. About 50 km. from the seaface it braids into two channels almost equally viz., the Matla proper on the west and the Bidya river on the east, both arms moving up northwards parallel to each other in zig-zag courses. The lateral connections of the Matla on the west from the inland side are successively the *Belladona* river, the *Kultala* river, the *Piyali-Nabipukur* river, the *Bainchapi khal*, the *Kaikalmari* river, the *Suia* river, the *Dulibhasani Gang*, the *Chulkati Gang* and the *Gokhaltali Gang*. On the eastern bank, the main connections with the Gosaba and Raimangal systems are more intricate and much of it being terra incognita, most of the channels are yet to be named. The important channels in this belt are *Rupkhali khal*, *Pathankhali Nadi*, *Pirkhali Nadi*, *Gazikhali khal*, *Panchmukhani khal*, *Mayanadi khal*, *Mayadip* river, *Bhangaduni* river, *Kalindi* river, *Kalagachia* river, *Raimangal* river, *Jhilla* river, *Gona* river and the *Harinbhanga* river. The *Harinbhanga* is the western inlet of the Raimangal estuary through which runs the international border with Bangladesh. It is fed by the *Ichamati* and *Kalindi* in its upper reaches.

Marshes and khals : The 24-Parganas, like other deltaic districts, is studded with marshes and swamps called *bils* situated at the centre of saucer shaped depressions. The elevated tracts of these depressions are marked by river courses. The rivers have built up high natural levees along their banks. There are also artificial protective embankments. From such high level the ground gradually slopes downwards, forming a depressed tract between each set of two rivers. The depressed portions so constituted are natural basins in which water collects and from which it exits through tidal water courses called *khals*. There are innumerable marshes and khals. The one to the east of Calcutta is most important. Many of these marshes serve as *bheris* for pisciculture and the khals as navigable waterways in the otherwise impenetrable forests. Large areas of marsh land in the Sundarbans have been reclaimed and brought under tillage by means of embankments raised to keep out salt and brackish water. Some of the large marshes in the heart of the district have also been drained and rendered fit for cultivation by the construction of embankments and sluices; but as the basins served by these sluices are dependent on each other, it follows that whenever there is abnormally heavy rainfall, areas which are not properly provided with sluices are liable to suffer from the overflow of adjoining tracts, and

the large central basins, which have no proper facilities of their own for the discharge of their surplus water, add to the volume contained in the surrounding basins.

Tidal waterways and danger from bores: The southern 24-Parganas is intersected by a network of big tidal rivers, the estuaries of which penetrate far inland. Here the rivers flow not in a single channel, but in a multitude of anastomosing channels, which serve as waterways. There are three important tidal waterways besides the Hugli which connect Calcutta with the rest of the district and beyond. The northern route is known as the Inner Sundarbans Passage and the central one the Outer Sundarbans Passage. The southern route has served as the traditional Calcutta-Assam navigation link through the Sundarbans proper.

L.S.S. O'Malley wrote, "The tide of the Hooghly is occasionally so strong that it gives rise to the phenomenon known as a bore. This is the name given to the headwave which is formed when an unusually high tide is checked by the narrowing of the river channel. Bore tides appear in the River Hooghly during the spring tides. During neap tides, however, no bore occurs. 'The obstructed influx,' writes Hunter in *The Indian Empire*, 'no longer able to spread itself out, rises into a wall of waters which rushes onward at a rate nearly double that of a stage coach.' Rennell stated that the Hooghly bore ran from the Hooghly point to Hooghly town, a distance of about 70 miles (112.0 km.), in four hours. 'The height of the wave has often 5 feet or more, and old accounts testify to its danger. A writer in the *Calcutta Review* of 1859, for instance, states: 'Upon the approach of this wave a distant murmur is heard, which turns into the cry *Ban! Ban! Ban!* from the mouths of thousands of people, boatmen, sailors and others, who are always on the look-out for this much dreaded wave. This cry is the signal for all sorts of craft to push out into the centre of the river, the only spot where the wave does not curl over and break. Should any boat or larger craft be caught in that portion of wave that breaks, instant destruction is inevitable. Numerous boats from the up-country provinces are lost every year from the crews being ignorant either of the existence of the bore, or from their not knowing the correct position to take up so as to meet it. Ships at anchor in Calcutta, though not exposed to the breaking portion of the wave, frequently part their cables when struck with the wave. Standing on the shore during the rapid rushing passage of the bore, it is a curious sight to see the lower portion of the river, or that nearest the sea, six or eight feet higher than the upper portion of the river, the tide rising that number of

feet in an instant.' The bore is not felt much till it enters the narrower reaches above the Hugli point. The inception of the bore takes place in the reach between Hugli point and Fisherman's point. The maximum height of the bore is reached severe after its inception between fisherman's and Mayapur and thereafter the height gradually diminishes and at Balagarh the bore is fully delayed, and in recent years there has been no such high destructive wave as those described in the old accounts presumably owing to the deepening of the river channel—for deep water robs the bore of its force, and it is chiefly to be feared by craft insecurely moored in shallow water or near a sand bank."¹

The following is the organization for the transmission of information regarding tidal phenomena, depths of Bars and Crossings, and reports of other occurrences which affect the safety of shipping on the Hugli. The times of High and Low water observed at the various Tidal Semaphore stations (maintained at Mayapur, Hugli Pt., Balari, Ganga Sagar, Rajabagan and Akra), are telephoned to the Deputy Conservator's Office and the Port Pilotage Officer. Sounding Serangs are maintained at Hugli Pt., Mayapur and Akra and the tracks on the various bars and crossings are sounded as necessary. The governing bar in each locality is sounded daily. All reports from Sounding Serangs are conveyed to the Port Office for necessary action.

In 24-Parganas groundwater occurs in a thick zone of saturation within the alluvium. Boreholes drilled in this alluvium in south 24-Parganas indicate a succession (from top to bottom) of a clay blanket underlain by more porous sediments, even gravels and then again an impervious clay horizon underlain by pervious granular sediments. Hydrologically this last bed at the bottom is very important as it contains freshwater of considerable reserve. In the northern part of 24-Parganas groundwater is available within 6 metres of the surface due to the absence of the clay horizons over the water-bearing bed. In the central and southern part of 24-Parganas (from Kanchrapara and southwards through the Calcutta Metropolitan District) groundwater occurs in a confined state as the granular zones are overlain by a blanket of impermeable sticky clay ranging in thickness from 15 to 76 metres. South of Baj Baj and Bishnupur the blanket increases in thickness to 100-200 m. in Sundarbans area. The upper sandy gravel bed in the Sundarbans yields only saline water. The lower horizon yields sweet water

Underground
water

L.S.S. O'Malley—*op. cit.*, p. 7.

usable for irrigation, industrial and domestic purposes. The thickness of the aquifer is also adequate to sustain heavy duty tube-wells of $1\frac{1}{2}$ to 2 cusec capacity.

Salinity decreases from south to north. In north 24-Parganas groundwater from deeper zones is characterized by low T.D.S. of the range 290 to 416 ppm. low chlorides (2 to 20 ppm.) and low sodium and boron content. In Calcutta Metropolitan District the groundwater is comparatively more mineralized than in the northern districts. The dissolved solids range from 500 to 900 ppm. Chlorides vary from 80 to 200 ppm.

The vast urban areas of the district depend upon groundwater for domestic and industrial needs. A vast tract of arable land in north 24-Parganas is already under tube-well irrigation.

GEOLOGY

Palaeogeography

The 24-Parganas is the youngest of the deltaic districts of West Bengal. It embraces the *Moribund* delta in the north, the *Mature* delta in the middle, *Active* delta in the south and a *depressed zone* of brackish marshes between the active and the mature delta. The entire deltaic region of Bengal was once under the Bay of Bengal, and the Ganga used to meet the Bay at the apex, near the neighbourhood of Gaur.¹ From this point numerous distributaries and redistributaries have laid down the subaqueous strata in an orderly (a) way-bottom-set, (b) fore-set and (c) top-set beds, which together from the delta.²

This delta is only a part of the Bengal Basin (or to be exact, the South Bengal Basin), now covered by Recent to sub-Recent alluvium.³ The vast thickness of the Tertiary sediments indicates that these accumulated in a subsiding tectonic trough; i.e., all the sediments were deposited under shallow water but they were gradually lowered down with increasing pressure from above and subsidence at the bottom. The rate of subsidence was not uniform either in space or in time.

During upper Cretaceous or early Eocene times, the Bay of Bengal extended up to Assam as the Assam Gulf. This has been proved from the occurrence of marine, estuarine, brackish and continental facies of deposits. On the basis of thickness of sediments and structural characters, the Southern Bengal Basin has been divided into (a) marginal zone (b) stable shelf zone and (c) deeper basin area; the last two constitute the floor of 24-Parganas.

¹ Kanangopal Bagchi—*The Ganges Delta*, Calcutta, 1944, p. 39.

² *Ibid.*, pp. 34-5.

³ The division between the northern and the southern parts is the 'Garorajmahal gap.'

Bore-hole data obtained from oil exploration and groundwater investigations, as well as seismic surveys and other remote sensing devices have revealed the existence of a succession of Tertiary and Mesozoic formations, the depth of which varies from 350 m. in the stable shelf to more than 4,000 m. in the deeper basin.¹

In the stable shelf zone to the north and west, the Tertiary sediments were found to overlie basic lava flows which range in age from late Jurassic to Cretaceous. The primary Pre-Cambrian structures of the area, if any, were smoothened out by this basalt trap. "These sediments show uniform increase in thickness to the south-east from about 3,000 feet near the western margin of West Bengal to about 27,000 feet below Calcutta. The edge of the stable shelf is reached by a zone of flexure (the Hinge zone of the basin)."²

The deeper basin area lies beyond the hinge zone and occupies most of the eastern and south-eastern parts of Bangladesh.

Tectonically, the overlying sedimentaries are practically undisturbed excepting a few gravity faults of uncertain age. Morphologically, the sub-surface geological structures represent the coalescence of a large number of alluvial fans. The mode of sedimentation and coalescence of the fans has to be traced from the geographical history of the rivers (on which some very old literature, as well as maps from the 15th century onward, are available) along with large scale marine regressions, local transgressions and epeirogenic uplift of the basement complex. The environment of sedimentation was initially marine and estuarine and then alternately deltaic and fluvial.

Overlying the basalt, the sedimentaries of the upper Cretaceous system (some 13,50,000 years old) are shallow marine deposits of shale, clay-stone and siltstone. The embayed coast of the epicontinental sea reached as far north as the present Jalangi-Debagram area of Nadiya, so that the entire 24-Parganas remained below water at this time.

Some 65 to 58 million years from now, Paleocene and Lower Eocene epochs witnessed shallow marine deposition of sand which contain oil and gas. These are capped by limestone. The Eocene limestones indicate that marine transgression had engulfed almost the entire Southern Bengal Basin.

A 'hinge zone' which passes through east Calcutta to Ranaghat

¹ Mesozoic floor was not encountered even at a depth of 4,041 metres at Port Canning. Existence of gas and oil at such depth indicate a tremendous thickness of Tertiary sediments in deeper basin area.

² Supriya Sengupta—*Geological Framework of the Bhagirathi-Hooghly Basin*, The Bhagirathi-Hooghly Basin, Calcutta University, 1972.

in a north-east trend and separates the gently dipping stable shelf zone on the west from the much deeper basin area to the east, developed during the Eocene period. (One can use a generalised Geological Map of the Bengal Basin Area, given in Supriya Sen-gupta's paper referred to above.)

Oligocene regression which started about 35 million years ago, moved the shoreline of the epicontinental sea downdip to such an extent that only the south-eastern portions of the Calcutta Metropolitan District are underlain by marine deposits while the rest of 24-Parganas consists of transitional and shallow marine deposits. Sand is the main fresh-water deposit. Shale, claystone and siltstone are the chief salt-water facies. The upper boundary of the Oligocene beds is marked by lack of conformity.¹

During the Miocene (25 to 13 million years back), the sea moved furthest west enclosing the eastern end of the Raniganj area.² The prevailing rocks are mixtures of sand and clay, or alternating laminae of the same. Shale and limestone increase south-southeastward in relation to sand. As revealed by geological sections only gas has been met so far in the Miocene beds, down to depths below 2,440 metres subsea. These reserves are associated with interbedded sands³ the composition of which does not appear to be constant, i.e., their distribution indicates a hiatus between them.⁴

In both its upper and lower limits, the Miocene series is marked by zones of unconformity. Non-conformity of dips between the Pliocene and Miocene sections, together with the presence of strong shale-density breaks and conglomerates at the top of the Miocene suggest the presence of a stratigraphic break at the top of the Miocene.

Marine regression is evident in Pliocene (started about 13 million years ago) and older Pleistocene times (only 1 million years old). Only 24-Parganas and adjoining districts were underlain by shallow marine deposits, while the Himalayan foothills and northern Bengal

¹ It might not be inept to compare this structure with the Barail series of Assam which is *mutatis mutandis*, geologically isochronous and marked by a similar zone of unconformity (conglomerates); a *fortiori*, as in Assam, so in the Bengal basin the Oligocene is characterized by a very small proportion of oil and gas but above the unconformity, in Miocene beds, the heavy minerals are both more abundant and varied.

² Edwin H. Pascoe—*A Manual of the Geology of India*, Vol. III, Calcutta, 1963, p. 1685.

³ It is interesting to note that in the Yenangyaung province of Burma exactly similar oil sands occur in the Oligocene-Miocene sequence (*vide*, Pascoe—*ibid.*, p. 1962).

⁴ Very interestingly, the distribution of the Durgapur beds of the Lower Miocene stage also "indicates a hiatus between them", (*vide*, Pascoe—*op. cit.*, p. 1685).

were under glacio-fluvial and fluvial geomorphic cycles. The boundary between the shallow marine and terrestrial environment is marked by a distinct physical unit made up of laterite or rather ferrallitic materials. This unit traverses the whole of Bengal in the form of a crescent extending along the eastern margin of the Chhotanagpur plateau through Barind, Madhupur, Bhowalgarh and Lalmai hills, merging imperceptibly with the Miocene red clay formations of the Lushai hills. Its absence in 24-Parganas indicate that the district did not enjoy a terrestrial environment even 1 million years ago.

The basal Pliocene beds associated with the Miocene-Pliocene unconformity have yielded some genuine shows of hydrocarbons. However, the structural traps with the best reserve potentials were tested under Indo-Stanvac Petroleum Project¹ without any success. Further investigation by Soviet experts and experts of Oil and Natural Gas Commission, however, indicates that there may be very good prospects of finding oil both on land and off-shore in 24-Parganas.²

The bedding of the post-Pliocene, i.e., Pleistocene, Recent and sub-Recent are the thickest of all formations. Through palaeontological evidence the floor of the Pleistocene in bore holes is placed at depths of 183-189 metres at Algaria, Khamarkulla (in north 24-Parganas) and 914 metres near Barasat. So, the depth increases southwards. An examination of borehole logs reveal a succession of coarse to fine grained sand, sand mixed with clay, clay mixed with sand and *kankar*, and clay within a depth of 450 metres below land surface. Around Calcutta, a succession of sand and gravel zones occur interbedded with attenuated clay lenses. The deposition of these alluvial sediments commenced after the final upheaval of the Himalayas and continued all throughout the Pleistocene time into the Recent. These alluvial deposits have been classified into two groups, and Older and a Newer alluvium. A zone of unconformity separates the Tertiary and other older rocks from the Older and Newer alluvium.

The (Pleistocene) Older alluvium are essentially flood-plain deposits and they occur above the level of present flood-plains indicating that there have been differential movements between the Pleistocene and Recent time. They comprise coarse clay, silt, etc.

¹ Report of Indo-Stanvac Petroleum Project on Seismic Surveys, West Bengal, August, 1960.

² Nirendra Nath Sen—'Palaeogeography of the Calcutta Metropolitan District and its Neighbourhood', in the *Geographical Review of India*, Vol. XXX No. 2, Calcutta, 1968, pp. 28-29.

with boulders, pebbles and gravels, which are locally cemented and red in colour. They contain abundant proportion of calcareous and limonitic nodules in them.

The Recent to sub-Recent Newer alluvium is mostly confined to the banks and beds of present day river channels. They consist of typically dark and loosely compact sediments having high water content and a good amount of organic matter. The boundary between the new flood-plain alluvium and sediments of deltaic origin has not yet been precisely demarcated. They display strong lithological similarity; but the latter is always distinct by sedimentological characters peculiar to deltaic formations.¹ In the Sundarbans, beds of peat containing decayed wood are found at depths varying from 2 to 10 metres. In many parts forests have been buried due to local subsidence. Possibly only very late in the Pleistocene period did the sea finally recede completely from the Bengal basin, exposing the area to erosion and peneplanation.

Reference has already been made to the probable deposits of oil and gas and groundwater. The limestone lies too deep for exploitation under known technology. The Quaternary alluvium of the district is reported to contain ilmenite, hornblende, garnet, epidiorite, kyanite, tourmaline, staurolite and sillimanite, and differs from that of Assam alluvium in having sillimanite throughout.

The economic deposits within the Recent alluvium are gold, sand including the coastal dune sands, black sands containing magnetite, ilmenite, rutile, pottery and brick clays, other building materials including river sands, moulding sands, *kankar* and gravel and saline efflorescence.²

Most of the soils derived from alluvial deposits are azonal with little or no profile development. Clay loam is the predominating type. Clays with or without muck soils occur in swamps and alluvial lakes. Alluvial soils along the coast and especially in the Sundarbans area show white efflorescence of sodium chloride, as they are impregnated with this and other salts by tidal estuaries.³ These soils have been formed from deposits brought by tidal currents. The cutting off of headwater flow through the deltaic branches of the Ganga, has led to the formation of numerous tidal flats which were subsequently bounded to prevent ingress of sea water. "The parent

¹ Geological Survey of India—Miscellaneous Publication No. 30: *Geology and Mineral Resources of the States of India; Part-1, West Bengal*, 1974, pp. 13-4.

² A. Hunday & S. Banerjee—*Memoirs of the Geological Survey of India*, Vol. 97, Delhi, 1967, p. 53.

³ S. P. Chatterjee—*Bengal in Maps*, Calcutta, 1949, p. 14.

deposits are either rich in calcium or magnesium or consist of half decomposed organic matter. According to the chemical composition of the coastal soils, they are classified as saline, non-saline, alkali and degraded alkali soils."¹ Pure sands forming sand dunes occur mainly along the coast.

The soil in the Sundarbans can be classified into 5 categories viz., (i) Clayey soil or *Matial* found in Sagar, Kakdwip, Namkhana, Patharpratima and in parts of Mathurapur, Jaynagar, Kultali and Canning P.S. with an approximate area of 1,40,000 hectares. This soil has been further subdivided into three varieties, which are in decreasing order of fertility—*Kala Matial*, *Ranga Matial* and *Jhaira Matial*, (ii) Loamy soil or *Doash* or *Buliara*, found in parts of Mathurapur, Kultali and Jaynagar P.S., comprising an area of about 34,000 hectares, (iii) Sandy loam is found mainly along the Thakuran, Piyali and Kultali rivers, (iv) Sandy soil predominates along the newly formed islands and is almost incapable of growing vegetation, (v) Silty soil found in pockets in the reclaimed areas and along the active distributaries of the Padma.

The vegetation of 24-Parganas may be classified by the type of delta (moribund, mature and active), type of soil and its water content and other biotic factors. The broad classification is:

1. Vegetation on agricultural fields of the moribund and mature deltaic areas;
2. Vegetation on freshwater pools, ponds and rivers; and
3. Vegetation on the active delta.

In the mature and moribund delta cultivated crops have replaced the natural cover. The cultivated crops consist of vegetables of various kinds, cereals, pulses, fibre plants, oil-seed crops and other food accessories. Rice is the most important cereal. Various types of weeds occur on the paddy fields. Many algae and angiosperms are also common in the low-lying areas. Around settlements and along roads many indigenous as well as exotic varieties of fruit-trees, bamboo groves, flowering garden plants and low scrub stand out prominently against the cultivated stretches.

In the freshwater pools, ponds and rivers various *pteridophytes* and *angiosperms* occur in abundance.

The most distinctive unit of vegetation occurs in the active delta popularly known as the Sundarbans about which we shall deal in detail under 'forests'.

¹ S. K. Gupta and S. K. Mukherjee—*Soils of West Bengal*, West Bengal, Calcutta, 1970.

FLORA

Botanical
divisions of
the district

Mineral wealth

Soils

Nature of
vegetation

The stretches of low-lying land under rice cultivation afford a foothold for numerous marsh species, like *Sphenoclea*, *Hydrolea*, *Ammania*, *Enhydra*, *Wedelia*, *Hygrophila* and *Sesbania*, while the numerous ponds and ditches are filled with submerged and floating water plants, like *Utricularia*, *Pistia*, *Hydrilla*, *Lagarosiphos*, *Ceratophyllum*, *Ottelia* and *Vallisneria*. Remarkable among these for its rarity, and interesting on account of its distribution in Europe on the one hand, and Australia on the other, is the floating *Drosera* *Aldrovanda*. The edges of sluggish creeks are lined with large sedges and bulrushes, the banks of rivers have a hedge like scrub jungle of *Derris*, *Dalbergia* and *Caesalpinia*, with climbing *Ipomoeas*, *Argyreias* and *Menisperms*, and a few trees like *Pongamia glabra*, *Barringtonia acutangula* and *Thespesia populnea*. The sides of embankments and village sites, where not occupied by habitations, are densely covered with village shrubberies of semi-spontaneous species, like *Odina Zizyhus*, *Acacia*, *Glycosmis* and *Trema*, often interspersed with clumps of planted bamboos and groves of *Areca*, *Moringa*, *Mangifera* and *Anona*. Waysides and waste places are filled with grasses and weeds, usually of little intrinsic interest, but often striking because of their distribution. A very large proportion of the species of this class to be met with in the district has been inadvertently introduced by human agency; besides weeds that are indigenous in other parts of India, these include European or African species like *Senebrera pinnatifida*, and *Xanthium speciosum*, and especially American species like *Ageratum conyzoides*, *Scoparia dulcis*, *Wissadula rostrata*, *Evolvulus nummularifolius*, *Pepromia pellucida*, *Malachra capitata*, *Herpestris chamoedryoides*, *Croton sparsiflorus*, and many others, which not only hold their own with, but spread more plentifully than, similar weeds of truly Indian origin.¹

FORESTS

Forest belts and
areas covered

The active delta, still growing southwards, is a system of innumerable tidal rivers, canals and creeks; sand dunes, saline soils, swamps and marshes. Much of it is *terra incognita*, due to the inaccessible 'mangrove swamps', (the humid marshy tropical forests, called Sundarbans), which stretch for about 150 km. from west to east and 50 km. from north to south through a net-work of numerous tidal islands. The total expanse of the Sundarbans is about 2.05 million hectares (8,000 square miles) out of which 0.79 million hectares lie in the district of 24-Parganas. Of this, only 0.42 million hectares (1,629 sq. miles or 10,43,000 acres) are under reserve forests includ-

¹ L.S.S. O'Malley—*op. cit.*, p. 17.

ing about 0.190 million hectares (4,68,000 acres) covered by creeks and channels. Out of the remaining 0.374 million hectares recovered from forests, about 0.256 million hectares (1,000 sq. miles or 6,40,000 acres) are under cultivation. These reclaimed areas are at present protected by marginal embankments of a total length of about 3,500 km. (2,200 miles). This vast length of embankments, mostly of inadequate strength and section, came into existence gradually in course of time, and had been built by the individual settlers in an unplanned manner so as to serve only the individual local interest, as and when found necessary, without keeping an eye on the overall requirement of the entire area.¹

A newly formed island in this forest belt is first colonised by dhani grass (*Leersia hexandra*) and Baruna grass (*Sesuvium portulacastrum*) which are followed by tree species like *baen* (*Avicennia officinalis*, *A. alba*, *A. marina*), *keora* (*Sonneratia apetala*), and *khalsi* (*Aegiceras majus*). After the soil has stabilised by regular deposition of silt from tide and river water, the next species to settle, are Goran (*Ceriops roxburghiana*), Gengwa (*excaecaria agallocha*), clumps of Hental (*Phoenix paludosa*) and Golpatta (*Nipa fruticans*). When the level is further raised, so that the islands are flooded only occasionally by salt water, the *kankra* (*Bruguiera gymnorhiza*) Sundari (*Heritiera minor*) and Passur (*Carapa moluccensis*) make their appearance and soon occupy the greater portion of the land. Along the creeks, the species that always come up are Garjan (*Rhizophora conjugata*) and Dhundul (*Carapa abovata*). The red mangrove shows an ability not only to survive and colonize an environment impossible for most other trees, but even to build up new land. A tangle of roots and trunks that seems at first indecipherable, a mangrove forest on closer examination sorts itself out into a meaningful structure that actually traps flotsam of all kinds in the shallow waters where it grows, gradually forming solid ground from the decaying mass. The origin of a mangrove forest can be a single seedling which germinates while the fruit still remains attached to the tree and before separating from the parent tree it develops a long radicle (1 to 2 feet long and $\frac{1}{2}$ inch in diameter at the tip). This radicle perforates the apex of the fruit and elongates while the fruit still remains on tree. When fully developed this elongated club-shaped radicle separates from the tree and falls perpendicularly down into the mud below by its own weight, and fixes itself there by its pointed and heavy end. Once rooted, the mangrove seedlings

¹ B. Mitra—*Sundarbans Delta Project, Phase I, Project Report*, River Research Institute, Calcutta, 1968, p. 1.

have been observed to grow an inch an hour and bear fruit when four feet high. The black mangrove develops special roots which, instead of going down and spreading under the soil, rise from the soil with their tips out into the air. These aerial roots are provided with a scabrous bark full of groups of airholes, called lenticels, through which the roots are aerated. Such roots are, therefore, known as breathing roots. All mangroves protect the shore from erosion and aid in the accumulation of deposits of peat and mud. Mangroves are usually heavily populated beneath by snails, crabs and other marine species.

According to latest classification, the 24-Parganas has two types of forests. Salt Water Heritiera Forest and Low Mangrove. Both have dense impenetrable undergrowth. The upper storey of the former is comprised mainly of Gengwa, Passur, Dhundul and Sundari (Black mangrove). The latter group has composition similar to the first but the height of crop is much lower, Golpatta is almost absent while red mangroves (without breathing roots) are more common. It was estimated that out of 900 sq. miles (2331 sq. km.) of forested area about 801 sq. miles (2074.59 sq. km.) are under Salt Water Heritiera type and 99 sq. miles (256.41 sq. km.) are under Low Mangrove.

Out of different species available in the Sundarbans the only species that have potential to grow to sawable size are Passur, Keora, Gengwa and Sundari. Of these, only Passur grows to a girth of 6 ft. (1.828 m.) and is used for different constructional purposes. The others, limited to a girth of less than 3 ft. (.914 m.), are normally used as posts or as firewood. Some of the mangrove trees are good for tanning materials and may also be used for pulp making.

Early British endeavour to convert the Sundarbans forests into revenue yielding tracts, by ruthless destruction of forests and unplanned reclamation slowed down in 1862, when Dr. Brandis prepared a memorandum, explaining the desirability of conserving forests of Bengal and the then government quickly acted on this through continuing leasing out forest areas to Port Canning Co. for management. This had also to be cancelled in 1868. In 1872-73 a revised scheme was prepared. But these schemes aimed not so much for conservation of forests as at regulation of export of forest produce. In 1878, an area of 1851 sq. miles (4794.09 sq. km.) in Basirhat, Diamond Harbour and Baruipur Subdivisions was declared to be protected forests. In 1928, 1,097 sq. miles (2841.23 sq. km.) of protected forests of Basirhat Subdivision came under the reserved category, i.e., it could no longer be leased out for reclama-

tion. At present, almost the entire forest area is under reserved forests, covering 997.9 sq. miles (2584.561 sq. km.) in Basirhat Subdivision, 401.7 sq. miles (1040.403 sq. km.) in the Sadar Subdivision and 229.8 sq. miles (595.182 sq. km.) in the Diamond Harbour Subdivision. Their thana-wise distribution is as follows:

Sagar P.S.	...	1.03 sq. miles	(2.66 sq. km.)
Kakdwip P.S.	...	33.90 sq. miles	(87.80 sq. km.)
Namkhana P.S.	...	96.54 sq. miles	(250.03 sq. km.)
Patharpratima P.S.	...	90.14 sq. miles	(233.46 sq. km.)
Kultali P.S.	...	350.66 sq. miles	(908.20 sq. km.)
Basanti P.S.	...	62.24 sq. miles	(161.20 sq. km.)
Gosaba P.S.	...	979.97 sq. miles	(2538.12 sq. km.)
Hingalganj P.S.	...	16.12 sq. miles	(41.75 sq. km.)
Total:		1630.60 sq. miles	(4223.22 sq. km.)

Following the advice of the Government of India, the West Bengal Government decided in 1975 to place wildlife management and allied matters under the Chief Wildlife Warden, along with the Project Tiger in the Sundarbans.¹ Up to then both forests and wildlife management were under the Chief Conservator of Forests. So, the administrative control of the entire Basirhat range of Sundarbans, covering 2,585 sq. km. was transferred to the Project Tiger authorities from the Divisional Forest Officer, 24-Parganas.

There are four wildlife sanctuaries in the district. The Parmadan Deer Park is near Bangaon. In this forest, encircled by the Ichamati river, one gets a magnificent view of spotted deer crossing the jungle, Paradise flycatcher with long silver white tails diving into the river. One also hears the whistling teal. There are more than 75 deer in the park. Fodder grasses being absent, the deer derive their

Wildlife
management

Government
forest policy

¹ Project Tiger was started in nine states in 1973 when the World Wildlife Fund showed interest to protect the Indian tiger and offered financial help. In the past the West Bengal forests hardly ever claimed sustained scientific attention. There were laws and rules and officials to enforce them but the emphasis in practice was on exploitation of the forest-wealth. Hunting was allowed, probably because it was thought that there was no dearth of animals. Afforestation plans were drawn up but they failed to keep pace with the devastation of forests, which was often defended with the argument that more land was needed for rehabilitation and agriculture. The Sundarbans has the largest concentration of tigers in the country. But there is yet dearth of scientific data about the flora and fauna, its water and soil, which could form a basis for real conservation of the Royal Bengal Tiger.

sustenance mainly from the leaves, twigs and fruits of keora.¹ The Lothian Island Sanctuary (14.67 sq. miles or 38 sq. km.) preserves tigers, pigs, spotted deers, and birds of various kinds. The Halliday Island Sanctuary, only 2.3 sq. miles (5.95 sq. km.) in area, has Royal Bengal Tiger and spotted deer. The Sajnekhali Sanctuary (139.92 sq. miles or 362.39 sq. km.) the largest of all, can be approached from Canning. The best time to visit this bird sanctuary is from July to December. The most conspicuous species here are Cattle Egret, Paddy Bird, Little Cormorant, Black necked Stork, Snake Bird, White Ibis, Green Bittern, Pelican, etc.

In terms of zoogeography the situation of 24-Parganas is better than that of any other district of India. The strategic advantages are obviously due to its unique physical factors which no other district in the sub-continent (except the adjoining delta districts of Bangladesh) enjoys. Here, three great biocycles of ocean, fresh water and land come into contact around the margins of the largest delta of the world. The succession from ocean to land and to fresh water through estuaries is the most fascinating field for ecologists. The gradient from salt water to brackish water (salinity 0.5—30%) to entirely fresh water fluctuates back and forth with the tides. Since fresh water is less dense and warmer, it flows over the top of the salt water, with the result that strata with different physical characteristics are formed, which are inhabited by different kinds of fauna. Influx of fresh water is one of the principal sources of dissolved nutrients. Species of marine organisms extend towards fresh water as far as permitted by their tolerance of reduced salinity; and the species of fresh water are just the reverse way about. Thus the intermediate zone of brackish water under the salt marshes is one of the most fertile areas of the world. The foodchain is extremely diversified and the biomass productivity is several times more than that in the interior of the land or on the outer sea. However, a large fraction of land production of rice, wheat, etc., is directly usable by man as opposed to a small fraction of the production of the salt marsh. Foodchains in the salt marsh and based more on detritus feeding than directly on the vegetation; hence nutrients and energy

¹ *Keora* being more plentiful near the sea, one sees more deer near the coast. It is interesting to watch herds of the deer follow troupes of rhesus monkey from one keora grove to another and pick up what the monkeys drop from tree tops in course of their feeding. In attaching themselves to monkeys, the deer have an added advantage in that the former act as very alert sentinels where the stealthy approach of a tiger is concerned, and sound warning calls from their position of vantage.

must pass to higher consumer levels before they can be harvested for human use.¹ The management problem here is one of rational utilization, rather than production.

With uniform hot-wet climate throughout the year, cold blooded animals have several generations a year; birds breed during every month but the wave of life crests during the rainy season and reaches its trough during the summer. Many insects complete their life cycle in three to four weeks and may have several generations during the wet period. On the other hand, high uniform temperatures are depressing for the metabolism and activities of warm-blooded animals, and the pace of their activities is comparatively slow. Cold-blooded animals of West Bengal, particularly reptiles and anthropods, reach their largest adult sizes in the 24-Parganas. Invertebrate animals occur in the greatest variety and number on the forest floor.

The daily rhythm of animal activities lends further variety to the twice daily tidal rhythms,² extremely high tides every 14 days³ and to the yearly cycle of wet and dry seasons. Most communities contain two sets of species, the diurnal and the nocturnal, which largely replace each other. At dusk, the daytime animals—most of the birds, insects and a majority of the lizards—settle down for the night and from thereon a whole new world populates the darkness, —owls, most of the mammals, primitive insects like the cockroaches and termites (bees and butterflies are associated with more modern flowering plants and hence are active during daylight hours) become active.

The entire district has been classified under the Oriental zoogeographical region. But many elements of the Indo-Chinese,

¹ The fauna of 24-Parganas, as will be noted later in this chapter, is very rich in species, although the density of individuals per species is low. Greater the number of species, keener the competition for living space and resources and so the niches (the particular place of an animal within its community—its relation to its habitat, its food, its partners and enemies is known as its niche) get restricted. Various niches harbour herbivores, fungivores, carnivores (predators), omnivores (feed nearly equally on plants and animals) and saprovores (feed on dead plants and animals, and excreta). It is amazing how they discriminate in their choice of food and yet make up a food web, which unless interfered by human beings or disturbed by natural calamity, has remained in perfect balance since mesozoic times.

² The major effect of the tidal rhythms is found among organisms that inhabit the shallow waters near the shore.

³ The most spectacular tidal rhythms are to be found among the segmented worms, which are related to the familiar earthworms and leeches. Many of the worms spawn twice each month at the full moon and again at the half moon. Such rhythms are too obvious to the expert fishermen and honey collectors of the district.

Ethiopian and Palaearctic are also found. These migrated to India during the Post-Tertiary periods through eastern, northern and western boundaries of the country. The ecosystems of the district have been disturbed by the sprawling conurbation, deforestation, extension of agriculture and irrigation, reclamation of swamps, and control of natural drainage lines. Such disturbances have wiped out some of the old species, such as, the lesser One-horned Rhinoceros, which were once common in this area. Pollution due to the industrial wastes and also change in salinity in the estuarine parts caused much changes in the biota. As a rule the foodchain has got a set-back and species, depending on particular food were forced to change their foraging areas.

Mammals

At present no less than 50 species and sub-species of mammals are available in 24-Parganas district. Commensal forms, such as the House Rat, House Shrew, House Mouse, Little Indian Field Mouse, Northern Palm Squirrel (কাঠবেড়াল) Lesser or Large Bandicoot-Rat are common around human dwellings, fields, or trees. The Indian Flying Fox (বাদর), the Short-nosed Fruit Bat (চামচিকা), etc., which make their diurnal retreats on branched trees and palms are also common. The insectivorous bats such as the Little Indian House-shoe Bat, Lesser Rat-tailed Bat, Indian Pigmy Pipistrelle, Lesser and Greater Yellow Bats and the carnivorous Indian False Vampire which prey on small rodents insectivores, birds, toads and fishes seek shelter in the deserted houses, temples and plants. Several other species, e.g., the long-armed Tomb Bat, Wrinkle-lipped Bat, Egyptian Free-tailed Bat, Gray's Whiskered Bat, Kelart's Pipistrelle, Grizzled Bat, Tickell's Bat which occur in other parts of India are also found here. But the Taillen Leaf-nosed Bat (*Coelops frithi*), is known only in the Sundarbans.

The Entellus Monkey and the Rhesus Macaque (লালমুখো বানর) have a very moderate population occurring around human settlements as well as forests. The carnivores like the Large Indian Civet (ভোঁদড়, মাছভোঁদড়) and small Indian Civet (খাটাস) inhabit the trees, bushes and scrub jungles. The Common Palm Civet (বান্দা) takes shelter even on roof-tops and drains, but is rare. Diurnal burrowing carnivores, e.g., Indian Grey Mongoose and Small Indian Mongoose are common around formlands and open scrub jungles. Marsh mongoose is very common around waterbodies.

The Asiatic jackal lives in low lands, dense grass and scrubs around villages and towns. The Bengal fox (খৈশিয়াল) also selects identical habitats but lives in a burrow dug by itself. The Leopard Cat (চিঁতা বাঘ) a nocturnal of the forested part, lives in the hollows

of trees. The Fishing Cat lives in remoter jungles around creeks, grass swamps or reed-beds. The Jungle Cat and Civet Cat have retreated from inhabited and reclaimed tracts to scrub jungles and even the marshes. The burrows of the Indian Crested Procupine and the Indian Pangolin (বনরুই) are found in the drier parts under thick scrub.

Aquatic mammals like smooth-coated Indian otter (উঁদবিড়াল) which is oft tamed and trained to dive fish into nets, makes its lair in hollows, by the edge of tanks, lakes and canals. The Gangetic Dolphin is found in the Hugli and tidal creeks. The Black Finless Porpoise (শাদুক) and the Irrawaddy Dolphin are common in the Bay of Bengal and sometimes reach up to Calcutta.

Large mammals like the Leopard, Tiger, Spotted Deer and Wild Boar restrict themselves mainly to the Sundarbans areas. The wild pig is very common, being met with wherever clumps of bamboos or reeds or undergrowth on waste lands afford a cover. Its tusks sometimes measure over 23 cm. They go about in sounders of 4 to 10 individuals depending upon the amount of cover. They are particularly destructive upon the amount of cover. They are neither alert nor shy of hunters and so they furnish the ordinary food of the tiger. The *chital* (spotted deer) is reddish brown in colour with distinct white spots along its back and sides. The shading is darkest about the back, gradually fading as it approaches the venter aspect, which is white. Each horn about 60 cm. long, has three distinct points, but the short angas just above the brow outlers, found in stags in other parts of India, are absent in the Sundarbans variety. They are found in fairly large herds along the coast, where long glades of green grass are to be met with. They approach farms at dusk and destroy paddy crops. They drink salt water but prefer fresh water. They are readily tamed, and tame ones are used by *shikaris* as decoys when shooting. Barking Deer and Hog Deer are not rare, but, being too shy, are seldom seen near human habitations.

The Royal Bengal Tiger is fairly common in the jungles of Sundarbans. In fact, it is impossible to land anywhere in the Reserve Forests without coming across the pugs, or footprints of that animal. But inferences drawn from such marks, as to their numbers, would be erroneous, unless it is remembered that tigers are great wanderers, covering large distances in search of prey, and readily swimming across the rivers and *khals* which intersect the jungles on all sides. The average length of the males is 3 metres and of the females, about 2.8 metres. The young ones are more handsome, their colouring is more vivid, and the stripes darker and closer

together. A peculiar adaptation to environment is seen in the tigers frequenting the sand dunes of the seaface. These sand dunes are covered with tall, brown spear-grass, and immediately behind lie the glades of green herbage, on which deer feed and pigs come out. A tiger, in such surroundings, would be rendered conspicuous by his stripes, so the sand dune tiger has almost lost his stripes. Tigers are not gregarious in habit; more than two are seldom seen together, and though these may frequent the same haunt in a day, they almost invariably separate at night while searching for prey. Tigers in the Sundarbans very often carry away wood cutters and others who frequent the reserved forests for wood or other forest produce, and some man-eaters have been known to stop work in new clearances by the frequent toll levied on human life. With steady extension of forest clearing, their number has decreased. Tigers breed during the months from December to June, the period of gestation being from 14 to 15 weeks. To-day all efforts are towards increasing its population; but in O'Malley's time it was the other way about. "No elephants can be used in the jungles of this district, and, owing to the dense growth of the wild date and the cane, it is impossible to beat. The only method of killing tigers is by sitting up over kills or bait. Like other animals in the Sundarbans, tigers drink the salt water of the rivers and creeks, so that, as a rule, there are no water holes to sit over. The Government reward for their destruction was Rs. 50 on the forest reserves, and Rs. 25 elsewhere."¹

A century ago some 270 species of birds were accounted from the district. Recently, it has come down 230 only, out of which 220 species were common to the old list. The impact of disturbances in the eco-system (due to conversion of natural forests, grasslands and wet areas, to agro-industrial complex) have affected the avifauna. However, the new rural belts created new home for some. Besides the resident birds, a vast number of Palaearctic species come down to the district on migration during winter. Certain elements of the Indo-Chinese as well as Ethiopian sub-region are included in the avifauna of the district. Some fear that pollution due to industrial wastes and change in salinity with decreasing volume of water in the Hugli are adversely affecting the food chain, and depopulation of certain species. However, in the industrial belts, man's congeners like the House Crow, House Sparrow, Blue Rock Pigeon, Jungle Myna, House Swift, Pariah Kite (গোদা চিল) and Barn Owl (লক্ষ্মী পেঁচা) have established themselves.

¹ L.S.S. O'Malley—*op. cit.*, p. 20.

The canopy of green gardens, groves and forests provide ideal niches for the following: Green Pigeon, Turtle Dove (লাল ঘুঘু), Spotted Dove, Little Brown Dove and Emerald Dove (রাজ ঘুঘু); Alexandrian Parakeet (চন্দনা), Rose-ringed Parakeet (টিয়া), Blossom-headed Parakeet (ফরিয়াদী), Pied Crested Cuckoo (চাতক), Large Hawk Cuckoo (চোখ-গেল, Piu-Knaha), Indian Cuckoo (বউ কথা কও), Banded Bay Cuckoo, Plaintive Cuckoo, Koel, Large Green-billed Malkoha (বন কোকিল), Coucal (কুকা), Lesser Coucal, Scops Owl, Great Horned Owl, Dusky Horned Owl, Brown Fish Owl (হুতোম পেঁচা), Brown Hawk Owl (কাল পেঁচা), Spotted Owlet (কোটরে পেঁচা), Long-tailed Nightjar, Common Indian Nightjar, Palm swift (বাতাসী), Blue-tailed Bee-eater, Green Bee-eater (বাঁশপাতি), Indian Roller (নীলকণ্ঠ), Green Barbet, Blue-throated Barbet (বড় বেনে বউ, গৃহস্থের থোকা হোক), Copper Smith (গয়লা বড়ী, ছোট বেনে বউ), five varieties of Woodpecker, four varieties of Shrikes (কাবাসী), five varieties of Drongo (ফিঙে-পাঁপিয়া), four varieties of Myna, Indian Tru Pie, Jungle Crow, Common Iora, Goldfronted Chloropsis, three varieties of Bulbul, five varieties of Babbler (ছাতারে), seven varieties of Fly catcher (বুলবুল), six varieties of Warbler (টুনটুনি), Magpie-Robin (দোয়েল), Shama, four varieties of Thrush (পেঙ্গা), Black-spotted Yellow Tit, Tickell's Flowerpecker and Purple Sunbird.

The hedges and fields provide foraging ground for Bustard Quail, Ashy Crowned Finch Lark, Warbler, Partridge, Lark, Tailorbird, Lesser Whitethroat, Rubythroat, Bluethroat, Stone Chat, Paddyfield Pipit, Tree Pipit, Wagtail, Baya (বাবুই), Munia, Mannikin, Common Rose Finch and Bunting.

The wet areas attract many a visitor—Grebe, Grey Pelican, Little Cormorant, Darter, Heron, Egret, Bittern (বক), Lesser Flamingo, Bar-headed Goose, Teal, Duck, Mallard, Garganey, Shoveller, Pochard, Sarus Crane, Water Rail, Little Crake, Spotted Crake, Brown Crake, White Breasted Waterhen, Moorhen, Coot, Jacana, Swallow and Giant Heron.

In the mudflats and river banks the following waders, most of which are winter visitors, are commonly found:—Grey-headed Lapwing, Redwattled Lapwing, Spurwinged Lapwing, various types of Plover (বাটান, গাঙ্‌তিতই), Whimbrel, Curlew, Redshank, Greenshank, Marsh Sandpiper, Turnstone, Pintail Snipe, Fantail Snipe, Jack Snipe, Woodcock, Stint, Curlew Sandpiper, Ruff and Reeve, Painted Snipe, Blackwinged Still, Avocet, Stone Curlew and Collared Pratincole. Various types of Gulls, Terns and Kingfishers and other water skimmers are very common in 24-Parganas.

The noteworthy birds of prey and scavenger birds are various types

of Kites, Buzzards, Eagles, Vultures, Harriers, Osprey, Redheaded Marlin and Kestrel.

Of the birds, which have been wiped out or rapidly diminishing, Lesser Adjutant Stork, Large Cormorant, Greyleg Goose, Black Eagle and Large Whistling Teal may be mentioned. As a part of wildlife preservation programme a bird sanctuary has been established at Saznakhali in the Sundarbans.

The district has two types of crocodiles, Estuarine (*Crocodilus porosus*) and Marsh (*C. Palustris*). The former is the man-eating crocodile and is restricted only to the lower reaches of the deltaic channels and new islands coming up the seaface. It differs from the Marsh type in having a narrower head, with two ridges on the skull converging towards the snout, and, in the adult, four, instead of five, teeth in the upper jaw, counting from the median line to the notch. The larger of the Marsh variety are by no means averse to attacking man, though it generally lives on fish and other animals, and being a cannibal even feeds on the remains of its own kind. It is found in the upper reaches of all the tidal channels, *bils* and other stagnant pools. Both species bask on the sand pits and banks which are left uncovered at low tide, where, especially during the winter, they will be found lying with their mouths wide open. It is a mystery why they do not open their mouths at other seasons.¹ "The *Crocodilus porosus* grows to great lengths: a specimen in the British Museum is recorded to be 33 feet. It breeds in certain favourite rivers; the eggs are laid amongst a mounds of leaves, the fermentation of which hatches the young. The Fuldobi creek, for instance, will be found in January and February full of young crocodiles. As the animals frequent the same spots year after year, they can be waited for and shot. The cry of a crocodile is a long drawn howl. The snub-nosed crocodile (incorrectly called an alligator) may be seen in large numbers along banks of streams, especially during the cold weather. He is known to overturn boats for the purpose of killing human beings. At times, they are so daring that they enter homesteads at night and carry off the first person they can seize. They also enter fields during the day, and kill and carry away cattle. They are most ferocious, and cause great loss of life. They are often harpooned by village people, who go after them in boats for the purpose, and not unfrequently bring them in amidst the rejoicings of

What do frogs, crocodiles and hippopotamuses have in common? The first is an amphibian, the second a reptile, the third a mammal—but all three breathe air and live in water. Hence they have nostrils and eyes that protrude above the surface while their bodies are submerged: an example of convergent evolution.

Reptilia
Crocodilians

the entire village."¹ These two varieties are becoming scarce. A third variety of the Crocodilians—the *Gharial* (*Gavialis gangeticus*) once abundant in the Ganga river system, is almost extinct and has been enlisted as an endangered and rare type.²

Among the tortoise and turtles 7 species, viz., Indian Sawback, Estuarine, Narrow-headed Soft-shell, Indian Soft-shell, Common tortoise (কেটো, কচ্ছপ), Indian Flap-shell and the Brahminy River Turtle have so far been recorded. Amongst these, the Estuarine turtle is entirely aquatic in its habits and exceedingly shy in disposition.

Tortoise &
Turtles

The district is represented by 13 species of lizards, of which the Common House-gecko, the Tokay or Tucktoo, Common Garden Lizard, Skinks, Monitor Lizard and the Water Monitor are most abundant.

Lizards

The district harbours 17 non-poisonous species of snakes of which the following are very common: Common Blind Snake, Beaked Blind Snake, Common Wolf Snake, Green Whip Snake, Rat Snake or *Dhaman*, Checkered Keelback, Striped Keelback, Trinket Snake, Painted Bronze-back, Olive Keelback, Indian Bronze-back and Dog-faced Water Snake. Among the poisonous variety of snakes, the Common Indian Cobra, the Keutia, King Cobra, Common Indian Krait, the Banded Krait, and the Russell's Viper have so far been recorded from the district.

Snakes

The Zoological Survey of India reported that the reptile fauna of the district has not been extensively explored and there is no reptile sanctuary under the Government of India. But 'efforts are being made by the State Forest Department for opening a Crocodile Rearing Centre in the Lothian Island of the Gangetic delta of the district'.

The 24-Parganas is extremely rich in fish fauna. The common marine fishes alone are represented by more than 55 species belonging to 28 families; the corresponding number for fresh-water fishes are 31 and 17 respectively. They are plentiful and found at all times of the year. The growth of Calcutta metropolies has created an ever increasing demand for this article of diet. So, even the neighbourhood of Dhapa, Bamanghata, Garia and other parts, paddy land has been converted into fisheries by breaking the *bunds* in places; and allowing the tide water to flow over the land along various small channels, at the mouths of which nets and traps are laid. Fishing also goes on largely along the creeks of the Sundarbans,

Fishes

¹ O'Malley, L.S.S. *op. cit.*, pp. 22-23.
² Source: Zoological Survey of India.

each day's catch being put into large bamboo cylinders which, when full, are towed up to the nearest marts. Of late, power driven trawlers have been introduced. The varieties commonly found in the district are *Pabda* (Butter fish) and *Boal* of *Siluridae* family; *Katla*, *Mrigal*, *Kharke-Bata*, *Bata*, *Bhangan Bata*, *Kalbaus*, *Rui* and *Saralputi* of *Cyprinidae* family; *Tengra* and *Arr-Tengra* of *Bagridae* family; *Kajri* or *Kajoli* and *Bacha* of *Schilbeidae* family; *Magur* (*Clarias batrachus*), *Singhi* (*Heteropneustes fossilis*); *Shol* and *Lata* of *Channidae* family; *Nadosh* or *Bheda* (*Nadus nadus*); *Parshey* and *Kharula* of *Mugilidae* family; *Beley* of the *Gobiidae* family; *Bhetki* of *Latidae* family; *Koi* (*Anabas testudineus*); *Tilapia* or *American Koi* (*Tilapia mossambica*); *Topshey* (*Polynemus paradiscus*); *Ban* and *Pankal* of *Mastacembelidae* family; *Ilish* and *Khoira* of the *Clupediidae* family; *Pomfret* (*squamnipinnes sinensis*), *Payrachanda* (*Stromatus niger*), *Guley* (*Mystus gulio*), *Gurjaoli* (sometimes called Indian Salmon), *Gangdarha* (*Belona Caucila*), Catfish or *Gajar*, *Chang* (*Ophiocephalous gacchua*), Indian Trout or *Bhola* (*Raimas bola*), *Mourala* (*Aspideparia marar*), *Sankar* or Stinging Ray, Bombay Duck or *Lotia*, *Lyata* (*Ophiocephalus punctatus*), *Silon* or *Dhnai* (*Silonia silondia*) and *Torh Mahasol* (*Barbus tor*). The variety of food habits in fish is reflected in their anatomical adaptations. Fish feeding on bottom matter have soft lipped sucking mouths; fish feeding on plankton have numerous gill-rakers; fish feeding on other fish have large mouths and sharp teeth. Numbers and species of fish are more concentrated in the littoral zone of lakes than in the open, deeper waters. They invade shallow waters for spawning. In deep waters, fish tend to remain close to the bottom where their food supply is located, unless there is a deficiency of oxygen there. Amphibians and reptiles do not commonly occur in lakes except around margin supporting, aquatic vegetation, and here pond species occur. Many birds get their living from the lake, but nest on neighbouring shores or islands. Unlike the ox-bow lakes of the northern part of the district, the tidal marshes of south 24-Parganas are not closed eco-systems, as their inhabitants are largely dependent on the flow of fresh and salt water.

Mollusca

Mollusca of 24-Parganas can be broadly divided into (i) Land (ii) Fresh water and (iii) Estuarine, depending on their habitats. More than 27 types of land mollusca, 30 of fresh water and 28 of estuarine mollusca belonging to different orders have been identified in the district.¹ They require calcium salts for shells. So, where

¹ Source: Zoological Survey of India.

the pH value goes down to below 6, their shells become thin and fragile. As with fish, species diversity of molluscs increases downstream with greater depths of water. They are protected from the pounding action of the waves on the shore by their shells and they hold themselves by powerful suction apparatus attached to their feet. Burrows made in mud hold their form better than in sand (as sand is very unstable, especially during storms), so, larger populations occur in mud under relatively quiet waters.

The following crustaceans are economically important varieties from the estuarine water *Peneus indicus*, *Metapenens monoceros*, *M. Lysianssa*, *Perapenens longipes*, *Parapensopsis styliifera*, *P. sculptilis*, *Seylla serrata* and *Portunus pelagicus*. Equally important fresh water forms are as follows: *Paratelphusa spinigera*, *P. hydrodromus*, *Macrobrachium birmanicus*, *M. Dayanum*, *M. idae idella*, *M. jaronicum*, *M. Lamarrei*, *M. maloolmsonii*, *M. mirabilis*, *M. rosenbergii*, *M. rude*, *M. scabriculum* and *M. villosimanus*. All these are edible varieties. Perhaps they are over exploited as they have a good market not only in the Calcutta metropolitan district but also in Japan, U.S.A., and Europe. Even O'Malley wrote, "Good business is done in shrimps, which are dried and despatched to Chittagong and Burma."¹ Necessary protection from over exploitation and also protection during the breeding season is certainly overdue.

Crustacea

The district contains more than 10 species of sponges (*phylum porifera*), 6 species of Hydroboa (coelenterate), 5 species of Scyphozoa, 4 species of, 10 species of, Earthworms (*Oligochaeta*), 14 species of Bristle worms (Polychaeta), 6 species of Leeches (*Hirudinea*), 2 species of Star fishes (Asteroidea), 4 species of Sea urchin and Sand dollars (*Echinoidea*), 14 species of *Bryozoa* and 5 species of *Rolifera*.²

General Neo-Chordata

The 24-Parganas harbours a rich variety of Trematoda, i.e., flat-worms—more than 31 species, about 24 species of Cestoda or tapeworms, more than 25 species of Nematoda or roundworms and 7 species of Acanthocephala or parasitic worms.³

Platyhelminthes

The district is also very rich in amphibia—the most common of which are the skipping Frog, Jerdon's Bull Frog, Pond Frog, Paddy-field Frog, Indian Bull Frog, Maculated Tree-Frog, Ballooh Frog, Ornate Microhylid, Ceylon Kaloula and the Common Indian Toad.

Amphibia

¹ L.S.S. O'Malley—*op. cit.*, p. 22.

² Source: Various papers of Annandale, in the Records of the Indian Museum.

³ Source: Zoological Survey of India.

These are found all over the district. The skipping and pond frogs are usually found floating on the surface of water the latter prefers ponds with vegetations. Jerdon's bull, Indian bull and the paddy-field frogs are found in bushes and grassy patches grown around in the ditches, ponds and tanks. They occasionally jump into water, when disturbed, but return soon, because of their inability to stay in water for a long period owing to lack of fully webbed toes. Paddy-field frogs are commonly found on the moist soil of paddy-fields during harvesting season. All these varieties are exported to Europe, especially France, where they are great delicacies on the dining table.

The tree-frog, found inside the bushes and trees, has got flat discs at the tip of toes and fingers which help it to stick on the leaves and branches of the trees by suction. The ornate mycrohylid is a tiny smooth-skinned frog generally found in the grasses on moist soil. Both Ceylon Kaloula and frog are lazy frogs with intense burrowing habits and are found most of the period of the year hidden underground except during breeding season which coincides with that of the rains. Toads are terrestrial amphibians with rough warty skin that is always kept moist by the secretion of the glands in their body. They need to go to water only during breeding season.

Recent surveys have revealed that there are innumerable species of insects belonging to different families, classes and orders in the district.¹ Some 39 species of Beetles or *Coleoptera*, 12 of *Silvanidae*, 4 of *Concujidae* (on dead trees), 33 of *Chrysomelidae* (on decaying shrubs and trees), 17 of *Cocoinellides*, 74 of *Carabidae*, 21 of *Cerambycidae*, 6 of *Belostomatidae* (water bugs), 14 of *Pantastomidae* (a kind of bugs-parasitic arthropod), 4 of *Plataspidae*, 5 of *Notonectidae* (backswimmer insects), 7 of *Corixidae* (or Water boatman, found in mud-bottom pools), 5 species of water Striders and Water Measurers found in pond-marsh biociation (e.g. *Veliidae* and *Gerridae* which more on top of the surface film in pursuit of most of their life activities and *Hydrometridae* the water measurers), 2 species of Water Scorpions (*Nepidae*), 3 of *Noucoridae* or Creeping Water-bugs, 49 of *Cocadellidae* or Leafhopper, 6 of *Cercopidae*, 28 of *Aphididae* or Plant Louse and more than 93 species of bugs

¹ A good number of short fauna-oriented surveys had been undertaken in the district, but most remarkable one among these was the 'Calcutta and Environs Survey (M. B. Kripalani Staff) 1961-63. This weekly survey for two continuous years stuffed the data bank of the Zoological Survey of India with an wealth of information, much of which is still unknown in the western world.

and insects belonging to the families of *Scutelleridae*, *Cydnidae*, *Tessaratomidae*, *Corocidae*, *Lygaeidae*, *Largidae*, *Pyrrhocoridae*, *Colobathnistidae*, *Reduviidae*, *Tingidae*, *Cimicidae*, *Henicocephaliidae*, *Capsidae*, *Anthocoridae*, *Fulguridae*, and *Membracidae*.

The species grouped under Hymenoptera, i.e., wasps, bees and ants are even richer. Their number exceeds 218 and they belong to the families of *Mutillidae*, *Tiphiidae*, *Scoliidae*, *Chrysididae*, *Eumenidae*, *Vespidae*, *Sphegidae*, *Formicidae*, *Ichneumonidae*, *Chalcididae*, *Braconidae*, *Pompilidae* and *Apidae*.

The 24-Parganas outranks all other coastal districts of India in her wealth and variety of Lepidoptera i.e., moths, butterflies, etc. There are 114 species of Moths belonging to the families of *Sphingidae*, *Notodontidae*, *Sesidae*, *Tinaegeriidae*, *Amatidae*, *Zygaenidae*, *Psychidae*, *Cossidae*, *Indarbelidae*, *Drepanulidae*, *Thyrididae*, *Limacodidae*, *Lasiocampidae*, *Lymantridae*, *Arctiidae*, *Noctuidae*, *Epiplemae*, *Geometridae* and *Pyrallidae*, of the Butterflies there are more than 25 species belonging to the families of *Papilionidae*, *Pieridae*, *Danaidae*, *Nymphalidae*, *Lycaenidae* and *Satyridae*; of the *Orthoptera*, i.e., grass-hoppers, crickets, cockroaches, etc., there are more than 48 species belonging to *Tetrigidae*, *Acrididae*, *Gryllidae*, *Eneopteridae*, *Gryllotalpidae*, *Atractomorpha* and *Tettigoniidae*, families and many others belonging to *Dictyoptera* and *Dermaptera* orders.

The 24-Parganas district is poorer than other coastal districts of India in the number and variety of *Diptera*, i.e., flies and mosquitoes. There are no more than 25 species of *Tipulidae*, *Culicidae*, *Empidae*, *Stratiomyidae*, *Muscidae* and *Syrphidae* families. There are 12 species of *Isoptera* belonging to *Rhinotermitidae* and *Termitidae* families.

The district harbours a moderate population of *Arachnida* (mites, spiders etc.) and *Myriapoda* (centipede, millipede, pauropod etc.) all congeners with man, and, therefore, their habitats coincide with human settlements. Their species number is about 35 and they belong to *Thomisidae*, *Salticidae*, *Guaphosidae*, *Buthidae*, *Cheliferidae*, *Olipidae*, *Charontidae*, *Schizomidae*, *Phalangidae* and *Symphylidae* families. There are miscellaneous other 17 species of insects belonging to *Coenagriidae*, *Macrodiplactidae*, *Libellulidae*, *Peripaocidae*, *Hemipsocidae*, *Pseudocaeciliidae* and *Myopsocidae* families. Besides, the Zoological Survey of India has classified under the head *Acarology* 44 species belonging to 14 families. They have also made detailed study of various individual species belonging to *Masostigmata*, *Acrina*, *Arachnida* and other invertebrates at various spots within 24-Parganas. These are still continuing.

Although small in size and low in the food chain, their importance in the community is very high. They are the starting point of most food chains. Their number and variety ultimately determine the succession and structure of the faunal community. So, the new finds in the 24-Parganas is likely to throw new light on the evolution of the biotic communities and the eco-systems.

CLIMATE

The climate of this district is characterised by an oppressive hot summer, high humidities nearly all the year round and well distributed rainfall during the monsoon season. The cold season about the middle of November to the end of February is followed by the summer from March to May. The south-west monsoon season is from June to September. October and the first half of November constitute the post-monsoon season.

Rainfall

Records of rainfall in the district are available for eleven stations for periods ranging from 17 to 91 years. The details of the rainfall at these stations and for the district as a whole are given in tables 1 and 2. The average annual rainfall in the district is 1661.6 mm. (65.41"). The rainfall decreases from the south-east towards the north-west, Sagar Island in the south-west corner of the district has an average annual rainfall of 1802.7 mm. (70.97"). In the south-eastern corner of the Sundarbans the rainfall may be even higher than in Sagar Island. Barasat in the north-western part of the district gets 1508.2 mm. (59.37"), of rainfall in a year. The rainfall during the south-west monsoon months, June to September, constitutes about 74% of the annual rainfall. Some rainfall, mostly as thunder showers, is received in the latter half of the hot season and in October. The variation in the rainfall from year to year is not large. In the fifty year period, 1901 to 1950, the highest annual rainfall amounting to 142% of the normal occurred in 1933, while 1935 was the year with the lowest rainfall which was 62 per cent of the normal. In the same fifty-year period, rainfall, less than 80% of the normal, occurred in three years, no two of them being consecutive, in the district as a whole. But at some individual stations in the district rainfall less than 80% of the normal in two or three consecutive years, has occurred once or twice, and four consecutive years of such low rainfall occurred at Barasat during 1934-1937.

On an average, there are 80 rainy days (i.e., days with rainfall of 2.5 mm.—10 cents—or more) in a year. This number varies from 74 at Barasat to 87 at Dam Dam. The heaviest rainfall in 24 hours recorded at any station in the district was 424.9 mm. (16.73") at Diamond Harbour on September 20, 1900.

The district has meteorological observatories, at Alipur, Dam Dam, Barakpur, and Sagar Island. The temperature and humidity conditions in the Sundarbans region in the southern part of the district with its swamps and marshes and the wide network of tidal channels, rivers, creeks and islands differs a little from those in the northern inland tracts. While the meteorological records at Alipur may be taken as representative of the conditions in the northern inland tracts, the records at Sagar Island can be taken as typical of the Sundarbans region. The temperatures are generally lower and the humidities higher in the Sundarbans than in the rest of the district. Temperatures begin to rise steadily after February. May is the hottest month when the mean daily maximum temperature is 35.3°C (95.5°F) at Alipur and 32.7°C (90.9°F) at Sagar Island. The high moisture content of the air makes the heat in summer oppressive. The maximum temperature may go above 38°C (100.4°F) on some days in the Sundarbans region and above 42°C or 43°C in the northern inland region. There is welcome relief from the heat, although only temporarily, when thunder showers occur on some days in this season. With the onset of the south-west monsoon by about the first week of June, the day temperatures drop appreciably, but throughout the south-west monsoon season the night temperatures continue to be as high as during the summer season. With the increased humidity in the air and the high night temperatures, the weather, when not raining, is generally uncomfortable. The monsoon withdraws early in October and the temperatures begin to drop. The drop in the night temperatures particularly is more rapid from about the middle of November. January is the coldest month with the mean daily minimum temperature at 12.7°C (54.9°F) in the northern parts of the district, and 14.9°C (58.8°F) in the Sundarbans. In association with passing western disturbances spells of cold weather are experienced in the winter season, and the minimum temperatures may drop to about 6° or 7°C (42.8° or 44.6°F) on such occasions in the inland region as well as in the Sundarbans.

The highest maximum temperature recorded at Alipur was 43.9°C (111.0°F) on 1924 June 1 and 40°C (104.0°F) at Sagar Island on 1929 June 2. The lowest minimum temperature recorded at Alipur was 6.7°C (44.1°F) on January 20, 1899 and 7.2°C (45.0°F) on February 12, 1950 at Sagar Island.

Relative humidity is generally high throughout the year. During summer, the afternoon humidity is comparatively less.

Temperature

Humidity

Cloudiness

Skies are moderately clouded in May and heavily clouded to overcast in the south-west monsoon season. Cloudiness decreases in October and the skies are clear or lightly clouded in the rest of the year.

Winds

Winds are generally light to moderate with a slight increase in force in the summer and monsoon season, but in the Sundarbans region, particularly near the coast, winds are generally stronger. Winds blow mostly from directions between south-east and south-west during the period from May to September. In October, winds are variable in direction. In the cold season, winds are mainly from directions between west and north. In March and April, they are predominantly from the south or south-west.

Special Weather Phenomena

Storms and depressions from the Bay of Bengal in May and the post-monsoon season often affect the district and its neighbourhood and cause widespread heavy rain with high winds. Depressions in the monsoon season also affect the district causing heavy rains and strong winds. Thunderstorms are common, particularly in the summer afternoons. In association with these thunderstorms severe squalls and occasional hail occur. These thunderstorms are called norwesters due to the fact that the associated squalls, often violent, usually come from the north-west, and are locally known as "Kal-baisakhi" (the disaster-laden winds of *Baisakh*, the first month of the Bengali calendar). A sharp drop in temperature is experienced during these thunderstorms. Rain during the south-west monsoon season is also very often associated with thunder. Occasional fogs occur during the cold season.

Tables 3, 4 and 5 give the temperature and humidity, mean wind speed and the frequency of special weather phenomena respectively for Alipur and tables 3(a), 4(a), and 5(a) give similar data for Sagar Island. Details of recent incidences of flood and other natural calamities have been given in the Chapter IV of this volume.

TABLE 1

NORMALS AND EXTREMES OF RAINFALL

Stations	No. of years of data	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual	Highest annual rainfall as % of normal	Lowest annual rainfall as % of normal	Heaviest rainfall in 24-hours* Amount (mm)	Date	GENERAL
Sagar Island	50	a 14.2	25.7	28.2	42.4	104.4	303.0	394.5	379.5	256.0	213.9	34.8	6.1	1,802.2	153	65	359.2	1927 Jun. 5	
	b	1.0	1.5	1.7	2.5	5.2	11.9	16.7	15.8	13.0	7.9	1.6	0.3	79.1	(1931)	(1906)			
Diamond Harbour	50	a 12.2	24.4	38.3	51.1	133.1	296.9	366.5	372.1	249.4	135.1	25.7	2.3	1,707.1	165	51	424.9	1900 Sep. 20	
	b	0.8	1.6	1.8	2.9	5.7	11.5	16.6	15.0	12.6	5.6	1.2	0.2	75.5	(1948)	(1924)			
Baj Baj	50	a 16.3	32.3	37.9	54.1	138.4	316.2	373.1	370.8	241.1	133.3	32.8	4.1	1,750.4	196	57	311.1	1900 Sep 20.	
	b	1.0	2.1	2.2	3.5	6.8	13.5	17.3	17.7	13.3	6.4	1.4	0.4	85.6	(1926)	(1911)			
Alipur	50	a 11.9	27.9	34.0	50.5	133.9	290.1	331.2	334.0	252.7	127.3	27.2	4.1	1,624.8	137	56	369.1	1900 Sep 20.	
	b	0.9	1.8	2.2	3.3	6.7	12.9	16.9	17.6	13.4	6.7	1.3	0.4	84.1	(1941)	(1935)			
Barakpur	50	a 9.9	27.2	36.1	50.5	120.1	262.1	334.8	324.9	208.3	104.7	27.2	7.4	1,513.2	167	46	377.7	1878 Sep. 22	
	b	0.8	1.8	2.1	3.1	6.3	11.7	16.3	16.7	11.5	5.4	1.2	0.4	77.3	(1946)	(1945)			
Dam Dam	12	a 23.1	20.6	49.0	71.1	145.8	257.7	317.3	355.9	271.0	143.5	35.3	2.0	1,687.3	156	78	313.9	1888 Aug. 24	
	b	1.4	1.9	3.1	3.7	7.0	11.7	18.1	19.3	12.6	6.5	1.2	0.3	86.8	(1941)	(1945)			
Barasat	50	a 13.5	26.7	35.1	57.1	128.5	256.8	312.4	324.4	210.6	119.9	19.6	3.6	1,508.2	198	50	312.9	1878 Sep. 22	
	b	0.8	1.6	1.9	3.2	6.3	11.8	15.2	15.2	11.2	5.5	1.3	0.2	74.2	(1943)	(1935)			
Basirhat	50	a 9.1	21.6	31.5	71.9	149.3	291.9	368.1	306.6	218.2	125.0	25.1	4.8	1,623.1	160	66	327.4	1900 Sep 20.	
	b	0.8	1.7	1.9	3.3	7.0	12.2	16.6	16.1	11.3	5.9	1.3	0.2	78.3	(1913)	(1935)			
Gosaba	30	a 8.6	19.6	24.1	39.1	129.8	281.9	400.8	383.5	240.8	148.3	30.5	3.8	1,710.8	156	52	313.4	1922 Aug 2.	
	b	0.7	1.6	1.7	2.6	6.5	13.3	19.0	17.5	13.7	6.9	1.4	0.3	85.2	(1950)	(1935)			
Bangaon	49	a 12.2	28.5	48.3	76.5	165.3	274.8	307.1	330.2	231.7	111.3	23.4	4.6	1,613.9	157	62	147.1	1948 Apr. 21	
	b	0.9	1.8	2.5	4.0	8.0	12.9	16.4	16.4	11.8	5.9	1.1	0.3	82.0	(1909)	(1946)			
Canning Town	42	a 13.2	20.8	37.1	50.8	150.1	315.0	380.7	371.1	244.6	122.4	29.0	2.3	1,737.1	180	60	355.6	1937 Jun 25.	
	b	0.5	1.4	1.8	3.0	6.0	12.2	18.6	15.9	11.2	5.5	1.2	0.2	74.8	(1933)	(1933)			
24-Parganas (Dist.)	a	13.1	25.0	36.3	55.9	136.2	285.6	353.3	350.3	238.6	135.0	28.2	4.1	1,661.6	142	62			
	b	0.9	1.7	2.1	3.2	6.5	12.3	16.8	16.7	12.3	6.2	1.3	0.3	80.3	(1933)	(1935)			

(a) Normal rainfall (b) Average number of rainy days (days with rain of 2.5 mm or more)* Based on all available data up to 1955.

**Years given in brackets.

TABLE 2

FREQUENCY OF ANNUAL RAINFALL IN THE DISTRICT
(DATA 1901-50)

Range in mm.	No. of years	Range in mm.	No. of years
1001-1100	1	1701-1800	6
1101-1200	1	1801-1900	5
1201-1300	1	1901-2000	3
1301-1400	3	2001-2100	2
1401-1500	8	2101-2200	0
1501-1600	9	2201-2300	1
1601-1700	8	2301-2400	2

TABLE 3

NORMALS OF TEMPERATURE AND RELATIVE HUMIDITY
(ALIPUR)

Month	Mean Daily Maximum Tempera- ture °C	Mean Daily Minimum Tempera- ture °C	Highest Maximum ever recorded		Lowest Minimum ever recorded		Relative Humidity	
			°C	Date	°C	Date	0830	1730*
							%	%
January	26.5	12.7	31.9	1958 Jan. 28	6.7	1899 Jan. 20	82	55
February	28.8	15.3	36.7	1952 Feb. 21	7.2	1950 Feb. 12	78	48
March	33.7	20.6	41.1	1941 Mar. 23	10.0	1898 Mar. 5	74	45
April	35.9	24.3	43.3	1954 Apr. 25	16.1	1905 Apr. 2	73	57
May	35.3	25.5	43.7	1958 May 28	18.3	1887 May. 3	74	68
June	33.7	26.1	43.9	1924 Jun. 1	21.1	1900 June 3	80	79
July	31.9	25.9	36.7	1957 Jul. 15	22.8	1940 July 9	83	83
August	31.7	25.8	36.1	1957 Aug. 21	23.3	1935 Aug. 22	85	83
September	32.2	25.7	36.1	1959 Sep. 3	22.2	1940 Sep. 28	83	83
October	31.8	23.4	35.6	1957 Oct. 10	17.2	1954 Oct. 31	81	77
November	29.1	17.8	33.9	1952 Nov. 1	10.6	1883 Nov. 22	76	67
December	26.4	13.1	30.6	1957 Dec. 9	7.2	1910 Dec. 24	77	62
Annual	31.4	21.3					79	67

*Hours I.S.T.

TABLE 3(a)

NORMALS OF TEMPERATURE AND RELATIVE HUMIDITY
(SAGAR ISLAND)

Month	Mean Daily Maximum Tempera- ture °C	Mean Daily Minimum Tempera- ture °C	Highest Maximum ever recorded		Lowest Minimum ever recorded		Relative Humidity	
			°C	Date	°C	Date	0830	1730*
							%	%
January	25.0	14.9	30.6	1931 Jan. 28	7.8	1899 Jan. 22	79	65
February	27.0	18.2	33.9	1952 Feb. 18	7.2	1950 Feb. 12	76	65
March	30.3	23.5	38.3	1934 Mar. 30	12.2	1906 Mar. 2	73	74
April	31.9	26.3	39.4	1901 Apr. 16	17.2	1942 Apr. 6	74	80
May	32.7	27.1	38.3	1908 May 15	17.8	1893 May 26	75	81
June	32.0	27.3	40.0	1929 June 2	19.4	1925 June 29	78	82
July	30.7	26.7	36.1	1920 July 1	21.7	1954 July 12	28	85
August	30.4	26.4	36.7	1903 Aug. 23	21.1	1953 Aug. 3	84	85
September	30.9	26.4	36.1	1921 Sep. 9	22.2	1950 Sep. 26	81	84
October	30.4	24.7	33.9	1918 Oct. 4	17.2	1898 Oct. 30	78	79
November	27.9	19.8	32.8	1944 Nov. 14	12.2	1883 Nov. 23	74	69
December	25.0	15.3	29.4	1907 Dec. 2	9.4	1896 Dec. 21	76	65
Annual	29.5	23.1					77	76

*Hours I.S.T.

TABLE 4

MEAN WIND SPEED IN KM/HR
(ALIPUR)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
3.1	4.0	5.5	7.7	8.1	6.8	5.9	5.5	4.5	3.2	3.1	3.1	5.0

TABLE 4(a)
MEAN WIND SPEED IN KM/HR
(SAGAR ISLAND)

Jan.	Feb.	Mar.	Apr.	May.	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
1.2	11.1	16.3	23.0	23.0	21.9	20.4	17.7	14.0	9.7	9.2	9.3	15.4

TABLE 5
SPECIAL WEATHER PHENOMENA
(ALIPUR)

Mean No. of days with	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Thunder	1.0	2.4	5.0	7.5	11.4	15.3	12.3	12.5	16.8	7.0	0.4	0.1	91.7
Hail	1.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Dust Storm	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Squall	0.8	1.5	3.1	4.1	6.7	6.7	3.6	3.0	3.1	4.5	0.1	0.1	37.3
Fog	9.1	7.5	2.5	0.1	0.0	0.0	0.0	0.0	0.1	0.3	2.0	4.4	26.0

TABLE 5(a)
SPECIAL WEATHER PHENOMENA
(SAGAR ISLAND)

Mean No. of days with	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
Thunder	0.5	1.3	2.4	3.3	6.7	7.1	4.6	4.9	9.2	5.7	0.5	0.0	46.2
Hail	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.2
Dust Storm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Squall	0.0	0.0	0.0	0.1	0.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Fog	6.6	2.9	0.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.4	1.9	12.8

CHAPTER II

HISTORY

The whole of the 24-Parganas district forms the southern-most part of the deltaic plains of Bengal, where the bedrock is found much below the sea level and layers and layers of new alluvial deposits form the land masses, where as far as man's memory can travel—there have been constant shifts in the courses of rivers. As such, the find of any pre-historic artefact from such a terrain is highly unlikely. Even if such artefacts are found by accident, it becomes very difficult to date them precisely in the absence of associative immobile stratigraphic evidence. In spite of these theoretical improbabilities, finds of pre-historic artefacts have been reported from time to time since the mid-fifties of our century. People connected with the Asutosh Museum of the University of Calcutta and the Directorate of Archaeology of West Bengal have claimed to have found small stone implements with distinctly later Palaeolithic and Neolithic industrial characteristics from the mauzas of Deulpota and Harinarayanpur within the jurisdiction of Diamond Harbour police station. As all of these, without a single exception, are surface finds they lack all corroborative geological associations, hence it is difficult to come to any historical conclusion about them.

PRE-HISTORY

The earliest reference to the part of West Bengal now forming the district is found in the writings of the Greek navigators, geographers, chroniclers and historians writing between the first century B.C. and the A.D. third century. All of them have referred to the country of a people variously called the Gangaridae, Gangaridai, Gandaritai, Gandaraei and Gangarides. According to Diodorus Siculus, the B.C. first century historian, where the Ganga flows from the north to the south to meet the sea, there the river forms the eastern boundary of the land of the Gangaridai people. According to Pliny, the A.D. 1st century historian, the Ganga in its final course passes through the country of the Gangarides. According to Ptolemy, the famous second century Greek geographer, all the country about the mouths of the Ganga is occupied by the Gangaridai. To-day the Ganga flows from the north to the south to meet the Bay of Bengal along two courses; along the Bhagirathi-Hugli course in the west and along the Padma-Meghna course in the east. If the Bhagirathi-Hugli course of the Ganga is regarded as the eastern limit of the land of

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the Gangaridai, then the land of the Gangaridai ought to have overlapped the land of the Tamalites of the territory of Tamralipta, which finds a separate mention in Ptolemy's geography. But the land of the Tamalites or the territories around the port of Tamralipta was either included in the land of the Kalingas or of the Prasioi (Magadha?), who were different from the Gangaridai people. So it is safer to assume that the eastern boundary of the land of the Gangaridai people ran along the Padma-Meghna course of the Ganga. We have a corroboration to such assumption from the A.D. 1st century writer Q. Curtius Rufus. Rufus says that the country of the Gangaridae was situated on the further bank of the Ganga. If one enters from the Bay into one of the mouths of the Ganga and regards the country to the west as India, then the farther bank will be towards the east. As we know from Siculus that the country of the Gangaridai was to the west of the Ganga and not to the east, then it ought to be the Meghna-Padma mouth. Rufus is probably referring to the Bhagirathi-Hugli course on the farther or eastern end from where begins the land of the Gangaridae people. If we also assume that to the west of the land of the Gangaridae were the lands of the Prasioi (Pracya? Magadha?) people in the north and the land of the Tamalites in the south, then the whole of deltaic Bengal between the Bhagirathi-Hugli in the west, the Padma-Meghna in the east and the Ganga-Padma in the north becomes the land of the Gangaridai people. The whole of the present-day district of 24-Parganas falls within these bounds.

According to Siculus who wrote in the first century B.C. and Quintus Curtius Rufus who wrote in the A.D. first century, the Gangaridai and their western neighbours the Prasioi were two different (ethnically, linguistically and culturally?) people. But during the time of Alexander's invasion of India (327-325 B.C.) there was one king who ruled over both the people from his capital at Palibothra (Pataliputra) in the land of the Prasioi (Magadhan people?) and who commanded a standing army of huge proportion. Another A.D. first century writer, Plutarch, however, implicitly states that the two people constituted two kingdoms; though giving the size of one standing army. Plutarch does not mention whether the two neighbouring kingdoms had two armies or a joint one.

Periplus Maris Erythraei or *The Periplus of the Erythraean Sea* (Bay of Bengal), a travelogue written by an anonymous Greek sailor of the A.D. first century speaks of a city on the confluence of the Ganga with the sea, called Gange. According to Ptolemy's *Treatise on Geography*, Gange was the city of the country of the Gangaridai,

According to *Periplus*, Gange was a sea-port and a market city, through which a considerable amount of trade used to be carried out in betel, Gangetic spikenard, pearl and finest of all muslins—the Gangetic *maslin*. In the country of the Gangaridai there was a gold mine and an amount of gold produced from there used to be minted to produce a gold coin called *Caltis*. From this account it seems that the country of the Gangaridae had a profitable foreign trade which used to be carried on through the medium of gold coin and that the prosperity of the port city of Gange depended much on this foreign trade. Though *Periplus* mentions Gange as a market city and a port, it does not say anything from which we can infer that Gange was an administrative seat besides being a market and a port. But according to Ptolemy there was a royal residence in the city of Gange.

We have already stated that the country of the Gangaridai people roughly corresponded to the whole of the Bengal delta lying between the Bhagirathi-Hugli in the west, the Padma-Meghna in the east and the Ganga-Padma in the north. The present-day district of 24-Parganas occupies the south and south-western quarter of this tract. But where was the city of Gange? Gange was at the confluence of the Ganga with the sea. The real hurdle is to identify the river which the Greeks called Ganges, at the confluence point. So many rivers flow from the north to the south to meet the sea through the Bengal delta. For one not going up far upstream from the Bay along the courses of the many deltaic rivers, it really becomes difficult to identify the river. But in any case, since Gange was at the confluence of a river with the sea, it must have been a city between the Damodar in the west to the Padma-Meghna in the east. There are not many places in this vast tract from which very ancient remains have been found. Two of these few places are in the present district of 24-Parganas.

Archaeologically, the most significant and ancient most site of the whole of south Bengal is Berachampa-Deulia-Chandraketugarh within the jurisdiction of Deganga thana of 24-Parganas district. This site was first excavated by the Asutosh Museum of the University of Calcutta. The same agency carried out several more excavations in the area later, assisted by the Archaeological Survey of India. The most important find is the remnant of a temple. On stratigraphic and stylistic considerations archaeologists think that the earliest part of the temple was built in *circa* A.D. fourth century, that is, in the Gupta period. But the temple was probably renovated and extended a number of times till as late as the A.D. tenth and the

eleventh centuries, that is during the Pala period. Another important archaeological find is the remnant of almost a kilometre long fortification wall with gates. This wall was not constructed before the eleventh century and was probably there during the Turko-Afghan sweep through the region in the thirteenth century. But none of these architectural remains goes back to the period about which the Greek writers have written. These sites have yielded a huge quantity of terracotta figurines—both cult figures and secular ones—toys, pottery and potsherds and copper and gold coins. While some of these figurines evoke the memory of the Sunga style of modelling of the second century B.C., a good many bear affinities to the Gupta and Pala styles of much later period. But as styles persist and travel they are no sure indicators of age by themselves. Some archaeologists have felt tempted to identify the punch-marked gold coins found there as *Caltis*, spoken of by Pliny. But gold coins also travel and stay intact beyond their time of manufacture, for the intrinsic value they carry.

Some historians think that the name Deganga (the name of the village in which the police station is situated and which is flanked by the ruins) is of some significance. It means *dwi* or *dwitiya* Ganga, according to them. This *dwi* or *dwitiya* Ganga could have been the second mouth of Ganga, they say and the river Vidyadhari which now skirts the village and the ruins could have been the second mouth of Ganga on which the port of Gange stood. But in the absence of more substantial evidence the debate whether these ruins represent the ancient city of Gange is bound to remain inconclusive. As a matter of fact, a more folkish meaning of Deganga would be “two fluvial outlets (*de* Ganga)”.

There is another site in the south 24-Parganas which, if excavated properly, may yield significant historical information. This site popularly known as Atghara, within the jurisdiction of Baruipur thana and situated on the east bank of the silted up old course of the Bhagirathi, called the Adiganga, has not been excavated systematically. In the surrounding flat country this area is full of tell-tale mounds. On casual diggings these mounds yield plinths of buildings, remnants of ancient walls, ancient bricks, parts of brick built structures, terracotta figurines—both secular and cult heads, terracotta toys and utensils, remnants of pottery, beads and bangles and copper coins. The site has also yielded a few punch-marked gold coins. While no stratigraphic data in support of assumed dates of the explored artefacts are forthcoming, assumptions based on stylistic affinities of the objects vary widely. While a majority of

the terracotta figurines found are stylistically folkish of the timeless variety, giving no clue about their time of origin, some exhibit distinctly the Pala-Sena characteristics. A few exhibit earlier stylistic features of the Gupta period. An exceptional one or two figurines, as some archaeologists and art historians claim, exhibit stylistic features associated with the style of modelling prevalent in the north India in the second century B.C. The coins found are yet to be analysed fully. Whether the history of the site goes back to a period described by the Greek writers or not, it is certain that this is an old site and it existed as an urban or semi-urban settlement till the beginning of the Turko-Afghan hegemony over this area. In the absence of more substantial historical evidence it is still premature to say whether the ruins at this site are that of Gange city.

Following the footsteps of some early English writers on the history of Bengal, Dinesh Chandra Sarkar has identified the city of Gange with Gangasagar on Sagar island on the mouth of the Bhagirathi-Hugli. But there is no archaeological evidence in support of the view.

It is extremely speculative to assume that the Jaina *parivrajakas* of Dasi-Kharbatika sect hailed from a tract called Kharbatika lying to the east of Tamraliptaka and that Kharbatika more or less corresponded with Sundarbans region (south of Diamond Harbour, Sadar and Basirhat Subdivisions), as many writers have assumed. The name, in a slightly variant form, also appears in *Sabhaparva* of the *Mahabharata*, where it has been stated that Bhima defeated the king of Karbata after defeating the ruler of Tamralipta. Besides the occurrence of the name of Kharbata or Karbata just after Tamralipta in a later day commentary on the *Jaina Kalpasutra* and the *Mahabharata*, a similar sounding tract of land corresponding to Sundarbans area was a *mandala* or district in the Sena period. The Sena period *mandala* was called the *Kharimandala*. It is a fact that some Jaina icons have been found from some villages, notably from the villages of Ghanteswari and Kantabanya in Kulpi thana area, but find of 10th, 11th and 12th century sculptures cannot be taken as sure proof of existence of Jaina settlements in much earlier centuries although the possibility cannot be ruled out.

The establishment of the Gupta Empire marks the end of the independent existence of the various states that flourished in Bengal. With the exception of Samatata or the far eastern Bengal to the east of the Padma-Meghna, Bengal got incorporated in the Gupta Empire. There is no direct epigraphic evidence to prove that the present district of 24-Parganas lying to the east of the Bhagirathi-

Hugli formed a part of the Gupta Empire. Yet we know that the ancient Vanga country lying between the Bhagirathi-Hugli, the Ganga-Padma and the Padma-Meghna was conquered by the early Guptas after their conquest of the Radha country to the west of the Ganga-Bhagirathi. So we can well assume that Gupta hegemony extended over what is now 24-Parganas district. The only question that remains relates to the effectiveness of the hegemony. In the absence of any epigraphic record of the period found from the district we cannot say whether the Guptas ruled this part of Bengal through appointed hierarchy of officials like *bhuktipati*, *uparika*, *vishayapati*, etc. or whether they just lorded over local powers.

There is one indirect evidence in support of the theory that at least in the later part of the A.D. fifth century and earlier part of the A.D. sixth century, south Bengal from Tripura in the east to Bardhaman in the west formed an administrative unit under one imperial governor titled *maharaja*. This *maharaja's* inscriptions have been found in Tripura and in Nalanda in Bihar. Taking advantage of the waning of the Gupta central authority this *maharaja* Vainyagupta, himself probably was a scion of the Gupta family, asserted his independence and assumed the title of *maharajadhiraja*. According to one of his inscriptions found from Tripura, he had a vassal chief (*Mahapratihara Panchadhikaramuparika*) named *maharaja* Vijasena. Now, this Vijasena's name also figures in the Mallasarul (P.S. Galsi, Dt. Bardhaman) land grant deed of one Maharajadhiraja Gopachandra, as a Maharaja—either a vassal chief or a Governor. Another land grant deed of Maharajadhiraja Gopachandra has been found from Kotalipara in Faridpur district of Bangladesh. On the basis of these inscriptions it is assumed that during the rule of the later Guptas, some of whom became independent kings after the waning of the Gupta central authority, south Bengal from the south Radha to Samatata formed one administrative unit. After the passing off of the Gupta line of rulers an independent kingdom grew up in the same area. Among the kings of this kingdom Gopachandra was perhaps the earliest. His inscriptions have been found from Galsi thana area in Bardhaman and Kotalipara in Faridpur. Dharmaditya and Samachardeva were the other kings of this kingdom, whose inscriptions have been found only from Kotalipara in Faridpur district of Bangladesh. If we assume that from the days of the later Guptas, that is, from the last quarter of the A.D. fifth century to about the third quarter of the A.D. sixth century south Bengal from southern Radha to Samatata

formed one administrative unit, then we have also to assume that the present district of 24-Parganas formed a part of the unit.

Since no Gupta or post-Gupta inscription has been found from 24-Parganas district, it becomes difficult to say anything about the sway and effectiveness of Gupta rule on the district. But from indirect archaeological evidence it seems that Gupta rule made a deep cultural impact on the district. The earliest stratum of the remains of the temple excavated at Berachampa in Deganga thana area is stratigraphically dated to the A.D. fourth century. The ground plan of this stratum of the temple conforms to the north Indian pattern of temple construction developed during the Gupta period. The imperial Guptas were patrons of Puranic Brahmanism. A large number of terracotta icons, done in Gupta stylistic idiom, of Puranic Brahminical gods and goddesses have been found from Berachampa-Deganga-Chandraketugarh region and from Atghara. Some Buddhist icons have also been found from Berachampa-Chandraketugarh region. These testify to the fact that the Gupta administration acted as the communicator of Puranic Brahmanism and Buddhism in the district through high art and architecture. This could not possibly have been done unless the Gupta political rule over the district was effective enough.

While Gupta rule in south and east Bengal was brought to an end by the rise of independent kingdoms, the later Guptas continued to rule in Barendri, i.e. North Bengal and northern Radha, i.e., West Bengal proper till about the later part of the A.D. sixth century. Later these parts of Bengal formed the nexus of Sasanka's Gauda kingdom. Sasanka definitely annexed the southern part of Radha to the west of the Bhagirathi to his kingdom, which previously formed a part of the kingdom of south Bengal of Gopachandra, Dharmaditya and Samacharadeva. According to some inscriptions of Sasanka, he extended his sway over Vanga country to the south of the Ganga-Padma and east of the Ganga-Bhagirathi. But it seems that his excursions to Vanga country were more of the nature of marauding raids than conquests. It can be inferred from this premise that the present district of 24-Parganas remained outside the effective hegemony of Gauda kingdom of Sasanka.

The *matsyanyaya* (literally, the state of affairs where big fish eats up the small and are in turn devoured by bigger one and so on; figuratively, the rule of force), that ensued after Sasanka's death came to an end with the election of Gopaia to kingship by *prakriti*, that is, by a number of ruling chiefs, some time around the middle of the 8th century. From the Gawalior inscription of Nagabhata

an inference can be drawn that Vanga or the deltaic south-eastern Bengal had been the home land of Gopala's son Dharmapala. In his life time Gopala possibly annexed parts of Varendra or North Bengal to his kingdom. Since Vanga, from the earliest times, included almost the whole of deltaic Bengal from the east of the Ganga-Bhagirathi-Hugli to the west of the Padma-Meghna, Gopala's or at least his son Dharmapala's kingdom included the present district of 24-Parganas which occupies the westernmost part of the ancient Vanga country.

During Dharmapala's time (*circa* A.D. 770-810) the Pala empire was divided into *bhuktis* or provinces and each *bhukti* was further sub-divided into *mandalas* or districts. According to the Khalimpur copper-plate inscription, one of the *mandalas* was named Vyaghratati-mandala and this *mandala* was included in Pundravardhana-bhukti. This *mandala* has been identified with the Bagri portion of ancient Vanga country lying to the south of the Ganga-Padma and east of the Bhagirathi-Hugli, roughly corresponding to the eastern half of modern Murshidabad, Nadiya, 24-Parganas, Jessore and Khulna districts (of West Bengal and Bangladesh) by Alexander Cunningham. According to the Nalanda copper-plate inscription of Devapala (*circa* A.D. 810-850), son of Dharmapala, one Balavarman was the *adhipati* or the ruler of Vyaghratati-mandala. As the right hand person of the king he enjoyed more powers than the *bhukti-pati*. He probably was the founder of the house of Varmans of Vanga or Vangala, the house which later founded the independent kingdom of Vanga or Vangala.

The rulers who succeeded Devapala one after the other were weak and peace-loving. As a result of this, Magadha, Anga, Radha, Barendri (Pundravardhana proper) and Vanga, i.e., all the comprising countries of the Pala Empire had to face successive invasions by the Kalachuris of Gorakhpur, Pratiharas of north-central India and Chandellas of Khajuraho. These invasions so weakened the Pala central authority that powerful *mandaladhipatis* began to act as independent or semi-independent kings by the later half of the tenth century. During the reign of Gopala II and Vigrahapala II (*circa* A.D. 940-988) the Palas lost a large portion of their territory in Vanga to the Chandras of Samatata (Mainamati in Comilla district). They had earlier lost parts of Southern Radha and Varendri to the Kambojas.

According to Dr. A. H. Dani (*Indian History Congress Proceedings 1961*) and Dr. D. C. Sarkar, the Chandras were, to start with, feudatory vassals of the Palas in Vanga country. Trailokya Chandra

(*circa* A.D. 900-940) became a semi-independent king, while his son Sri Chandra (*circa* A.D. 940-960) became a sovereign ruler (S. K. Maity & R. R. Mukherjee—*Corpus of Bengal Inscriptions*, Calcutta 1967, pp. 21-4). There is at least one indirect evidence in support of the assumption that Khari-vishaya of Vyaghratati-mandala of former Pundravardhana-bhukti passed under the hegemony of the Chandras of Vanga from the Palas by the last quarter of the A.D. tenth century. There is a brick *nagarasikhara* temple standing over a mound at the village of Uttar Jata at Lot No. 116 within the jurisdiction of Mathurapur police station in Sundarbans, popularly known as Jatar Deul. From a copper plate inscription found from near the temple we learn that the temple was constructed in A.D. 975 by a certain king named Jayantachandra. This Jayantachandra was possibly a scion of the Chandra family of Vanga, probably posted as a viceroy of the Chandras ruling in these parts. About 3.22 km. (two miles) to the west of Jatar Deul is the village of Kankandighi. Here one can see some tell-tale mounds in an otherwise flat country which when dug yield architectural members and broken potteries. Throughout the village one sees remnants of old architecture, the bricks of which correspond to the size, volume and make of the bricks of Jatar Deul.

In A.D. 1021, the Chola king, Rajendra Chola, sent out an invading army to Bengal under one of his generals. According to the Tirumalai inscription of Rajendra Chola the victorious army first defeated the Kamboja king Dharmapala of Dandabhukti (south West Bengal, comprising roughly the present Medinipur district); then the Chola army attacked and defeated Ranasura of the Sura dynasty of Dakshin Rarha (south-West Bengal comprising roughly the present Hugli, Haora, Bardhaman and parts of Bankura districts). Next the Chola army attacked Vangaladesha, possibly after crossing the Ganga-Bhagirathi-Hugli. The king of Vangaladesha, Govindachandra, offered battle but being defeated he fled dismounting from his elephant. Vangaladesha has been described as a land where rain never stops. After having subdued the king of Vangaladesha, the Chola general, turned his attention to Mahipala the king of Uttara Rarha. From this account it is clear that the Palas had no hold over the tract of the country now comprising the district of 24-Parganas during the first quarter of the eleventh century. It also seems unlikely that either the Kambojas of Dandabhukti or the Suras of Dakshin Rarha held sway over these tracts. The former Vyaghratati-mandala of Pundravardhana-bhukti probably formed a part of the kingdom of Vanga or Vangaladesha.

But the Chandras probably could not retain for long the western parts of their kingdom, comprising the Vyaghratati-mandala or Bagri. On the evidence of the Belwa copper-plate inscription we have known that Mahipala (A.D. 988-1033) had annexed considerable portions of Vangaladesha from the Chandras. Those portions possibly included Vyaghratati-mandala, to which the present-day district or portions of it belonged.

Not only were the last days of the reign of Mahipala not peaceful, his weak successors Nayapala (A.D. 1038-55) and Vighrahapala (circa A.D. 1055-70) lost large tracts of the territory of the former Pala Empire. The Palas lost some territories in the east to either the Chandras or their successors the Varmanas of Vanga, for we know that the Pala king of Gauda (i.e. Radha and Varendri) had to forge an alliance with Jatavarman, the king of Vanga, against Kalachuri king Karna when he invaded Gauda and Rarha in the middle of the eleventh century. Either the king of Gauda or the king of Vanga held sway over the tracts now comprising the district from the later part of the eleventh century. There is no way to be certain about the fact. The district might have been under nominal Pala sway, at least that seems to be the suggestion of a later event.

The process of weakening of the Pala Empire continued. Taking advantage of the situation, Divya, a high ranking administrative official of the Palas in Varendri—belonging to the Kaivartta caste, rose in revolt. The revolt, the consequent dispossession of Mahipala III and subsequent recovery of Varendri by Mahipala's brother Ramapala have been described in detail by Sandhyakaranandi, the court poet of Ramapala, in his *Ramacharitam*.

In order to regain his paternal kingdom, Ramapala literally travelled from door to door to enlist the support of powerful chiefs and vassals of the Palas. Among the chiefs who came to help Ramapala against Bhima, Divya's son, was one Vikrama or Vikramaraja of Devagrama and the surrounding country washed by the rivers of Bala-valabhi. Mahamahopadhyay Haraprasad Sastri had identified Bala-valabhi with Bagri area of deltaic Bengal—roughly conterminous with Vyaghratati-mandala of Pundravardhana-bhukti and Devagrama with a village of the same name in Bagri portion of Murshidabad district. If that be so, Vikrama or Vikramaraja probably *inter-alia* ruled over at least the northern part of the modern 24-Parganas district as a vassal or feudatory king of the Palas. In that case we might presume that since the days of Mahipala, at least the northern portion of the present district, if not the whole of it, was under Pala hegemony and the king of

Vanga's territories were to the east of the present district. The hegemony, however, might have been more nominal than real, with real power held by some semi-independent chiefs or tribute paying vassals.

According to Sandhyakaranandi, Ramapala's adversary Bhima had an ally in Hari. Hari at first fought valiantly alongside Bhima, but was won over by Ramapala after Bhima's death. This Hari has been identified with Harivarman of the Varman dynasty of Vikrampur (Vanga), who had earlier ousted the Chandras of Pattikeraka from Vanga by pushing them off to Samatata in the east. It seems that Varman king Harivarman then acknowledged the supremacy of Ramapala, and thereby secured his right to govern Vanga as a vassal king. But his successors Kumarapala (A.D. 1120-25), Gopala III (1125-40) and Madanapala (1140-55) were not very strong kings. It seems justified to presume that the Varmans of Vanga ruled as independent kings during their reigns and that Vanga then included the larger part of Bagri area, including the present district of 24-Parganas.

The most significant trouble which Madanapala had to face was created by the Karnata ruler of Mithila. The Karnata ruler found an ally in Vijayasena, whose father probably was a feudatory chief or a vassal of the Palas, somewhere in Uttar Rarha (modern Birbhum district). Taking advantage of the weakening of the Pala empire Vijayasena became, for all practical purposes, an independent ruler. Vijayasena conquered the whole of Rarha and a large portion of Vanga from the Varmans, before turning his attention to Madanapala, whom he conclusively defeated in a battle on the banks of the Kalindi in Varendri. Vijayasena thus established the sway of his dynasty over the present district of 24-Parganas, even before he finally pushed the Palas out of Bengal.

Among the architectural remnants of the Pala-Chandra-Varman periods found from the district mention should be made of Jatar Deul on Lot No. 116 (popularly known as the village of Uttar Jata) within the jurisdiction of Mathurapur thana in Sundarbans. This is a brick-built nagara-sikhara type temple standing on a mound in an otherwise flat terrain. In the *List of Ancient Monuments in Bengal : Presidency Division*, published by the Government of Bengal in 1896 it is reported, "the Deputy Collector of Diamond Harbour reported in 1875 that a copper plate, discovered in a place a little to the north of Jatar Deul fixes the date of erection of the temple by Raja Jayanta Chandra in the year 897 of the Saka era corresponding to A.D. 975. ... The inscription is in Sanskrit and

the date as usual was given in an enigma with the name of the founder." There is no way to know who was the presiding deity of Jatar Deul.

To the west of Jatar Deul in the village of Kankandighi on Lot No. 26, there are a number of tell-tale mounds, which, when dug, yielded bricks of the same character as used in Jatar Deul. These may represent remnants of ancient architecture. Late Kalidas Dutta of Majilpur found a number of stone and metal sculptures, including one representing the Puranic Surya, all datable on stylistic grounds to the Pala-Chandra-Varmana-Sena periods, from the ruins of Kankandighi.

Remnants of architectural structures, some of which are still identifiable as those of nagara-sikhara temples (such as the one in the village of Deulbar, 15 miles to the south of Raydighi in Mathurapur thana area), are seen in the villages of Nalgora on Lot No. 29, Govindapur on Lot No. 114, Maipit, Birinchibari and Burarthat—all in Diamond Harbour Subdivision. From the style of the stone and bronze sculptures found from these localities, it can be surmised that the ruins are of structures extant during the Pala-Chandra-Varmana-Sena periods. It should be noted in this connexion that all the icons found, represent Puranic Brahmanical gods and goddesses. It indirectly proves that the hegemony of the Pala central authority was not very well established in what is now south 24-Parganas. Had that been so, the district would have yielded at least some Mahayani Buddhist icons.

From the villages of Sarishadaha and Kajirdanga, within the jurisdiction of Jaynagar thana, two Vishnu and Nrisimha (an incarnation of Vishnu) images have been found from the ruins of brick-built architectural objects. These too are datable to the tenth-eleventh and twelfth centuries on stylistic grounds. The similar images have also been found from the village of Boral on the southern outskirts of Calcutta city in Alipur Sadar Subdivision.

The only proof of existence of people believing in any religion other than Puranic Brahmanical Hinduism and folkish forms of Hinduism is supplied by two stone sculptures found from Diamond Harbour Subdivision. One of these is icon of the Jaina tirthankar Adinatha found from the village of Ghanteswari within the jurisdiction of Kulpi thana in Diamond Harbour Subdivision. Another is the iconic representation of another Jaina tirthankar Parswanath found from the village of Kantabania in the same subdivision.

It is now generally accepted that Karnata-Kshatriya Sena family migrated to Bengal and one of the early settlers of the family took

up service under the Palas. This ancestor of the royal Senas, through his acumen and integrity, earned for himself and his family a principality, where he began to rule as a vassal of the then Pala sovereign. Samantasena, the grand-father of Vijayasena and the father of Hemantasena, had his headquarters somewhere in modern Birbhum district with the boundary of his domain spreading over parts of modern Murshidabad and Bardhaman districts. Taking advantage of the weakening of the Pala power under Kumarapala and his son Madanapala, Vijayasena (circa A.D. 1095-1158) led a number of successful expeditions against the loyal vassals of the Palas, other neighbouring kings and against the Palas themselves. He eventually captured the sovereign power in Bengal. It is certain that spreading out from Rarha, Vijayasena first defeated the Varmans and wrested from them the hegemony of Vanga, before turning to the Palas.

With the conquest of Vanga, Vijayasena established his sway over whole of the present district of 24-Parganas. After the annexation of Vanga, Vijayasena possibly readjusted the administrative divisions of his kingdom. In the Barakpur copper plate inscription of Vijayasena, found from a place near the Barakpur Cantonment, we find reference to Khari-vishaya in Pundravardhana-bhukti. In the Sundarban copper plate inscription of Vijayasena's grandson Lakshmanasena (circa A.D. 1179-1207) found from the village Bakultala in Diamond Harbour Subdivision we find reference to Khadi-mandala in Pundravardhana-bhukti (N. G. Majumdar, *Inscriptions of Bengal, Vol. III*). We know that in the Sena period a kingdom used to be divided into provinces called *bhuktis*, each *bhukti* used to be divided into a number of *mandalas*, *mandalas* into a number of *vishayas*, *vishayas* into *chaturakas* and *chaturakas* into *gramas* for the purpose of administrative convenience. From the two aforementioned inscriptions it seems that there was a Khari-vishaya within Khari-mandala. Whether the spatial extent of Khari-vishaya or of Khari-mandala corresponded to the modern Khari-pargana or not, we do not now know for certain. But it seems that either Khari-vishaya or Khari-mandala or both included considerable portions of the modern Khari-pargana (Kharijuri pargana, in Mathurapur thana area, in Diamond Harbour Subdivision).

Both these inscriptions record grant of land to Brahmins. The Barakpur inscription (N. G. Majumdar, *Inscriptions of Bengal, Vol. III*, Calcutta 1929, p. 57) records the grant of 4 *patakas* of land in the village of Ghasasambhoga-bhattavada, yielding an

income 200 *kapardaka-puranas*, situated in Khadi-vishaya, of Pundravardhana-bhukti to Udayakaradevasarman of Vatsa gotra, a student of six *angas*. The grant was made for his performance of *poma* in connexion with Kankatulapurusha-mahadana ceremony of the great queen (of Lakshmanasena) Vilasadevi, held in the palace at Vikramapura (in Vanga). The Sundarban copper plate inscription records the grant of a piece of land to a Brahmana in the village Ugramadhava, in Kantapura-chaturaka, of Khadi-mandala in Pundravardhana-bhukti. The grants suggest that there were regular village type settlements, yielding income (possibly agricultural), in Sundarbans region of south 24-Parganas. The grants also seem to suggest that the Puranic Brahmanical Hindus that the Senas were, wanted to ensure their hegemony over the regions populated by people believing in various folkish forms of worship, by spreading Puranic Brahmanical Hinduism through the Brahmins loyal to them, who would tell the unlettered rural folk about the divine right of the Senas to rule over them.

It seems that in the later part of the twelfth century, that is towards the end of Lakshmanasena's reign, the nomenclature of Khadi-mandala in Pundravardhana-bhukti was changed to Purvakhatika in Pundravardhana (according to the Govindapur copper plate inscription of Lakshmansena, Paschimkhatika, lying to the west of the Bhagirathi, was in Bardhamana-bhukti) and began to be ruled by a feudatory chief. According to the Rakshaskali Island copper plate inscription of the Saka 1118 (A.D. 1196 or 1197) found from the island of the same name within the jurisdiction of Patharpratima thana, Mahasamantadhipati Maharajadhiraja Samantaraja Dommanapala's ancestors hailed from Ayodhya and acquired Purvakhatika. Following the suite of his sovereign lord Dommanapala also donated a village in Purvakhatika to a Brahmana. Though this Samantaraja Dommanapala is designated as a Paramamaheswara and is said to have been born in a family which immigrated from Ayodhya, the name seems to suggest that he was an autochthon (there are two villages in Diamond Harbour Subdivision named Ayodhya) and he probably designated himself as a Paramamaheswara for being elevated to the position of a Samantaraja from being a mere local chieftain (R. K. Ghosal, 'Rakshaskali Island plate of Madommanpala; Saka 1118', in *Epigraphia Indica*, Vol. XXVII, 1947-48).

Vyaghratati-mandala in Pundravardhana-bhukti was probably a mandala adjacent to Khari-mandala. It probably included parts of the present Sadar and Barakpur Subdivisions, at least that seems to

be the implication of Lakshmanasena's Anulia (Anulia is a village in the present Nadiya district, to the north of 24-Parganas) copper plate inscription.

In the Annual Report of the Varendra Research Society for the year 1928-29, Kalidas Datta reported the find of brickbuilt architectural remains, stone and terracotta sculptures and fragments of such sculptures representing Puranic Brahmanical gods and goddesses and dated clay seals from the island of Rakshaskali in Patharpratima thana, all datable to the 11th, 12th and 13th centuries on stylistic and epigraphic considerations. Remains of stone-carved Puranic Brahmanical icons, datable on stylistic grounds to the Sena period have also been found from Kankandighi on Lot No. 16 in Sundarbans, the village of Chhatrabhog, Karanjali and Kantabaniya (mostly representing Vishnu, Vasudeva and Ganesha but surprisingly one at Kantabaniya represents the Jaina tirthankar Parswanatha) in Diamond Harbour Subdivision and Boral (Vishnu) in Alipur Sadar Subdivision in south 24-Parganas. Another Jaina icon, that of tirthankar Adinatha, stylistically belonging to the 10th-11th century, was found from the village Ghanteswari within the jurisdiction of Kulpi thana in Diamond Harbour Subdivision. Found of these icons testifies to the spread of Puranic Brahmanical Hinduism in the south 24-Parganas during the Sena period, as well as to the ancientness of certain settlements of Brahmins and other upper castes in the Sundarbans. It seems that in present Diamond Harbour Subdivision there were some settlements of Jains, possibly traders.

Conventionally, the Turk adventurer Ikhtiyaruddin Muhammad Bakhtyar Khilji's invasion of Nadiya and conquest of Gaur in A.D. 1201 and subjugation of Varendra or the part of Pundravardhana-bhukti to the north of the Ganga-Padma in 1203 are regarded as the watershed marks of the political history of Bengal, the earlier part of the watershed is regarded as the ancient period while the latter period is considered to be the medieval period. Justification for this periodization is hard to find.

Though the Turko-Afghan conquerors drove out the Senas from Varendra or north Bengal and northern Rarha country, Bengalee Hindu feudatories of the former imperial power continued to rule over small territories, spread out throughout what is now the district of 24-Parganas, as independent local chiefs or rajas. Mahasamanta Dommanopala's successors possibly continued to rule over Khari-mandala.

Legend has it that in what was to become Balanda pargana in later times, corresponding to portions of modern Deganga thana area of Barasat Subdivision and Haroa thana area in Basirhat Subdivision, there ruled a king named Chandraketu in the 13th century. Ramanath was the earliest member of the family to have settled in the village of Deganga, which he got in settlement from a Sura king of Aparā-Mandara (see *West Bengal District Gazetteers : Hooghly and West Bengal District Gazetteers : Howrah*, of this series). Ramanath's great-grandson Ramanarayan is said to have been a minister of the Sena king Vijayasena. His son became the governor of the region and in due course became a feudatory king. Ramanarayan's great-grandson Srimanasena was, for all purposes, an independent king. Chandraketu was his successor. We do not know for certain Chandraketu's exact kinship relation with Srimanasena. But he was, in all probability, a member of the same family. Chandraketu's feud with Pir Gorai Ghazi or Pir Gorachand and many miraculous exploits of both Chandraketu and Gorai Ghazi or Gorachand are subjects of folk memory and popular folkish ballad literature of the district.

Pir Gorachand or Gorai Ghazi was born as Shah Sayed Abbas Ali in Arabia in A.H. 693. In his youth he left home and became a disciple of Sayed Jalal Razi. After being with him for twelve years he attained spiritual wisdom and then moved towards Hindusthan with twelve *aulias* to preach Islam. For a short while he had been in Sylhet (now in Bangladesh) with Shah Jalal. From there he moved to Balanda pargana, roughly corresponding to Haroa-Hasnabad area of the present Basirhat Subdivision. On reaching there he endeavoured to convert Raja Chandraketu of Chandraketugarh (near Deganga can be seen the ruins of Chandraketugarh) by performing miracles. But as the Raja would not entertain his wishes, he moved further south to Hatiagarh pargana in Sundarbans. There, he had a fight with Bakananda and Akhia-nanda, the two sons of the local Raja Mohidananda. Gorai Ghazi retired wounded from the fight to Haroa, where a local milkman took care of him. On recovering from his ailment, Gorai Ghazi went to Gaur and met the Sultan Ali Mardan Khalji *alias* Sultan Alauddin (A.D. 1210-1212) and made him send one Pir Shah in charge of Balanda pargana to subdue Hindu chieftains like Chandraketu and Mohidananda. Pir Shah came, harassed the two chiefs and obtained their submission (according to *Tabaquat-i-Nasiri*, the *khoon-rezwa cattal*, Sultan Alauddin 'sent armies in all directions... the *Rais* of the surrounding country trembled in fear and sent him tributes and

khiraj'). Gorai Ghazi or as he is better known—Pir Gorachand's tomb is still there in Haroa. But this raid to south 24-Parganas by Pir Shah and Pir Gorachand was perhaps just a marauding raid. Bang or what was formerly Vanga to the east of the Bhagirathi-Hugli remained unannexed to the Sultanate of Gaur, although the *Rais* of Bang undoubtedly paid tributes to Ali Mardan (J. N. Sarkar ed., *History of Bengal*, Vol. II, Dacca, 1948, p. 20).

With the appointment of Bughra Khan as the governor of Lakhnawati by his father in A.D. 1281 ensued a period of extension of the hegemony of the Turko-Afghan rulers of Gaur-Lakhnawati; Sonargaon the head-quarters of the Bang country was taken in 1282, but the whole of the Bang or central-east Bengal came under the authority of the Sultan of Gaur-Lakhnawati only during the time of the reign of Sultan Ruknuddin Kaikaus (A.D. 1291-1301). Satgaon or Saptagram and territories around the town in the modern districts of Hugli, Haora, eastern Bardhaman, Nadiya and north 24-Parganas were brought under the Sultanate authority before A.D. 1298 by Kaikaus' general Zafar Khan. The conquered parts of the present district of 24-Parganas became a part of Satgaon territory, governed from Satgaon or Saptagram in modern Hugli district. But in all probability the Sundarbans area of the present southern 24-Parganas, Jessore and Khulna remained beyond the hegemony of the Sultan of Gaur-Lakhnawati for sometime more. In an inscription on the tomb of one Khan Jahan, at Bagerhat in Khulna district of Bangladesh, dated *Zill Hajj* 863, corresponding to October 1459, it has been claimed that the said Khan Jahan extended the Muslim rule in the Sundarbans during the reign of Sultan Nasiruddin Mahmud (1442-1459) of the restored Ilyas Shahi dynasty. Nothing much is known about Khan Jahan beyond the claim that he was the man who colonized the Sundarbans with Muslim settlers and converts. From this period comes an epigraphic evidence of inclusion of the modern district of 24-Parganas in the province of Satgaon. There is an inscription in Tribeni (Hugli district), dated the A.D. 1455 which refers to 'thana Laubala'. This 'Laubala' has been identified with the village of Laupala in the Haveli pargana of 24-Parganas district by Sir J. N. Sarkar (*History of Bengal*, Vol. II, Dacca, 1948, p. 132).

The same attempt at extension of *dar-ul-Islam* by settling immigrant Muslims and by conversion of local population by means of coaxing, cajoling and coercion coupled with show of miracle, munificence and majesty can be seen in operation in the construction of Salik mosque in Basirhat in A.H. 871, corresponding to A.D.

1467, according to an inscription on the central *mihrab* of the mosque. According to the same inscription the mosque was built by one Ulugh Majlis-i-Azam, during the reign of Ruknuddin Barbak Shah (A.D. 1459-1474) of the restored Ilyas Sahi dynasty. From an inscription on a mosque in Pandua in Hugli district, we know that the same person had built another mosque there in A.D. 1477 during the reign of Shamsuddin Yusuf Shah (A.D. 1474-1481). Sufi miracle men like Gorai Ghazi, warriors like Khan Jahan and *alims* and builders like Ulugh Majlis-i-Azam undoubtedly played important parts in the spread of Islam among the lowly castes and depressed classes of the local society, as the mythical association of the *goulas* or milkmen with Gorai Ghazi amply demonstrates.

Bipradasa Piplai's long ballad on the snake goddess, *Manasa*, the *Manasavijaya* composed in A.D. 1495 during the reign of Alauddin Husain Shah (1493-1519), provides us with a list of names of some important villages and towns on the Bhagirathi-Hugli, as well as on the Adiganga channel of the Bhagirathi-Hugli. Most of the villages and towns, Bipradasa Piplai mentioned on the left bank of the river, are in the modern district of 24-Parganas.

According to the text a certain merchant named Chand set out from Champaknagari on a boat full of merchandise. After spending two days in Saptagram on the confluence of the Bhagirathi and the Saraswati (Porto-piqueno of the Portuguese), Chand set out again towards the sea through Bhagirathi. On his left he passed by Kumarhatta (Halisahar of present times), Bhatpara, Kakinara, Mulajore, Garulia Ichhapur, Diganga-Chanak (Barakpur), Khardah, Chitpur, Kalikata (Calcutta?) and Kalighat. From Kalighat he reached Baruipur. This is rather interesting, because Baruipur is not on the present Hugli channel of the Bhagirathi. Baruipur is on that dried-up channel of the Bhagirathi now called the Adiganga or the old Ganga. We know that till the sixteenth century, that is up to the period the Saraswati was a major river, the Bhagirathi flowed through the Adiganga channel and not through the present Hugli channel, to the south of where Calcutta is now. Bipradasa Piplai's *Manasavijaya* confirms the fact. Some historians are of the opinion that the inclusion of the names of certain places like Khardah, Chitpur, Kalikata and Kalighat are later interpolations. Whatever be the fact, it is certain that places like Kumarhatta, Bhatpara, Kakinara, Mulajore, Garulia, Ichhapur, Diganga-Chanak, and Baruipur were populous villages or townships on the Bhagirathi even in the late fifteenth and early sixteenth centuries. On reaching Baruipur, Chand entered the big temple of Manasa on the river bank

and looted it. From there he proceeded towards Chhatrabhog, stopped there for a few days and then travelling through Hatigarh pargana reached the open sea.

We get a further confirmation of the contention of *Manasavijaya* that the places listed in it were really populous and prosperous villages and townships—if not towns—from the travel account of Chaitanyadeva (1486-1534) contained in contemporary biographies like Kavi-Karnapur's *Chaitanyacharitamrita* (1542) and Vrindavanadasa's *Chaitanyamangala/Chaitanyabhagabata* (1541-42) and Krishnadasa Kaviraja's *Chaitanyacharitamrita* (1615). After his initiation by Iswar Puri in 1510, Chaitanya decided to go to Puri and take up residence there. Chaitanya set out from Santipur and travelled through the east bank of the Bhagirathi on his way to Puri till he reached Chhatrabhog, in Mathurapur P.S. area of Diamond Harbour Subdivision of the present 24-Parganas district, where he crossed the river to go to the west bank of the Bhagirathi. On his way Chaitanya stopped at several villages and townships on the Bhagirathi in the present 24-Parganas district. Kumarhatta or the present Halisahar was his first stop-over, since it was the place from where his preceptor Iswar Puri hailed. Khardah was his next stop-over. Chaitanya's elder contemporary Vaishnava Nityananda lived at this place and his son Virabhadra had established a Vishnu temple there. Chaitanya then stopped at a very populous and prosperous village called Panihati. According to *Chaitanyabhagabata*, no other village on the eastern bank of the Bhagirathi was as populous and prosperous as Panihati in those days. Nityananda came to receive Chaitanya at Panihati, accompanied by Prince Raghunath Goswami of Saptagram (across the river, in Hugli district). We have seen that Saptagram was the seat of the local government of south Bengal with a *fauzdar* stationed there and the modern district of 24-Parganas was under the jurisdiction of the governor of Saptagram. From this account, it becomes apparent that Saptagram was also the seat of a Hindu zamindar called Raja, whose zamindari extended to the east bank of the river, over considerable portions of the present Barakpur Subdivision. Chaitanya's next stop-over was at Baranagar. There he was the honoured guest of Pandit Sriraghunath Bhagabatacharjya at his 'Patbari'. Chaitanya next halted at the village of Atisara near Baruipur. In Atisara his host was Ananta Pandit (Ananta Pandit's *sripat*). Chaitanya's last stop in 24-Parganas district was at Chhatrabhog, now a village within the jurisdiction of Mathurapur thana in Diamond Harbour

Subdivision. Chhatrabhog seems to have been an important river port on the Bhagirathi, not far from the sea. There were several temples and other kinds of places of worship here. These included the temples of Sakta divinity Tripurasundari and of Ambulinga Siva; there were Chakratirtha and Sivakunda; offering worship at all these places was a must for all sailors and traders going to the sea. This is the general impression we get from the writings of Bipradasa Pipalai (1495), Vrindavanadasa (1541-42), Kavi-Karnapura (1542), Krishnadasa Kaviraja (1615) and Krishnarama Das (1696). According to Chaitanya's biographers, Chaitanya crossed the Bhagirathi, to go west, at Chhatrabhog. The zamindar of Chhatrabhog, one Ramachandra Khan, helped Chaitanya in his onward journey to Orissa. Ramachandra Khan seems to have been an influential zamindar; as such we can presume that he had a considerable zamindari and was at the same time loyal zamindar, or otherwise he would not have been given the title of Khan by the sovereign power of Bengal. Vrindavanadasa, in his *Chaitanyabhagabata* has described Ramachandra as Lashkar, obviously a *fauzdari* official of Husain Shah.

The presence of Adwaita and his son Virabhadra at Khardah and Chaitanya's journey along the east bank of Bhagirathi covering three-fourths of the length of the district from the north to the south and association of influential and distinguished landlords like the Raja of Saptagram and zamindar of Chhatrabhog with Chaitanya, definitely helped the spread of Gaudiya Vaishnava Bhakti movement at least on the riparian tracts of the present 24-Parganas district. Even to this day we find the places through which Chaitanya passed, dotted with numerous temples housing Vaishnava divinities, *maths* and *akhiras* and settlements with old and established Vaishnava families.

Depopulation of hitherto populated areas of northern Sundarbans and the Bhagirathi-Hugli and other riparian tracts of the present district of 24-Parganas may have ensued from the middle of the sixteenth century, with the beginning of the incursions and depredations by Portuguese pirates. The Portuguese began to visit Bengal from the second quarter of the sixteenth century in quest of commerce and conversion. Convert they could but only a few by coaxing, cajoling, corruption and coercion. But they were not necessarily disappointed. If their evangelical zeal met with a setback the acquisitive propensities of their lower orders were more than gratified. If peaceful trade proved less than profitable, the latter indulged in sword and fire. Human beings and whatever they procured were equally lucrative and legitimate items of commerce.

As early as in 1538, the Portuguese had obtained from Sultan

Ghiyasuddin Mahmud, the last Ilyas Shahi king of Gaur, the permission to build a settlement in Satgaon on the confluence of the Saraswati and the Bhagirathi-Hugli, which they called Porto-piqueno or small port. From that time onwards, the Portuguese slowly but steadily became the masters of the water-courses from the confluence of the Bhagirathi-Hugli upto Porto-piqueno—the *de facto* ruler of all the riparian tracts to the south of Porto-piqueno. From around 1580 Bandel-Hugli on the Bhagirathi-Hugli began to be regarded as Porto-piqueno. The Portuguese's title on the port of Hugli was confirmed by the great Mughal emperor Akbar through a *farman*. The right to use Porto-grande or Chittagong port by the Portuguese was granted by Sultan of Gaur in 1538. In 1559 the Portuguese had concluded a very favourable treaty with Raja Ramchandra Roy of Bakla (Bakerganj or Barisal). In 1602 the island of Sandwip, off Chittagong and Barisal coasts, was conquered by the Portuguese for Kedar Rai of Sripur (Dacca). They had also established *aurang* or factories at Tamluk and Hijli in Medinipur. Thus, the Portuguese not only had entranced themselves all over the south Bengal and had established their supremacy over the water-courses of South Bengal, they also got themselves embroiled in the politics of Bengal as allies of the independent Bhuinyas of Bengal against the Mughals. And in order to purchase their alliance the Bhuinyas had also given freedom of action to the Portuguese free-booters. Consequently the Portuguese free-booters went on in their business of piracy with impunity. The Portuguese had a secondary naval station at Tardaha on the confluence of the Bidyadhari and what later became the Tolly's Nullah, in south 24-Parganas.

So long as Bengal remained not wholly subjugated by the Mughals and as long as there were the independent Bhuinyas fighting against subjugation by the Mughal empire, with the aid of Portuguese mercenaries, the Mughals tolerated the Portuguese residing even in their territories such as in Hugli. But after having finally subjugated the Bhuinyas during the reign of Jahangir, the Mughal Subahdar of Bengal turned his attention to the problems of Portuguese pirates and slave traders. It is not that the Portuguese settlers of Hugli were involved in piracy, yet constant popular complaint against Portuguese piracy and slave trade led Emperor Shah Jehan to order the Subahdar of Bengal to sack Hugli in 1632. What no *fauzdar* of Satgaon from around 1538 could achieve, the sack of Hugli of 1632 achieved; from then on no Portuguese pirate or slave trader could carry on his depredations with impunity, although the pirate menace continued till as late as 1786.

For nearly a century or so the south 24-Parganas comprising the greater parts of the present Sadar, Diamond Harbour and Basirhat Subdivisions remained under the effective control of the Portuguese pirates and free-booters. The hitherto populated parts of these subdivisions got depopulated and the Sundarbans jungles extended.

Sher Khan Sur who defeated Ghiyasuddin Mahmud in 1538 and wrested from him the sovereignty of Bengal was much too embroiled in all-India politics to establish his effective control over the present district and his *fauzdar* at Satgaon was not effective enough against the Portuguese. Sulaiman Karrani (1565-1572) and his son Daud Karrani, till his defeat by Akbar's general Munim Khan in 1575, were undisputed rulers of the whole of Bengal and parts of Assam, Bihar and Orissa. The Portuguese pirates possibly lay low during the rule of Sulaiman Karrani, at least in the southern parts of 24-Parganas district, without, however, relinquishing their footholds.

Daud Karrani's submission to Munim Khan at Cuttack in 1576 though signified a *de jure* annexation of Bengal to the Mughal empire as a province, did not amount to *de facto* annexation. Mughals held only a few towns and cities and some tracts of land in western and north-western Bengal effectively for a long time to come. The tracts within the present district of 24-Parganas, at least, did not come under the effective control of the Mughal Subahdar of Subah Bangala and the *Fauzdar* of Satgaon till 1612, when the power of the one of the most powerful Bhuinyas, namely, Pratapaditya of Jessore, was finally crushed.

Pratapaditya's father Shrihari Guha of the Bangaja Kayastha caste was in the service of Daud Karrani and was given a *jagir* by the latter in Jessore. Jessore and adjoining areas in 24-Parganas had, by the last quarter of the sixteenth century, become a trading area for the Portuguese. By being friendly to the Portuguese, Pratapaditya started reaping profits from Portuguese trade, while at the same time being apprehensive of the Portuguese intentions. He continuously built up his defences against the Portuguese by building forts and observation points on the rivers. Resentment of his subjects against the Portuguese was in no small measure responsible for his attitude to the Portuguese which alternately had been friendly and hostile. Another factor was equally responsible for his love-hate relationship with the Portuguese. That factor was his relationship with the Mughals.

To start with, the Mughals were not hostile towards Shrihari or his brother Basanta Roy, and they happily went on extending their *jagir*. Basanta Roy is credited with the establishment of the Kali

temple at Kalighat (in Calcutta) in the newly extended part of their *jagir*. Shrihari was dead by 1589-90, in whose shoes Pratapaditya stepped. Soon after his accession Pratapaditya killed his uncle Basanta Roy. Pratapaditya too like his father was not hostile to the Mughals and he wanted to have Mughal support in his efforts to get over the menace of the Portuguese and the Arakanese Maghs, who had become formidable in East Bengal and the Bay of Bengal. He was ready to be a tribute or *peskhush* paying vassal zamindar, if not a *jagirdar* to the Mughals. In 1609 Pratapaditya personally went to meet Islam Khan, the Mughal Subahdar with Rs. 50,000 in cash and other presents and offered to send one of his sons to serve the imperial army in its fight against Musa Khan and other rebellious zamindars. By 1611 the Mughals had subdued almost all the rebellious zamindars and dealt effectively with the Arakanese Maghs. When Islam Khan found the respite he found that taking advantage of the Mughal preoccupation elsewhere, Pratapaditya had not only carved out a very big zamindari, but had militarily equipped himself well. At the same time, by playing the Arakanese Maghs, the Portuguese, the Mughals and the erstwhile zamindar of Sripur one against the other and by siding with each one of them against the other in time most advantageous to himself, Pratapaditya had gained much territory, money and power. Islam Khan decided that it was time to cut Pratap to size. The imperial army launched a two-pronged attack against Pratapaditya in 1612 on the ground that Pratapaditya had not provided them with the military support which he had promised, during the imperial army's campaign against Musa Khan and other rebellious zamindars. Pratapaditya begged for pardon which was not granted. Mughal army captured his capital after a few unequal battles. Pratap submitted and was sent as a prisoner to Dhaka. Pratapaditya's territories in Jessore, Khulna, Barishal and 24-Parganas districts, were distributed as *jagirs* amongst several *jagirdars*.

From the location of Pratapaditya's forts, complete with walled settlements, surrounded by moats, it is certain that the whole of the present district of 24-Parganas was within Pratapaditya's kingdom. The westernmost forts of his kingdom were all on the Bhagirathi-Hugli in the present district of 24-Parganas. These served the dual purpose of protecting his territories from the onslaught of the Portuguese pirates and navy and possible Mughal onslaught from the west. The fort at the south-western extremity of Pratapaditya's kingdom was in Sagar Island. There was a naval station and a ship building yard at Sagar Island. Northwards, up the river, there was a

fort at Sarsuna—just south of Calcutta. That the naval personnel belonging to Kaivartta caste manned the fort and operated the fleet stationed at the fort may be indicated by the fact that in Sarsuna of today there is a sizable population of Kaivarttas. Further up-stream, there was another fort in Jagatdal. Jagatdal fort was possibly the fort in the north-western extremity of Pratapaditya's kingdom. There was another fort at Buranhati on the Ichamati, just south of Hasnabad. Islam Khan's invading force to Pratap's capital in Dhumghat in Jessore faced a resistance from the fort of Buranhati.

One word about Sagar Island needs to be mentioned here. Though Sagar Island was within Pratapaditya's kingdom and he had a port, naval station and a ship building yard located in this island, he lost the control over the island at some point. It is not precisely known whether he regained the control before he lost to the Mughals or the Mughals conquered the island in and around 1612 or in 1632. Portuguese naval station at Tardaha on the Vidyadhari continued to be there for the better part of Pratapaditya's reign. It is not known when the Portuguese were forced to give it up and by whom. In fact there was an encounter between the Mughal army crossing Vidyadhari and the Portuguese navy supporting Pratapaditya near Tardaha. It is quite possible that after the Mughal victory the Portuguese were forced to give up Tardaha.

After the fall of Pratapaditya, in 1612, when his kingdom was divided up into several *jagirs* and were redistributed, the greatest beneficiary was Bhabananda Majumdar of Krishnanagar, who had helped the Mughal imperial army in its various expeditions, especially against Pratapaditya.

Another beneficiary was Lakshmikanta Majumdar (Ganguli), the founder of the Savarna Chaudhuri family of Barisha to the south of Calcutta. Lakshmikanta came to have contacts with Basanta Roy in connexion with the building of Kali temple at Kalighat and eventually entered in the service of Pratapaditya. When Pratapaditya first fell out with the Mughals during Raja Man Singh's second tenure as the Subahdar of Bengal in 1603-04, Lakshmikanta, like Bhabananda, secretly helped Man Singh. As a result of the services rendered, Man Singh secured for Lakshmikanta the zamindari of the parganas of Magura, Khaspur, Paikan, Anwarpur, Kalikata (Calcutta) and parts of Hatiagarh, from the Emperor Jahangir, some time around A.D. 1610. But it took about two generations for the descendants of Lakshmikanta to spread their effective control over the tracts mentioned in the *Sanad*. Lakshmikanta's grandson Keshavchandra Majumdar was appointed the revenue collecting zamindar

by Murshid Quli Khan for the whole of the South 24-Parganas and Khulna and he shifted the *Kachari* from Birati to Barisha.

It should be remembered here that after the fall of Pratapaditya, the Mughals established a *fauzdari* at Jessore and the present district of 24-Parganas came under the jurisdiction of the *fauzdar* of Jessore. Mughal Commandar Inyat Khat was the first *fauzdar* of Jessore. According to Major Ralph Smyth's *Report on the 24-Pergunnahs of 1857* quoted by W. W. Hunter in his *Statistical Account of Bengal*, Vol. I, 'a pestilence shortly afterwards (that is some time between 1612 and 1618) broke out, in which thousands perished, the place became depopulated and is now the abode of tigers and wild animals.'

In the sixth decade of the 17th century, some time after Pratapaditya's fall, there appeared a muslim saint named Pir Mobarak Ghazi, in the region of Belor Jungle near Baruipur. By performing both good deeds and miracles he converted a large number of persons belonging to the depressed sections of local Hindu population. Even those who were not formally converted to Islam began to worship him as a deified hero. People still venerate his memory at Ghutiary Sarif where Mobarak Ghazi had his *astana*.

We have mentioned about Pratapaditya's Portuguese connexions and the Portuguese naval dockyards at Tardaha near the confluence of Bidyadhari and what is now Tolly's Nullah (the Tolly's Nullah at this point did not exactly follow the course and Adi Ganga, for Adi Ganga never had a meeting with Bidyadhari). Apart from the Portuguese who had several other settlements in the present district of 24-Parganas, like the one at Rahara, the other Europeans too were coming to the district.

The Dutch had established a factory some time in the seventh decade of the 17th century at Baranagar for salting pork and a naval yard at Phalta for servicing the ships, a little later. Streynsham Master who visited Bengal in 1676 stated that, the Dutch had a hog factory at Baranagar where they killed about 3,000 hogs a year and salted them for shipping to Europe. Hamilton, in 1706, referred to the ladies of easy virtue who resided there. According to Tieffenthaler, Baranagar was famous for its *bafta* cloths.

In 1684 the Dutch had a little brush with the Mughal governor of Satgaon, who occasionally used to hold up the Dutch cargo for due custom duties as well as for exactions. A flotila of four Dutch ships arrived from Batavia for a show down with the Mughal *fauzdar* of Satgaon who had arrested some cargo boats. The embargo was lifted and boats released.

The English East India Company had established their first factory in Bengal at Hugli in 1651. But by 1680-81 the English found normal trading impossible due to illegal exactions and corrupt practices of the local Mughal officials, especially of Balchand, the customs collector of Hugli, a protege of Shaista Khan—the Subahdar of Bengal. The situation tensed up after prolonged negotiations between the Mughals and the English Company failed, in 1686. War broke out between the Mughal governor of Bengal and the English Company in October 1686. In the face of imminent attack, the Agent of the English Company, Job Charnock decided to leave Hugli with men and materials. On the 20th December Charnock sailed with men and materials down the Hugli-Bhagirathi and set up his new camp at the village of Sutanuti on the east bank. As he was threatened there by Shaista Khan in February 1687, he left Sutanuti, captured the Mughal fort at Tanna (opposite modern Garden Reach, facing Matia Burj), a few miles to the south-west of Sutanuti. But he did not remain there, he soon crossed the river and captured the Mughal fort at Hijli in Medinipur. But soon they had to abandon this post as well. War condition persisted till February 1690, when the Mughal government decided to end the situation of continued loss of customs revenue. The Emperor Aurangzeb wrote to the new Subahdar Ibrahim Khan to let the English trade freely in Bengal as before. So, the Madras Council of the English East India Company decided to send Job Charnock back to Bengal as Agent. Charnock arrived at Sutanuti on the 24th August 1690 and that arrival at Sutanuti led to the foundation of Calcutta. Charnock had deliberately chosen the site on the east bank of the Bhagirathi-Hugli surrounded by jungles and marshes, to have the English settlement out of easy reach of the imperial army.

In the early part of the eighteenth century the ill-fated and short-lived Ostend Company of the Netherlands appeared as one of the competitors for the East India trade. Some time in 1721 or '22, a Flemish ship arrived in Chandannagar and with the help of the French of Chandannagar sailed for Europe with full cargo. Before the ship set sail for Europe, the captain had applied to the Nawab Murshid Quli Khan for allowing the Flemish Ostend Company to trade with Bengal. His request was readily granted by the Nawab, who was not only anxious to increase the trade of the Subah, but also to introduce rivals to the English. He, therefore, assigned the Flemish Company the village of Bankibazar on the east bank of the Hugli-Bhagirathi river. The name of the village has disappeared with

the Company. But the site, as it appears in the old charts and maps was situated between Garulia and Palta, about 4.83 km. (3 miles) to the north of Barakpur.

There is some confusion about the nationality of the Company. The Company got its charter from the Emperor of the Austro-Hungarian Empire; the Netherlands then was a part of his Empire. But the Dutch too belonged to the Netherlands and had a separate company. The Flemish, however, were then a people who did not identify wholly with the Dutch. But *Riyaz-us-Salatin* associated the Danes with the factory. Later, English writers variously called the settlement and the factory as Prussian and Emdenish.

The Dutch of Baranagar, from the very outset regarded the Ostend Company with great jealousy. They, together with the English of Calcutta, bribed the *Fauzdar* of Hugli to make a false representation to the Nawab about the strength of the fortifications at Bankibazar and of the danger of allowing them to retain a place of such a strength within a few miles of Hugli. The Nawab believed the report and ordered the closure of the factory. The Company defied the order, as a result of which it was besieged by the forces of the *Fauzdar*. The siege was severe. To escape from the siege the Agent with his men slipped out of the fort at dead of the night, reached safely to one of the Flemish vessels lying in the river and set sail for Europe. Next morning the Mughal troops took possession of the factory and razed its fortifications to the ground. But within a few months the Agent came back again and began to trade surreptitiously with the help of private merchants. The English Company of Calcutta resented this as illegal intrusion and sent an expeditionary force to capture the Flemish ships. One of the ships took refuge under the newly installed guns of Bankibazar factory (or where previously was the factory) and a smaller ship was captured and taken to Calcutta. This incident, according to *Riyaz-us-Salatin*, took place during the closing years of Murshid Quli Khan's reign and according to Alexander Hamilton (*A New Account of the East Indies*, 1723)—in 1723.

The Flemish appear to have kept the factory at Bankibazar going till 1744 (*Bengal Public Consultations*, 14 October 1744 & M. Jean Law, letter dated 1756, 'the affair of the Ostend Company in 1744', quoted by *Imperial Gazetteer*, Vol. II, p. 466), when they were finally expelled by the Subahdar or the Nawab of Bengal for illegal operation.

It is necessary to go back a little in time sequence to trace the history of the growth of the English hold over the district. In 1695,

Shova Singh, a zamindar of Ghatal Subdivision of Medinipur, revolted against the Mughal rule of Ibrahim Khan, the Subahdar of Bengal and took to plundering the neighbouring zamindaries. He was soon joined by Rahim Khan, the disgruntled Afghan chieftain of Orissa. The rebels overran the country as far east as the western bank of the Bhagirathi-Hugli, captured Hugli itself, crossed the Bhagirathi in the north and plundered Murshidabad. One band of the raiders crossed the Hugli-Bhagirathi to join another band coming down through the east bank from Murshidabad towards Sutanuti settlement of the English. Together they did not quite reach Sutanuti but plundered and set fire to some villages near the English settlement. But the zamindars of the area attacked and drove off the invaders with loss of ninety men. But the danger of renewed attack remained, as the rebels were still there in force on the other side of the river. The English kept a ship with guns ready on the Bhagirathi-Hugli, near their settlement. Soon enough, the rebels mounted an attack on Tanna or Makhwa fort of the Mughals, opposite Garden Reach-Matia Burj area to the south-west of Sutanuti, on the western bank of the river. The Commandant of the fort appealed to the English to come to his aid. As the English ship's guns began bombarding the concentration of rebel troops on the other side of the river, the rebel band fled back. Shova Singh was killed at Barddhaman and Rahim Khan was killed by Hamid Khan Qureshi, a soldier of the new Mughal Subahdar of Bengal, Azim-us-Shan, in August 1698.

But this rebellion had a far reaching significance. Supposedly out of an apprehension about the safety of their settlement in case of similar attack in future, the English Company applied to Nawab Ibrahim Khan for permission to fortify their settlement, just after the attack around Sutanuti, in 1696. A harassed and pressed Ibrahim Khan permitted the English Company to fortify themselves. The English merchants built walls and bastions round their factory, in the modern Dalhousie Square area, and mounted guns on the rampart and substituted a structure of brick and mud for the old thatched house which used to contain the Company's stores and provisions (C. R. Wilson, *Early Annals of the English in Bengal*, Vol. I. pp. 147-50). In 1698, the English Company paid a sum of Rs. 16,000 to the 'lazy and covetous' new viceroy of Bengal Nawab Azim-us-Shan, to obtain a permission to purchase from the existing holders the right of renting the three villages of Sutanuti (north), Kalikata (centre) and Gobindapur (south), whose total annual revenue payable to the Nawab's coffers amounted to Rs. 12,000 (*ibid*,

loc. cit.). The permission was granted and the English Company became the virtual zamindar of the three villages, which formed the nucleus for the growth of Calcutta.

In 1742, when the Nawab of Bengal Alivardi Khan was busy in his campaigns against Orissa, a Maratha army under the leadership of Bhaskar Pandit, from Nagpur, marched to Bengal and quickly spread their sway on all territories to the west of the Hugli-Bhagirathi. The Maratha raid on Hugli alarmed the English merchants of Calcutta. They put ships mounted with guns on the river to defend their settlement and in 1743 started constructing the Maratha Ditch from the northern limit of Sutanuti. The ditch was to go round the settlement. The ditch took off from the Bhagirathi-Hugli and was to traverse to the east then move south in north-south direction, then move westward to meet the Hugli again. What is now the Chitpur canal represents the dug portion of the ditch; and then the ditch was to have traversed the course of Acharya Prafulla Chandra Ray Road (formerly Upper Circular Road) and Acharya Jagadish Chandra Bose Road (formerly Lower Circular Road). But it was never completed, although the Maratha trouble continued to be there right upto 1749. Maratha threat to Calcutta was very real even in March 1748 when the Marathas raided the Mughal fort at Tanna, opposite Garden Reach. Fortunately for the English they did not attempt to cross the river and invade the English settlement.

There is very little record of what was happening in the interior parts of the district in this period. From whatever account is available it seems that life of the artisans and poor peasants living in southern parts of the present district, especially of those living in the Sundarbans which extended to as far north as around Calcutta of those days, was full of uncertainties. People in these parts lived in constant terror of Portuguese and Magh or Arakanese pirates. Though with the waning of the power of the Bhuinyas the Portuguese free-lance operators had lost an important source of patronage, they lingered along the rivers, rivulets, creeks, backwaters and tiger-infested jungles of the south Bengal, where the arms of the Mughal Emperor or of the Nawab of Bengal did not reach. Portuguese free-lance operators were not the only scourge of the south Bengal. There were Magh or Arakanese pirates operating in the same areas. They would come all on a sudden and swoop down on a river side mart on a market day and carry off the merchandise brought for sale and take with them able bodied men and boys. The Portuguese would take the boys to the slave market in the

Portuguese settlement at Pipli in Orissa, or would resell them to Indian slave traders they knew; who would in turn sell them in the slave markets of Calcutta and Chandannagar. As late as in 1785, the Chief Judge of the Supreme Court, Sir William Jones of the Asiatic Society fame, recorded such slave trade in Calcutta. The Maghs used to carry their human booty to Arakan, where the king retained and employed the artizans in his factory, while the rest were sold in slave market for any sum between Rs. 20/- and Rs. 70/- each, to be employed on land. In fact the Mughals built the fort at Tanna or Makhwa, some time in the second quarter of the seventeenth century, to prevent the Portuguese and the Magh pirates from sailing up the Hugli-Bhagirathi. Though this prevented the Portuguese and the Magh slave traders from taking advantage of the Calcutta and upstream markets, they carried on the trade through their Indian associates. For in 1785 we find Sir William Jones writing . . . 'Many of you, I presume, have seen large boats filled with such children ('children stolen from their parents or bought, perhaps for a measure of rice, in times of scarcity') coming down the river for open sale at Calcutta.' Apart from the organized bands of foreign pirates operating in the southern parts of the present district, the countryside of the whole district including small towns and townships, market places etc. travellers were at the mercy of gangs of robbers, dacoits and *thugs* throughout the eighteenth and for the better part of the nineteenth centuries.

In March-April 1756, after Alivardi Khan's death, Siraj-ud-Daulah became the Nawab of Bengal. Siraj had many reasons to be displeased with the English East India Company long before he became the Nawab of Bengal. The English Company had for a long time been misusing the *dastaks* which were given to them, under the terms of the *farman* granted by the Mughal Emperor. By doing so they were either indulging themselves in unauthorised trade or were giving indulgence to private European traders to carry on unauthorised trade under the protection of the Company and by so doing were depriving the government of legitimate customs and other dues. Siraj definitely resented this practice.

Secondly, early in 1756, on a warning from home about the impending war between England and France, the English Company had started repairing their long dilapidated defences in Calcutta, by putting up defensive walls on the riverside of the Calcutta fort (the old Fort William at the site of the present General Post Office), cleaning the half-choked Maratha Ditch and throwing up some earthworks across the ditch at Baghbazar. This was a clear violation

of the terms under which the Mughal Government had allowed them to live in Bengal. Alivardi was justly alarmed by the event and conveyed his annoyance to his grandson and would-be successor Siraj. Siraj, therefore, sent an emissary to enquire about the unauthorised fortifications and armament stocks in Calcutta, but this emissary was summarily ejected from the settlement by the governor Drake's peons. This event took place in mid-May, a month after Siraj's assumption of the office after Alivardi's death.

This event coming, as it did, just after the escape of corrupt deputy of Dhaka Nawab—Raja Raj Ballabh's son Krishna Ballabh to Calcutta with family treasures, and failure of Siraj to get his extradition, enraged him so much, that Siraj decided to teach the English a good lesson.

On the 5th June 1756, Nawab Siraj-ud-Daulah set out from Murshidabad. Marching through Nadiya and northern 24-Parganas districts, reached the northern outskirts of Calcutta on the 16th June. The first attempt made by the Nawab's army to cross the Maratha Ditch over the Chitpur Bridge was foiled on the 16th afternoon. But the next day they were successful. Siraj himself took up his quarters in Amirchand's garden in Simulia locality.

'The black town or the Indian quarters of Calcutta in the north consisted almost entirely of bamboo and straw huts. The English decided to defend only the European quarters (Dalhousie Square and east and south), and first set on fire the straw-houses within the lines of defence, to clear the town as much as possible. The fire spread and did much damage (*circa* 14th). Again, in the night of the 16th, they set fire to part of the town in order to drive out the Nawab's men. The next day, the British destroyed all the native houses to the eastward and the southward' (J. N. Sarkar, *History of Bengal*, Vol. II, Dacca, 1948, p. 474). The Nawab's army plundered the old Barabazar, to the north of the fort and set fire to it. All Europeans of the town took shelter in the fort, while all the Indians working in the fort fled from it.

The attack on the fort itself was mounted on the 18th June from the east (from Bowbazar-Sealdah side) and the south (from Esplanade East). The English fell back into the small inner line of defence. On the night of the 18th all the women and children who could be accommodated were sent aboard the ships anchored on the Bhagirathi-Hugli. The same night decision was taken to abandon the fort. On the early hours of the morning of the 19th June the Governor Drake and the commandant Minchin escaped in two of the last few boats. Four of the ships ran aground in confusion and

their passengers were taken prisoners by the Nawab's forces. Rest of them sailed safely downstream to the jetties of the old Dutch fort in Phalta.

The Fort William till then had a contingent of 170 white men to defend it (apart from some Armenians and Eurasians). They held a council, suspended two of their fugitive heads and appointed J. Z. Holwell, the zamindar or magistrate-collector of native Calcutta, the governor and military commandant on the afternoon of the 19th June. Holwell tried to make a stand, but the stand became largely infructuous by the 19th night. By the 20th afternoon Holwell was left with only 14 men and 70 wounded. The fort fell to the invading army around 4 p.m. that afternoon. Holwell surrendered with his men. Holwell was brought three times before Siraj, who assured him of safety for himself and his men. There were no arrests. Portuguese and Armenians at the service of the English were allowed to go free. But about the sunset, some European soldiers made themselves drunk and assaulted some natives. The latter complained to the Nawab, who asked where the Europeans were accustomed to confine soldiers who misbehaved. He was told—in the Black Hole or dungeon in the old Fort. So he ordered his soliders to arrest the miscreants and confine them there.

The English fugitives who took shelter in Chandannagar started a rumour that 146 Europeans were rounded up and put in a floor area of 24.8 sq.m. (267 square feet) in that Black Hole. Next morning when the dungeon was opened, it was found that 123 persons out of 146 had died of suffocation. But one Mr. Little, headmaster of the English High School of Murshidabad, at the beginning of this century, argued that there could not have been 146 European left in Siraj's hands at 7 p.m. of the 20th June. There could not have been more than 60 European on that fateful evening. Bholanath Chunder simulated the happening as told by Britishers and proved that a walled floor area of 5.49 m. by 4.57 m. (18 feet by 15 feet) could not hold 146 adult male Europeans. The so-called Black Hole tragedy thus appears to be an exaggerated myth. Holwell himself was taken a prisoner to Murshidabad, but was set free a few days later, whereafter he sailed to Phalta and joined his compatriots.

After three days Siraj left Calcutta for Murshidabad with only one and a half lakh of rupees he gathered from the Company's treasury.

At the beginning of December 1756 reinforcements from Madras, as well as from England, began to arrive for the English refugees

at Phalta, in the form of men, money and munition. The English Government had come to the aid of the East India Company. With the direction of the Supreme English Council at Fort Saint George (Madras) Colonel Robert Clive and Admiral Watson arrived at Phalta on the 15th December. On the 27th the English expedition set sail from Phalta, and two days later sailed past Baj Baj and anchored between Thana Makwa on the west bank and Aligarh, a new mud fort on the left bank, some three miles to the east of Baj Baj. There was a skirmish at noon of the 29th, between land forces of Col. Clive and the Nawab's troops coming down from Calcutta under Manik Chand to reinforce the garrison of Baj Baj. Though the Nawab's troops met with success in this skirmish, they were totally over powered at Baj Baj by the navy. The victorious British navy found Baj Baj, Aligarh and Thana Makwa deserted by Nawab's troops. Britishers then mounted two-pronged attack on Calcutta, Clive coming up from the south-west by land and Watson coming up the river. On the 2nd January both the groups entered Calcutta. After taking Calcutta, on the 3rd January, Clive and Watson signed a declaration of war with the Nawab. A week later Clive formed a fortified camp at Baranagar and on the 10th mounted an attack on Hugli town and neighbouring villages across the Bhagirathi-Hugli.

Alarmed at these developments, Siraj-ud-Daulah hurried towards Calcutta with troops. On the 3rd February he arrived outside the northern limits of the town and encamped at Amirchand's garden. On the 5th February Clive delivered a surprise attack on the Nawab's camp. The result was indecisive. There were great losses on both the sides. So the peace parleys began and treaty was signed on the 9th February. The treaty restituted to the Company the right to trade in Bengal and fortify Calcutta.

Clive then proceeded to make arrangements for future war on the Nawab. With his insight in military affairs he knew that French power should be curbed before he made final assault on the Nawab, for the French could stand by the Nawab when he needed them. On 23rd March after heavy bombardment of Fort D'Orleans from the British ships on the river, Chandannagar was captured by Clive.

In the Battle of Palashi, on 23 June 1757, the English troops led by Robert Clive defeated Siraj-ud-Daulah. Clive then made Mir Jafar, the chief of the traitors, the Nawab of Bengal. On the 2nd July the captive Siraj was murdered by Miran, Mir Jafar's son. On the 15th July 1757 the puppet Nawab Mir Jafar concluded a treaty with the East India Company, by which the former ceded

The Company becomes the Zamindar of 24-Parganas

to the Company the zamindari rights of 24-mahals. The treaty by which the cession was recorded says that, 'all land lying to the south of Calcutta as far as Culpee (Kulpi in Diamond Harbour Subdivision), shall be under the Zamindari of the English Company; and all officers of this Zamindari shall be under their jurisdiction. The revenue to be paid by it (the Company) in the same manner with other Zamindars.' These 24 mahals comprised the Parganah Mugra, Parganah Khaspoor, Parganah Medinimall, Parganah Ikhtyarpoor, Parganah Barjatty, Parganah Khari-juri, Parganah Dakshin Sagar, Parts of the Parganahs of Ghar, Calcutta, Paikan, Manpoor, Amirabad, Azimabad, Mudaghata, Pucha Kolin, Shahnagar or Shahpur, Mahmud Amipoor, Melangmahal, Hatiagarh, Maida, Akbarpur, Belia, and Bhusundar. The Parganahs to the north of Calcutta, now comprising Barakpur and Bangaon Subdivisions, continued to be with Jessore and Nadiya.

MODERN PERIOD

Summary of administrative changes in the district in modern period

The present District of 24-Parganas started taking shape under Clause Nos. 2, 3 and 9 of the Regulation of 1793. The respective jurisdictions of the civil and criminal courts for the district and revenue jurisdiction of the District Collector were demarcated by the Regulations. This arrangement remained valid till 1800. In that year the civil court for the district was abolished, and the jurisdiction of the civil court of Nadiya district was extended over what are now Barasat and Basirhat Subdivisions and of the civil court of Hugli extended over the present Barakpur, Sadar and Diamond Harbour Subdivisions. This arrangement was reversed in 1806 and a District and Sessions Court was re-established with jurisdictions over civil and appellate criminal matters.

Under the Regulation XIV of 1814, the whole district was divided into two subdivisions; one comprising Calcutta (which up till then had always formed a separate civil, criminal and revenue charge) and its suburbs, and another comprising the rural areas away from Calcutta. In 1832 another Regulation had to be enacted to undo the former arrangement and re-establish Calcutta as a separate entity. The former suburban areas together with areas now included in Alipur Sadar Subdivision and Diamond Harbour Subdivision became one subdivision of the district and the other subdivision was placed under the charge (revenue and criminal) of the Joint Magistrate of Barasat.

In 1861 the district was reorganised once again. In place of two Subdivisions, eight Subdivisions, namely Alipur Sadar, Diamond

Harbour, Baruipur, Dam Dam, Barakpur, Barasat, Basirhat and Satkshira were created. The south-western part of Jessore District lying between the Kabadak or the Kapotaksha and the Ichamati (excepting some parts of the north included in Jhikargachha thana of Jessore) was separated from Jessore and added to 24-Parganas district.

In 1882 Satkshira Subdivision was separated from the district and was joined to the newly formed Khulna District. In 1885 Baruipur Subdivision was dissolved and partitioned off between Alipur Sadar and Diamond Harbour Subdivisions.

In 1904 Barakpur Subdivision was rearranged by adding some portions of Alipur Sadar Subdivision lying to the north of Calcutta, some portions of Barasat and Dam Dam Subdivisions.

By the Regulation of 1816, a Commissionership was created for the non-Permanently Settled areas of the Sundarbans with powers over revenue matters and magistral functions. But in 1905 it was decided to abolish that Commissionership and integrate contiguous portions of the Sundarbans with the districts of 24-Parganas, Khulna and Bakerganj (Barishal). The portion of the Sundarbans which came over to 24-Parganas, got integrated with Basirhat, Alipur Sadar and Diamond Harbour Subdivisions. The 1905 arrangement continued till the partition of the country in 1947.

By the Radcliffe Award, on which the partition of the country in 1947 was effected, Bangaon and Gaighata thanas of Jessore came to India's share and were attached to 24-Parganas. By Notification No. 549 G.A. of the 23rd February 1948, these two thanas were combined to form the newest subdivision of the district, namely Bangaon Subdivision.

Between June-July 1830 and November 1831 a peasant uprising took place in the rural areas of Barasat Subdivision.

According to the *Report* of Colvin, the Acting Joint Magistrate of Barasat Subdivision, submitted to the Secretary to the Government of Bengal in the Judicial Department, a little over a year after the suppression of the uprising, in 1832, the area of insurgency covered a tract of 28.98 km. to 32.20 km. (18 to 20 miles) in length and 19.32 km. to 22.54 km. (12 to 14 miles) in breadth i.e., covering an approximate area of 250 square miles (647.50 sq. kms.) along the Yamuna and the Ichamati rivers in the north of Barasat Subdivision in 24-Parganas District and south-east of Nadiya District, bordering in 24-Parganas District and south-east of Nadiya District, bordering in 24-Parganas District (now in Bangladesh). Though some of the incidents took place in the adjoining Districts of Nadiya and Jessore, outside the limits of this area, the participants in the movement were poor

Wahabi movement: Titoo Meer

and marginal peasants—both *raiya*s and under-*raiya*s, share-croppers and landless agricultural labourers from the villages in this tract. Although there were fair sprinkling of *a-jalchal* and *antya* Hindu notably Namasudras, Bagdis and Pods among the poor *raiya*s, marginal under-*raiya*s, share-croppers and landless agricultural labourers in this tract, they were not by and large, drawn into the vortex of the movement as active participants, not because they were not as oppressed as their Muslim counterparts, but because the leadership remained in the hands of a leader whose ideological prescription included the replacement of British-Indian land management system by a fundamentalist Islamic rule. Apart from this factor, the Hindu zamindars and *talukdar*s, in league with corrupt petty police officials, sought to suppress the movement, and the religious and ritualistic sentiments of the Muslim peasantry were hurt in the process. A majority of the active participants of the movement were Jolahs, who in this region were known as Karigars, as their supposed traditional and ritual occupation was weaving of cheap variety of cotton towels or *gamchha* and cheap *lungi*. These poor Jolah peasants were ritually and secularly the most depressed stratum of the local Muslim society.

The poor peasants, who included both tenants i.e. *raiya*s and under-*raiya*s and share-croppers, irrespective of whether they were Azlaf, Sheikhs or Jolahs, Namasudras or Bagdis, Pods or Kaivarttas were subject to rack renting and various kinds of illegal extortions, levies and non-economic compulsions imposed by upper-caste zamindars, mostly Hindus; there were also a number of Muslim *talukdar*s of Saiyad, Mughal, Pathan and Sheikh extraction, priding themselves as being *Ashrafs*, who were no less exacting than their Hindu counterparts. Both under Permanent Settlement and under temporary settlement prevalent in certain parts of the south 24-Parganas, the landlord or the zamindar and the lessee or *lat-dar* or in their absence their officials called *naibs* and *gomostas* and the big *pattanidars* of the first and/or second orders, called the *talukdar*s, not only held economic power over the land and the labour in their jurisdiction, they also enjoyed undisputed political and juridical powers, despite existence of Criminal Procedure Code, Police Code, Law of Contract, police magistrates, munsifs and judges. To the poor Muslim peasants, harrassed by a Hindu zamindar, his Hindu *gomosta* and the Hindu Officer-in-Charge of the local thana, it appeared that just because he was a Muslim that he was being oppressed by the Hindus. To the harrassed Pod or Namasudra peasant it was his depressed caste status which was the cause of his

sufferings, for which he held his fate responsible, as did the Jolah *raiya*t of a Saiyad *talukdar*. The oppression was there as were the oppressors and the oppressed, as everywhere. A confrontation now took place between a section of the oppressed and the State power in Barasat in 1831.

According to Colvin's *Report*, Titoo Meer, the undisputed leader of the uprising was born as Meer Nisar Ali some time in 1771 or 1772 in the village of Haidarpur within the jurisdiction of Baduria thana. For long sixteen years Titoo was a professional wrestler in Calcutta. From there he was picked up by a zamindar and given employment as his chief of guards. He got involved in a case of rioting on behalf of the zamindar and was imprisoned. After his release, in disgust, he left the job and went on a pilgrimage to the holy city of Mecca. In Mecca he met Saiyad Ahmed of Rae Bareilly, who made a lasting impression on him.

Saiyad Ahmed was direct disciple of Abdul Wahab, the Arab, who had initiated a fundamentalist orthodox movement among Sunni Mussalmans. The chief aim of the puritanical Wahabi movement was to purge all non-Shariati elements from the rituals and practices of the Muslims, to regain Islam's glorious past. Saiyad Ahmed started believing that India had turned into *Dar-ul-Harb*, i.e. the land ruled by infidles, under the British rule, because the Muslims had deviated from the path of true religion as prescribed by the Shariat. The Muslims should once again pledge to follow strictly the prescriptions of the *Koran* and the *Hadith*, wage *jihad* against the kafir rulers of *Dar-ul-Harb*, i.e. against the British and the Sikhs in the Punjab and reestablish *Dar-ul-Islam*, that is, the rule of the believers in India.

Titoo Meer returned to Calcutta, a convinced Wahabi; as did the initiator of the Faraidi movement of Faridpur, Dudumian. In 1821, while Saiyad Ahmed was visiting Calcutta from the headquarters of Wahabi movement in Patna, Titoo met him once again, when the latter urged him to go and work among the poor Muslims of the rural areas who were the worst sufferers of the British rule.

On being so asked by Saiyad Ahmed, Titoo left Calcutta, arrived at the village of Haidarpur-Chandpur and began to spread the message of Wahabi movement among the villagers. Titoo began to preach it to the poor low-caste Muslim peasants and agricultural labourers that their sad plight was due to their straying away from the path of orthodox Islam; that their living in *Dar-ul-Harb* was as much due to the duplicity of the infidel British Christians as their straying away from the archaic Islamic practices. Titoo began to

preach that the veneration of *peers* and *paigambars*, erection of *dargahs* and *mazars* on the grave of *peers*, *paigambars*, lighting *chirags* on these graves and offering *sinnis* to the souls of the dead, holding *urs* in the memory of the *peers*, holding of *fatwa* in the memory of the dead or worship of the dead, giving and taking of interest on loans etc., were un-Islamic practices and hence should be shunned by all true Muslims. Although *peerism*, *dargah* and *mazar* worship etc., were age-old practices of folkish Islam of Bengal, yet when Titoo pointed it out to the simple folks that these practices benefited only the parasitic *mollahs* and crafty *peers* and their descendants and caused immense hardships to themselves, they saw the point. Many of these *mollahs* and *peers* and their descendants had the patronage of Muslim *taluqdars*, *jotedars* and rich peasants who in their turn often derived certain financial benefits from such patronage. This class of well-to-do Muslims, consequently, did not welcome Titoo's activities. But by and large they refrained from taking a stance of confrontation. Titoo's preaching that irked the Hindu landlords, Hindu and Muslim *taluqdars* and *jotedars* and Hindu and Muslim moneylenders (often the *naibs* and *gomostas* of the landlords and family members of the *taluqdars*, *jotedars* and big peasants were themselves moneylenders) most, was the preaching against giving and taking of interest on loans, because with such loans were associated their interests.

It should, however, be noted that initially at least, Titoo's preachings did not contain anything which could be construed by the landholding classes as incitement against them. The only people who could have said that Titoo's preachings went against their interests were the *mollahs*, *peers* and their descendants. Even insofar as his preachings against interests on loans were concerned these went not so much against giving of interest as against taking of interest; so this really did not affect the professional moneylenders much. But as the later events showed, it was neither the *mollahs*, *peers* and their descendants nor the moneylenders, but the Hindu and European landholders with whom Titoo had his confrontation. What really lead to this confrontation?

A certain *taluqdar* named Krishnadev Ray, son of Nabagovinda Ray, *taluqdar* of *mauza* Nagar Sarfarajpur, locally known as Punra, thought that Titoo's preachings against the conventional folkish Islam of Bengal, with which was associated the interests of the local mollahdom and the Muslim landed aristocracy, probably had caused a division in the local muslim community and thereby had given him an opportunity to profit from the situation. Some time in June

1830, he imposed a tax of Rs. 2.50 paise per head per year on whoever was keeping a beard, within his *taluqdari*. This, Krishnadev probably thought that as Titoo was urging Muslims to keep beard, the non-Wahabi Muslims would not object to imposition of such tax on the Wahabis. He forgot that Wahabis or not, all devout Muslims thought it right to keep beard. Krishnadev sent out a force of three hundred men with *lathis* (long sticks) and lances under the command of his *naib* Ramdhan Sarkar to go round and collect the tax in cash from all the Muslims keeping beard in his *taluqdari*. This team of "tax collectors" went round collecting the "beard tax"; if anybody objected to the payment of the "tax" he was subjected to coercion and torture. When the Wahabis of the village of Sarfarajpur was asked to pay the "beard tax" they asked for ten days to pay the tax and reported the matter to Titoo Meer. An enraged Titoo declared that a *Kafir* had no right to interfere in religious observances and hence, they should pay no heed to Krishnadev's unjust demand and should organize resistance. When no one turned up to pay the "tax" after ten days had gone by, Krishnadev himself went with a team of three hundred men (armed with sticks and lances) to teach the peasants a lesson. The peasants too were prepared to offer resistance. The zamindar burnt down a few houses on the fringe of the village and destroyed a mosque, but in return the zamindar's men were given a sound thrashing. No party could score a decisive victory over the other. Krishnadev Ray however, fled from the area and remained in hiding in Calcutta for some time.

Both the parties went to Baduria thana and lodged complaints against each other. The peasants could not prove the zamindar's personal complicity in the case as the zamindar had put up a false alibi that he was in Calcutta on the day the incident took place. The peasants could neither prove that the zamindar's men were responsible for initiating the riots, as a certain Police Inspector named Ramram Chakravarti was bribed by the zamindar to report that the Wahabis had falsely implicated the zamindar and his men from an ulterior motive. Neither could the zamindar provide clear enough proof of the peasants' guilt. The trying magistrate dismissed both the cases for lack of evidence. Reporting on the incident after one-and-a-half years Colvin remarked that justice demanded some punishment to be meted out to Krishnadev Ray, even if that were a token punishment but he was not sure whether such action would be construed as sagacious, as that might undermine the legitimacy of the land management system. To go back to the main narrative once again, though the Magistrate of Barasat dismissed both the

cases, he extracted bonds from the peasants only to the effect that they would not commit any breach of the peace henceforth.

Krishnadev Ray was just one of the many landholders of the area who were looking for such opportunities for exactions and extortions. Among other landholders, who were watching the effects of Krishnadev's imposition of "beard tax", at first with expectation and later with apprehensions, were Ramnarayan Nag (Chaudhuri), the zamindar of Taragania, Guruprasad Chaudhuri, the zamindar of Nagarpur and the zamindar of Khorgachhi. On getting the proper message on Krishnadev Ray's "beard tax" and its effects, they did not go for the imposition of any "tax" of that kind, but they also wanted to teach the peasants a lesson so that the spine of their resistance to landholders' wishes gets broken. All these landholders began to demand arrear rents with interest from the peasants at a short notice. They began to misuse their powers to arrest the tenants for arrears of rent granted under the provisions of Regulation 7 of 1799, i.e., the Haptam Act, and perpetrate other acts of torture.

By this time the peasants had already set up some kind of a loose-knit and spontaneous organization and they had initiated some criminal cases against some zamindars indulging in excesses at the court of the District and Sessions Judge at Alipur.

This was the turning point of Titoo Meer's movement. So long it was a sectarian socio-religious movement. But Titoo had seen how the poor peasants invited the class wrath of the landholders by aligning themselves with his movement. Titoo could no longer sit back and watch his disciples being tortured. Only the landholders were apprehensive of their getting organized; it mattered little to them whether they were getting organized for theological purposes or not. At this point Titoo's movement turned from a purely theological movement to a movement of oppressed classes against the oppressor classes, *albeit* a movement of the believers of Islam against the *Kafirs*, as the overwhelming number of the oppressed were believers and the majority of the oppressors were *Kafirs* or infidels. Titoo told the common Muslim peasants who included a number of his disciples that it would not serve their purpose by taking their grievances to the courts run by the British who had usurped power from the Muslims. The usurpers would never give proper deal to the former masters of the country, i.e. the Muslims. On the other hand the usurpers would not go against the Hindu landholders, for it was the latter who kept the usurpers supplied with the wealth of the country. A disciple and a co-villager of Titoo,

named Mohammad Masud went to Calcutta to persuade the peasants to withdraw the cases they had initiated, to go back to their respective villages and to build up resistance against the Hindu landlord, the Christian English indigo planter, the police and the alien rule combine. So long Titoo had preached that the Muslims had lost their *Dar-ul-Islam* and had fallen in bad days, because they had strayed from the path of true Islam as enunciated by the *Shariat* and the *Hadith* and that they should cultivate the puritanical values of true Islam to transcend their state of existence. Now, Titoo began to preach that since it was not possible to practise the truly Islamic values in *Dar-ul-Harb*, it was imperative for all muslims to wage *jihad* against *Dar-ul-Harb* for the reestablishment of *Dar-ul-Islam*. Titoo enlisted the support of a majority of *Ajlaf* or *Atraf* peasants belonging to Sheikh and Jolah castes. Interestingly enough, though as an Islamic fundamentalist, Titoo was against all forms of personality cult, a certain Fakir named Miskin Shah with his disciples lent Titoo all support. There is no evidence to prove that any poor Hindu peasant, be he a landless agricultural labourer, or a share cropper, or a marginal cultivator of the status of an under *raiyat* or a small farmer of the status of a *raiyat* actively joined Titoo's movement. Though they were not subjected to any fresh extortion of the kind of "beard tax" like their Muslim counterparts they were no less an oppressed group; and they too were subjected to ritual oppressions as most of them belonged to the untouchable castes. On the other hand, there is no evidence of moral, financial or active support of any other kind provided to Titoo's movement by any Muslim landholder. Among Titoo's relatives was a landlord named Munshi Umir. No evidence could be found to show that he lent his support to Titoo. The only Muslim of some means who supported Titoo's movement was one Maijuddin Biswas of the village of Narkelberia within the then Baduria thana. Maijuddin was the holder of around 17 acres of rent free land; in modern parlance he would be called a *jotedar*.

Titoo shifted himself from Haidarpur to Narkelberia, organized a band of his supporters into an armed militia (armed mainly with bows-and-arrows, spears, lances and swords). In November 1830, Titoo issued a declaration which *inter-alia* stated, "The Company's rule has come to an end. The Europeans have illegally usurped this Muslim domain. By natural law of inheritance Muslims are the rulers of this country (Biharilal Sarkar, *Titoo Meer*, Calcutta, 1898, page 48, quoted by Suprakash Ray, *Bharater Krishak-Bidroha O Ganatantrik Sangram*, Calcutta, 1966, p. 226). Titoo next decreed

that all zamindars and *taluqdars* should remit revenues to him and not to the treasury or to a superior zamindar (in case of *taluqdars*). He also decreed that anybody flouting that order would be severely punished. In fact, Titoo did punish one Muslim *jotedar* of Khaspur village who dared disobey Titoo's orders; his house was looted by Titoo's militia on the 14th October 1830. Titoo also asked the *raiyats* not to pay rent to the zamindars and *taluqdars* who were opposing his movement and not to pay illegal cesses at all. Titoo levied taxes and cesses on all zamindars and *taluqdars*, irrespective of their religion and began to take punitive steps against defaulters, irrespective of their religious persuasion. Many zamindars and *taluqdars* fled to Calcutta and police became ineffective.

On the 31st October 1830, the Officer-in-Charge of Basirhat thana was informed by some Hindu zamindars and *taluqdars* that Titoo was proceeding to Krishnadev Ray's village with three hundred armed followers to slaughter a cow at a temple managed by Krishnadev Ray in that village. But the O.C. could not at once proceed to the village as he had only a small force at his disposal at that time, and in the second place, he learnt that sixty to seventy of the armed followers of Titoo were waiting to pounce upon him if he would proceed to Krishnadev's aid.

Titoo's men raided Krishnadev's residence and committed some depredations, but they were repulsed by the armed guards of Krishnadev. The Wahabis then raided the market at Punra and looted the establishments of known money-lenders and corrupt traders like Lakshman Deb, Mohon Saha, Golok Saha and others. Then they caught hold of a cow belonging to one Mahesh Ghosh and slaughtered the cow in front of a temple managed by Krishnadev and smeared the blood on the temple wall. This was an act of retaliation, for in July when Krishnadev was collecting "beard-tax"—he destroyed a mosque to punish his recalcitrant Wahabi tenants. As the Wahabis were about to smear the blood of the slaughtered cow on the wall of the temple, the furious priest of the temple attacked the crowd with an axe (*kharga*) and grievously injured a few attackers. The attackers overpowered and killed him.

The zamindars and *taluqdars* (there were two kinds of them, direct revenue paying *taluqdars* of khas mahal estates and *taluqdars* who were actually *pattanidars* to zamindars) of Nadiya and 24-Parganas got really alarmed after this raid on Krishnadev Ray of Punra. They held a conference among themselves and came to an understanding that they would come to each other's aid should any one of them be attacked by Titoo.

There were a number of indigo plantations in the south-east Nadiya and the north-east 24-Parganas. These indigo plantations were mostly lease-hold estates or semi-*taluqdaris* (*pattanidaris*). Most of these lease-holders were Englishmen or Scotsmen. They were perhaps the most oppressive landholders who reduced their *raiyats* to virtual serfdom. Though till the end of October 1830 Titoo or his followers did not have any occasion to confront any indigo planter, the planters with unerring instinct came to the conclusion that soon enough they were going to be the target of the rebellious peasants. Although the European planters and the native zamindars were at loggerheads, the impending danger pushed them to unite against the common enemy. Planters—Storm, Davies and Smith—who had their estates spread over Baduria and Basirhat thanas in 24-Parganas and in parts of Nadiya district adjoining these areas, promised to come to the aid of the native zamindars should they be attacked.

The zamindar of Gobardanga (now within the jurisdiction of Habra thana) was one Kaliprasanna Mukherjee, armed with the promises of help from fellow zamindars and planters, Kaliprasanna refused to send revenues to Titoo. He also refused to forgo the illegal and undue cesses he was collecting from the tenants. Titoo took up the challenge and advanced towards Gobardanga with his militia. On getting the information of Titoo's advance, one Davies (not the planter Davies), the manager of the indigo plantation of Mollahati, went to Kaliprasanna's aid with two hundred armed men. But Davies had to beat a hasty retreat to slip out from encirclement by Titoo's men. But they were given a hot chase by Titoo's men. Davies himself with a few men could just manage to cross the Ichamati river and take shelter with the zamindar of the village of Gobra-Gobindapur, one Debnath Roy.

As Debnath Roy of Gobra-Gobindapur had given shelter to Davies and his men who dared to come to the aid of Kaliprasanna Mukherjee who defied Titoo, Titoo now resolved to punish Debnath Roy. A few days after the Gobardanga engagement, Titoo marched to attack Gobra-Gobindapur, demanding Debnath Roy's submission. At a place named Laughati, in Nadiya district, Debnath confronted Titoo with a personal force of armed men. In the fierce encounter vastly outnumbered Debnath was killed while fighting.

By the beginning of November 1830 the situation had clearly gone beyond the control of zamindars and planters; their strategy of self-help was no longer adequate to meet Titoo's challenge. By the beginning of the second week of November the Commissioner

of the Presidency Division had reports on Titoo's activities from the Officer-in-Charge of the then Kalinga thana of the then Krishnanagar (Nadiya), from planters like Storm and Davies and from one Piren, the clerk of the *nilkuthi* of Mollahati. The Commissioner asked the District Magistrate and Collectors of 24-Parganas and Nadiya to take necessary steps to curb the rebellious behaviour of the Wahabis.

At the direction of the District Magistrate and Collector of 24-Parganas, the Joint Magistrate of Barasat, Alexander, reached Basirhat Police Station in the evening of the 14th November 1830. On the following morning the Magistrate proceeded towards Baduria police station at the head of a team of one Havildar, one Jamadar and twenty ordinary constables, at Baduria they were joined by the Officer-in-Charge and some more constables; the total number of men in arms under the Command of the Magistrate rose to 120. With this force the Joint Magistrate of Barasat, Alexander entered the mauza Narkelberia.

Titoo Meer had prior information about the Magistrate's expedition. So, a militia of five hundred persons, armed with bow-arrows, swords, spears, lances and earthen missiles, led by Titoo's nephew Golam Masum, encircled the Magistrate's party. The Magistrate possibly did not have the green signal to wage a battle; and so, on being encircled the constables fired blanks into air. But as soon as this was done, missiles and arrows began to be directed against the Magistrate's party, which soon enough got completely disarrayed. The Magistrate himself, somehow fled to the village of Kalinga in the nearby Nadiya district where some Brahmins gave him shelter. This skirmish resulted in the death of the hated Officer-in-Charge of Baduria thana—Ramram Chakravarti, who had given false evidence against the Wahabis when Krishnadev Ray had burnt down the houses of the Wahabis and desecrated a mosque in the village of Punra. Among the other dead were a Jamadar, ten constables, three barkandazes. A number of persons were injured. This short skirmish became a morale booster for the Wahabis. After this skirmish some seven to eight thousand Muslims of the neighbouring villages enlisted themselves as Wahabis.

After this November 1830 engagement, Titoo Meer declared himself the Badsah. He appointed one Mainuddin, a *jolah* of the village of Rudrapur his *Wazir* or the Prime Minister and his nephew Golam Masum Khan, the chief *Senapati* or the General. The peasants of some ten to fifteen villages, irrespective of whether they were Muslims or Hindus swore allegiance to him.

For nearly a year Titoo is said to have held sway in this "liberated area" with impunity, collecting taxes and dispensing justice. According to Biharilal Sarkar, even the young Hindu zamindar of Bhushna, of the then Jessore district, swore allegiance to him and supported him with men, materials and money. But it is not known whether he did it out of conviction or from the desire to save his zamindari from the Wahabis.

Titoo could well realise that consequent upon his declaration of independence, sooner or later he would have to face attack from the Government of the country. So he began to prepare for the resistance. He realized the necessity to fortify the village of Narkelberia, his centre of resistance. This realization led to the construction of the famous *banser-kella* or the bamboo fort. He divided the bamboo fort into several sectors and stored food stuff, swords, lances, spears, knives, sticks, bows and arrows, green *baels* to be used as missiles and bricks also to be used as missiles.

The construction of the fort further alarmed the zamindars and planters of Barasat-Basirhat Subdivisions and Nadiya district, many of whom had by this time, taken refuge in Calcutta. They approached the Governor-General Lord William Bentinck to do something about the rebellion. Another group of zamindars, *taluqdars* and planters of Nadiya, Jessore, Khulna and north-east 24-Parganas appealed to the Collector of Nadiya to move the Government in the same manner. In response to these pleadings, the Governor-General Lord William Bentinck ordered Smith, the District Magistrate and Collector of Nadiya to proceed in force against Titoo Meer.

On the morning of the 17th November 1831, Smith himself, David Andrews, the indigo planter and four English Magistrates proceeded for Narkelberia at the head of an armed police force consisting of three hundred men in arms. The zamindars assisted this expedition by placing at its disposal eleven elephants and some men in arms.

Titoo's *senapati* got prior information of this expedition, and instead of waiting for the expedition at Narkelberia, Masum Khan with his men advanced to meet the expedition. In the same morning, Masum Khan's men stormed the *nilkuthi* of Storm at Baraghar or Bagaria, some 4.83 Kms. (three miles) to the north-east of Narkelberia, on the Ichamati, captured it and kept waiting for the joint expedition of the administration and the landholders.

Smith was misinformed by the informer about the size of the Wahabi force. On reaching Baraghar when Smith saw the massive line up from a distance he thought that discretion was the better part

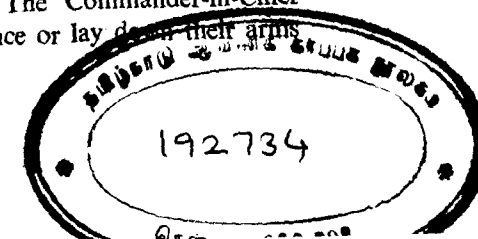
The captured Wahabis were sent for trial at the Alipur Court where after the first hearing, four hundred fifty were released and three hundred fifty were proceeded against. After protracted trial, one hundred forty were awarded prison terms of various durations and Titoo's *senapati* and nephew was sentenced to death. Golam Masum Khan was consequently hanged in Narkelberia in front of the devastated *banser-kella*.*

*The account of the Wahabi revolt has been taken from Suprakash Ray, *Bharater Krishak Bidroha O Ganatantrik Sangram*, Calcutta, 1972 (2nd Ed.), pp. 21-33; Benoy Ghosh, *Titoo Meerer Dharma O Bidroha*, in *Ekshan*, vol. 10, No. 6, 1380 B.S.

of establishing *Dar-ul-Islam*. Many people do not know that an uprising of sepoys took place, some thirtythree years before the so-called Sepoy Mutiny of 1857. The earlier uprising of the sepoys took place in the same Barakpur Cantonment where the first shots heralding the Sepoy Rebellion, were fired by a revolting sepoy in 1857. The first uprising took place in 1824, during the Burmese War. At that time, the 47th Bengal Infantry was stationed in Barakpur Cantonment. The regiment was under orders of marching to Burma. At that point of time, information spread that due to a lack of transport arrangements the regiment would not be marched to Burma but instead would be taken across the Bay in ship. As the Hindus then were not supposed to undertake sea voyage, the Hindu sepoys of the regiment expressed their reluctance to undertake the voyage. Colonel Cartwright, the Commanding Officer of the 47th regiment asked the sepoys to assemble in a parade on the 30th October to explain things to them. The sepoys declared that they would not proceed to Burma by sea. The attitude of the sepoys were communicated to the Commander-in-Chief, Sir Edward Paget. He proceeded from Calcutta to Barakpur with two European regiments, a battery of European artillery and a troop of Governor-General's Bodyguards. Before proceeding to Barakpur, the Commander-in-Chief had informed Colonel Cartwright to order the regiment there to assemble in a parade on the 1st November. When the Barakpur Infantry faced the Commander-in-Chief on the morning of the 1st November, with troops coming from Calcutta surrounding them, the sepoys stuck to their resolution. The Commander-in-Chief ordered them to march for Burma at once or lay down their arms.

Sepoy Rebellions of 1824:

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on the ground. As they did neither, they were fired upon by the European troops from Calcutta. The rebels made no attempts to resist; while some of them were shot down then and there, some made for the river. But there too they could not escape from being showered by bullets from the bank. Most of them were either shot or drowned. Those who survived were hanged. The regiment was struck out of the army list. Thus ended the sepoy revolt of 1824.

Of 1857:

Barakpur, however, continued to be the Headquarters of the Presidency Division of the Bengal Army which in 1857 was under the command of General John Hearsey. Four native regiments, namely, the Second Granadiers, the 43rd Light Infantry and the 34th and 70th Native Infantry were stationed in Barakpur Cantonment in 1857.

The army had decided to introduce Enfield rifles in place of musket with which the sepoys had hitherto been armed. Cartridges with greased cartridge-paper were manufactured at the arsenal in Fort William and the Ordnance Factory at Dam Dam. The news spread out from Dam Dam that the grease used in the cartridge paper was made of pig-fat or of bovine-tallow or both. Both Hindu and Muslim sepoys began to suspect that it was a clever device of the Company's Government to hurt the religious feelings of both the Hindus and the Muslims. Rumour also spread around, that soon the sepoys would be forced to become Christians. Much as General Hearsey did to explain to the sepoys that all these were nothing more than bazar gossips, the sepoys remained unconvinced. On the night of the 5th February there was a secret meeting of the men of all regiments at which they declared that they would rather die for their religions than agree to use the greased cartridges, and discussed plans for rising in revolt and killing the Europeans. The General paraded all the regiments on the 9th February and made a speech to them in which with all the sweet reasonableness that he could command, he tried to tell it to the Sepoys that their suppositions were all absurd and that the government neither had any wish to hurt their religious feelings nor any desire to make them Christians. Before the speech of the General had its effect on sepoys, the news spread in Barakpur Cantonment of the revolt of the 19th Native Infantry at Baharampur on the night of the 27th February, on the same question. The sepoys of Barakpur were re-confirmed in their beliefs.

General Hearsey again addressed the regiment on the 17th March; but it was all in vain. When the troops of Barakpur came to know that the 19th Regiment of Baharampur would be disbanded and that

an English regiment had been brought to execute the punishment, they believed more firmly than they had believed at the beginning, that the Government was actually trying to force something upon them. So the secret terror that was driving them into rebellion grew stronger and stronger.

On the 20th March, it was reported to Lieutenant Baugh, Adjutant of the 34th Regiment, that a sepoy of his regiment, Mangal Pandey, was marching up and down the line armed with a loaded musket calling upon his comrades to rise and was telling that he would shoot the first European he comes across. Lt. Baugh rushed to the place on a horse with two loaded pistols. Mangal Pandey, on seeing the officer approaching, fired at him. The shot missed the Lieutenant but wounded the horse. The Lieutenant jumped up and advanced towards Mangal Pandey with his pistols and fired. The shot missed Pandey and the latter in his turn tried to strike down the Lieutenant with his sword. A Sergeant Major rushed to the Lieutenant's rescue and drew away the wounded officer from the scene of engagement. Many sepoys had observed the incident from their barracks and they were in clear sympathy with Mangal Pandey. General Hearsey who had heard the sound of the shot, galloped down to the parade ground, accompanied by his two sons. Seeing three men approaching with pistols in their hands, Mangal Pandey tried to shoot himself with his musket. He was gravely wounded in the process and was taken off to hospital.

The 34th regiment was disbanded. Mangal Pandey and the Jamadar of the Guards, who had disregarded General Hearsey's orders, were hanged by the order of the Court Martial. Subsequently, at the orders of Lord Canning all the regiments stationed in Barakpur were similarly disbanded. But the revolt had by that time spread to all over northern India.

Indigo cultivation had been introduced in Bengal in 1777 by a Frenchman named Louis Bonnard in two small farms near the French settlement of Chandannagar. In 1788 the Directors of the East India Company urged for large scale cultivation of indigo in the Company's domains with "cheap native labour", to reduce the import of high priced indigo into Great Britain from countries not under English control and to increase the export earning of the East India Company itself. By the turn of the century the demand for indigo as a dyeing agent was growing in England and the Continent due to the growth of textile manufacturing. This escalation of demand of indigo in Europe gave an impetus to some traders-cum-bankers turned zamindars, under the Permanent Settlement, to go in

Indigo cultivation's revolt

for indigo cultivation in the land hitherto kept fallow. Soon enough, the Company's servants and retired servants also got interested in indigo cultivation for the returns it fetched. They began to take lease of lands from the zamindars on *pattani*. Through their lobbying power with the Board of the Company they manipulated the Company to enact the Regulation VIII of 1819 which legalised the practice of giving *talucs* in *pattani* and recognized the right of *pattani taluqdars* as landholders. The rent the Indian zamindars began to get, induced many of them to give *talucs* in *pattani* to Company's servants and retired servants for indigo cultivation. But there were not many Company's men to take land on lease. So some leading zamindars of Bengal including Raja Rammohan Roy and Dwarkanath Tagore lent their whole hearted support to the fighters for "free trade" in England who were demanding the end of Company's monopoly over export business of India.

In the meantime, the planters had introduced two types of organization for indigo cultivation. In some plantations they had introduced the system of *nij chash* which simply meant cultivation under the supervision of the *nil kuthi* with hired landless labourers. But more often than not, the planters found *raiyyati chash* more profitable. *Raiyyati chash* was a system in which the planters gave loans to the *raiyyats* or tenants for the cultivation of indigo. As the loans used to be given on most advantageous terms to the planters themselves and most coercive terms to the *raiyyats*, often the *raiyyat* would try to pay off the loan without cultivation. So the planters forced the Company's Board to enact the Regulation V of 1830 which gave powers to the zamindars and *pattanidars* to hold any one in their custody for breach of contract. Any loan taken for indigo cultivation was *ipso facto* declared to be a contract under this Regulation.

In England the 'free traders' won the day against Company's monopoly when the Charter Act of 1833 terminated the trading character of the East India Company and authorised unrestricted entry of European traders into the Company's domain in India. Many cotton planters of British extraction from America and West Indies reached Bengal, hiring retainers including ex-criminals to supervise the plantations.

1833-34 brought about another kind of change also. Till that time the Indian zamindars and the British planters had the best of relations and they collaborated with each other in their venture to exploit the land and the labour to utmost limits. In 1830-31 they jointly opposed the peasant revolt in what now constitutes the

Barasat, Basirhat and Bangaon Subdivisions. With the abolition of Company's monopoly and influx of private European traders the demand for land increased. The Indian zamindars took that to be an opportunity to increase the rent. The European planters, in their turn, began to force the Indian zamindars to get lands on their own terms and then employ deceit and duress to get themselves free of the demanded rent. Relations between the Indian zamindars and European planters became strained, giving rise to tensions which by the early fifties became a situation of potential confrontation. As the tensions began to mount the Indian zamindars, who had little love for their tenants, began to pay attention to the woes of the *raiyyats* as against the planters.

When the planters advanced loans to peasants for growing indigo under the system of *raiyyati chash*, they often gave loans to peasants who were *raiyyats* of Indian landholders. These peasants began to seek protection of their landlords and thus tensions got further aggravated. Even the *raiyyats* of *pattani taluqdars* (the planters) would often go to the zamindars to relate their misfortunes. Internal contradictions among the local landowning class thus increased.

But it is the peasant and not the Indian zamindar who rose in spontaneous revolt against the indigo planter in the Blue Mutiny of 1859-61. Unlike the Wahabi Revolt, in the Blue Mutiny the revolting Bengali peasants got, if not an active then at least a passive, support from the Bengali landlords. And perhaps because of this, unlike the Wahabi peasants and the sepoys who revolted against the British in 1857, the peasants who resisted the oppression of the European planters got sympathy from the urban middle classes who were linked with the landed gentry by hundreds of ties.

According to the Report of the Indigo Commission of 1860, the loans which the planters used to give to the *raiyyats* and which the Company regarded as contracts, were hardly contracts in which the parties entered into freely. The planters employed vilest of methods to force the peasants to take loans. Once an illiterate peasant took a loan he had to carry the burden of indebtedness all through his life and go on cultivating indigo under duress. The Indigo Commission showed that no money advance had been made to the *raiyyats* for a long time before the revolt of 1859. Cultivation was carried on by the *raiyyats* under coercion allegedly to clear off past debts. Any failure by a cultivator to act according to the wishes of a planter would land him in the inevitable dungeon of the *nil kuthi* where he might be subjected to torture.

On taking lease of land from zamindars as *pattani taluqdars*, with or without *raiya*s with rights of cultivation, or purchasing outright the zamindari rights from former zamindars, with or without *raiya* rights, the planters would launch joint stock company, calling each company a 'concern'. A 'concern' would comprise one or more plantations, depending upon the spatial distribution of its holdings. Each plantation would comprise a *nil kuthi* or a factory under the supervision of a European manager. There would be an Indian supervisor or *gomostha*, an Indian accountant or *naib* and a retinue of watch and ward staff to act as the coercive arm of the *nil kuthi*. There would be vats for the extraction of blue from indigo plants and stores. *Raiya*s living around the *nil kuthi* would have to render free unpaid labour to work at the *nil kuthi*.

In the 24-Parganas District of those times, there were seven plantations or factories. If we include the areas which since then have been incorporated in 24-Parganas district from the neighbouring districts of Nadiya, Jessore and Khulna, is our purview, then there were altogether twelve plantations spread out over present-day Barasat, Basirhat and Bongaon Subdivisions. Bengal Indigo Company, one of the larger concerns, had some factories in 24-Parganas. It had one important factory with a large plantation at the village of Rudrapur in this district. This concern had its principal *kuthi* at Mollahati of Jessore district (in present Bangladesh). Happenings at Mollahati-*kuthi* formed the material basis of Dinabandhu Mitra's play, *Nildarpan* (Dacca, 1860), which was to play in the Blue Mutiny, the role played by Harriet Beecher Stowe's *Uncle Tom's Cabin* in the struggle against slavery in the USA. Mollahati factory rose into prominence in 1830, when its manager Davies was soundly thrashed by Titoo Meer. Besides the concerns managed by the Europeans, some Indian concerns too had their factories and plantations in 24-Parganas among them mention should be made of the *kuthis* managed by the Pal Chowdhuris of Krishnanagar and of Habibul Hasan, a zamindar. They were no less oppressive to the *raiya*s than the European concerns.

Resistance to the oppressive practices of the Indigo planters, of sporadic nature, began as early as the turn of the century. The first resistance was led by a substantial farmer of the villages of Chaugachha of Nadiya district named Biswanath Sardar, whom the planters and their then allies, the native zamindars, had nicknamed as *Bishey-dakat*. Biswanath's area of operation included portions of Jessore district and the present-day Barasat and Bongaon Subdivisions of 24-Parganas district.

The Wahabi resistance to planter-zamindar-administration alliance has been dealt elsewhere.

One Renny was a particularly oppressive planter; he had extensive plantations in Khulna (now a district in Bangladesh; then a subdivision of Jessore district), adjoining Basirhat Subdivision. Resistance against him was led by a small *talukdar* named Sivanath Ghosh, of the village of Srirampur in 24-Parganas, between 1840 and 1843. Though he was an indigo planter himself, he was supported by the peasants in his struggle against Renny.

Early in 1859 while giving his judgement in a case of forcible eviction of a *raiya* from land for not cultivating indigo after taking an advance for that purpose, Ashley Eden, then Magistrate of Barasat (later as Sir Ashley Eden, Lt. Governor of Bengal), observed that land belonged to the *raiya* and the planter had no right to evict him. If any planter would transgress that right, the administration would go forward to protect the right of the *raiya*s. Herschell, the District Magistrate and Collector, in a similar case, in the same year, observed that to plant or not to plant indigo could not be a contractual obligation for a *raiya*; contractual obligation of a loan could only be the repayment of the loan with interest.

Consequent upon these two judgements, Bishnucharan Biswas a *jotedar* and Digamber Biswas a trader-cum-money lender of the village of Chaugachha, near Krishnanagar—the village of Biswanath Sardar—took it upon themselves to organize peasants against the planter *raj*. Incidentally, both of them were *dewans* in *nil kuthi* for some time. They urged the peasants not to cultivate indigo. The message spread like wild fire. According to the evidence of Herschell before the Indigo Commission, hundreds of village headmen or *morols* (*mondols*) rose spontaneously to ask peasants within their jurisdictions not to cultivate indigo. Soon clashes began to take place everywhere between the peasants and the planters. Often the administration would send force to 'maintain law and order' and the force would inevitably take planters' side against the peasants.

These happening prompted the Government to set up the Indigo Commission in March 1860. After the publication of its *Report* in August 1860, when the Lieutenant Governor of Bengal John Peter Grant went to inspect the main indigo cultivation regions of Jessore, Khulna, 24-Parganas and Nadiya, he became convinced about the bane of the indigo cultivation system. On returning from the trip the Governor himself took lead in drafting a piece of legislation

which *inter alia* stated that it was up to the *raiyyat* to decide whether or not to cultivate indigo. No contract to cultivate indigo should be forced on an unwilling peasant. But if a peasant who had voluntarily and knowingly entered into a contract to cultivate indigo, failed to do so, he would be guilty of breach of contract. The Government allowed one year's cover under Act XI of 1860 for the fulfilment of existing contracts after which the official support to indigo cultivation was withdrawn. The indigo cultivation under European enterprise dwindled sharply in Bengal thereafter. In 1868 the Government repealed the act enacted in 1860 which provided for contract to cultivate indigo. In 1892 the process of manufacturing synthetic blue was invented by a chemist named Bayer and consequently the demand for organic indigo declined in European market, leading to the final waning of indigo cultivation in India.*

Religious reform movements like Brahmo Samaj and Ramakrishna-Vivekananda movement, social reform movements like anti-Sati, widow marriage, anti-kulinism, anti-polygyny, upliftment of women's status movements of the nineteenth century and their impact upon the district have received our attention in Chapter III of this volume and movements for the spread and extension of modern education and its progress in the district have engaged our attention in Chapter XIII of this volume.

When the editor of the *National Paper*, Nabagopal Mitra, decided to hold the annual Hindu Mela, to make the Indians identified with Hinduism conscious about their tradition and heritage, he was distinctly influenced by the ideas of Rajnarayan Bose who was born in the village of Borai in Sonarpur P.S. and later became an important leader of cultural nationalism. Hindu Mela became an annual event in Calcutta from 1867. In 1870 the organisers of the Mela thought it wise to spread the message of Hindu Mela among the rural masses. Accordingly, the first ever Hindu Mela, in rural Bengal, was held in Baruipur, on the estate of the local zamindars, the Roychaudhuris, in 1276 B.S. (1870). Baruipur was again chosen the venue of the *Gramin Sakha* (Branch) Mela of Hindu Mela in 1278 B.S. (1872) and once more in 1279 B.S. (1873).

The concept of *Swadeshi* was an outcome of the Hindu Mela. The ideas of boycotting the foreign goods and propagating the need

* This account of Indigo Revolt has been written on the basis of information gathered from: (1) Promod Sengupta, *Neel Bidroha O Bangalee Samaj*, Calcutta, 1960, (2) Suprakash Ray, *Bharater Krishak Bidroha O Ganantrik Sangram*, Calcutta, 1966 (2nd Edn. 1972), pp. 72-76, 195-215, 317, 339, (3) Blair Kling, *The Blue Mutiny*, Philadelphia, 1966, and (4) Chittabrata Palit, *Tensions in Bengal Rural Society*, Calcutta, 1975, pp. 96-151.

for patronising indigenous products, that the *Swadeshi* movement upheld, were first spread by the Hindu Mela. As the concept of *Swadeshi* had its birth in Hindu nationalism, it was felt necessary to get this concept sanctified by the Bramhanical priestly class. In 1873 the *pandits* of Nabadwip and Bhatpara (in 24-Parganas district) lent their support to the *Swadeshi* movement.*

The man who laid the ideological foundation of Hindu nationalism, as well as of militant nationalism was none other than the great novelist Bankimchandra Chattopadhyay. He was born in the village of Kanthalipara, near Naihati, in 1838 and died on 8 April 1894. Though his influence on the extremist nationalists was abiding, yet being a junior member of the British imperial 'steel-frame' he himself was never involved in active politics.

Neither in its genesis nor in its ramifications had the extremist nationalist movement always been linked with Hindu revivalism. A social revolutionary like Pandit Sibnath Bhattacharjya Sastri, a founder of the Sadharan Brahmo Samaj, was also one of the progenitors of the extremist political movement in Bengal. In 1871, along with some youthful members of Brahmo Samaj, like Dwarak-nath Gangopadhyay, Durgamohan Das and Dr. Sundari Mohan Das, Sibnath Sastri had established a secret revolutionary *samity*, the chief aim of which was to propagate among the youth a spirit of nationalism and social reform.

Pandit Sibnath (Bhattacharjya) Sastri was born on 13 January 1847, at the village of Changripota, within the jurisdiction of Sonarpur thana, where his maternal side had their home. His own ancestral place was in the nearby village of Majilpur. He was converted to Brahmoism in 1869. He did his M.A. in Sanskrit from Calcutta Sanskrit College in 1872. His centre of activity was mainly Calcutta though for some time he taught in the Harinabhi School. He died on 23 September 1919.

Though the nationalist political movement, in its Hindu revivalist ramification with a certain orientation towards political radicalism, started in Bengal, as well as in the 24-Parganas district, as early as in the eighth decade of the 19th century, it actually attained a challenging height only after Lord Curzon decided to partition Bengal in 1905. It is only then that *Swadeshi* and the boycott movements and secret revolutionary movements gained momentum.

The first incidence of revolutionary violence against the British rule took place in April 1908, in which Khudiram Bose and Prafulla

* R. C. Majumdar, *History of the Freedom Movement in India*, Vol. II, Calcutta 1963, p. 40.

Secret
revolutionary
movement

Maniktala-
Alipur
Bomb Case

Social & Reli-
gious movements

Hindu Mela

Chaki were involved. Following up the incident, the police discovered a small ammunition manufacturing workshop at 32 Muraripukur Road at Maniktala, in the outskirts of the then Calcutta. Aurobinda Ghosh, Barindra Kumar Ghosh and Ullaskar Dutta were found to have associations with the network of the secret society. They were all proceeded against and prosecuted (Aurobinda Ghosh was acquitted) in the Alipur Bomb Case. Kanailal Dutta and Satyen Bose, two of the revolutionaries who got implicated in the case at a later stage, were arrested and proceeded against. Kanailal Dutta was given a death sentence and Barindra Kumar Ghosh was transported for life. Narendra Gossain, who turned to be a police approver was murdered inside the jail. The Public Prosecutor who conducted the case at Alipur and Samsul Alam, the Deputy Superintendent of Police, 24-Parganas, were murdered by the revolutionaries some time later.

M. N. Roy

The secret societies were always in need of money for purchasing arms and ammunition. They used to resort to dacoity for raising the necessary funds. In 1907, there were two dacoities at railway stations on the East India Railway's Sealdah Divisional Southern Section line. The first was at Natra station and the second was in Changripota (now called Subhasgram station). One Narendranath Bhattacharjee was apprehended for being involved in these two dacoities. On circumstantial evidence he was sentenced to imprisonment, for being associated with these dacoities.

Narendranath Bhattacharjee was born in the village of Kodalia in 1887. He became associated with one of the two main secret revolutionary societies, namely, Jugantar Party, just before the first dacoity was committed. This Narendranath Bhattacharjee later earned world-wide fame under the pseudonym—Manabendra Nath Roy.

On 12 February 1915, a sum of Rs. 18,000 belonging to South India Jute Mills was being taken from Calcutta in a carriage. Terrorists coming in a taxi intercepted the carriage at the crossing of two streets at Garden Reach, took the money and having kept the passers-by at bay through the show of fire-arms, got into the taxi. As the taxi driver refused to drive, he was beaten and thrown out and one of the members of the group drove the taxi at full speed till one of the tyres burst at Baraipur. They then hired a carriage and went to Canning, via Champahati, and engaged a boat from there which took them to Taki and from there they came by railway to Calcutta.

Just ten days after the Garden Reach dacoity, Rs. 20,000 were

taken from a rice merchant at Belegkata, in the outskirts of then Calcutta. Within three months of these two dacoities police apprehended a number of members of the Jugantar Party, including Narendranath Bhattacharjee. In a long-drawn trial, the most of which he spent in solitary confinement, Narendranath was sentenced to imprisonment. Kuntal Chakravarti of Jaynagar, Saileshwar Basu, Bholanath Chattopadhyay, Makhan Chakravarti and Alok Chakravarti of Changripota were also sentenced to varying terms of imprisonment.

Bagha Jatin

While the First World War was in progress the Jugantar Party, under the leadership of Jatindranath Mukherjee (Bagha Jatin) tried to enter into several deals with the German Government. One of the deals involved unloading of arms, ammunition and money by three German vessels at the point where the Raimangal river enters the Bay of Bengal, in the Sundarbans. Three trusted members of the Party from south 24-Parganas, namely, Satkari Bandyopadhyay, Harikumar Chakravarty and Aswini Ganguli were deputed to carry out the task of receiving the supplies from the German vessels. They undertook quite an adventurous journey to reach the appointed place. But not a single ship arrived. They returned only to get arrested.

Jadavpur University

The repressive measures adopted by the government in response to the Anti-Partition and the *Swadeshi* movements resulted in the expulsion of a large number of students from schools and colleges. This created a big problem. In order to meet the challenge, all the leading patriots, public men and men of letters of Bengal of that time decided to establish a new set of schools and colleges under the management of the Indians. The result was the foundation of the National Council of Education and Society for the Promotion of Technical Education, in 1906. The history of National Council of Education has been described in detail in connexion with the history of the development of Jadavpur University, elsewhere in this volume.

S. S. Komagata Maru

An incident of special interest in the period ending before Gandhiji emerged into Indian political scene in 1919, was the case of the steamship *Komagata Maru*, shortly before the Ghadr Party heroes returned from America in thousands. 24-Parganas, by chance, became a venue of one of the high acts of the *Komagata Maru* drama. In April 1914, Baba Gurdit Singh, a Sikh businessman of Singapore chartered the *S. S. Komagata Maru* for carrying 4,000 Indians, chiefly Punjabees, to Canada. On 4 April 1914, *Komagata Maru* sailed from Hong-Kong. At intermediate ports consignments

of Ghadr pamphlets and papers were received on board and at Yokohama two Ghadr party leaders from the United States visited the ship. On the 23 May the *Komagata Maru* arrived at Vancouver. Most of the intending immigrants were not allowed to land as they did not satisfy the Canadian regulations of immigration. At that point of time, two Ghadr party functionaries of Vancouver went on board the ship and spread the message of revolution. When the ship was eventually turned back towards India, all the intending immigrants to Canada, had become convinced revolutionaries.

The *Komagata Maru* arrived at Baj Baj on the 29th September and laid anchor there. Under the provisions of the recently enacted Ingress into India Ordinance which empowered the Government to restrict the liberty of any person entering India, after the 5th September 1914, the Government kept a special train ready at Baj Baj to take the passengers directly back to the Punjab, for measures to be taken against them. Most of the passengers refused to enter the train and tried to march on to Calcutta in a body. They were forcibly turned back, resulting in an armed confrontation. 18 passengers were killed. Many were arrested either then or subsequently; and 29 including Baba Gurdit Singh disappeared. Of those who were arrested, many were allowed to go home in January. 31 were interned in jail. This was roughly the story given out by the Sedition Committee appointed by the Government. A long time after the incident, Baba Gurdit Singh published an account of the voyage. He denied all connections with Ghadr Party. He also denied that any passenger had any fire arm with him. According to him, the treatment which the passengers received at Baj Baj was very harsh. They were not given time to settle their affairs; they were subjected to repeated searches by the police and all their luggage was taken away by the police, to be returned only after they reached the Punjab. According to Baba Gurdit Singh, there was no confrontation at Baj Baj; what happened was nothing short of a massacre.

With the arrival of Gandhi in India, his assumption of leadership of the Indian National Congress and launching of the Non-Co-operation movement, the political scene in India changed radically. According to the decisions of the Congress, district and subdivisional Congress Committees began to be established everywhere to give organisational format to an impending long-drawn mass movement. According to this decision, the first 24-Parganas District Congress Committee came into existence in 1921, with Maulana Muhammad Akram Khan as the President, Subhas Chandra Bose, Sarat Chandra

Bose and Tulsi Charan Goswami, among others, were some of the members of the first District Congress Committee.

Incidentally, it may be noted that Subhas Chandra and Sarat Chandra's ancestral home was in 24-Parganas district. The Bose family hailed from the village of Kodalia, within the jurisdiction of Sonarpur police station.

The ripples of a new stage of the Indian Freedom movement were felt in the 24-Parganas District during the First Non-Co-operation Movement, initiated by Mahatma Gandhi. Among the planks of the movement were *satyagraha*, non-violent resistance to unjust imposition of Government, and self-help through spinning and weaving of *khadi* cloth at the home and cottage levels—both of which were expected to feed into *swaraj*, and self-determined participatory government at the individual and community levels. In South West Bengal *satyagraha* was given positive form in Contai and Tamluk, the Southern subdivisions of Medinipur District, through Birendranath Sasmal's call to the peasantry and artisans to boycott the colonial Government's proposed legislation on and implementation of Union Boards, to be financed by additional local taxes. Many villagers refused to pay Union Board taxes and offered *satyagraha* when their property and chattels were distrained. The message spread to other parts of Bengal. At the same time, in 1921, Satishchandra Dasgupta, an expert chemist who was Superintendent of the Bengal Chemicals and Pharmaceutical Works in Maniktala in North-east Calcutta, decided to give up the employment and set up an *ashrama* for spinning, weaving and marketing of *Khadi* as well as other cottage industrial commodities. He located his *swadeshi* enterprise at a point close to Calcutta, from where his commodities could be marketed. This was the Khadi Pratisthan at Sodpur, to the north of Calcutta on Barakpur Trunk Road.

Many workers of Bengal Chemicals and Pharmaceuticals, who had known Satishchandra, lived in north of Maniktala, in hamlets along the Krishnapur Khal, a navigable canal linking the Hugli River with Jessore District. In those days, it was an important river navigation link between East Bengal and Calcutta. At present the area is passed on its western fringe by Kazi Nazrul Islam Avenue (otherwise known as VIP road) linking north-east Calcutta with Dam Dam Airport. A hamlet on this road is called Baguihati. Eastwards from Baguihati and the existing Krishnapur Khal is the village of Mahisbathan. The entire area is now in *thana* Salt Lake, which stretch to east and south, and which, apart from being the conservancy ground of Calcutta Cor-

Civil Disobedience movement

poration, still is a very important area for *bherhi* or fishery in the low lying swamps. The zamindar of Mahisbathan was Lakshmikanta Pramanik who belonged to the locally dominant Rajbanshi Scheduled Caste. Many Muslims and Indian Christians were also residents in the neighbourhood. Under the landlord's leadership the villagers of Mahisbathan and Baguihati region maintained their links with Satishchandra Dasgupta and the Khadi Pratisthan.

In 1924 the local people decided to resist the formation of a Union Board in their locality, and refused to pay its taxes. Another of their leaders was Krishnapada Bandyopadhyaya, traditionally a village priest who worked in the offices of the Alipur Court and who remembered forming a dislike for the overbearing ways of British people during his metropolitan experience; he specifically mentioned Sir Charles Tegart, the notorious Commissioner of Police. Parmanik and Bandyopadhyaya approached the 24-Parganas Zilla Congress Party office at Jadavpur for advice about their course of action. They also met Subhas Chandra Bose, then Deshbandhu Chittaranjan Das's most trusted lieutenant. The advice they received was to enroll in the Congress, which they did. On their own, they began by forming a local Congress Committee and initiating a National School in Lakshmikanta's palatial home. They also began *khadi* spinning and weaving in their homes for sale.

Meanwhile the Mahisbathan Union comprising 14 villages had been formed by the Government under the Presidentship of a local gentleman, Jokayatullah who was succeeded by Rev. Priyambad Das of the local Protestant church, with the alliance of Asutosh Bagui, a landholder of Baguihati. Villagers' refusal to pay Union taxes led to police forces being deployed in 1928 from the Sub-divisional headquarters in Bashirhat. The brutalities of the Darogah are still remembered. Extensive distraints began to be executed on the recalcitrant villagers during 1928-30, increasing tension against the colonial rulers.

It was on such a base that Gandhiji's call for the first Civil Disobedience movement struck a speed in the early months of 1930. Satishchandra Dasgupta advised Lakshmikanta Pramanik and his supporters to begin a mass movement where the villagers would break the Government Salt Laws and manufacture their own salt to demonstrate the practicability of *Swaraj*. Mahisbathan ranks with Dharasona near Dandi, Vedaranyam in Tamil Nadu and Pichaboni in south Medinipur and many other places, as a point of the Salt Law defiance movement. At this time this movement in Bengal was

split into two groups, one—a group of Gandhians led by Satishchandra Dasgupta and the Abhoy Ashram Group, who together formed the *Bangiya Ain Amanyar Parishad* and the other formed by the Bengal Pradesh Congress Committee led by Subhas Chandra Bose, called the *Bangiya Pradeshik Ain Amanyar Committee*. The B.P.C.C. also set up Salt Law defiance camps in several villages in 24-Parganas, such as Neela, Kalikapur as well as Champahati and Raipur. They also set up a camp at Mahisbathan which, according to the villagers in the locality today, were attended by gentlemen and ladies from Calcutta; Subhas Bose being present a few days after the events begun. The villagers, on the whole, attended the camp initiated by Satishchandra Dasgupta and after some time, the B.P.C.C.'s efforts were moved elsewhere. On 24th April, while volunteers at Neela were defying the Salt Laws, the police opened fire. A young man named Asutosh Dolui was killed and three others wounded.

The usual record of police beatings and attempts to remove the local villagers from their salt pans is to be found in Mahisbathan Union. Directions were sent from the Sodpur Ashram that salt should be manufactured in the houses of the *satyagrahis*. It is remembered that about 8 to 10 maunds of salt were daily produced and sent to Calcutta along the road which runs from Baguihati westwards to Dam Dam. When the monsoon began, salt panning became less practicable and an alternative campaign started, refusing to pay taxes for salaries of *chowkidars*. These agitations led by Lakshmikanta Pramanik continued through the first and second Civil Disobedience movements. There is a memory that very many people in 1932, including a large percentage of women, walked in procession to the Esplanade area in Calcutta to attend the meeting at the base of the Ochterlony Monument (Shahid Minar) in which Mrs. Nellie Sengupta took up the Presidentship of the Indian National Congress amidst merciless beatings by the police. After the Civil Disobedience movement was called off in 1934, resistance in the Mahisbathan Union seemed to have ebbed and it was not followed by any other movement in this locality.

It need not be supposed that these events are part of a general trend in the 24-Parganas. Anti-Union Board agitations and no-tax campaigns were sporadic and spontaneous in the district deriving their roots from different sorts of local circumstances, a case of which has been given above. For instance, the Neela and Kalikapur *satyagraha* took place much further south in the Diamond Harbour Subdivision, deep in the Sundarbans. The links of these spontaneous

Resurgence
of secret
revolutionary
movement

movements may be found in the network of their rural relationships with the eastern outskirts of Calcutta; it was out of such rural and urban bases that the composite movement was formed, which is together called the Indian freedom struggle.*

When after the Chauri-Chaura incident, Gandhiji called off the First Civil Disobedience movement and decided to devote himself to the movement against untouchability, there was a lull in political activities. In Bengal this resulted in the revival of secret revolutionary activities. In 24-Parganas a new group called Sadhan Sangha, comprising some old members of the Jugantar Party, made attempts to revive secret revolutionary activities. Openly, they began to establish libraries and gymnasia; secretly they recruited members for special political activities from amongst the users of libraries and gymnasia and giving them training in the use of arms and ammunition. Satkari Bandyopadhyay and Hari Kumar Chakraborty were two of the most important activists in the scene after 1928. They established libraries and gymnasia at Jaynagar, Majilpur, Baruipur, Kalyanpur, Boral, Garia, Dhakuria, Diamond Harbour, Sarisha, Barisha, Behala and Basirhat. The martyr Dinesh Majumdar, of the Tegart murder-attempt fame, was initially a member of this group. Besides this group, the Bengal Volunteers, another notable group, had its centres of activities at the villages of Kodalia, Mahinagar, and Malancha. These two groups had very close connection. The rehearsal for the Writers' Buildings raid of 1930 by Benoy, Badal and Dinesh was conducted in the Keorapara locality of Malancha village.

Dinesh Majumdar was one of the three members of the group which attempted to murder the Police Chief, Charles Tegart, on the 25th August 1930. The attempt failed and he was arrested. He was sentenced to life imprisonment. But in 1932 he escaped from Medinipur Jail. On the 22nd May 1933, he along with two other members of the Jugantar Party had a confrontation with police in Calcutta in which he was wounded and arrested. He was given a death sentence and was hanged on the 9th June 1934. Dinesh Majumdar was born in Basirhat in 1907. But his main area of operation was south 24-Parganas.

* Sources for this account are interview conducted by Dr. Hitesranjan Sanyal, Fellow in History, Centre for Studies in Social Sciences, Calcutta and his associates in the Mahisbathan locality with Shri Krishnapada Bandyopadhyaya, Sri Abhimanyu Mondal, Shri Biru Mondal, Shri Khagen Mondal, Shri Khagendranath Pramanik and others, some of whom allowed the CSSSC to see a later account of the time which is deposited with Dr. Sanyal as a part of the Centre's holdings of documents relating to the Indian freedom struggle.

Growth of labour
movement before
Independence*

It has been observed elsewhere in this volume that jute factories began to be established in Barakpur Subdivision and Baj Baj area of Alipur Sadar Subdivision from around the sixties of the 19th century. This was closely followed by the growth of engineering (mechanical) industry in the same areas. With the opening of these factories, a labour population began to grow in size with attendant problems. The conditions of living and work were dismally poor for the labourers for a long time. Slowly, the labour consciously chose to struggle for the betterment of these conditions.

Though the necessary conditions for the growth of trade unionism and working class movements for better life were all there, organised trade unionism took a long time to appear in the scene. Sasipada Banerjee, of Sadharan Brahmo Samaj, was perhaps the first man to organise the industrial labour not only in Bengal but in India as a whole. In 1874 he began to publish the first ever journal for the working class in India, in Bengali, called the *Bharat Sramajibi*. For the safe keeping of the savings of the workers, he opened a savings bank, popularly known as the 'Anna Bank', where even the deposit of an anna was accepted. His centre of activity was at Baranagar in the northern outskirts of Calcutta. He also founded the Working Men's Institution at Baranagar for workers' education. In his activities he was supported by the leaders of Sadharan Brahmo Samaj like Pandit Sibnath Sastri and Dwarakanath Gangopadhyaya.

In early days, strikes of the workers against the management were more or less spontaneous and unorganised affairs. There were a series of such strikes in 1895-96 at jute mills situated at Baj Baj, Garden Reach, Titagarh, Kamarhati and Kankinara. The reasons of strikes were various, they ranged from right to be absent from work on religious festivals like *Bakr-Eid* and *Muharram*, to protest against reduction of wages.

Some of the leaders of the Swadeshi and Anti-Partition movement after 1905 got interested in taking up the cause of labour in British owned industries. Some of these leaders took active interest in organising the strike of the 4,000 workers of Lower Hooghly Jute Mills at Garden Reach. This was probably the first instance where a strike was sought to be organised by outsiders, before the appearance of the organised trade union movement.**

The organised trade union movement began to make its

* This section has been prepared on the basis of information culled from Panchanan Saha's *History of Working Class Movement in Bengal*, New Delhi, 1978.

** Sumit Sarkar. *The Swadeshi Movement in Bengal, 1903-08*, New Delhi, 1973, pp. 184-242.

appearance in Bengal after the First World War. Extensive industrial strikes characterised the period from 1920 to 1923. The old inadequate wages and the new quadrupled cost of living were working havoc amongst the working people. And the big capitalists and profiteers of the previous years, facing a slump in business, began to effect extensive reduction both in the number of employees and in their pay. A large number of people were thrown out of their work. From July to December 1920, particularly in the last six weeks of the year, 89 strikes took place in 24-Parganas, involving jute mills, cotton mills, engineering factories, printing presses, railways, other transport systems and public utility services. 2,500 workers of Jessop & Company at Dam Dam were on strike between the 26th December 1920 and the 29th January 1921. 3,500 workers of the Government-owned Ichhapur Rifle Factory struck work between the 12th February and April 1921.

The All India Trade Union Congress was established in October 1920, in Bombay, under the Chairmanship of Lala Lajpat Rai. There is no reliable data available before 1929 of the workers' unions of the district which were affiliated with AITUC. From two different sources both dated 1929, we learn that Bengal Jute Workers' Union (established in 1925) of Bhatpara, the Textile Workers' Union of Keshoram Cotton Mills of Garden Reach, and the Alambazar Union of the Jute Workers' Association (established in 1928), among others were affiliated with AITUC.

By the end of the twenties, the following were the better organised labour unions in 24-Parganas:

- (1) Garden Reach Workshop Labour Union (established 1925), Garden Reach,
- (2) Bengal Jute Workers' Association (estd. 1925), Bhatpara,
- (3) The Bengal Paper Mills' Worker Union (estd. 1925), Bhatpara,
- (4) The Hazinagar Branch Union of the Jute Workers' Association and Paper Mill Workers' Union (combined) (estd. 1926), Naihati,
- (5) Alambazar Union of the Jute Workers' Association (estd. 1928), Alambazar,
- (6) Budge Budge Branch of the Jute Workers' Association (estd. 1928), Baj Baj,
- (7) Kankinara Labour Union (estd. 1928), Kankinara,
- (8) The Bengal Textile Worker Union, Metiabruz Branch (estd. 1928), Metiabruz,

- (9) Kanchrapara Railway Workmen's Union (estd. 1928), Kanchrapara,
- (10) Ichhapur Ordnance Factory Workers' Union (estd. 1928), Ichhapur,
- (11) Postal and Oil Depots' Workers' Union (estd. 1928), Baj Baj.

For inhuman working and living conditions of its workers the jute industry had earned a world wide notoriety. A top jute magnate of Bengal Sir Alexander Murray admitted before the Royal Commission of Labour in 1931, that before 1921, when the Factories Act came into force, single-shift mills were working 15 hours a day. The Government, if it did not actually connive at the oppressive labour management practices, at least feigned indifference, for a long time. Such being the condition, discontent was simmering among the jute mill workers. The Bengal Jute Workers Union of Bhatpara expressed the discontent and put forward a charter of demands before the jute industry in 1929. In the charter, the jute industry was asked not only to raise the rates of wages but also to standardise the wages. Among other demands, reduction in hours of work, maternity benefits, and facilities of living quarters etc. were included. But the most notable demand was related to the question of the pernicious *sardari* system for the abolition of which the workers had long been clamouring. The immediate cause of the strike was, however, the decision that the Indian Jute Mills Association, reached towards the end of 1928, to raise the working hours of all mills from 54 hours to 60 hours a week per shift. The Indian Jute Mills Association, representing the British jute interest, summarily rejected the demands of the Jute Workers Association as more political than economic. This resulted in a deadlock.

The struggle began in the first week of July 1929. The strong centre of the movement was a group of single-shift mills at Bhatpara, namely, the Alliance, Graig, Waverly group, under the managing agency of Begg Dunlop & Company and the neighbouring Megna Mill under the managing agency of Mackinon Mackenzie & Company at Jagaddal. There was at first no definite strike. But workers simply refused to work 60 hours a week. They would leave the mills as soon as the 54 hours of work would be completed. They would refuse to work the extra hours on Friday and would not turn up on Saturday. This went on for two weeks. In the second week of July, the Bengal Jute Workers Union started intensive campaign throughout the jute mill area. This resulted in adoption of the

Jagaddal tactics by jute mill workers all over 24-Parganas, Haora and Hugli. From the third week of July the mills began to declare closure. By the beginning of August, the strike had become general. All the jute mills between Calcutta and Naihati had closed down, with the exception of Lansdowne and Kamarhati mills. The management began to adopt provocative measures. By this time the jute industry arrived at an understanding with the Government. In the second week of August, 230 jute workers and their leaders were arrested. At this juncture, the Bengal Provincial Congress Committee came out in support of the Jute workers' strike. Pandit Jawaharlal Nehru rushed to Calcutta in order to personally observe the situation of the strike and to encourage the workers to remain firm. Through the good offices of the leaders of the BPCC, especially through the intervention of Dr. B. C. Roy, a negotiated settlement was ultimately arrived at on the 16th August 1929, between the jute workers unions and Indian Jute Mills' Association, with the Government sitting as the third party. It was agreed that the industry would, (a) pay the correct proportionate increase in total earnings for the extra hours of work, (b) pay the "*khoraiki*" on the same scale as heretofore, (c) consider of making provisions for maternity benefits to the woman labourers, (d) not victimise any labourer for taking part in the strike, (e) consider favourably of reasonable statements of grievance put forward by the workers, and (f) discontinue all forms of physical punishments.

Dr. (Miss.) Prabhabati Dasgupta, K. C. Roy Chowdhury, Bankim Mukherjee, Kali Sen, Moni Singh (now, Chairman, Communist Party of Bangladesh), Abdur Rezzak Khan, Bakr Ali Mirza (to whom Miss Dasgupta was later married), Abdul Momin (a young communist who later organised the first unorganised carters' strike in Calcutta in 1930) and Panchugopal Bhaduri gave leadership to the jute workers' movement.

Soon after the strike, the AITUC was split, at the Nagpur session in 1929, resulting in a reterdation of the Trade Union Movement.

The split in the trade union movement emboldened the managements of the jute mills in their attempts to bypass the settlement arrived at in August '29.

In the beginning of March 1930, Prabhabati Dasgupta and Bakr Ali Mirza of the Labour Research Department of the Indian National Congress were able to organise a strike in the jute mills at Titagarh for non-implementation of the agreement. They tried to induce the jute workers of other mills but were not successful. V. S. Deshpande, the General Secretary of AITUC came to Calcutta

at the end of March and visited jute mills around Kankinara, Shyamnagar and Titagarh. On account of the arrest of Bakr Ali Mirza, Bankim Mukherjee, Abdul Momin, Kali Sen, Abdur Rezzak Khan and Abdul Halim, the Titagarh strike not only could not ignite the labourers in other mills, but itself came to an end.

By the end of 1931, the effect of world-wide depression began to be felt by the Indian industry as well. Bengal's major industry, jute was terribly hard hit, causing large scale retrenchments of workers. actual wage-rates in many industries went down and to revitalise their industries the managements resorted to what they called rationalisation, resulting in intolerable working and living conditions for the workers. The urge for militant action was felt everywhere. But the militant leaders of the working class movements had all been put to prison after the Meerut Conspiracy Case of 1929-30.

In 1935 the split AITUC was re-united. In 1935, the depression-hit jute industry once again began to look up and the industry entered a period of revival in 1936. Though the industry was evidently having a good time, the wage-rates remained static at the level where it went down to during the depression. The agitated workers of the jute industry began to clamour for higher wage rates. At the beginning of 1937, a joint strike committee of the jute mill workers presented a charter of demands to the Indian Jute Mills Association and to the representative Government that had just been established in Bengal under the Government of India Act of 1935. The demands were, (1) the recognition of unions, (2) restoration of the wages prevailing prior to 1931-32, (3) security of service and arrangements for keeping service records, (4) proper service rules governing leave, pension, gratuity, provident fund and maternity benefits, (5) appointment and dismissal of workers by the managements to be done in consultation with the unions and not through the *sardars*, the *baboos* and the *line-sardars*, (6) stoppage of jobbery, fines etc., (7) banning of physical assaults, (8) standardisation of wages, (9) no rationalisation at the cost of workers, (10) cancellation of orders regarding minimum production, (11) prompt repair and prompt supply of machine parts, (12) free living quarters, (13) proper arrangements for education of children, (14) medical aid, (15) light and water supply to the quarters. IJMA rejected the demands outright. It is quaint to note the remark of H. S. Suhrawardy, the Minister for Labour, in Fazlul Haque ministry (later Chief Minister of undivided Bengal who organised Muslim league workers) that the demands were politically motivated rather than being economic.

The workers were left with no other alternative but to resort to strike. The strike originally started in the second week of February 1937 involved some 19 mills in Haora, Hugli and 24-Parganas, employing about 80,000 workers. By the end of February it spread to most mills in these three districts, involving 2,25,000 workers in all. Though at the beginning of April, when confronted by the striking workers, lead by Bankim Mukherjee, Niharendu Dutta Mazumdar, Shibnath Banerjee, Saumyendranath Tagore, Rajani Mukherjee and others, the Chief Minister Fazlul Haque had agreed to look into the matter, yet at the end of April, Suhrawardy stuck to his earlier assessment of the strike. Section 144 Cr.P.C. was imposed around the mills.

Meanwhile, the BPCC came forward to help the striking jute workers. A Jute Mill Strikers Relief Committee was formed under the auspices of the BPCC. Pandit Jawaharlal Nehru in a message to the countrymen asked for support for the just demands of the jute workers. The BPCC convened a mass meeting in Calcutta on the 21st April '37. The students of Bengal also formed a relief committee to render all possible help to the striking jute workers. Subhas Chandra Bose, in a message to the Students' Jute Mill Strikers' Relief Committee, appealed to the academic community to contribute their mite to the fund. In Madras a committee was formed with Mrs. Ammu Swaminathan and Mrs. Rukshmini Devi Arundale to collect funds for the striking workers. Rabindranath Tagore in a statement declared unequivocally that the strikers' demands were just and reasonable. In short, India's national feelings were behind this strike. On the 3rd May 1937, Calcutta witnessed a unique meeting in support of the jute mills strike, convened by BPCC, AITUC and Central Strike Committee. Pandit Jawaharlal Nehru was the main speaker at the meeting.

The Government and the Indian Jute Mills Association at last climbed down to the united movement of the workers, supported by their countrymen. Ultimately the negotiation with A. K. Fazlul Haque came to be fruitful. On the basis of this negotiation, the Strike Committee decided to call off the movement from the 10th May 1937. It was agreed that, (1) there would be no victimisation of the workers for taking part in strike and trade union activities, (2) a liberal policy would be adopted regarding all excesses arising out of the strike, (3) the workers unions would be recognised, (4) there would be a thorough investigation, satisfactory to the workers, into the question of wages, service conditions and powers of the *sardars* and such others in the matter of appointments,

dismissals etc., (5) prohibitory orders under section 144 Cr.P.C. would be withdrawn.

The jute mills strike of 1937 led to the formation of the strong united association of jute workers, Bihar and Bengal Chatkal Mazdoor Union which was to play a very important role in the subsequent struggles of the jute workers.

There was a two-week of strike at Bata Shoe factory at Batanagar in 1939. The strike began on the 4th January, '39 on the demands of, (i) permanency of service, (ii) introduction of provident fund, (iii) free medical aid, (iv) increase of wages, (v) fixation of wages at not less than Rs. 25/- p.m., for the lowest grade of workers, and (vi) the recognition of union. 4,000 workers were involved in the strike. On the 9th January, while the striking workers were holding a mass meeting at Batanagar, the police let loose a violent repression. The police repression evoked tremendous protest from the organised working class. Under the auspices of BPTUC a largely attended public meeting was held at Hazra Park in Calcutta on January 11, to condemn the police repression and to express solidarity with the workers of Batanagar. The Bengal Provincial Students Federation, in sympathy with the striking workers, appealed to the people for boycotting Bata goods.

Ultimately a negotiated settlement was arrived at between the workers and the management on the 16th January. The management assured that there would be no victimisation and the grievances of the workers would be sympathetically looked into.

Despite the Defence of India Act, promulgated at the beginning of the Second World War, there were a large number of strikes in the district for higher wages, dearness allowance, war allowance, bonus, better working condition etc., necessitated by the rising cost of living. There was a strike of 9,000 workers of Baranagar Jute Mill, for three weeks in May 1941, of 12,000 workers of Anglo-Indian Jute Mills, from July to August '41, of 4,400 workers of Hasting Jute Mill in January '42, of 15,000 workers in Andrew Yule Mills in February '42.

Consequent upon the Quit India Movement of 1942 and the mass-scale arrest of the national leaders and repressive measures unleashed by the Government, there were token strikes in factories throughout the district for a day or two in August 1942. Throughout the rest of the War period ending in August '45, we do not hear much about labour movement in the district which became limited to demanding dearness allowance. However, soon after the end of the War, the trade union movement got back its militancy. The most notable

strike of the period, immediately following the World War, was the strike of 8,000 workers of Kesoram Cotton Mills, at Garden Reach, owned by the Birlas. The main demands of the striking workers were one month's wage as bonus, payment of over-time for working extra-time, provident fund and providing the same facilities for the workers of the hosiery department as were enjoyed in the weaving department, etc. etc. The demands were not met and the authorities issued retrenchment notices on five of the leading workers. The workers thus were left with no other alternative but to go on strike in November 1945. In January 1946, the striking workers resorted to hunger strike. Ultimately a settlement was arrived at between the union and the Birla Brothers, through the mediation of Prof. Kshitish Prasad Chattopadhyaya, an eminent anthropologist of Calcutta University. The 48-day old strike was lifted on January 14, after the settlement.

A new chapter for labour movement began after the Independence in August 1947. That, however, is so much a matter of the present. It will have to await its chronicler.

The southern part of the 24-Parganas district known as the Sundarbans, contained in Diamond Harbour, Basirhat and the eastern parts of Alipur Sadar and the southern parts of Barasat Sub-divisions, had, from the beginning of the British rule in the country, a land tenurial system which was different from what prevailed in the rest of Bengal. Instead of Permanently Settled zamindars, having fixed revenue commitments, lands were parcelled out in "lots" to different lessees for terms of 40 years and 99 years, according to the provisions of enactments made in 1853 and 1879 respectively. These first order lessees came to be known as the *latdars*. The *latdars* were supposed to clear forests, bring land under cultivation and settle cultivators. They were also supposed to set up *hats* or markets, and *ganjas* (nodal points of communication within their "lots"). Land holders from Khulna and Jessore in the east, Murshidabad and Nadiya in the north and Medinipur in the west came to Sundarban and became *latdars*. But they were not interested in extension of cultivation. They knew it that without investment, they would be able to reap high profits by letting the lands out to sub-lessees. So, a category of sub-lessees called the *chakdars* were

Sundarban
peasants' move-
ments, 1946-50*

* This account of the Sundarban peasants movement is prepared on the basis of a paper by Sri Amit Kumar Gupta, titled, *Agrarian Protest in Kakdwip of 24-Parganas: An Appraisal*, kindly made available by the author to the State Editor, West Bengal District Gazetteers, in January 1980. The information is supplemented by information from Suprakash Ray, *Mukti Yuddhe Bharatiya Krishak*, Calcutta, 1980, pp. 184-218.

created. *Chakdars* too found the "lots" too big for themselves to manage. So, they also began to sub-let parts of their *chaks* to a second variety of sub-lessees call *gantidars*. Thus, a whole hierarchy of land holding interests was created. *Latdars* were mostly absentee landlords; while some *chakdars* resided within manageable distances of their *chaks*, many of the *chakdars* were also absentee interest-holders. *Gantidars* were mostly local residents, interested in extension of cultivation. Resident *chakdars* and *gantidars* would often enter into some kind of an arrangement with some selected cultivators to the effect that they would secure *raiya* tenure if they would bring new land under cultivation. Some of these favoured would bring new land under cultivation. The most of the tribal and so-called low caste cultivators whom the *latdars*, *chakdars* and *gantidars* brought over from distant arid areas of Medinipur, Bankura and Puruliya, remained non-occupancy *raiya*s and under-*raiya*s, many of whom in course of time became sharecroppers or *bargadars*.

The *bargadars* or the sharecroppers of Sundarban, in some ways stood on a different footing from their counter-parts elsewhere in Bengal, as they were the men who actually reclaimed the Sundarban lands for the *latdars* and *chakdars* and made the paddy fields grow where saline backwater and jungle flourished before. The main problem of the Sundarban *bhagchasi* was that after he had improved a piece of land, he would be shifted on to a new plot where he had to repeat the process of improvement till he was evicted again. The calculating *latdars*, *chakdars*, *gantidars* and *jotedars* were opposed to the granting of any right to the *bhagchasi*. The *naibs* and the *gomostas* or the clerks and accountants of the absentee *latdars* and *chakdars* were the actual agents of oppression in the field. Apart from the usual work of cultivation the *bhagchasi* had to invest their labour without wage for the maintenance of the embankments which the *latdars* and the *chakdars* used to put up to keep saline water out.

That everything was not all right in land relations in Sundarban, began to be noticed by some administrators as early as in the thirties of this century. There was a *latdari* estate of Dainel Hamilton near Gosaba. Much have been said about Hamilton's service to the peasants and about the efforts of this English *latdar*, Hamilton's attempt to form a cooperative of peasants in his estate. Hamilton had settled in his estate a number of immigrant peasants from Khulna and Jessore and brought big areas under cultivation. To very few of them tenancy rights were conferred. Many became non-occupancy tenants only to lose their meagre rights to the so-called

cooperative by incurring debts. All of them became sharecroppers in due course. Having brought unarable land under cultivation they could not really accept their change of status to that of sharecroppers. Although due to the operation of Hamilton estate's strong arm methods, the discontent could not break into open confrontation, the tension, nevertheless, was apparent to the land revenue administrators who visited Hamilton's Gosaba estate in the thirties.

The peasant movement that broke out in Kakdwip, Sonarpur, Bhargar and Canning police station areas of Sundarban in 1946 and continued till 1950, though generally known as *Tebhaga* Movement, had wider implications for peasants other than sharecroppers. This movement was qualitatively different from earlier peasants' movements being guided by the ideology of an all-India party, namely, the undivided Communist Party of India. During the Great Bengal Famine of 1943, the functionaries of Communist Party of India, working through People's Relief Committee, had rendered invaluable services to the peasants of these areas. After the famine, it was they who took steps to establish the local units of Bangiya Pradesik Kishan Sabha. It was Communist workers who started working among the peasants to develop their political consciousness. They soon found out that the *jotedari* system had taken roots in the area, and that the sharecroppers, marginal peasants and landless labourers were the worst sufferers of the system. In 1946 the BPKS launched the *Tebhaga* Movement, the aim of which was to secure for the sharecropping peasants a better position within the given land relation structure. Among the demands were: (1) "*adhi nai tebhaga chai*" i.e., "not half but two-thirds of the standing crop should belong to the tiller" (2) "*langal jar jami tar*". This call for "land to the tiller", in actuality, however, meant a clamour for the right of non-eviction for the sharecropper. Only in some parts of the country where the movement reached a certain level of militancy, the slogan also meant an extension of the same right to non-occupancy under-*rai*yats as well. (3) Interest on paddy loans given to the peasants by *mahajans* and *jotedars* should not exceed 12½ per cent. (4) A call was given against all forms of deductions made by the *jotedars* from the sharecroppers' share of the produce, other than what can strictly be termed as the legal produce rent. (5) No payment of produce rent would be made unless the tiller gets a proper receipt. (6) Cultivable fallow land must be put to cultivation. (7) "*nija khamare dhan tolo*", "tiller, take the harvest to your own thrashing floor and do not allow the land owner to take the harvest to his *gola*".

The movement, depending on the level of militancy achieved, sought to transform into action all these slogans by adopting various strategy and tactics. Although the movement affected Kakdwip, Namkhana, Bhargar, Sonarpur and Canning thanas of south 24-Parganas, the level of militancy it achieved in Kakdwip and Namkhana* thana areas, at the villages of Layalganj, Budakhali, Lakshmipur, Bhubannagar, Kakdwip, Bisalakshipur, Phatikpur, Rajnagar-Srinathgram and Durganagar in Kakdwip thana and Uttar Chandanpiri, Dakshin Chandanpiri, Madanganj, Namkhana, Narayanganj, Dwarikanagar, Sibrapur, Rajnagar, Dakshin Chandannagar, Radhanagar, Dakshin Durgapur, Sibpur, Maharajganj, Haripur and Debinibas in Namkhana thana, was not seen anywhere else. The leaders of BPKS who were more than just local leaders and had bigger roles in organising the whole movement were Kangshari Haldar, Asok Bose and Rash Behari Ghosh: from among the participants rose leaders like Gajen Mali, Manik Hazra, Jatin Maity, Bijoy Mondal and others.

The movement began in the *aman* harvesting season of 1946 i.e., around December 1946. It may be remembered that 1946 was the year of communal riots all over Bengal. One remarkable feature of the *Tebhaga* Movement was that wherever the movement took roots, the peasants rose above communal differences. In Sundarban area also the movement saw the forging of a remarkable unity between the Muslim and Hindu sharecroppers and small peasants and landless labourers of tribal origin. In the harvesting season of 1946-47, the sharecroppers of Layalganj, Chandanpiri, Rajnagar and Budakhali harvested the crop and took them to their own thrashing floors. But the *latdars*, the *chakdars* and the *jotedars* were not sitting idle either. Police was called to their relief and in the ensuing confrontations at Budakhali, Chandanpiri, Layalganj, and Kakdwip Bazar several persons were wounded and three died. Armed police camps were established in Layalganj, Chandanpiri, Rajnagar, Budakhali and elsewhere.

For some time, from January 1947 till November 1948, a lull prevailed in the movement. Meanwhile, the policies of the Communist Party of India had undergone a fundamental change. In the second Congress of the CPI held in Calcutta in January 1948, a resolution was taken for waging militant struggle against the

* At the time of the uprising there was no Namkhana thana. The uprising itself created the necessity or bifurcating the then Kakdwip thana into two thanas, Kakdwip and Namkhana, for better policing. That is why the movement is known as the Kakdwip movement, although Namkhana area was more affected.

Congress Government that had come into power, after what the Communists then termed as "the sham-Independence, on 15th August '47". The BPKS extended the resolution to mean peasant uprisings in the areas in which it had consolidated its position during the Tebhaga movement. As a corollary of the resolution it was decided (it should, however, be remembered that the peasant activists and the local action committees did not always stick to or agree to the decision arrived at by the CPI and BPKS high command) that the harvesting season of 1948-49 would be utilised as a season of peasant uprisings. The administration and police having come to know about the strategy of CPI and BPKS started mobilising police forces in all the potential pockets of peasants uprising.

On the 6th November 1948 a posse of policemen reached Layalganj (in the present Namkhana thana) to help a *latdar's* local agent and another landholder, to harvest the paddy. The local Seva Dal also assembled its forces behind the police. The same thing happened at Sibrampur where some *jotedars* attempted to take the same course of action. Though the *latdars* and the *jotedars* harvested the paddy by force, they could not take the produce to their *golas*. In the encounters of the unevenly armed adversaries, the better armed police and Seva Dal retreated before the force of numbers. This was a victory for the peasants. Overjoyed by the victory, the peasants not only drove out the *latdars*, the *chakdars*, the *jotedars* and their agents and hierlings, with whom they came into direct confrontation, from the area, they also drove out other landholders with whom there had been no direct confrontation. Layalganj mouza was fully liberated on the 10th August '49. The peasants established something like the semblance of a people's government in the mouza. The Layalganj Sangram Committee of BPKS formed the government. This government distributed the holdings of the *latdars*, the *chakdars* and the *jotedars* among the peasants. The confiscated movable property were also distributed between the peasants who had lost their belongings in the confrontations. Brigades of peasants were formed to help each other in agricultural operation. A pool of agricultural implements was organised to lend those to every peasant needing the implements. A pool was built up with the seized paddy accruing to the share of the landholders, to give loan of rice to whoever may be needing such loans and to utilise a part of these as seeds. A militia was formed with all able-bodied men for the purposes of maintenance of internal peace and defending the independence of the village. A people's court was

organised for dispensing of justice. Laylaganj was renamed as *Lal* or red ganj

The researches of Sri Amit Kumar Gupta of the Centre for the Study of Social Systems, Jawaharlal Nehru University, Delhi, have shown that it was not always the initiative of the peasants, under the leadership of the CPI workers, that resulted in armed confrontations. Most often than not it were the pre-emptive strikes of the police and Seva Dal workers, at the behest of the landholders, on the houses of the leading peasant activists and peasant congregations which resulted in unevenly matched armed confrontations. On the 18th August '49, the police, on being asked by the local landholders, swooped down on the village Radhanagar and started combing for hidden arms with the aid of Seva Dal volunteers. When the news reached Lalganj, about 156 volunteers rushed from Lalganj to Radhanagar, some 5 miles away, and drove out the interventionists. On the 24th August, following, there was again another police raid on Radhanagar. On the 16th September of the same year, news reached Lalganj that Seva Dal volunteers and police had assembled at Kakdwip bazar under the leadership of a *chakdar-mahajan*. On hearing the news the peasants made elaborate arrangements to face the situation and secret commandos were sent out to murder Kunja Ganta the *chakdar-mahajan*. He was murdered that night and all the leading peasant activists went underground. Only in the month of November 1949, there were 22 cases of arson in Kakdwip and Namkhana police station areas which destroyed the houses of peasant activists, for all of which the landholders were held responsible.

Like Lalganj, the village of Chandanpiri (also in the present Namkhana P.S.) rose into prominence during the peasant movement of Kakdwip-Namkhana. Like that in Lalganj the local unit of BPKS was established to Chandanpiri during the *aman* harvesting season of 1946. One of the front ranking leaders of the Kakdwip-Namkhana peasant movement, Gajen Mali came from this village. There were armed clashes between Seva Dal volunteers and the peasants during the *aman* harvesting season of 1948-49. The peasants won the first round. They harvested all the standing crop and drove out some *jotedars*. Chandanpiri was 'liberated'. The responsibility of maintenance of peace, the defence of peasants' gains, re-distribution of land, conducting of agricultural operations cooperatively etc. were taken over by the elected Sangram Committee of the peasants. But the opposite party did not take much time to strike back. On the complaint of the landholders, an

armed police brigade attacked Chandanpiri. But it was not a cakewalk victory for the police forces. They were resisted by the peasants. It took three days for the police to break down the resistance even with that superior command over arms. In the confrontation the peasant leaders Aswani Das and Gajen Bhuniya were killed. Peasant women played important part in this resistance put up against the police by the people of Chandanpiri. Four of the fourteen peasant women who took part in the armed resistance died while fighting. They were Ahalya, Batasi, Uttami and Sarojini. Thus ended Chandanpiri's resistance. But though the resistance ended, it was not without retribution. Within a few days, *jotedars* Paresch Das and Basanta Mandal were murdered by a peasant commando group in accordance with a 'judgement' passed by a secret people's court. The local BPKS leader, Gajen Mali who had escaped the carnage at Chandanpiri was apprehended by the police a few months later.

In Budhakhal mouza, also in Kakdwip police station area, the Communist Party of India's functionaries had been active since the Bengal Famine of 1943. Some time in the middle of 1947, a unit of BPKS was established in the village and decision was taken to initiate the Tebhaga movement in the village. It was decided that during the ensuing *aman* harvesting season, the tillers would harvest the paddy and take the produce to their respective thrashing floors from where the *jotedars'* share of the paddy would be distributed. The landholders having come to know of the decision got themselves prepared for a showdown. On the 15th December when the tillers of the village went to harvest in the field, a group of Seva Dal volunteers backed by 18 armed policemen swooped down on the peasants and there was a bloody riot in which many peasants including women were grievously hurt. The same night, the police raided the houses of the leading peasant activists like Mandapati, Bihari, Gabua Halder, Sibul Mandal and Harish Mandal, ransacked their houses, beat the inmates up and arrested the leaders.

The peasants could not take the defeat lying down. They began to prepare themselves for revenge. On the 22nd December when Bhusanpati, the local leader of Seva Dal, was walking down the village road, he was attacked by two youngsters. He, however, escaped from their clutches and returned to the village with a police force. The police came and rounded up some peasant activists, took them to thana and perpetrated third degree tortures on them. This instead of cowing down the peasants, enraged them to new determination. On the 30th and the 31st December, hundreds of peasants went to fields and started harvesting the paddy. On the evening of

the 31st December, when the peasants were returning to their homes after harvesting the paddy, a big posse of armed policemen and Seva Dal volunteers attacked the peasants. There was a protracted confrontation between the peasants and the Government forces in which many peasants were wounded. The police beat to death the wounded peasant activists like Nilkantha, Suren and Sudhir. But the peasants also had their revenge on some oppressors. The outcome, however, was a breakdown of the peasants' resistance.

During the harvesting season of 1948-49 there were a number of cases of peasants' rising in Sandeshkhali area within the jurisdiction of Canning police station. Unlike that in Kakdwip and Namkhana thana areas where the sharecroppers were the most active elements in peasants' resistance against the landholders, in the Canning thana area the landless labourers were the most active elements in the peasants' resistance against the landholders. Some time in the last week of December, a group of landless labourers attacked the grain stores of the *jotedar-mahajan* Ramanath. Ramanath fled with his men. The peasants distributed the 500 maunds of rice they seized from the store and distributed it among the poor inhabitants of the village. A few days after that, landless labourers led by local leaders of BPKS raided the *kachhari* and the *gola* of a big *jotedar-cum-mahajan* of the village Sukdoani, seized about a thousand maunds of paddy, 800 pieces of *dhoti*, 400 pieces of *gamchha*, some cans of kerosene and a few bags of sugar and salt. On their way back, the peasants had a confrontation with the police from which the police had to retreat before the might of numbers. Next day there was a police raid on Sandeshkhali in which two landless labourers had to lose their lives, but on this occasion also the police had ultimately to retreat. There were few other raids by peasants on the properties of *jotedars* and *mahajans*. In the second week of January '49, the police made a determined raid on Sandeshkhali and neighbouring villages. The police resorted to firing at seven different places in which five people were killed. The police destroyed about 150 huts of leading peasant activists and arrested 300 people most of whom were landless labourers. Thus ended the resistance of Sandeshkhali.

Another village which rose into prominence during the days of Tebhaga movement was Burul in Bishnupur police station area. In Burul the leadership of peasants' resistance was provided by the students of Burul school who came under the influence of the CPI. But in Burul the uprising against the local zamindar was in actuality a token uprising which was suppressed without much use of force.

By the end of the *aman* harvesting season of 1949-50, i.e., by

December '49 and January '50, the Tebhaga and its following peasant movement had come to an end. Though police repression is held to be the single most important factor responsible for the end of the movement, it was not the only factor. Repression was surely there as is evident from the table reproduced below on the police action during the last two months of the movement. Among other factors responsible for the demise of the movement was the change in the political line of the CPI after January 1950.

TABLE ON POLICE REPRESSIONS

(During the last two months of Tebhaga Movement)

1. Total number of warrants of arrest issued	5,000
2. Total number of arrests made	1,000 (including 300 women)
3. Police firing	5 times
4. Number of persons killed in the firings	9
5. Cases of police assault	1,000
6. Huts damaged or destroyed	1,000
7. Section 144 imposed	15 villages

On the other side, a number of persons, either *jotedar-mahajans* or their allies were killed by the peasant activists.

The peasant movement of Kakdwip-Namkhana, for that matter the Tebhaga movement of Bengal, perhaps did not end with a whimper. It had its far reaching effects on the government policy on the agrarian relations. The direct consequence of the movement was the enactment of Bargadari Act of 1950, which later got incorporated as the Chapter III of the West Bengal Land Reforms Act 1956. This act sought to give to the sharecropper the right to cultivation of a piece of land the bargadar i.e., the sharecropper has been cultivating for some years which amounted to gaining of right of non-eviction. The act recognised the sharecropper's right to two-thirds of the produce where he supplies usual necessary inputs. Illegal exactions were ended. That there were loopholes in the acts which prevented the sharecroppers to realise their rights granted by the acts is a different story altogether. Ultimately the Land Reforms Act had to be ammended and vigorous Governmental action launched to give to the sharecroppers some kind of an occupancy right.

CHAPTER III

PEOPLE

DEMOGRAPHY

Salient features

The district of 24-Parganas covering an area of 13,796 square kilometres accounts for 15.7 per cent of the total area of the State of West Bengal with claims to be the largest district of the State. In 1971, out of this total district area, 13,311.1 square kilometres or 96.5 per cent of the total area of the district was found to comprise the rural country and 484.9 square kilometres or only 2.2 per cent of the total area of the district comprised the urban tracts. But 484.9 square kilometres of urbanized area was by far the largest in any single district of the State.

According to the 1971 Census, 84,49,482 persons were found to live in the district of 24-Parganas, accounting for 19.1 per cent of the total population of the State. Among all the districts of the State, 24-Parganas had the largest population. Out of this total population, 44,88,441 were males and 39,61,041 were females, giving a ratio of 882 females per 1,000 males which was less than the State ratio of 891 females per 1,000 males.

According to the same Census of 1971, all told 54,79,162 persons or 64.85 per cent of the then district population were found to live in the rural areas of the district. The urban population of 29,70,320 accounted for 35.15 per cent of the then district population. Excepting Calcutta municipal district, the largest quantum of urbanites was thus found in 24-Parganas district.

In 1971, on an average, 612 persons lived in per square kilometre area in the district of 24-Parganas, whereas in the concurrent period 504 persons on an average lived in one square kilometre area in the State as a whole. 24-Parganas was thus one of the most densely populated districts in the State.

Before proceeding on to analyse the variations in population of the district, it will be advisable to present the quantum of variation per decade in a tabular form for ready reference in the next page.

The district can be roughly divided into four recognizable demographic zones: (a) The industrialized and urbanized zone along the Hugli-Bhagirathi, comprising the greater parts of the west of Alipur Sadar and Barakpur Subdivisions; (b) the north-eastern rural-agrarian zone, comprising the greater parts of the Bangaon and east of Barasat Subdivisions; (c) the rural-agrarian zone of the northern and western parts of the Diamond Harbour and Basirhat Subdivisions; and (d) the deltaic forests of what had once been the

Variations in population

mighty Sundarbans, of the southern and eastern parts of the Diamond Harbour, eastern parts of Alipur Sadar and especially of the Basirhat Subdivisions.

VARIATIONS IN POPULATION OF 24-PARGANAS DISTRICT
SINCE 1901*

Year	Population	Decadal variation	Decadal percentage variation
1901	21,43,160	—	—
1911	24,59,902	+ 3,16,742	+ 14.78
1921	26,15,073	+ 1,55,171	+ 6.31
1931	28,64,218	+ 3,49,145	+ 9.53
1941	36,10,896	+ 7,46,678	+ 26.07
1951	44,59,492	+ 8,48,596	+ 23.50
1961	62,80,915	+ 18,21,423	+ 40.84
1971	84,49,482	+ 21,68,567	+ 34.52

The demographic history of 24-Parganas is a history of continuous growth from the late eighteenth century, in which the growth of trade, commerce, industry, transport and employment potential in and around, from and to the port city of Calcutta have always played the most significant part, especially when Barakpur and Alipur Sadar Subdivisions are concerned. But 24-Parganas began to attract immigrants even before Calcutta-induced industrialization and urbanization process started turning the face of Alipur Sadar and Barakpur Subdivisions. According to Frederick Eden Pargiter¹, forests in portions of Sundarbans in south 24-Parganas began to be cleared and land parcelled out in *patitbandi taluks* began to be settled with *khas talukdars* from 1770. In 1813, the Government found that not only had these *khas talukdars* but also many zamindars having their zamindaris on the borders of Sundarbans had extended their *mahals* or estates by unauthorized clearing of forest and settlement of tenants.² This process of clearing of Sundarban-forest by the Government and authorized settlement of cleared land in lots and unauthorized clearing of forest by zamindars,

* Source: Census 1961, West Bengal District Census Handbook : 24-Parganas, Vol. II. Figures have been arrived at after adjustments required by changes in area of the district.

¹ Census 1971, West Bengal District Census Handbook : 24-Parganas, F. E. Pargiter—A Revenue History of the Sundarbans from 1765 to 1870, Calcutta, 1934, p. 1.

² *ibid*, p. 6.

khas talukdars and titleless occupants went on for a long time. All the while the zamindars, *khas talukdars* and imposter zamindars were settling portions of their holdings with *pattanidars*, and *pattanidars* in their turns were settling portions of their holdings with *raiya*s. And the *raiya*s were settling portions of their holdings with under-*raiya*s or parcelling portions of their holdings out to *bargadars* against shares of produce. Meanwhile, the labourers, who were being brought into Sundarbans for clearing of forest, were staying on and were swelling the ranks of the landless agricultural labourers. A few more fortunates among them were settling down with small plots of land as marginal peasants. Thus Sundarbans portion of the south 24-Parganas was being slowly and steadily cleared of forest and brought under cultivation by immigrants from outside, since 1770. Most of the zamindars and *talukdars* were from the neighbouring Jessore, Khulna, Nadiya districts and northern parts of 24-Parganas itself. *Pattanidars* of the first order and big *raiya*s too were immigrating from the same areas, as also from Kanthi, Tamluk and eastern parts of Medinipur Sadar subdivisions. The working force comprising the bulk of small peasants, share-croppers and landless labourers immigrated into Sundarbans region from the drought and famine prone plateau regions of Jhargram and the western part of Medinipur Sadar Subdivisions, Bankura Sadar Subdivision, Assansol Subdivision of Bardhaman, and Singhbhum and Santal Parganas districts of Bihar. Among them were a large number of Santals, Mundas, Oraons, Kurmis and Koras, besides a large number of persons belonging to depressed Hindu castes. They came in different waves and settled down in different areas of Sundarbans. The process of colonization of Sundarbans in south 24-Parganas has gone on for more than a century and a half, attracting immigration from beyond the confines of the district. But the demographic growth of Sundarbans area (comprised in Diamond Harbour and Basirhat Subdivisions) had been extremely slow for a virgin land. Sundarbans, crisscrossed by numerous rivers, backwater creeks, canals and rivulets has had always been lacking in communication facilities, and facilities of sweet water-supply which rendered the prospects of return from agricultural endeavours very poor. Besides that, the very high incidence of deaths from attacks of wild animals like tigers, leopards, wild boars, snake bites, from malarious fevers and deaths at child birth rendered the retention and accumulation of full quantum of immigration impossible. All these factors together tended to slow down the cumulative rate of population growth in Sundarbans.

The northern portion of 24-Parganas along the Bhagirathi-Hugli, comprising Barakpur Subdivision, had, on the evidence of Kavikankan Mukundaram Chakravarti, been a populous tract even in the sixteenth century and had never suffered from fall in population which populous parts of Sundarbans did from time to time. But till the middle of the eighteenth century, immigration played rather insignificant part in the growth of population in the Bhagirathi-Hugli tract of the north 24-Parganas. Growth then was due more to surplus of births over deaths. The demographic growth of the north 24-Parganas along the Bhagirathi-Hugli river began with the growth of Calcutta as the port city of Eastern India and growth of trade, commerce and transportation in and around Calcutta. Along with Calcutta the north 24-Parganas began to attract immigrants not only from distant parts of India, but also from Western Europe. As units of big manufacturing industries began to be opened one after another from the second half of the nineteenth century, newly created employment opportunities in them began to attract huge immigration from all over northern India. Immigration, in course of time, pushed up the quantum of natural growth (as also increase of rate of birth over deaths); thus causing the population to increase both by immigration and by birth. Yet, for about a century from 1860 to 1964-65, the population of Barakpur Subdivision grew more by immigration than by birth, because all through these hundred years new industrial units were coming up creating new employment opportunities and generating hopes of employment in many more people than there were jobs. Industrialization was turning sprawling old villages along the Bhagirathi-Hugli into industrial towns and cities all through the century. The towns were encompassing and incorporating rural areas around them as they were growing and getting joined to each other.

The process of commercial urbanization followed by industrial urbanization, which initiated the demographic growth of the northern part of 24-Parganas along the Bhagirathi-Hugli tract, was not confined to that region alone. Similar process generated the growth of population in similar manner along the Bhagirathi-Hugli line to the south of Calcutta, in Alipur Sadar Subdivision. But the commercial importance of Alipur Subdivision, outside the area of control of the Calcutta Port Trust, began to be felt only when industrial units started to be established in the north from around 1860 and the first industrial units worth the name were not established in Alipur Subdivision—beyond the jurisdictions of Calcutta Corporation and Calcutta Port Trust—before the second decade of this century. By

the end of the second decade of this century, however, the rate of demographic growth of Alipur Sadar Subdivision, especially of the thanas along the Bhagirathi-Hugli, began to match the rate of growth of Barakpur Subdivision. Like the latter, Alipur Subdivision too was gaining population more by immigration than by surplus of births over deaths. Again like Barakpur Subdivision the cumulative effect of successive waves of immigration had resulted in pushing up the quantum of births.

In 1872, the first census was taken in the district. A decade later, when the next census was held in 1881, it was found that population had increased by 6.9 per cent. The increase, however, was not even for all areas of the district; in fact, there was a decline in Bangaon, Barakpur and Barasat Subdivisions owing to the ravages of Burdwan Fever. In spite of influx of immigrants Barakpur Subdivision recorded a 9 per cent decline in population.

In course of the next decade, the population of the district showed an 11.9 per cent increase (as recorded in 1891). But due to the prevalence of the same malarious fever, Bangaon and Barasat Subdivisions recorded a decline of 5.4 per cent over the population of 1881. But this decrease was more than compensated by the growth in Alipur Sadar and Diamond Harbour Subdivisions.

In the decade ending in 1891, three important drainage schemes, namely, the Charial Bil, Balli Bil and Satpukur-Kulpi-Tegrabichi drainage schemes were executed which resulted in the reclamation of a few thousand acres of swamps for agriculture in Alipur Sadar and Diamond Harbour Subdivisions and freed large areas of these two subdivisions from the ravages of malaria, thereby helping the growth of population. Baj Baj got connected with Calcutta by rail in 1890.

In 1891-1901 decade, there was a remarkable growth of industries along the Bhagirathi-Hugli tract in Barakpur and Alipur Sadar Subdivisions which attracted immigrants from far and near to settle down in this tract. As a result, there was a 9.9 per cent increase in the population of the district in 1901 over the population of 1891. While the population of a few inland thanas of Barakpur Subdivision remained stagnant and Bangaon and Barasat Subdivisions recorded further decline, the population of the riparian tracts of Barakpur and Alipur Sadar Subdivisions recorded a 12 per cent increase over 1891, though Barakpur Subdivision suffered much from malaria.

According to the report of the Bengal Drainage Inquiry Committee 1906-1907, Habra and Deganga thana areas of Barasat Subdivision and Barakpur, Naihati, Noapara and Khardah thana areas of Barakpur Subdivision were the most malarious thanas of

the district, where death figure almost matched the birth figure, leaving very little of surplus accounting for natural growth of population. Yet, in the riparian thanas of Naihati, Noapara, Khardah and Barakpur the natural loss of population by death and lowered vitality was more than offset by immigration. According to the same Bengal Drainage Inquiry Committee Report, natural growth of population was high in the relatively malaria-free thanas of Bhangar and Baj Baj in Alipur Sadar Subdivision and Diamond Harbour thana area.

In the decade ending in 1903-04 no less than 1,206.94 square kilometres of forest land in Sundarbans (Basirhat and Diamond Harbour Subdivisions) was brought under cultivation. The most important scheme to drain-out water from the low lying swamps of Diamond Harbour Subdivision and reclaim about 290 square miles of water-logged low land for agriculture, namely, the Magrahat drainage scheme, was executed between 1904 and 1911. Barasat-Basirhat Light Railway was opened to traffic in 1905 and extended to Hasnabad in Sundarbans in 1909. The Calcutta Tramways Company extended its operations to Tollygunge and Behala in Alipur Sadar Subdivision in 1901-1911 decade and the Calcutta Port Commissioners began to ply a steamer service from Calcutta to the riparian municipalities in Barakpur Subdivision. New units of jute textile, chemical engineering and mechanical engineering were being added to the existing ones in this decade as well. All these tended to attract new immigration, discourage emigration and deflate the rate of death from malarious fevers. As a result, in 1911, the district recorded a 17.1 per cent increase in the population over the population of 1901. The Barakpur Subdivision had a phenomenal increase of 42 per cent which was almost entirely due to immigration of labourers. In no subdivision the increase was less than 10 per cent. Lowest increase in population was recorded in Habra and Baduria thana areas of Barasat Subdivision; there the increase was of the order of 5 per cent.

An influenza epidemic ravaged the district between 1911-1921 and coupled with endemic malaria it tended to slow down the rate of growth of population in the decade. As a result, in the census of 1921, it was found that the district contained only 6.31 per cent more population than it had in 1911. Although Bangaon and Barasat Subdivisions suffered decrease in population in the decade and population remained static in Basirhat Subdivision, Barakpur Subdivision registered a 18.5 per cent increase. In the 1921-31 decade, there was moderate increase of 9.5 per cent in the district population,

In Bangaon Subdivision there was a decrease of 10.1 per cent and in Barasat Subdivision the decrease was of the order of 3.1 per cent. Barakpur, on the other hand, recorded an increase of 18.1 per cent, Diamond Harbour 16.0 per cent, Sadar 10.2 per cent and Basirhat 7.3 per cent.

Nothing really very significant happened between 1931 and 1941 to warrant a 26.1 per cent increase in population of the district in 1941 over the population of 1931. The increase again was highest in Barakpur Subdivision (41.6 per cent), followed by Sadar (29.5 per cent), Diamond Harbour (26 per cent) and Basirhat (17.9 per cent). Lowest growth of population in the decade was recorded by Bangaon Subdivision (12.5 per cent).

In 1942, a severe cyclonic storm ravaged the southern parts of Diamond Harbour, Basirhat and Alipur Sadar Subdivisions, followed by a flood which damaged much of the standing *aman* crop, assets and cattle wealth. Several hundreds of lives were also lost. The most severe of famines since the famine of 1770, visited Bengal in 1943-44 and ravaged the country for a full year. Survey of 'Bengal Famine'* brought out by the Calcutta University in 1949, as well as many similar publications have called it a man-made famine. Sri Tarakchandra Das mentions the following as the immediate causes of the famine (*ibid.*, pp. 97-98); (a) Non supply of rice from Burma, etc., (b) Floods & Cyclone, (c) Hoarding, (d) Denial Policy, (e) Corruption, etc. Hoarders hoarded the meagre amount of food, especially rice, produced in 1942 and 1943 with the expectation that the Government would buy the rice at whatever price they would ask, for the soldiers of the allied powers fighting in the eastern front, knowing it full well that when necessary for war-supply the Government may bank upon the stock. This caused serious shortage and sent price of food stuff sky-rocketing. Millions of starving peasants from rural areas began migrating to the urban areas in search of food and died of hunger and malnutrition in the streets of the urban areas. Very large number of people of the district died from starvation and diseases caused by malnutrition in and around Calcutta and other towns of the district. Many of these who survived, did so with maimed fertility. A terrible communal riot broke out on 16 August 1946 and continued intermittently till the partition of the country and gaining of Independence on 15 August 1947. Though what happened between 16 and 24 August is known as the great Calcutta Killing, killing, loot and arson in ferocity took place in all the towns

* Tarakchandra Das, University of Calcutta, 1949.

of the industrial belt of Barakpur Subdivision and Alipur Sadar Subdivision. Though on a lesser scale, Barasat, Basirhat and Bangaon Subdivisions were also affected.

With the partition of the country ensued an almost never-ending stream of immigration from what became East Pakistan into the neighbouring States of India. The West Bengal districts having common border with East Pakistan were specially favoured by the incoming refugees from that erstwhile part of Pakistan. Each incident of persecution of the religious minority there sent population figure swelling in West Bengal. Although the incoming flow never really ceased for a moment since 15 August 1947, the communal riot of 1950 in East Pakistan was an incident of first magnitude before the Census of 1951 that suddenly raised the number of immigrants in the district. Up to the Census of 1951, a total of 5,98,833 refugees from East Pakistan had come and settled down in the district of 24-Parganas. 3,65,000 of them were enumerated in the urban areas of the district and rest were found in the rural areas during the Census of 1951. In the same period, due to similar reasons, 51,950 persons belonging to the major religious minority community emigrated from 24-Parganas district to East Pakistan, of whom 23,850 later returned.

The factors negating the growth of population in the earlier part of the 1941-1951 decade, such as the cyclone of 1942, famine of 1943-44 and communal riots of 1946-47, were more than counter balanced by the huge and unending refugee influx from the erstwhile East Pakistan in the later part of the decade. As a result, in 1951 Census, it was found that the population of the district had registered an increase of 23.51 per cent over what it was in 1941.

In the 1951-61 decade, the inflow of refugees from erstwhile East Pakistan not only continued unabated, but actually had sudden increase just before the introduction of passport for travel between India and Pakistan in 1952. In March 1953, the district was found to contain approximately 8,00,000 refugees from the erstwhile East Pakistan.

But the huge population explosion of 1951-1961 decade cannot be explained only in terms of immigration of refugees from the erstwhile East Pakistan. In the Census of 1961, it was found that the district of 24-Parganas contained 40.84 per cent more population than it had in 1951. Other contributory factors were possibly adoption of preventive measures, improvement in public health conditions and improvement in curative measures through extension of medical facilities, which slowed the natural decline of population

through deaths. Malaria, the largest killer disease of West Bengal, was completely eradicated in the State in the decade under reference. Number of births and survival of newly born rose rather sharply.

The growth of population was highest in the two police station areas of Dam Dam and Khardah. In these two predominantly urban areas there were respectively 51.7 and 51.3 per cent increase in population in 1951-61 decade. Bangaon, Gaighata, Habra, Jaynagar and Namkhana were other five police stations each of which recorded more than 40 per cent increase in the population in the decade under reference. Excepting Jaynagar and Namkhana all police station areas increased their population content significantly from the inflow of refugees from erstwhile East Pakistan. In fact, some of these police station areas now contain more settlers from erstwhile East Pakistan than original residents. On the other hand, the urban police station areas of Behala, Metiabruz and Tollygunge in Calcutta conurbation region suffered depletion in population in the 1951-61 decade. The rural areas of Kultali police station in Alipur Sadar Subdivision and Kulpi in Diamond Harbour Subdivision also suffered depletion.

The economic planners especially and the Government as a whole got alarmed at the high rate of population growth and began to think about ways and means to check the alarming rate of population growth after the Census of 1961. The family planning measures adopted were responsible for bringing down the rate of population growth in the district from 4.1 per cent per year in 1951-61 decade to 3.4 per cent per year in 1961-71. In the decade under reference, immigration of refugees of the erstwhile East Pakistan slowed down considerably with only one voluminous influx after the communal riots of East Pakistan in 1964.* 24-Parganas was reaching the saturation point of its capacity to receive new settlers, whether they were skilled or unskilled labourers of the secondary sector from Bihar, U.P. and Orissa or were refugees from erstwhile East Pakistan.

The table in the next page prepared on the basis of census data gives an idea about variation in population of the district and its parts between 1961 and 1971.

* In this connexion it may be mentioned that there was a huge influx of refugees from the erstwhile East Pakistan in the wake of the independence struggle of Bangladesh. From March to August 1971, nearly a million people fled from Bangladesh to India. At least 10 per cent of them had taken shelter in different camps set up in 24-Parganas. Barring a handful of them, most of these refugees went back to the newly formed State of Bangladesh by February 1972.

VARIATION IN POPULATION OF 24-PARGANAS
DISTRICT: 1961-71¹

Area	Population		Decade variation	Decade percentage variation
	1961	1971	1961-1971	1961-1971
24-Parganas Dist.	84,49,482	62,80,915	+ 21,68,567	+ 34.52
Alipur Sadar Subdivision	25,95,703	18,75,834	+ 7,19,869	+ 38.32
Barakpur Subdivision	17,97,369	12,83,257	+ 5,14,112	+ 40.06
Barasat Subdivision	8,98,740	6,39,571	+ 2,59,169	+ 40.52
Basirhat Subdivision	12,02,278	9,64,622	+ 2,37,656	+ 24.63
Bangaon Subdivision	4,47,661	3,43,678	+ 1,03,983	+ 30.25
Diamond Harbour Subdivision	15,05,515	11,73,933	+ 3,31,562	+ 28.24

It would be seen that Barasat Subdivision recorded the highest growth of population in 1961-71 decade. Barasat, so long a rural agrarian subdivision, saw the establishment of a number of industrial units in this decade and these naturally attracted immigration of labourers from neighbouring States and other districts. Besides that, a large number of refugees from the rural areas of the erstwhile East Pakistan settled down in this subdivision. The highly industrialized and urbanized Barakpur Subdivision, as is usual, recorded a large growth of population in 1961-71 decade for obvious reasons. Basirhat Subdivision returned the lowest rate of population growth in the decade, followed by Diamond Harbur Subdivision. These two predominantly rural agrarian subdivisions, with lesser infrastructural facilities than other subdivisions, seemed to have failed to attract significant volume of immigration in the decade. In earlier decades, these two subdivisions had attracted significant volumes of immigrants from the drier older alluvial tracts of western West Bengal, most of whom were landless agricultural labourers. It seems that the capacity of these two subdivisions to provide employ-

¹ Source: *Census 1961, West Bengal District Census Hand-book: 24-Parganas, Vol. II*, Calcutta; and *Census of India 1971: West Bengal: General Population Tables*, Calcutta, 1973.

ment and land for new migrants had already come to a saturation point in the decade under reference, as a result of which immigration vis-a-vis growth of population had dwindled. On the other hand, the refugees from East Pakistan found these two subdivisions less attractive to settle down.

From the foregoing discussion about the growth of population in the district it becomes apparent that migration has played the most important part in the demographic growth of the district.

In the first half of the nineteenth century, when the Sundarbans area of the southern parts of Diamond Harbour, Alipur Sadar and Basirhat Subdivisions were being deforested and brought under cultivation, landless labourers and fishermen from the neighbouring areas of Jessore, Khulna and Nadiya were coming over and settling down in numbers. Most of them were people belonging to the untouchable Hindu castes like Pods or Paundra Kshatriyas, Jalia and Halia Kaivarttas, Namasudras and similarly placed Muslim Azlafs and Jolahs etc. In the second half of the nineteenth century, the source of immigration to Sundarban portion of the district changed. More and more landless agricultural labourers and marginal cultivators from Medinipur and other comparatively arid parts of southwestern Rarha regions of West Bengal and the plateau regions of south Bihar started migrating to Sundarban. The new immigrants included a fair number of Santal, Oraon, Munda, Kurmi and other tribals, as also people belonging to middle ranking Hindu castes like Kurmi-Mahatos and Mahishyas and lower Hindu castes' immigration to Sundarban rose to its height in the period between 1881 and 1911; from around 1921 it was tapering off and by 1941 it had almost ceased.

Opening up of units of various kinds of manufacturing and servicing industries and infrastructural facilities along the Bhagirathi-Hugli tract in Barakpur and Alipur Subdivisions from around the seventies of the nineteenth century ushered in an era of immigration to these two subdivisions from Bihar, Orissa, Uttar Pradesh, Punjab, Haryana and other districts of West Bengal. Soon the volume of immigration to Barakpur and Alipur Subdivisions reached a proportion which was more than double of what Sundarbans attracted at the height of influx of immigrants. Moreover, the rate of immigration till 1961 never showed the sign of tapering off. From 1965 onwards, the influx of new migrants from other States of India to the industrial belt of the district is showing some signs of tapering off, due to non-opening of new manufacturing and servicing units and closing down of some and non-expansion of other existing units.

Migration

The volume, rate and magnitude of immigration that ensued with the partition of the country in 1947 was unprecedented. In 1961, it was found that the number of refugees from the erstwhile East Pakistan in 24-Parganas was already more than double the number of immigrants from other sources found in 24-Parganas. The problems of their physical, economic, social and psychological rehabilitation have kept the State Government busy all these years.

According to 1961 Census, 7,86,661 persons born in the erstwhile East Pakistan were found residing in 24-Parganas district. 4,89,497 or 62.22% persons of East Pakistan origin were residing in the urban areas of 24-Parganas and 2,97,164 persons or 37.78% of East Pakistan borns only were in its rural areas. Even those who had settled down in the rural areas, showed a preference to be as near to Calcutta conurbation region as possible. As a result, very many people of East Bengal origin are to be seen in and around Calcutta Metropolitan District, that is, in Barakpur and Alipur Sadar Subdivisions. A number of refugees emigrating from Jessore and Khulna districts of Bangladesh have settled down in Bangaon Subdivision. Basirhat Subdivision too had its share of refugees originating from rural areas of East Pakistan. Diamond Harbour Subdivision seems to have attracted lowest number of refugees.

Before we proceed on to make a quantitative assessment of migration in 24-Parganas, it will be pertinent to take note of impossibility of assessing the real volume, rate and cumulative volume of migration, and migrant content of population of a given area at a time from the Census data. As according to the Census authority, the place of birth of a person is the only indicator of his mobility or immobility, so a child born of parents staying in Bangaon, in the child's maternal uncle's place in Chakdah, would be regarded as an immigrant from Nadiya in 24-Parganas. On the other hand, a child born of Bihari parents in the labour colony of Kamarhati would be taken to be a 24-Parganas local. According to the language statistics of the 1961 Census, there were 5,31,429 speakers of Indian languages other than Bengali and Santali and they accounted for 8.46 per cent of the then district population. Whereas according to the migration statistics, 3,27,130 persons born in Indian States other than West Bengal were found in 24-Parganas during the Census of 1961 and together they accounted for 5.2 per cent of the district population. Whatever be the lacuna, the Census figures do give us some approximations regarding quantitative aspects of migration. The table following gives an idea about the effect of migration on population fluctuations in the district from 1891 to 1951.

EFFECT OF MIGRATION FLUCTUATIONS IN 24-PARGANAS FROM 1891 TO 1951¹

Year	Actual population	Immigra- tion	Emigra- tion	population Natural	Percen- tage variation
1891	19,88,699	93,367	6,950	19,02,282	—
1901	21,55,981	1,35,451	2,849	20,23,379	+ 6.4
1911	24,78,335	2,47,700	12,200	22,42,835	+ 10.8
1921	26,36,710	2,93,903	6,200	23,49,007	+ 4.7
1931	28,88,694	2,69,868	7,078	26,25,904	+ 11.8
1941	36,69,490	3,78,975	8,440	32,98,955	+ 2.6
1951	46,09,309	9,75,916	14,136	36,47,529	+ 10.6

The salient features of the 1961 Census insofar as migration is concerned is given in the following statement. It may be pointed out that district-wise migration data is not yet available for the 1971 Census.

STATEMENT ON MIGRATION IN 24-PARGANAS: 1961²

Born in the district of enumeration	28,41,615 persons or 77.2% of population
Born in other districts of West Bengal	3,08,978 persons or 4.9% of population
Born in other States of India	3,27,130 persons or 5.2% of population
Born outside India	7,96,737 persons or 12.7% of population
Born in Pakistan	7,86,661 persons or 12.5% of population
Emigration	8,265 persons or 0.2% of population

In 1951, the district had a population of 44,59,492 (after allowing for adjustment with 1961 area) persons. In 1961, the same area was found to contain 62,80,910 persons. The cumulative rate of growth of population was, therefore, 40.84 per cent in that decade. Between 1951 and 1960, a total of 7,59,538 persons were born in the district and 3,34,356 persons had died during that period. So, the excess of births over deaths was to the tune of 4,25,182 persons³ or in

¹ Source: *Census 1951, West Bengal District Handbook: 24-Parganas, Calcutta, 1954.*

² Source: *Census of India 1961, Vol. xci: West Bengal & Sikkim, Part-II-Cii: Migration Tables, Calcutta, 1965.*

³ Source: *Census of India 1961, Vol. xvi; West Bengal & Sikkim, Part-I-B; Report on Vital Statistics.*

other words, of the total cumulative growth 23.34 per cent was due to natural growth and 76.66 per cent of the cumulative growth was due to immigration.

Out of a total of 14,32,703 immigrants enumerated in 24-Parganas in 1961 a total of 9,67,583 persons or 67.53 per cent of the immigrants were found in the urban areas of the district. Of 4,71,073 immigrants of Indian descent into the urban areas of the district 3,15,146 persons or 66.89 per cent were born in the rural areas of other districts of West Bengal and other States of India. On the other hand, only 17,831 persons, accounting for 3.78 per cent of the total number of immigrants into the district, born in the urban areas, were found in the rural areas of the district in 1961. Even within the district, while 1,15,381 rural borns were found in urban areas, only 13,631 urban borns were enumerated in the rural areas in 1961. It simply shows that there was a strong bias towards migration from rural to urban areas.

The urban areas of the district, however, has attracted more male migrants than females. Among the migrants into the district from other districts of West Bengal and other States of India there were 4,08,059 males and 2,28,050 females, or in other words there were 559 females per 1,000 males born in other districts of India. Among the migrants into the urban areas of the district there were 3,16,134 males and 1,54,939 females born in other districts of India, or in other words among them there were 490 females to 1,000 males. This is only to be expected. Among the male agricultural labourers, indebted small peasants and impoverished artisans of the rural areas of West Bengal, Bihar, Orissa, Uttar Pradesh and Madhya Pradesh there is tendency to migrate into the industrialized and commercialized urban areas of West Bengal in search of employment, leaving behind their women-folk and children in village homes. Here many of these single males live, either singly or in large groups, in bustees or slums, miserably on their poor incomes, always trying to save something out of their meagre incomes to send the savings home.

As will appear from the table at Appendix A, at the end of this chapter, Diamond Harbour Subdivision covering an area of 3,269 square kilometres, is geographically the largest of the six subdivisions comprising the district and accounts for 23.69 per cent of the total area of the district. Alipur Sadar Subdivision is the second largest subdivision in the district covering an area of 2,861.8 square kilometres and accounting for 20.74 per cent of the district area. Basirhat Subdivision covers an area of 2,118.4 square kilometres and

accounts for 13.35 per cent of district area. Barasat Subdivision covering an area of 994.5 square kilometres accounts for 7.20 of the district area. Bangaon is a small subdivision covering an area of 828.3 square kilometres and accounting for 6.16 per cent of the district area. Barakpur Subdivision covering an area of 308.1 square kilometres and thus accounting for 2.23 per cent of the district area is geographically the smallest subdivision of 24-Parganas. Twenty-four Parganas Forest Division, actually formed by Sundarbans areas, formally falling in Diamond Harbour and Basirhat Subdivisions, contain an area of 4,221.7 square kilometres and accounts for 26.63 per cent of the district area.

Alipur Sadar Subdivision contained 25,95,703 persons in 1971, accounting for 30.70 per cent of the then district population, the highest among the subdivisions. The geographically smallest Barakpur is the second most populous subdivision of the district. According to 1971 Census, it contained 17,97,369 persons accounting for 21.26 per cent of district population. According to the Census of 1971 Diamond Harbour Subdivision had a population of 15,05,515 persons, accounting for 17.82 per cent of the district population. In 1971, Basirhat Subdivision had a population of 12,02,278 persons accounting for 14.22 per cent of the district population. The Census of 1971 enumerated 8,98,740 persons as living in Barasat Subdivision and accounting for 10.62 per cent of district population. In 1971, Bangaon was found to contain 4,47,661 persons and thus accounting for 5.28 per cent of the then district population, the smallest among the subdivisions. In the same year, the Sundarbans Forest Division was found to contain only 2,216 persons accounting for negligible 0.02 per cent of the district population.

The reason why Alipur and Barakpur Subdivisions are excessively populated is obvious enough. Out of a total area of 308.1 square kilometres 177.3 square kilometres is urbanized in Barakpur Subdivision, or in other words urban areas occupy 57.64 per cent of the area of the subdivision. Only 4.45 per cent of all gainfully employed persons of the subdivision was found to be engaged in purely rural occupations like agriculture, livestock rearing, forestry, fishing, orchardry and plantation, in 1971. Although, out of a total area of 2,861.8 square kilometres of Alipur Sadar Subdivision, urban areas covered only 148.1 square kilometres accounting for a mere 5.20 per cent of the subdivision area, 36.56 per cent of all the gainfully employed persons of this subdivision were found engaged in purely rural vocations. Barakpur urban areas are highly industrialized and

fall within the Calcutta conurbation region. The urban areas of Alipur Sadar Subdivision also fall within Calcutta conurbation area. Thanass like Jadabpur (now a full fledged Police Station area), Regent Park (now a thana by itself) are very much parts of the Calcutta Municipal Corporation area. Excepting Metiabruz and Garden Reach thanas vis-a-vis Municipal areas, which are highly industrialized extensions of south-west Calcutta, the urban areas of Alipur Sadar Subdivision are resided mostly by white collar workers and persons employed in the tertiary sector. From around 1964-65 a process of migration of Bengalees of middle income groups in white collar occupations from within Calcutta Municipal Corporation area to Alipur Sadar and Barasat Subdivisions has began and is gaining momentum with the growth of Lake Town, Salt Lake, Madhyamgram, Narendrapur townships and other residential areas, while Calcutta proper, within Calcutta Municipal Corporation area, has ceased to grow in population after 1971, the urban areas of 24-Parganas around Calcutta is growing at a faster pace. Bangaon, the least urbanized of the six subdivisions of the district has also the lowest population. Only 15.6 square kilometres out of a total of 828.3 square kilometres are urbanized in Bangaon Subdivision, or in other words, only 1.88 per cent of the subdivision is urbanized.

Population of
different thanas

Sagar thana in Diamond Harbour Subdivision, covering an area of 580.9 square kilometres and comprising the whole Sagar island, is the largest area under the jurisdiction of a police station in 24-Parganas. The whole thana comprises a single National Extension Service Block area. Canning, in Alipur Sadar Subdivision, covering an area of 486.7 square kilometres is the second largest thana of the district; but Canning thana area is divided into two National Extension Service Block areas. Patharpratima and Kakdwip within Diamond Harbour Subdivision, covering respectively 484.6 and 476.8 square kilometres, Sundarbans Forest Division covering 4,221.7 square kilometres within Basirhat Subdivision, and Basanti covering an area of 409.7 square kilometres in Alipur Sadar Subdivision are some of the other large thana areas of this district. Patharpratima, Kakdwip and Basanti comprise one single National Extension Service Block area each. Areawise, the wholly urban thanas within Calcutta Metropolitan district (administratively and formally in 24-Parganas district) are some of the smallest thanas of 24-Parganas. Metiabruz, which is an extension of south-west Calcutta, covering an area of 7.9 square kilometres is the smallest thana of the district. Barakpur thana in Barakpur Subdivision, covering an area of 8.3

square kilometres stands just above Metiabruz. Baranagar thana also in Barakpur Subdivision, covering an area of 8.7 square kilometres is treated as the north-western extension of Calcutta city.

In population size Dam Dam thana, containing 3,19,133 persons in 1971, is by far the largest in the district. Dam Dam thana area is adjacent to north-east Calcutta and comprises Dam Dam, North Dam Dam, and South Dam Dam Municipal areas; Dam Dam Aerodrome area, Bisarpara, Bandra, Sultanpur and Garui are non-Municipal semi-urban areas. Dam Dam thana area, though had been a growing industrial and potentially urban area, attracting immigrant labourers and their dependents, from the end of the last century, really began to be a crowded area after 1950 with the immigration of refugees from the erstwhile East Pakistan. Behala thana area adjacent to south-west Calcutta, comprising within it South-Suburban Municipal area and a large number of urbanized villages, is populationwise the second largest thana area of the district, containing 3,00,144 souls in 1971. Industries began to grow up in Behala only from around the thirties of this century and till fifties the rate of growth of industries and rate of influx of industrial labour in this thana remained slow. Excepting Taratala Road area, Behala remains more or less a residential area. Though Behala had its share of refugees from erstwhile East Pakistan, the bulk of Behala's population is indigenous. Industrial growth in Barasat thana area started even after Behala, and Barasat, even to-day, does not give the impression of being an industrial thana. Barasat has attracted possibly the lowest number of industrial job seekers from other States of India. Of all the heavily populated thana areas of 24-Parganas, Barasat thana area has more rural-agrarian area within it and less than a seventh of its area is urbanised. Barasat has grown in population mostly in course of last three decades due mainly to the influx of refugees from erstwhile East Pakistan, like Dam Dam. Barasat's story of population growth is repeated in the same vein by Habra thana in the same subdivision. In 1971, Habra thana had a population of 2,76,642. In 1971, the lowest population of 2,216 was found in Sundarbans Forest Division. Namkhana, a wholly rural-agrarian thana area, in Diamond Harbour Subdivision, had a population of only 56,678 persons. On the other hand, the geographically smallest thana of the district, a wholly urban thana, Metiabruz too had a small population of only 59,021 persons. Minakhan in Sundarbans portion of Basirhat Subdivision, a wholly rural thana, had a population of 63,367 persons.

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24-PARGANAS

Density of population of the district

According to the Census of 1971, there were on an average 612 persons per square kilometre in 24-Parganas district. In the State of West Bengal as a whole there were 504 persons on an average per square kilometre. In the rural areas of the district 412 persons on an average were found to occupy a square kilometre area as against 388 persons in the rural areas of State of West Bengal as a whole. The urban areas of the district were found to be fairly densely populated; 6,130 persons on an average were found to habitate per square kilometre of urban tract of the district as against the average of 5,628 persons per square kilometre of urban areas of the State as a whole.

Density of subdivisions

Since the beginning of the decennial Census operations in 1881, the highly industrialized and urbanized but geographically small Barakpur Subdivision had always been returned as the most densely populated subdivision of the district. In 1971, on an average, 5,834 persons were found in per square kilometre area in Barakpur Subdivision. The average square kilometre of urban territory in Barakpur Subdivision was inhabited by 9,419 persons and in rural areas there were 985 persons on an average per square kilometre.

Density of population in Alipur Sadar and Barasat Subdivisions was more or less the same in 1971, although prior to 1951 Census, that is, before the influx of refugees from erstwhile East Pakistan, Barasat Subdivision had much lower density of population. In 1971, on an average, 907 persons and 904 persons were found to reside in per square kilometre areas respectively of Alipur Sadar and Barasat Subdivisions. Urban density of Alipur Sadar Subdivision, however, was much higher than the urban density of Barasat Subdivision. In the urban areas of Alipur Sadar Subdivision there were, on an average, 5,916 persons as against the average of 3,237 persons per square kilometre of urban areas of Barasat Subdivision. The density of population of the rural areas of Barasat Subdivision was higher than rural density of Alipur Sadar Subdivision.

If one leaves aside Sundarbans Forest Division (comprising parts of some thanas of Basirhat Subdivision and Diamond Harbour Subdivision) Diamond Harbour appears to be the least densely populated subdivision of the district. In 1971, this subdivision had on an average only 461 persons per square kilometre. In the rural areas of the subdivision there were 457 persons per square kilometre, and in urban areas there were 2,020 persons on an average per square kilometre.

Next to Diamond Harbour Subdivision Bangaon Subdivision was a low density area. There were 540 persons per square kilometre on an average in Bangaon Subdivision. In the rural and urban areas, 489 and 3,246 persons respectively were found on an average. In Bangaon Subdivision, 15.6 square kilometres comprised urban area as against 6.5 square kilometres in Diamond Harbour Subdivision. But both these subdivisions were predominantly and primarily rural-agrarian in character, like Basirhat Subdivision.

Basirhat, was a rural-agrarian area like Diamond Harbour and Bangaon had 59.9 square kilometres of urban, though not industrialized, area. But the density of population of the urban areas of Basirhat Subdivision was the lowest in the district. In 1971, only 1,874 persons were found per square kilometre of urban areas in Basirhat Subdivision.

Sundarbans Forest Division comprising parts of some south and south-eastern thana areas of Basirhat Subdivision, south-eastern thanas of Diamond Harbour Subdivision and eastern thanas of Alipur Sadar Subdivision, having not an iota of urban area and large tracts of uninhabited jungle area, had the lowest density of population. This area had on an average 1 (one) person per square kilometre (total area 4,221.7 square kilometres and total number of inhabitants in 1971—2,216 persons).

Thanas, comprising industrialized urban areas, with regular municipal administration covering major parts of those areas, in Calcutta conurbation region, adjacent to Calcutta Municipal Corporation area, had the highest density of population. Thus the wholly urban thana of Baranagar (covering 8.7 square kilometres, 7.12 square kilometres of which came under the jurisdiction of Baranagar Municipality) in Barakpur Subdivision had the highest density of population among all the thanas of the district. In 1971, an average of 15,457 persons were found to live in per square kilometre area in Baranagar. The wholly urban Belgharia thana in the same subdivision, comprising mainly Kamarhati Municipal area had a density of 15,457 persons to a square kilometre. Garden Reach thana area in Alipur Sadar Subdivision, is a highly industrialized area adjacent to the south-western part of Calcutta comprising mainly the areas coming under Garden Reach Municipality. In 1971, Garden Reach thana area was found to contain 11,962 persons per square kilometre.

Insofar as the rural tracts were concerned, the highest density of population was found in the rural areas of Mahestala thana in Alipur Sadar Subdivision. In 1971, there were 2,241 persons on an

Density of thana areas

average per square kilometre of rural area in Mahestala thana. The rural areas of Bijpur thana (1,644 persons per sq. km.) in Barakpur Subdivision, Jadabpur thana (1,505 persons per sq. km.) in Alipur Sadar Subdivision, Magrahat thana (1,053 persons per sq. km.) in Diamond Harbour Subdivision, Rajarhat thana (1,049 persons per sq. km.) in Barasat Subdivision and Phalta thana (1,047 persons per sq. km.) in Diamond Harbour Subdivision were densely populated rural areas.

Sagar island, contained in Sagar thana of Diamond Harbour Subdivision, a wholly rural territory, had the lowest density of population in the district, there were only 157 persons per square kilometre on an average in that island in 1971. Wholly rural thana areas of Kakdwip (268 persons per sq. km.) in Diamond Harbour Subdivision, Patharpratima (331 persons per sq. km.) also in Diamond Harbour Subdivision, Basanti (332 persons per sq. km.) in Alipur Sadar Subdivision, Mathurapur (341 persons per sq. km.) again in Diamond Harbour Subdivision and Gosaba (379 persons per sq. km.) were some of the low density areas of the district. Lowest, however, was Sundarbans Forest Division.

According to the Census of 1971, out of a total district area of 13,796.0 square kilometres, 13,311.1 square kilometres or 96.5 per cent of the district area comprised the rural country and there were 3,792 inhabited and 83 uninhabited mauzas¹ in the district. In other words, on an average, there was an inhabited mauza in each 3.5 square kilometres. But spatial distribution of mauzas differ widely in different regions. In the industrialized and urbanized Barakpur Subdivision there was one inhabited revenue village or mauza per 1.5 square kilometres on an average. Similarly, in Barasat Subdivision, parts of which fall in Calcutta conurbation region, there was a village on an average per 1.6 square kilometres. The typical rural part of this subdivision is agriculturally rich. In Sundarbans Forest Division, on the other hand, there are no regular inhabited revenue villages; there are only isolated homesteads and clusters of closely agglomerated homesteads in the forest clearings. Diamond Harbour and Basirhat Subdivisions have large tracts within Sundarbans area where villages are few and far between. In these two subdivisions, a village on an average is found in per 3.1 square kilometre area. Alipur Sadar is a mixed Subdivision; portions of it come within

Rural-Urban
polarity &
continuum

¹ A 'mauza' is a revenue village in West Bengal. A 'mauza' comprises at least one social village, but often contains more than one social village or *gram* and *para* or hamlet. In official parlance a 'mauza' is often called a village and hence the terms will be used synonymously.

the Calcutta conurbation region while certain other areas are very much within the Sundarbans region. A village on an average is found in 2.6 square kilometres. In the wholly rural Bangaon Subdivision, away from Calcutta and Sundarbans alike, a village on an average is found in 2.3 square kilometres.

Of the 3,792 inhabited villages, 146 had less than 200 persons in each in 1971, 596 had between 200 and 499 persons in each, each of 1,036 was inhabited by 500 to 999 persons, 1,196 villages had between 1,000 and 1,999 persons in each, there were 723 villages each of which contained between 2,000 and 4,999 persons, 86 villages contained between 5,000 and 9,999 persons each and there were 9 villages each of which contained over 10,000 persons. Gopalpur in Behala thana area, very much within Calcutta conurbation region, Kamaria, Mayahauri and Gardoani in the jurisdiction of Jaynagar Police Station all in Alipur Sadar Subdivision, Lakshmipur in Kulpi thana, Khari and Gilar Chhat in Mathurapur thana all in Diamond Harbour Subdivision and Banglani in Swarnnagar thana area in Basirhat Subdivision are villages each of which had between 10,000 and 15,500 persons in 1971. Excepting Gopalpur in Behala P.S., all other mauzas were purely rural agrarian villages.

According to the 1971 Census, out of a total population of 84,49,482 some 54,79,162 persons or 64.85 per cent of district population lived in the rural areas of the district. The 1961 Census, on the other hand, had found 68.11 per cent of the then district population as rural. In 1951, that is, when the first Census was taken after Independence, 70.36 per cent of the district population was found to live in the rural areas. In 1971, there were 935 females per 1,000 males in the rural areas of the district (in the district as a whole there were 882 females per 1,000 males). In 1961, on the other hand, there were 932 and in 1951, there were 924 females per 1,000 males in the rural areas of the district.

According to the Census of 1971, out of a total rural population of 54,79,162 persons, 13,85,497 persons only, or 25.29 per cent of the total rural population were gainfully employed in income earning occupations. Out of 13,83,497 gainfully employed persons, 11,01,518 persons or 79.5 per cent of the working populace was engaged in agricultural pursuits. In 1961, it was found that 28.56 per cent of the then rural population was engaged in income earning work. 72.81 per cent of the working population then was engaged in agricultural pursuits.

In 1971, out of the total district area of 13,311.1 square kilometres, 484.9 square kilometres or 3.6 per cent of the total district area

Village

Rural population

Towns, urban
areas and
conurbation

comprised urban tract. This 484.9 square kilometres of urban tract was by far the largest in any single district of the State. In 1961, on the other-hand, 446.5 square kilometres were urbanized. Out of 484.9 square kilometres of urban area only 356.88 square kilometres came under the jurisdiction of 30 urban municipal authorities, 3 cantonments or such other organizations and one factory administration. Around 130 square kilometres of urbanized tract did not form parts of any urban municipal system and that tract included 117.55 square kilometres of highly industrialized and urbanized territory in Dam Dam, Rajarhat, Habra and Barasat police station areas contiguous to north-east Calcutta, Khardah, Jagaddal and Naihati police station areas in the northern conurbation extension of Calcutta. Metiabruz, Mahestala and Baj Baj police station areas are south-western extension and Jadabpur police station is south-eastern extension of Calcutta. A majority of working people in these areas are engaged in the secondary and tertiary sectors of the economy with pronounced urban characteristics. While some of these areas are inadequately served by Calcutta's civic organizations insofar as urban amenities like water-supply, electric-supply, telephone connexion, garbage disposal, sewerage, sanitation, public health facilities, road construction and maintenance, public transport system, etc. are concerned, certain other areas do not get most of these. It should be mentioned here that Calcutta conurbation region extends up to Kanchrapara in the north and includes the municipal towns of South Dam Dam, Dam Dam, North Dam Dam, Baranagar, Kamarhati, New Barakpur, Panihati, Khardah, Titagarh, Barakpur, Barakpur Cantonment, North Barakpur, Ichhapur Defence Estate, Garulia, Bhatpara, Naihati, Halisahar, Kanchrapara and all non-municipal urban areas lying in between. In the north-east, Calcutta conurbation region extends up to Barasat, and includes the municipal towns of Dam Dam Airport, Ashoknagar-Kalyangarh, Gobardanga and Barasat and all semi-urban areas lying in between. In the south-west, Calcutta conurbation region extends up to Baj Baj, and includes the municipal towns of Garden Reach, Behala (South Suburban Municipality), Batanagar Factory Area and all highly industrialized urban areas like Metiabruz and Mahestala lying in between. In the south-east, Calcutta spreads up to Rajpur and includes highly urbanized non-municipal, residential areas of Jadavpur, Kasba, Santoshpur, Garia, Bansdroni lying in between. By being included in the Calcutta Metropolitan District for developmental purpose the highly urbanized character of the areas of 24-Parganas around Calcutta has been given a legal recognition lately.

Only the municipal towns of Bangaon, Baduria, Basirhat and Taki and non-municipal towns of Canning and Diamond Harbour are isolated units outside Calcutta Metropolitan District. Baruipur and Jaynagar-Majilpur municipal towns are sufficiently close to the furthest point in the south-east end of CMDA area to be incorporated into it as urbanization and industrialization spread.

The northern part of Calcutta conurbation region, that is, the urban areas of Barakpur Subdivision of 24-Parganas, is highly industrialized. The south-western part of Calcutta conurbation region, that is, Metiabruz, Mahestala, Baj Baj and Behala police station areas of Alipur Sadar Subdivision are also similarly industrialized. The north-eastern and the south-eastern parts of Calcutta conurbation region falling respectively within Barasat and Alipur Sadar Subdivisions are, however, not so industrialized. In the latter areas, tertiary sector rather than secondary sector predominates. Bangaon, Basirhat and Diamond Harbour towns, away from Calcutta Metropolitan District, are seats of subdivisional administration. These, as also Baduria, Taki, Baruipur, Jaynagar-Majilpur and Canning are market towns for agricultural, dairy, poultry and river, sea and forest products. Canning is an important inland port and nodal point of river traffic in Sundarbans area.

According to the 1971 Census, 29,70,320 persons, accounting for 35.15 per cent of district population, lived in the urban areas. In 1961, on the other hand, 19,97,957 persons accounting for 31.80 per cent of the then district population were residing in urban areas. Thus there was a 48.61 per cent increase in urban population of the district in the same period. This increase was more than the increase in general population of this district in the period under reference which was 34.62 per cent. So, it can be said that in the 1961-71 decade the urban population grew at a much faster rate in 24-Parganas than the rural population. In absolute terms, there were 9,72,363 more urbanites in 24-Parganas in 1971 than there were in 1961, and at the same time there were 11,96,104 more people in the rural areas of the district than were found in 1961.

Both from the point of view of territorial extent and population, Diamond Harbour is the least urbanized subdivision of the district and less than 1 per 100 persons living in Diamond Harbour Subdivision, live in urban area, covering only 6.5 square kilometres of the subdivision, comprising one non-municipal and non-industrial town only. Basirhat Subdivision having three rural market towns with municipalities, namely, Basirhat, Baduria and Taki, together accounting for 59.9 square kilometres, comes second only to

Urban population

Urban extent of subdivisions

Diamond Harbour insofar as urbanization is concerned. In 1971, only 9 persons per 100 of subdivisional population was found to live in the urban areas. 11 per cent of the population of Bangaon Subdivision live in the only municipal town of the subdivision which happens to be the subdivisional head-quarters of the district administration and a rural market town. Alipur Sadar is a subdivision of mixed character, while the eastern and south-eastern parts of it is unmistakably rural-agrarian in character, with the eastern and south-eastern extremities falling within Sundarbans Forest Division (like the eastern extremity of Diamond Harbour and eastern and south-eastern halves of Basirhat Subdivisions). The northern and north-western quarter of the subdivision falls very much within Calcutta conurbation region. 148.1 square kilometres of this subdivision are urbanized, of which only 87.55 square kilometres are under municipal administration. 34 of each 100 persons living in this subdivision are urbanites. Urban areas of Barasat Subdivision together account for 77.5 square kilometres (municipalities controlling only 32.10 square kilometres) and provide habitation to 34 per 100 persons living in the subdivision. Barakpur, the smallest of all subdivisions, covering only 303 square kilometres is the most urbanized, with 177.3 square kilometres forming the urban area; 93 out of every 100 persons living in this subdivision are urbanites.

According to the Census of 1971, about 6,130 persons lived in per square kilometre of urban area in 24-Parganas district. 24-Parganas thus ranked below Calcutta and Haora districts insofar as density of population of the urban areas was concerned. Barakpur Subdivision had the highest pressure of population in the urban areas. Here 9,419 persons were found to live in per square kilometre. In the urban areas of Alipur Sadar Subdivision 5,916 persons on an average lived in per square kilometre of urban area. In Bangaon town, the only urban area of that subdivision, 3,246 persons were found to live in per square kilometre. In Barasat Subdivision, which has a larger urban coverage, 3,237 persons were found to live in per square kilometre of urban area. Diamond Harbour having one non-municipal town had 2,020 persons per square kilometre of urban area. Lowest density of population in urban area was found in Basirhat Subdivision having three municipal towns. On an average, 1,874 persons were found in per square kilometre of urban area in this subdivision.

The highest density of population in one single urban unit was found in the areas within Dam Dam Municipality in Barakpur Subdivision. On an average, 1,56,815 persons could be found to live

in per square kilometre here if the Municipality had covered 1 square kilometre. In 1971, the Municipality covered only 0.20 square kilometre and had a population of 31,363 persons. Titagarh Municipal town covering an area of 3.24 square kilometres had 27,228 persons living in per square kilometre. Baranagar Municipal area had more than 19,000 persons; Naihati more than 18,000 persons; Bhatpara more than 17,000 persons; Kamarhati more than 15,000 persons and Garulia, New Barakpur, South Dam Dam and Metiabruz had each more than 11,000 persons per 1.61 square kilometres of land within respective municipal areas. All these industrial towns of Calcutta conurbation region excepting Metiabruz were within Barakpur Subdivision. Metiabruz was in Alipur Sadar Subdivision. Baduria and Taki, the two towns in Basirhat Subdivision with municipalities but quite rural in character were the urban areas with lowest density of population in the district. Baduria town covering an area of 22.43 square kilometres had 1,233 persons per square kilometre and Taki, covering an area of 15.54 square kilometres had 1,347 persons per square kilometre.

As against 935 females per 1,000 males in the rural areas of the district, in the urban areas there were 882 females per 1,000 males. In 1961, as against a district average of 886 women per 1,000 men, in the urban areas, there were only 737 women per 1,000 men and in 1961, as against a district average of 844 women per 1,000 men in the urban areas there were 678 females per 1,000 males. According to Census 1971, the sex-ratio of the urban areas of the highly industrialized Barakpur Subdivision was farthest from a balanced ratio. In the urban areas of this subdivision there were only 756 females per 1,000 males. At the other end of the spectrum were the semi-rural urban areas of Basirhat Subdivision. In the town of Basirhat Subdivision, there were on an average 944 females per 1,000 males. In the urban areas of Alipur Sadar Subdivision which included industrialized areas in Calcutta conurbation region there were 806 women per 1,000 males. It is however curious to note that while in the semi-rural urban areas of Diamond Harbour Subdivision there were 868 females per 1,000 males, in the urban areas of Barasat Subdivision in CMDA area there were 917 females per 1,000 males. In Bangaon town there were 914 females per 1,000 males.

People speaking Bengali as their mother tongue or the first language form the single largest speech-community in the district. Over 91 per cent of the population of the district speak Bengali as

Sex-ratio in urban areas

LANGUAGE
Bengali

Density of population in urban areas

their mother tongue. While 98 per cent of the rural population are Bengali speakers, the latter form 75 per cent of the urban population of the district. In the predominantly rural-agrarian subdivisions of Basirhat, Diamond Harbour and Bangaon, Bengali speakers comprise more than 98 per cent of the respective subdivisional population. Even in the urban areas of these subdivisions Bengali speakers account for 95 per cent of the urban population of the respective subdivisions. On the other hand, in the highly industrialized and urbanized Barakpur Subdivision and in partially industrialized and urbanized Alipur Sadar and Barasat Subdivisions, Bengali speakers constitute 72.92 and 95 per cent of the respective subdivisional population. But only 69 per cent of the urban population of Barakpur Subdivision comprise Bengali speakers. Bengali speakers, however, account for 78 per cent of the urban population of Alipur Sadar and 94 per cent of the urban population of Barasat Subdivisions.

With the increase in general population of the district the number of persons speaking Bengali as their mother tongue has increased. However, the proportion of Bengali speakers in the total population of the district has declined. In 1901, the Bengali speakers constituted 95 per cent of the total district population. In 1931, it was found that the share of Bengali speakers in the total population of the district had declined to 87 per cent. The industrialization of the district that had meanwhile attracted large scale immigration of non-Bengali labourers probably reduced the proportion of Bengali speakers in the total district population. But the large scale influx of Bengali speaking refugees from erstwhile East Pakistan between 1947 and 1971 again raised this proportion to 91 per cent.

Bengali as spoken in the district, can be divided into four distinct dialects. In the northern and western parts of Alipur Sadar and in Barakpur and Barasat Subdivisions the standard colloquial Bengali is spoken. Though all classes of people in these areas speak the standard colloquial Bengali, working class speech differs a little in phonological intonations and that of the poor peasants (especially of women and Muslim artisans and peasants) differs somewhat lexicologically.

The Bengali, which is spoken in Diamond Harbour Subdivision and in the southern and eastern parts of Alipur Sadar Subdivision and southern parts of Barasat Subdivision, is a distinctly different dialect, sometimes termed as the *dokhno* or "southern" (in a somewhat ribald sense) dialect. In fact "dokhno" is often used to refer to poorer people of these areas. The *dokhno* or the southern dialect

differ from the standard colloquial in its phonology, morphology and morpho-phonology. For example, the initial *r* (র) of a word becomes *a* (অ) thus *rauna* (to cook) becomes *anna*, *roddur* (sunlight) becomes *oddur*. All vowel sounds are emphasised and drawn long in the dialect. Changes in verbs which have been noticed are not so much morphological, as morpho-phonological and these generally affect the forms in the present tense thus *korchhe* (third person is doing) becomes *koertecshe*. These characteristic features of the dialect are more marked in the speech of poorer uneducated people of the rural areas and especially of the women folk belonging to these social groups, many of whom nowadays come as domestic labour in Calcutta middle class homes; and it has been noticed from the contemporary Bengali group theatre that these morpho-phonological changes are being attributed by dramatists to most working class speakers in the theatre of South Calcutta.

The dialect of Bangaon Subdivision had phonological and morphological affinities with the dialect of Jessore and Nadiya districts and the dialect of Basirhat Subdivision has its affinities with Khulna district. Though insofar as the morpho-phonology of verbs are concerned, the dialect of Basirhat has its affinity with the *dokhno* dialect, they also remind one of the dialect of Khulna. Phonologically, in the dialect of Basirhat, unlike that of the *dokhno* dialect, vowel sounds are not overemphasised with long draws and 'r's are not made silent to go with the vowels following.

Persons having Hindi as their mother tongue or the first language constitute the second largest speech community in the district. They presently form little over 5 per cent of the total district population, while in the urban areas of the district the Hindi speakers constitute roughly 16 per cent of the population, they constitute less than 6 per cent of the rural population. The reason for this is not far to seek; a large majority of Hindi speakers are immigrant labourers working in the industries situated in the urban areas. It will be seen that more industrialized the urban area, higher will be the proportion of Hindi speakers. Thus in the urban areas of Barakpur and Alipur Sadar Subdivisions the Hindi speakers account for 19 and 11 per cent respectively of the urban population of these two subdivisions. In the urban areas of the rural agrarian subdivisions like Bangaon and Basirhat on the other hand, Hindi speakers constitute 6 and less than 2 per cent of the urban population of the respective subdivisions. In this context another interesting feature is that 70 per cent of the Hindi speakers of the district are males and only 30 per cent of speakers are female. This is because the Hindi speech

Hindi

community is composed mainly of non-permanent immigrant labourers, who come to the industrial parts of the district for jobs, leaving their families and women folk behind in their native places.

It is not so much the share of Hindi speakers in the total population of the district—which grew from about 4 per cent in 1901 to 6.5 per cent in 1931—from where it dropped to about 6 per cent in the present times, as the percentage growth of Hindi speakers since the turn of the century, which is much more significant. Between 1901 and 1931, there was a 30 per cent rise in the number of Hindi speakers in the district and between 1931 and the present times there was 159 per cent rise in the number of Hindi speakers.

Hindi is an unevenly and ununiformly standardised language. Among the Hindi speakers of the district can be found those who speak the dialects of south Bihar, of north Bihar, of eastern U.P., of western U.P., of Chhatisgarh region of M.P., of Marwar region of Rajasthan, of other parts of Rajasthan, of Haryana, etc. While most of the speakers of Maithili sub-language or dialect of North Bihar, Bhojpuri sub-language or dialect of Eastern U.P. and Eastern Bihar, Garhwali sub-language or dialect of North U.P., Marwari sub-language of Rajasthani sub-language or dialect and Chhatisgarhi sub-language or dialect of M.P., in 24-Parganas, think Hindi to be their mother tongue, some prefer to name their respective sub-languages or dialects as their mother tongue.

Urdu speakers constitute little over 2 per cent of the total district population. As 98 per cent of those people who speak Urdu as their mother tongue are found in the urban areas of the district and as 67 per cent of the Urdu speakers are males it can be said that the majority of Urdu speakers are non-permanent immigrants or at most, first generation settlers into the urban areas of the district from other states. This impression is corroborated when we find that the 97 per cent of the Urdu speakers of the district live in the highly industrialized urban areas of Barakpur and Alipur Sadar Subdivisions.

All the speakers of Urdu as mother tongue are Muslim. But not all Muslims are Urdu speakers. Only a microscopic minority of Muslim landed gentry of Shiah and Saiyad extraction of West Bengal, who like to exhibit their Ashraf or gentle folk status, would declare Urdu to be their mother tongue. There are no such Shiah or Saiyad Ashrafs in 24-Parganas, except some in Barasat and Basirhat Subdivisions. Most of the Urdu speakers are Muslim immigrants from Northern India.

Urdu is a highly standardized urban language. But all the North

Indian Muslims do not speak the standard colloquial Urdu of Western Uttar Pradesh. Many Muslim commoners of Bihar and Eastern Uttar Pradesh speak a dialect or sub-language which is not much different from the Hindi dialect of the region (except marginally lexicologically), would yet like to return Urdu as their mother tongue. Some north Indian Muslims in 24-Parganas, however, declare Hindi to be their mother tongue.

Persons having Oriya as their mother tongue, though they constitute little less than 1 per cent of the total population of the district, form nearly 2 per cent of the urban population. As 90 per cent of the Oriya speakers of the district live in the urban areas and as 80 per cent of the Oriya speakers are males it can be presumed that a majority of them are non-permanent immigrants to the district who earn their living as wage earning workers.

Santali is the mother tongue of demographically the fifth largest speech community of the district. They constitute only 0.2 per cent of the total district population. 86 per cent of the Santali speakers live in the rural areas and there are 975 female speakers of Santali per 1,000 male speakers of Santali language in the district. Although the Santali speakers are not autochthones of the district, nevertheless most believe themselves to be natives of West Bengal.

92 per cent of the Santali speakers are adept bilinguals while 86 per cent of the Santali speakers regard Bengali as their second language and 6 per cent regard Hindi to be their second language. Not only has the Santali language as spoken in the district come under heavy lexicological, phonological and even morphological influence of the Bengali language, but a diaglossia situation prevails in the speech of the Santali speakers. Diaglossia refers to a situation of bilingualism where one language is given a higher status than the other in the speech of the same speaker and there is penetration of the higher into the lower speech.

Those who speak Telugu as their mother tongue number around 12,000 persons and constitute the next most numerically significant language group. More than 96 per cent of the Telugu speakers live in the urban areas of the district. It can be presumed that a majority of them are employed in the secondary and the tertiary sectors of the economy in the urban areas. But the sex-ratio of the Telugu speakers is evenner than among many other non-permanent immigrant groups; there are on an average 800 females per 1,000 males in this speech community.

All those persons from Nepal, Bhutan, the Indian State of Sikkim and from Darjiling district of West Bengal, who have come to

regard the Nepali or Gorkhali as their mother tongue number about 10,000 persons in the district. About 92 per cent of them live in the urban areas and work mainly as watch and ward, and security personnel in industrial and commercial establishments and police and armed services of the State. Most of them are non-permanent inhabitants in the district. There are only 411 females per 1,000 males among the Nepali speakers of the district.

Punjabi

The speakers of the Punjabi language as mother-tongue number some 7,500 souls and 7,300 of them live in the urban areas of the district. There are only 220 females per 1,000 males among the Punjabi speaking populace. While many of them are self-employed persons in transport, small engineering and catering industries, some work as wage earners in the similar sectors of the economy. All of them are adept bilinguals, Hindi being their second language.

Kurukh-Oraon

There are about 4,500 persons who speak the Kurukh-Oraon language as their mother-tongue; 3,500 of them live in the rural areas. A majority of them are bilinguals, Bengali being their second language. About 3,000 persons regard Mundari as their mother-tongue. Approximately, 3,300 of them live in the rural areas of the district. None of these groups are autochthones of the district. About 2,000 of the ethnic Santals, Mundas and Oraons of the district would like to regard Sadani or Sadri, an Indo-Aryan language of inter-tribal communication, as their mother-tongue. Speakers of other languages of West Bengal tribal and Indian origin number less than 1,000 persons each and need no special mention. Speakers declaring foreign language as their mother tongue number less than 150 persons in each case and, therefore, need no special mention.

RELIGIONS

Hinduism

Barakpur

According to the Census of 1971, persons professing Hinduism as their religion numbered 63,96,256 and accounted for 75.69 per cent of the total population of 24-Parganas. Hindus constitute 88 per cent of the population of Barakpur Subdivision, 78 per cent of Diamond Harbour Subdivision, 77.8 per cent of Alipur Sadar Subdivision, 76.5 per cent of Bangaon Subdivision, 64.1 per cent of Basirhat Subdivision and only 59.7 per cent of the population of Barasat Subdivision.

Insofar as distribution of cults, cult-heads or divinities, rituals and observances of the Hindus of 24-Parganas are concerned the district can be divided into two regions, one comprising Barakpur and Bangaon Subdivisions and north-western parts of Alipur Sadar Subdivision and north-western parts of Barasat Subdivision or roughly the northern 24-Parganas and the other comprising Diamond

Harbour and Basirhat Subdivisions and south-eastern parts of Alipur Sadar and Barasat Subdivisions or roughly the southern 24-Parganas. The north 24-Parganas dominated by the so-called upper caste Hindus belonging to Brahmin, Kayastha and Vaidya castes, Puranic Brahmanical divinities are mainly worshipped either according to the usual Sakta-tantric or the Gaudiya-Vaishnava rites, presided over by Vaidik or Radhiya Brahmins of high order. In south 24-Parganas, alongside Puranic Brahmanical divinities, many divinities of folkish origin, divinities of folk origin syncretically identified with Puranic divinities, and even divinities of folk origin held in esteem by the Muslims are worshipped not only by large number of people belonging to *antyaja* and *a-jalchal* and *nabasakha* castes but also by local Brahmans and Kayasthas. Rituals and observances connected with many of these divinities are not strictly Puranic Brahmanical. The priests who preside over the rituals are often found to be degraded Brahmans or Brahmans (priestly orders) of *antyaja* and *a-jalchal* castes. Some time even Muslim priests are found.

Unlike the Hindus of other states, the Bengali Hindus do not divide themselves into Ganapatya, Saurya and Saiva sects. The only sectarian allegiance that we find among the Bengali Hindus concerns only the initiated Sakta-tantriks and Gaudiya-Vaishnavas of different shades. It does not, however, mean that the Sakta-tantriks worship only the different manifestations of the *Sakti-rupini Devi* and Siva or that the Gaudiya-Vaishnavas worship only the different manifestations of Vishnu or Narayan, like Krishna and Narayan, Lakshmi and Radhika. Sakta-tantriks are also found to worship Vishnu, but they do so in accordance with Sakta-tantrik rites. When the Vaishnavas worship Durga or Siva, they do it according to Vaishnava rites. The multitude of Hindus, having no particular allegiance to any sect, worship multitude of divinities, bothering little about the sect to which the divinity belongs.

If the frequency distribution of cult-heads in 24-Parganas is measured, Siva will be proved the most popular divinity. Attributes and supposed powers and functions of Siva worshipped at different places differ widely. Insofar as the icon is concerned, in most cases, Siva is represented by a *lingam* or a phallic symbol. In a number of cases, the *lingam*, however, gets morphic semblance of a head, cut out metal foils are attached to the *lingam* to serve as three eyes of Siva, the tip of the nose and the lips; a case in point is Kesaveswar Siva of Mandirbazar between Kulpi and Lakshmikantapur.

Major cult-head: Siva

Kesaveswar of Mandirbazar is the most important Siva of south 24-Parganas. His priest is a Radhiya Brahmin and he is worshipped according to Saiva-tantric rites. He is housed in a big *at-chala* temple which is about 250 years old. According to an inscription on the temple, the temple was founded by one Raja (zamindar?) Kesav (Raychaudhuri). Special festivals are held in the honour of Kesaveswar during the *Sivachaturdasi tithi* in the Bengali month of Phalgun (February-March) and during the *gajan*, held at the end of the Bengali month of Chaitra (April). Khargeswar Siva of the village of Jayrampur in Bishnupur police station area is another important Siva. *Sevaiyats* of Khargeswar Siva are Radhiya Brahmins of the surname of Ganguli and Khargeswar is worshipped according to *tantric* rites. People believe that Khargeswar has the power to cure sufferers of asthma and tuberculosis. Special festivals are held on the occasion of *Sivaratri* in Phalgun and *Gajan* in Chaitra. Badrikanath or Ambulinga Siva of the village of Barasi in the jurisdiction of Mathurapur police station is another important Siva of the south 24-Parganas. It is said that on his way to Orissa from Navadwip, Chaitnayadeva paid a visit to Ambulinga Siva on the banks of the old course of the Ganga-Bhagirathi, accompanied by one Ramachandra Khan—the local zamindar. People believe that Badarikanath has the powers to fulfil the desire of female devotees for male children. In the Bengali month of Chaitra, a special festival called *Nanda-snan* is held here, when pilgrims come from distant parts of the district. The icon of Badarikanath, as usual, is a *lingam*, which people believe to be *swayambhu*, that is, which has risen on its own out of the ground. In the village of Bolsiddhi in Diamond Harbour police station area, there is a Siva temple on a mound, which, when dug, yield architectural remnants. The *lingam*, which represents Bolsiddhi Siva, is also supposed to be a *swayambhu linga*. Curiously enough, in the new alluvial country of south 24-Parganas, where there is little likelihood of finding of such monolithic stones, there are a number of such *swayambhu lingas*. Another *Swayambhu linga* is worshipped as Adyamahes Siva in an *at-chala* temple at the village of Dakshin Barasat within Jaynagar thana. In an eighteenth century ballad by one Krishnaram, titled as *Raymangal* Adyamahes has been referred to as Sadananda. In the village of Mastikari, adjacent to Dakshin Barasat, there are three Siva temples. In both the places, *Sivaratri* and *Chaitra Samkranti Gajan* are held with some pomp. In both the places *sevaiyats* are upper caste Hindus and priests are Radhiya Brahmins. But while Adyamahes is worshipped according to Saiva-tantrik rites, the Siva of Rajpur town within

Sonarpur police station area is worshipped according to Vaishnava rites. Bhaviniswar is housed in an *at-chala* temple. There is a beautiful *chala* temple of Siva in Rajarampur near Baj Baj, which also attracts a number of pilgrims during the *Sivaratri* and *Gajan* festivals.

There are several old Siva temples on the bank of the Hugli-Bhagirathi in the well-known centre of Siva tantrism and Sakta tantrism—Halisahar, now within the municipal limits of Kamarhati town. Khardah in north 24-Parganas, though was a well-known centre of Gaudiya Vaishnava Bhakti cult, has now an imposing array of twenty-six Siva temples of *at-chala* style. These were built by the ancestors of local Biswas family. A big fair is held near the temples on the occasion of Nil puja during the Bengali month of Chaitra. On the Park Road at Titagarh town there is a place called Podasivtala, where there are a couple of stones (not *lingams*) under a tree. Women folk come there on their own and offer puja without the help of any priest. Hundreds of women assemble there during Nil puja in Chaitra, lit lamps and offer puja. In Mulajore locality of Bhatpara town there is a temple complex of which the most important is the one given to house Brahmayee Kali. But in the three subsidiary temples, one of which is a *pancharatna* structure, there are three Sivas, known respectively as Anandasankar, Harisankar and Gopisankar. In the Ghoshpara locality of the same town there are twelve contiguous *at-chala* structures, like that in Dakshineswar, housing a *lingam* each. Bhatpara, the famous centre of Vaidik Brahmins in Jagatdal thana area, contains a number of Siva temples. Among these mention should be made of the six temples, including one *pancharatna* and one *navaratna* structures, at Pandhamandirtala on Thakurpara Road (one of the six-temples, however, houses Devi Sitala). There are two more Siva temples, one, a *navaratna* and another a *pancharatna* at the other end of the same road. There are two more very old looking Siva temples near Bandhbhangaghat. In Kanthalpara locality of Naihati, there is a temple of Buro Siva whose annual festival is held in a big way during the Gajan at the end of the Bengali year in Chaitra. In Kanchrapara town within the jurisdiction of Bijpur police station there is one Siva temple at Mandirbazar, one at Mandalbazar, one at Scalding Road and three at Sahidnagar refugee colony area. During the time of *gajan* at the end of the Bengali year, a fair is held at Sahidnagar to celebrate the annual festival of Siva.

In the village of Arjunpur within the jurisdiction of Rajarhat thana there is an asrama named Kapilmunir asrama, and a hermi-

tage called Gorakshanath-math managed by the members of an *antyaja* caste known as Jogi, whose traditional occupation is weaving of *gamcha* or towel. They all share a common surname. They were once probably Nathapanthi Jogis and Gorakshanath had been of their preceptors in the early medieval times. Having gone back to the main stream of Brahmanical Hinduism, they have come to identify themselves with Saiva tantraism. In the asrama there are separate temples of Gorakshanath, Kali, Manasa and Siva. Siva of this asrama is known as Bhairavanath. As the name implies it, the malevolent or *rudra* aspect of Siva is emphasised in Bhairavanath. This emphasis on the malevolent aspect is a typically tantric phenomenon. A very interesting feature of Bhairavanath worship is that the *Gajan* and *Nil puja* ceremonies of the deity are celebrated during Sivaratri in Falgun and not during Chaitra Samkranti.

Jaleswar siva of the village of Jaleswar within the jurisdiction of Gaighata police station lies submerged in a tank called Siva pushkarini throughout the year. His icon, an egg-shaped stone, is raised and placed in the nearby temple just before the annual *gajan* and *Nil puja* festivals, a few days before the end of the last month of the Bengali year, Chaitra, when the festival begins. His main *sevayits* are Goala or milkmen by caste, although two *bhaktas* belonging to the *antyaja* Bagdi caste must be there as the *gajan sannyasis* during the festival. The priest, however, is a Dakshin-Radhiya Kayastha. The Siva is offered goat, *sol*, and *cheng* fishes. There is a mound near the temple of Jaleswar Siva, which, when dug, yields old-looking bricks and near a *aswattha* tree on the mound stands an old stone-carved image of Vishnu.

Panchanan or
Panchananda

There is a divinity called Pachanan or Panchananda who is sometimes referred to as *Babathakur* in south 24-Parganas. His icon has an anthropomorphic form but varies widely from place to place. But wherever one sees Panchanan or Panchananda or *Babathakur* one is bound to find similarities between him and the description of Rudra Bhairav found in the Puranas. Though the name of Panchanan or Panchananda is not found in any of the Puranas, popular myths connect him with Rudra Bhairav and Rudra Siva. The rites observed in the worship of Panchanan or Panchananda strongly remind of the Saiva-tantrik rites. Though Panchanan or Panchananda is associated with Saiva-tantrism by the so-called upper caste Hindu devotees, the so-called low caste devotees propitiate him as a malevolent divinity.

Whatever be the origin of Babathakur, that he is regarded as Siva is proved by the fact that the Babathakur of the village of

Boral in Garia P.S. is regarded as the Bhairav of Devi Tripura-sundari of the same village. The Panchananda or Babathakur of the village of Karanjali, within Kulpi thana, is so influential that on the first day of the Bengali year, during the Goshtha ceremony, all household divinities are brought to his temple for consecration. On the occasion of the annual festival of Panchananda in the month of Chaitra an eight-day fair is held in the village of Parulia in Diamond Harbour thana area. The temple of Panchananda in the village of Dostapur attracts pilgrims from far and wide. There are about 15-16 places of Panchananda worship in the open air, under trees, called *thans* and in small way-side temples within Jaynagar-Majilpur municipal area. In villages within Baruipur thana area also there are several *thans* of Panchanan or Babathakur in the open where devotees worship the divinity without the mediation of the priests. But Panchanan is worshipped not only in South 24-Parganas. In the northern parts of the district also he has his devotees. In the Bagdipara of Khardah town there is a Panchanan *than* in the open. In Sindrani in Bagda thana there is another Panchananda.

Jwarasur

Mention should be made of another divinity who is worshipped with Panchanan or Panchananda. He is Jwarasur. He is also seen as *parswa-devata* or cognate divinity with Sitala, Manasa and Dharmathakur. He has an anthropomorphic form and is regarded as a *Asur* or demon. In localities inhabited by the so-called upper caste Hindus he is worshipped by Brahman priests, elsewhere by low-caste priests.

Ateswar

In the south 24-Parganas there is another divinity called Ateswar. He supposedly protects domestic animals and fishes from depredations and predatory attacks of other animals. As a protector of animals he is associated by his upper caste Hindu devotees with Siva the protector. When worshipped in temples by the so-called upper-caste Hindus, he takes on an anthropomorphic form. When worshipped by low caste devotees in the open he is represented by a mere mound.

Bhutnather Bara
Kachhari

In the village of Jhikurberia within the jurisdiction of Bishnupur thana, near the cremation ground, under an old *aswattha* tree, there is the *than* of a divinity called Baba Bhutnath. A vermillion-smeared trident represents him. Baba Bhutnath is supposed to be the lord of ghosts. It is believed that the place is a court house of ghosts or Bara Kachhari presided over by Bhutnath. He listens to the appeals from devotees with his ghost-juries. Bhairav Siva is also supposed to be the lord of those ghosts who hang round cremation grounds.

And so, Baba Bhutnath is equated with Bhairav Siva. Devotees offer milk, honey, green coconut water, liquor, calf, goat, chicken and pigeon to Bhutnath for propitiation and do puja, without the mediation of the Vyasokta Brahman priest appointed by the Mahishya *sewayits*.

Sakti worship

Next only to Siva and his various manifestations and the male folk divinities syncretically identified with Siva through emphasis laid on similarities of supposed powers and functions, Sakti worship is most prevalent in the district. Insofar as Sakti worship is concerned a distinction can be made between different female divinities mentioned in the Brahmanical Puranas, as manifestation of the universal female principle or the kinetic energy that manifests itself either as creative and benevolent or as destructive force, and different female divinities of folkish origin having similar powers and functions, integrated into the local Hindu pantheon. To the first category belongs Durga, Kali, Tripurasundari, etc., and to the second category belongs all female divinities of folkish origin given Chandi-hood and Bhairavi-hood.

Kali

In the village of Sindrani within Bagda thana there is a temple of Siddheswari Kali whose annual festival is held in the month of Kartik. There are several Kali temples in Bangaon town, but the most influential Kali of the town, Satbhai Kali is not housed in any temple. Her place is under a tree at Kalitala locality. It is said that she was placed there by seven dacoits who used to propitiate her by sacrificing human beings. The annual festival of this 'dakate' Kali is held in the month of Poush.

There is a centre of Dasnami Sivite tantriks in the village of Amdanga in the police station area of the same name. The presiding deity of the centre is Karunamayee Kali. She is worshipped in accordance with Sakta *tantrik* principles. Her annual festival is held in the Bengali month of Poush.

In Baruipur, the main household divinity of the influential Raychaudhuri family (they were the local zamindars) is Anandamayee Kali. Anandamayee Kali is worshipped according to Sakta-tantrik rites. Dhanwantari Kali of Majilpur town is also a Sakta-tantrik divinity. Prasannamayee Kali of Gobardanga is widely venerated.

Halisahar, within Bijpur thana in Barakpur Subdivision, has a long tradition of being a centre of Sakti cult and Sakta-tantriks. There are several Kali-temples in Halisahar. Among the important divinities mention should be made of Siddheswari Devi of Baldighata locality, Shyamasundari of Khasbati locality, Rakshakali,

Rudra Bhairavi and Smasankali Pashanmayee of the cremation ground are important. At the *panchabati*, where the eighteenth century Sakta-Sadhak Ramprasad supposedly did his *sadhana*, now stands the temple of Prasannamayee Jagadiswari Kali.

It may be of some interest to note here that in the third decade of the eighteenth century Ramprasad Sen (circa 1720-1781) was born in Halisahar. He was to give a new direction to Sakti cult in Bengal later in his life, through his song compositions in praise of Kali, contained in the book *Kalikirtan*. Ramprasad's first composition was a ballad called *Kalika-mangal* woven around the myth of Vidya and Sundar. But much more popular are his songs contained in *Kali-kirtan*. In the earlier *Kalika-mangal* he reveals himself as a true Sakta-tantrik. But in the songs, which are composed in the manner of Gaudiya Vaishnava *Bhaktirasasrita Padas* to be sung, he reveals himself to be a devotee who approaches the divine through *bhakti-margi* devotion, as the *Bhakti margi* Vaishnavas do. He does not any longer believe in performing right rites to acquire power to identify himself with the fountainhead of power, as Sakta-tantrik usually do. A century later another *Bhakti-margi* Sakta-tantrik Ramakrishna Paramahansa was to do similar *sadhana* at a place which is to the south of Halisahar, along the banks of the Hugli, in Dakshineswar.

Ramprasad

Bhavatarini Kali of Dakshineswar, within the jurisdiction of Baranagar thana and municipality is, the most widely worshipped Kali of the district. Bhavatarini Kali owes her eminence to Ramakrishna Paramahansa (1836-1886) who had been her devotee and priest from around 1855 to 1886. Bhavatarini Kali's temple along with twelve subsidiary Siva temples were constructed by Rani Rasmani of Janbazar in Calcutta. Devi puja formally began to 1844.

Bhavatarini Kali of Dakshineswar & Ramakrishna Paramahansa

Ramakrishnadeva began his life as a traditional Sakta-tantrik. But he soon realised that as the ultimate goal of all forms of *sadhana*, namely, the realization of Supreme Truth, is the same, there should not be any dispute about the *marga* chosen or means adopted to realize the ultimate. He himself made a synthesis of *Sakti sadhana* and *Bhakti marga* while his principal disciple Vivekananda though initially showed propensity to veer towards *Gnan-marga* and *Vedantism*, ultimately shifted for *Karma-yoga*.

Ramakrishna himself has become a deified saint, who is worshipped not only in many households as a subsidiary family divinity but also as a divinehead in many temples. On the 1st of January 1886, eight months before his death, Ramakrishna, it is believed, performed a miracle at Dakshineswar. Dakshineswar

Kalpataru Utsav is held on that day every year is remembrance of the miracle.

One of the principal disciples of Ramakrishna was Annadathakur. He was supposed to have been advised in his dream by Ramakrishna to construct a temple of Adyasakti or the primordial female principle, which should reflect a synthesis of the beliefs of Hindus belonging to all sects. As a result of the endeavours of Ramakrishna Sangha, a big temple of Adyasakti or Adya-ma has come up in Ariadaha near Dakshineswar. The icons inside are those of Ramakrishna, Adyasakti or Kali standing on Siva lying prostrate at her feet and embracing Krishna and Radha. The annual festival of Adyasakti held in great pomp during the Poush Samkranti and is called Siddhotsav. Other festivals celebrated are Jhulan-purnima in Sravan, Maghi-purnima and Adyasakti puja in Kartiki-amabasya.

In Naihati town, there are two venerated Kalis, Mahakali of Kumarpura and Shyamasundari of Baidikpara. But the annual Kali puja ceremony held on the *amabasya* night in the month of Kartik attracts thousands to Naihati.

Brahmamayee Kali was consecrated and her temple was constructed in Mulajore in Shyamnagar thana area by Gopika Mohan Tagore. She is worshipped according to Sakta rites, but not *tantrik* rites.

In a small *at-chala* temple at Chitraganj locality, in Baj Baj town, an old stone carved icon of a four armed all-black semi-nude female divinity with three eyes, is worshipped as Khukikali. She does not stand on Siva though other iconographical characteristics like *Munda-mala* (necklace of severed heads) can be seen on her. She is worshipped in the usual Sakta-*tantrik* manner and a special festival is held on the *amabasya* night in Kartik. In the village of Mayapur within Baj Baj P.S. there is a temple of a Kali, locally known as Milan Ma. Milan Ma, it is believed, can cure devotees of several incurable and chronic diseases.

Siddheswari Kali of Jaychandipur, in the jurisdiction of Bishnupur police station is the most well-known Kali of south 24-Parganas. Her subsidiary divinities are Dakshin Ray, Vishnu, Chandi, Manasa and Dharma. She, it is believed, can make infertile and sterile woman pregnant and give birth to healthy child. A special festival called Akshinpuja is held in her honour in the Bengali month of Magh. A fair is held on that occasion. Though a Radhiya Brahman acts as her priest, the priest of the subsidiary deity Dharmaraj is a Jugi of an *antyaja* caste.

In the village of Dakshin Barasat in Jaynagar thana, there is a *tantrik* Devi who is worshipped as Binodini Kali. People believe that she is endowed with powers to cure women of sterility and still births. Devi's annual *yat* festival is held on the full-moon night of Baisakh.

Rakshakali of the village of Haridanga supposedly protects the inhabitants of the villages around her temple from epidemics. Her annual festival is held in *Suklapaksha* of Baisakh, instead of the usual *Krishnapaksha*.

In the village of Uchildaha, in Haroa thana area, there is a female divinity who represents a queer kind of synthesis. It is said that a gentleman belonging to Mahishya caste dreamt of a divinity and got the *mantra* of her worship in dream and thereafter he constructed the temple of Manasakali in the village where he placed the anthropomorphic icon of Manasa and a pitcher to represent Kali and began to worship them as a single divinity with the *mantra* he supposedly got in dream. Manasakali, it is believed, has the power to cure devotees of several diseases. On Fridays, the Vyasakta Brahman priest is possessed by the Devi and while in trance he distributes medicines to the devotees.

Though the annual Durgapuja ceremony is observed everywhere with great pomp, somewhere following the Sakta-*tantrik* rites, somewhere the Vaishnava rites, Durga is not a divinity who is worshipped day in and day-out throughout the year. There is, however, one notable exception to this practice. In the village of Gobrapur within the jurisdiction of Bangaon thana there is a temple in which the presiding deity is Mahisha-mardini. Her annual festival is not held in Aswin, as is usual, but in Baisakh.

If Kali, in all her manifestations, represents the malevolent more than the benevolent aspect of the primordial female principle, being the kinetic half of the static energy represented by Siva, Annapurna represents the benevolent aspect of the primordial female principle. The most famous Annapurna of the district is housed in a big *navaratna* temple surrounded by twelve smaller Siva temples, at Titagarh town. The divinity is a seated female with two arms, one holding a pot of rice and the other a ladle, in her front stands Siva-Bholanath with a beggar's bowl. Two major festivals are held in honour of the Devi on the *mahashtami* of Aswin and the other in Chaitra. Devi is worshipped according to Vaishnava rites. There is another Annapurna temple in the famous Vaishnava centre of Khardah at the seat of the Lahas (Suvarna baniks by caste) in Dolmancha locality. Iconographically, Annapurna of Khardah is

Durga—
Mahishamardini

Annapurna

Tantrism

in no way different from the Annapurna of Titagarh and she too is worshipped in accordance with Vaishnava rites.

Villages and towns like Boral, Baharu, Jaynagar-Majilpur, Chhatrabhog and Khari which lie along the old course of the Ganga-Bhagirathi which began to dry up from the later half of the fifteenth century, are not only old settlements of the so-called upper caste Hindus; during their hey-day, these were the islands of caste Hindu culture in the surrounding wilderness of the forests of Sundarbans, where life was always insecure and people used to live under the shadow of death. In such a situation people turned towards Sakti-*tantrik* and Saiva-*tantrik* forms of religion. To this day, centres of Siva and Sakti worship according to *tantrik* rites are found dotted along the old course of the Ganga-Bhagirathi. Even *gram devatas* and *devis* of this region, who through supposed similarity of powers and functions have got identified with Puranic Siva or Sakti, are worshipped according to *tantrik* rites.

Tripura-sundari

The Sakta-*tantriks* worship ten Mahavidyas as the manifestations of the kinetic female principle. Tripura-sundari is one of the ten Mahavidyas. There are two temples of Tripura-sundari in 24-Parganas; both are in the southern half of the district. The icon of Tripura-sundari of Chhatrabhog is made of wood. Devi is yellow, she wears a vermillion red *sari* and has four arms and three eyes. During her puja goats are sacrificed and liquor is offered. Devotees indulge in ritual fight to take possession of the heads of the sacrificed goats. The Tripura-sundari of Boral is a castmetal deity. A four-armed, three-eyed female deity, she stands on Siva lying prostrate at her feet. Her attendant gods are Brahma, Vishnu, Maheswar and Rudra Bhairav.

Narayani

There is a divinity named Narayani, housed in a small unimpressive temple at the village of Khari. This Narayani is not to be confused with Vishnu-Narayan's consort Lakshmi. Narayani here is a four-armed, three-eyed female divinity who rides a lion. According to a medieval *tantrik* text *Dakarnava*, Khari is one of the 64 main *pithas* (or centres) of Sakti worship. Narayani is worshipped according to *tantrik* rites.

Chandi

Chandi, worshipped in rural Bengal, is hardly the Sakti Devi of the *Devipurana* or *Chandi*. Many female divinities of folkish origin who were propitiated more for their powers to do evil, got syncretically identified with Sakti Devi Chandi and began to be worshipped by the so-called upper caste Hindus, including the Brahmans. That is the reason why the powers and functions and iconography of Chandis differ so widely. One thing that all Chandis share in

common is that all of them are worshipped in accordance with Sakta-*tantrik* rites and are supposed to be endowed with powers to do harm, if not properly propitiated.

While most of the Chandi-devis are worshipped daily throughout the year and have their permanent seats, be it inside temples or in the open, under trees, the most famous Chandi of the south 24-Parganas, that is, Chandi of Barisa, within Behala thana area, is not a divinity who is worshipped through all 365 days a year. Her image is made anew every year before her annual festival which lasts for four days in Agrahayan. Chandipuja festival and the fair that accompanies it were initiated by a Savarna Raychaudhuri zamindar of Barisha some 175 years ago. Iconographically, Chandi devi of Barisa is a four-armed female divinity with three eyes. She is of red colour and wears an apparel of the same hue. She sits on a seat of five severed human heads and wears a necklace of severed heads. There is yet another Chandi devi in Chanditala within the jurisdiction of Behala thana; she is called Mangal-chandi.

Masan-Chandi

In the village of Masunda within the jurisdiction of Amdanga thana, there is a village divinity at a *than* who is worshipped as Masan-Chandi. Masan-Chandi is represented by what appears to be a severally broken stone image of a female divinity. Her annual festival is held on the last Tuesday of the Bengali month of Poush. A Brahman with the surname of Bhattacharyya officiates as her priest.

Olai-Chandi

Olai-Chandi or the Chandi who causes *ola-otha* or cholera epidemic and is to be propitiated to get rid of the epidemic must have been a folk-deity before being given Chandi-hood, for we have quite a few female divinities like Olabibi and Bibi-ma in the rural areas of the district, inhabited by people belonging to *antyaja*, *ajalchal* and *bratya* castes and *altaf* or *azlaf*, *jolha* and *kabris* sections of the Muslims, not served by high caste Brahmans. Olabibi and Bibi-ma though are not identified with Chandi are worshipped more or less in the same manner and are supposed to possess the same powers and functions. In the villages of Uttar Kalasur within Deganga thana, there is an Olai-Chandi who has two hands, two eyes, no animal or bird carrier, and is decked with ornaments, has a yellow skin colour and wears a blue *sari*. Her annual festival is held in Baisaki *suklapaksha*. Olai-Chandi of Karanjabi is represented by seven small clay mounds and three clay dolls.

In the village of Raipur, in Sonarpur thana area, there is a temple of Chandi-devi whose annual festival is held during the first quarter

Dolai-Chandi

of the Bengali month of Baisakh. Mahishyas and Paundra-kshatriyas, or Pods, are more numerous among her devotees.

In Naihati town, on the road leading from the Gauripur Mills to Majipara, an untapped date-palm tree is worshipped as Dolai-Chandi. There is no icon, no priest to officiate in the puja nor any *mantra* to be uttered, not even in Bengali. People come here and offer clods of earth and sweet-meats to propitiate Dolai-Chandi. She is believed to be endowed with powers to cure pediatric diseases.

Harijhi-Chandi

Harijhi-Chandi is a divinity of folkish origin of south 24-Parganas. Considerable iconographic difference is observed between Harijhi-Chandi of different localities. *Mantras* of worship and rites observed in worship also differ widely. In Baguipara Harijhimath, within the jurisdiction of Sonarpur thana, there is a small unpretentious temple on a mound where the presiding deity is Harijhi. An egg-shaped black stone with metal foils pasted on it to represent her three eyes, nose and lips, is regarded as the head of Harijhi. A Vaidik Brahman priest conducts the worship uttering the *mantra* meant for Jaichandi. Her annual festival is held in the month of Chaitra. Deep inside Sundarbans in the village of Dum Duma-Kaorakhali, inhabited by so-called low caste Hindus and Muslims, there is a mound under a tree which is regarded as the *than* of Harijhi-Chandi. The icon is a cube-shaped stone pedestal. A so-called low caste priest presides over the rituals. No Sanskrit *mantra* is uttered in her worship; goats, ducks and chicken are sacrificed in propitiation. Local Muslims also offer puja to her. On the full-moon night of Magh her annual festival of *jat* is held.

Jay-chandi, the presiding divinity of Jaynagar town, is a divinity with two arms, three eyes and yellowish white complexion and she stands on a lotus. Her divine services are conducted by high caste Brahman priest with *mantra* for worshipping Annapurna. Her annual festival is held in the month of Jyaishta which lasts for fifteen days.

Visalakshi or Basali

In some of the late medieval *tantrik* texts and Sahajiya Vaishnava texts, Visalakshi or Basali has been variously described as a manifestation of Kali, a *dakini* or a *yogini*. *Mantra* meant for the worship of Mahakali or Mahavidya has been prescribed for her worship. Some have prescribed Bengali *mantra* for her worship. But it seems that a number of female divinities of folkish origin have got syncretically identified with Visalakshi. This becomes apparent from the difference in the iconography of Visalakshis or Vasulis worshipped at different places. The *mantras* employed in worship also differ

considerably and Bengali *mantras* often contain opaque and meaningless words. But wherever she is worshipped, sacrifice of birds and animals is made. In Titagarh town, on the Hugli-Bhagirathi, there is Visalakshi temple, near a spot on the river which is notorious as a drowning spot. The boatmen of the area believe that if Visalakshi is not properly propitiated, they might face the tragedy of death by drowning. The image here is that of a four-armed three-eyed female divinity of yellow complexion. Her annual festival is held in the month of Baisakh. A majority of the devotees of Visalakshi of Kantabani village in south 24-Parganas are fishermen by caste and profession, though a Brahman is employed to carry on the ritual services. Visalakshis of Kakdwip and Baruipur, worshipped by all Hindus irrespective of caste affiliation, are regarded primarily as the divinity who protects boatmen and fishermen from drowning and honey collectors from the predatory animals of Sundarbans.

Two other widely worshipped female divinities, Sitala and Manasa are not regarded as manifestations of Sakti. Both these divinities are of folk origin but have been accepted in the Puranic Brahmanical pantheon of Bengal. But their integration is yet to be complete. Consequently, there is variation in iconography of the images, rituals in worship, offerings made to the divinities in propitiation, language of *mantras* uttered and in the rights of different castes to carry out divine service. Sitala is regarded as the divinity of poxes and Manasa of snakes. *Ad hoc* worship of Sitala is arranged in an area, when it is visited by any of the poxes. Besides these occasions, annual festivals of *in situ* Sitala are held between the months of February and May. Manasa is worshipped on *ad hoc* basis on getting reports of snake-bites. Annual festivals of *in situ* Manasa are held in the monsoon between June and October when the probability of snake-bite increases. Manasa and Sitala are venerated throughout the district wherever there are concentrations of people of *navasakha* and *antyaja* castes. In connexion with the worship of Sitala in 24-Parganas, one aspect of it needs special mention. Jwarasur, the demon of fever, is an accompanying divinity of Sitala. In some places of this district, Jwarasur is worshipped singly which is not found elsewhere in West Bengal.

Sitala and Manasa

The most curious puja of Sitala and Manasa is held in the village of Gilarchhat within Mathurapur thana. In the village there is a *than* or village common place for worship where three divinities Manasa, Sitala and Bibi-ma are placed side by side. Bibi-ma is a folk divinity who, unlike Manasa and Sitala, has not yet been accepted into Brahmanical Hindu pantheon and among her devotees

Vaishnavism

Muslims are more numerous than Hindus. Each year, during the Bengali month of Magh and Phalgun, the annual festival of the three divinities are held simultaneously. Example of how a female divinity of folkish origin gets identified with Puranic female principle Sakti is provided by Manasa-kali. In the village of Uchildaha in Haroa thana area, there is a temple where there is an anthropomorphic image of Manasa and a pitcher representing Kali. The local Mahishyas take them together and worship as Manasa-kali.

The northern part of the district, contiguous to Nadiya district, came under the spell of Gaudiya Vaishnava Bhakti cult during the life time of Nityananda and Sri Chaitanya. *Nabasakha* trading castes and Brahmans of north 24-Parganas became ardent advocates of Gaudiya Vaishnava Bhakti cult. Sri Chaitanya and Nityananda visited Panihati and held a *mahotsava* there at the place of one Raghav Pandit. Nityananda, late in his life, chose Khardah as his place of residence. Chaitanya's *guru*, Iswarpuri, hailed from a Rarhiya Brahman family of Halisahar. No wonder that with such a glorious past Barakpur Subdivision would be dotted with places of Gaudiya Vaishnava Bhakti cult.

Khardah is one of the most important sites of Vaishnava worship. Chaitanya's elder contemporary Nityananda stayed for some time in Khardah. The site where the house in which Nityananda stayed is still there and is known as Kunjabati. Near Kunjabati stands the 18th century *at chala* temple of Shyamsundar. The main divinity of the temple is Shyamsundar Krishna with Radha and subsidiary icons include Jagannath and number of Narayanas represented by *Ananta Sila*. The most important festivals to be held in honour of Shyamsundar are *Phuldol* and *Rasayatra*. Besides this old temple, complete with a ghat on the Bhagirathi-Hugli, Dol and Rasmancha, etc., there are several other temples belonging to different Vaishnava sects, not necessarily belonging to Gaudiya Bhakti cult.

According to Vrindaban Das's *Shrichaitanyabhagavata*, Chaitanya-deva visited Baranagar to listen to *Bhagavata* being read by Bhagabatacharya. According to papers available with Shri Gauranga Granthamandir of Baranagar Patbari, this happened sometime in April 1572. Centuries after that, a devotee established an asrama with a temple, to commemorate the memory of the happening. Thus came into being Srila Bhagavatacharya's Patbari Asrama. The temple there has a wood curved icon of Gauranga and Nityananda as principal object of worship.

In Ariadhaha, within Kamarhati municipal town, there is a Sripat of Vaishnava bhakta named Dasagadadhara. The principal

icons of the temple are Radha-Krishna and Nitai-Gaur. There is also an icon of Janhavi-mata.

One Basudev Dutta was a younger contemporary of Chaitanya and a devotee. On migrating from Chittagong he settled himself and established his Sripat at Kanchrapara. In Krishnapur locality of Kanchrapara town there is the Sripat of another young contemporary and devotee of Chaitanya—Kavikarnapur. The temple still has the Krishnarayji icon supposed to have been consecrated by Kavikarnapura. But the present temple is a late 18th century building.

The village of Sainbona in Barasat thana is famous for its Sripat of Nandalaljiu which was actually the Sripat of Madhu Pandit who founded the temple. Nandalal, along with Radhika are the principal divinities worshipped at the temple here. Subsidiary icons are those of Balaram, Subhadra and Jagannatha.

To the Gaudiya Vaishnavas, Halisahar is an important place of pilgrimage, for here was born Iswarpuri, Chaitanya's preceptor. Apart from being Iswarpuri's place of birth, Halisahar happened to have been the place of residence of Chaitanya's younger contemporary and devotee Sribas Pandit and of some of the notable Vaishnava saints like Sadasiva Kaviraj, Srinayan Bhaskar, Sriram Pandit and Vrindavan Chandra Das.

The most important centre of Gaudiya Vaishnava Bhakti cult in the south 24-Parganas is Atisara within Baruipur thana area. Chaitanyadeva is said to have visited this place on his way to Puri from Navadwip. Here is situated the Sripat of Ananta Acharya where there are life size icons of Gauranga and Nityananda.

Among other important divinities of Gaudiya Vaishnava Bhakti cult mention should be made of Madanmohan of the village of Dhanyakuria in Basirhat thana area, Radha-Govindaji of Hingalganj, Radha-Ballabh of Bakhrahahat, Shyamsundarjiu of Baharu, Radhaballabhjiu of Jaynagar.

A significant feature of Gaudiya Vaishnava Bhakti cult is its deified heroes, most of whom were historical persons. Nityananda and Gauranga or Chaitanya are the best known deified heroes. In different areas one comes across lesser known local deified heroes. One such deified hero is Andhamuci of Krishnachandrapur who has a temple in the village.

Gaudiya Vaishnava Bhakti-dharma, however, is not the only form of Vaishnavism prevalent in the district.

There is a centre of Ramanuj-panthi Vaishnavas in Khardah where Lakshmi and Narayan are worshipped as principal divinities.

Here Narayana is not represented by a Narayan-sila, but has an anthropomorphic form. Rama-Avatar of Vishnu is the principal deity along with his wife Sita at the Ram-Sita temple of Anandapuri locality in Titagarh town. Rama and Sita worshipped at the Ram-Sita temple of the village Sitakunda in Baruipur thana are regarded as the presiding village divinities of Sitakunda, and its adjoining village Ramnagar.

Dakshin Rai

While discussing about various cults, we have endeavoured to show how different folk divinities have got syncretically identified with different Puranic cult heads and have been integrated into a local Hindu pantheon. There are a number of folk divinities, on the other hand, which have not yet been identified with known Puranic cult heads. While some of them are worshipped by the so-called upper castes belonging to *dwija-varna*, *sat-sudra* and *navasakha srenis* and are being ritually serviced by the Brahmins of Rarhiya and Vaidik sreni, some are worshipped mainly by the so-called low caste Hindus belonging to *antyaja asat-sudra* sreni. We have listed some of the female divinities of this while dealing with different manifestations of Sakti. Most important of all the male divinities of folk origin—worshipped in 24-Parganas—is Dakshin Rai.

Two types of Dakshin Rai icons are found in the district. At places where Dakshin Rai is found to be housed inside masonry temples, he appears as a warrior armed with sword, gun, bow and arrow, riding a tiger or a horse or standing on the ground. In other places where the divinity stands under the canopy of tree on a slightly raised platform on the village roadside or is housed inside a mud-walled hut with a thatched roof overhead, he is represented by a trunkless human head with a leaf-like headgear. When worshipped in trunkless human head form, he is referred to as Dakshin Raiyer Bara or Barathakur. Often two Bara heads are found side by side and in such cases one represents Dakshin Rai and the other his mother Narayani (not to be confused with Lakshmi-Narayani).

In areas dominated by Hindus belonging to *dwija-varna*, *Sat-sudra* and *navasakha srenis*, the full warrior (by quoting *mantram* for the worship of Ganesh or of Siva) image of Dakshin Rai is worshipped according to Puranic rites by Brahmins belonging either to the Rarhiya or the Vaidik sreni. In areas populated mainly by fishermen, boatmen, honey collectors, wood-cutters, landless agricultural labourers and marginal farmers belonging to *antyaja* Hindus castes, tribal communities, Muslim *ajlaf* or *atrap* groups, Dakshin Rai is worshipped as Bara-thakur either by the devotees themselves,

unaided by a priest, or by a priest belonging to either the priestly group of a so-called low caste, or by a degraded Brahman. In the later case Puranic rites are not observed. A special rite observed in connexion with the worship of Dakshin Raiyer Bara by the so-called low caste devotees with the aid of degraded Brahman or a "Brahman" of low caste needs special mention. This observance is known as "jantal" and is held at midnight with much use of sacrificed meat, blood, wine and other intoxicants. During the observance the devotees freely indulge themselves in ribaldry.

According to most of the researches Dakshin Rai is the god of the tigers. Almost exclusive prevalence of his worship in Sundarbans area by the people who have to live a life under the shadow of depredation by that dreaded animal and the carrier animal of the divinity, namely, the tiger, led these folklorists to believe that Dakshin Rai is regarded as a god of the tigers. But recently, Dr. Tushar Chatterjee has challenged this assumption. According to him Dakshin Rai's carrier animal is not always the tiger and by analysing the rites associated with Bara-thakur worship he has come to the conclusion that Dakshin Rai is a fertility divinity in whose conception the male principle has been emphasized.

The most famous of all Dakshin Rais of the district is Baba Dakshineswar or Dakshin Rai of the village of Dhapdhapi within the jurisdiction of Baruipur police station. Previously, Dakshineswar used to be represented by an irregularly shaped stone which is there still in the temple. But the icon of Dakshin Rai, as it is seen now, is that of a full figure warrior sitting in a peculiar posture, as if he is about to spring into an attack. He holds a gun on his lap and has no carrier animal below him. His daily worship is done by a Vaidik Brahman according to Puranic rites. The devotees of Dakshineswar do not regard him as the god of tiger. He is worshipped for his supposed curative powers over wide variety of diseases, especially over chronic diseases. The annual *jantal* festival of Dakshineswar is held in the first night of the Bengali month of Magh.

Deep inside Sundarbans, the Bara icon, that is the severed head with headgear, is often found to be mounted on clay-made image of crocodile and there Dakshin Rai is worshipped as the god of crocodiles. The Bara image of Dakshin Rai is often found in association of Barakhan Gazi and Banabibi or Bibi-ma, two other folk divinities of the south 24-Parganas.

Another warrior god of the south 24-Parganas is Kalu Rai. Like Dakshin Rai, it is assumed that Kalu Rai was also a historic person and had been the hero of many heroic and supernatural

Kalu Rai

deeds. But the legends do not give a clue to the time and place of his exploits. In most places Kalu Rai is worshipped as a subsidiary god to Dakshin Rai, and only in very rare cases he is worshipped singly. At places he is seen to ride a horse, at other places a tiger and at still other places a crocodile. Oftener, however, he is represented by a severed head or Bara. In Muslim dominated areas, Kalu Rai is worshipped as Kalu Gazi and is regarded as the brother of Barakhan Gazi.

Ganga

The river, or the holiest of the rivers, the Ganges, is worshipped widely in the district. In the folkish form of worship Ganga becomes a female divinity riding on a shark-like being called Makar. Ganga-puja festival is held in the village of Harendranagar on the Makar Samkranti or Poush Samkranti day with fanfare.

The greatest of all Hindu festival of the district, namely, the Gangasagar festival and fair at Sagardwip is held in honour of Ganga on the Makar Samkranti or Poush Samkranti day. Pilgrims from all over India come to Sagardwip to offer their puja to Ganga and Kapilmuni, the mythical *rishi*, at the Kapil temple at Gangasagar.

Besides the divinities mentioned, the Hindus of the district worship many more Puranic, folk and syncretic divinities and observe *dolyatra*, *ras*, *rathyatra*, *snanyatra*, etc. in honour of the respective divinities.

The Brahmo order

The Brahmo Samaj founded by Raja Rammohan Roy (1772-1838) stood for a rationalistic interpretation of the Vedanta and, therefore, was an anti-idolatrous religious movement. Brahmos did not devise elaborate rituals. What they were interested in was spread of modern western education, scientific knowledge, growth of individual sense of rationality, growth of spirit of judgement, spread of education among women, securing for women human rights, raising of the age of marriage for both men and women and demolition of superstition. Brahmoism was a movement that affected only the upper class educated urbanites of Bengal. The modern educated of the rural upper classes who were attracted to the movement were for all practical purposes ostracised by the rural community and as a consequence they had to shift themselves to urban areas.

It should be mentioned that some of the stalwarts of Brahmo movement were either born or had worked in the district at one time or the other. Akshoy Kumar Dutta (1820-86), one of the pioneers of the modern Bengali prose and one of the earliest writers on science in Bengali, was born in the village of Gandharvapour near Taki. He began to edit *Tattwahodhini Patrika*, the mouthpiece of the

Brahmo movement, from 1842. He was formally initiated to Brahmoism in 1843 and along with Devendranath Tagore established the Atmiya Sabha in 1852.

Rajnarayan Basu (1826-1899), the founder of Medinipur Brahmo Samaj, the first girls school of Medinipur district, pioneer of English education in Medinipur, one of the progenitors of Hindu Mela and an initiator of the Swadeshi, was born in the Basu family of Boral (Bishnupur thana) in south 24-Parganas.

Sivanath Sastri (Bhattacharya) (1847-1916) had his ancestral home at Majilpur, but was born in the maternal home at Changripota (Subhasgram) a few miles off. He did his M.A. in Sanskrit in 1872 and started his career as a teacher in Harinavi School in South 24-Parganas. During his student days he came in contact with Brahmo Samaj. In 1873, he helped in editing the famous journal "Somaprakash", earlier edited by his maternal uncle Dwarkanath Vidyabhusan, a radical sociopolitical journal which had to be closed down after the promulgation of the Vernacular Press Act of 1878. But in 1874, he shifted his centre of activities to Calcutta, joined the Indian Reforms Association, began to take active interest in widow marriage, women's education, temperance, dissemination of scientific knowledge through mother tongue and enhancement of marriageability age, anti-casteism and anti-untouchability movements. As he found the British Indian Association to be an association dominated by zamindars and other gentry, in 1876, he along with Surendranath Banerjee founded the Indian Association to serve as the platform of enlightened and democratic public. In 1877, he banded together a few Brahmo young men and established a Samiti to propagate the message of nationalism, work for national statehood and fight against superstition and sanctified social injustice. These young men had to take vow that they would never serve an alien government. In 1883, he began to edit, on behalf of Sadharan Brahmo Samaj, the first ever monthly in any Indian language for juvenile readers, *Sakha*.

Sasipada Bandyopadhyaya (1840-1925) was born in Baranagar and after completing his education joined the government service which he left, in order to serve his local community, after a few years. In 1865, he established Baranagar Girls' School to promote female education. His wife was the first Bengali Hindu woman to go to Europe in 1871. On his return from England in 1872, Sasipada devoted himself to social and educational work among the industrial labourers in north 24-Parganas, apart from the work he had been doing in connexion with female education. He established a general

library, a women's library, a night school for imparting literacy and useful education to industrial labourers, a free primary school for muslim children, a salary savings bank for labourers and people of small income group—so that they can draw upon the savings at times of unemployment and distress. The Sramajivi Samiti that he established in 1870 was a trade union-cum-social education organization for the labourers. He brought out the first ever trade union journal in 1874, styled as *Bharat Sramajivi*. He devoted himself to the propagation of temperance among the labourers. He persuaded the management of the industrial units in his area to open primary schools for the children of the workers. He was imprisoned for three months for painting a pen-picture of a corrupt person, in the women's journal called *Antapur* that he began to edit in 1873. He carried his war against untouchability to his own home; he would invite the so-called untouchables to his home and share his meagre food with them. He used to take charge of 30 to 35 Hindu widows each year and train them up in work useful to earn a living. He would also arrange marriage for some of the young widows. He himself married a widow after his first wife's death. In 1908, he established a prayer hall for believers of all faiths.

Besides these illustrious persons, in this district were born a few other Brahmo stalwarts. Among them mention should be made of Ramchandra Vidyabagis (1786-1845). Ramchandra was born in Palpara. He was one of the associates of Raja Rammohan Roy, was a scholar of Sanskrit grammar and Vedanta, wrote a number of books in Bengali for pedagogical purposes. Pramathanath Bose was born in the village of Gaipur in 1855. He qualified himself as a geologist and mineralogist in England. While in England he took a leading part in the movement on the rights of the Indians joining the Indian Civil Service, though he himself never thought of joining it. His work of locating the Dhalli Rajhara iron ore lode in the Central Provinces, and the Gorumohisini lode in Mayurbhanja led to Tata locating Tatanagar and later to the location of Bhilai. He actively participated in the Anti-Partition and Swadeshi movements of 1905. He took active part in anti-casteist and anti-touchability movements of Brahmo Samaj. He actively propagated for the adoption of mother tongue for widest dissemination of science and technological education. He died in 1934.

The highly intellectual rationalistic Vendatism of the Brahmos could never give to the multitude of rural masses a faith with a strong mythic content. On the other hand, the urban Hindu society slowly adopted some of the social precepts of the Brahmo move-

ment in modified form and thus blunted the sharp edges of the movement.

According to the Census of 1971 out of a total population of 84,49,482 in the district, 20,00,844 persons or 23.68 per cent of the population of the district, professed Islam as their religion. Of them 84.02 per cent was found to be residents of the rural areas and only 15.98 per cent lived in the urban areas.

Muslims form 40.03 per cent of the population of Barasat Subdivision, 35.62 per cent of Basirhat Subdivision, 23.33 per cent of Bangaon Subdivision, 21.37 per cent of Diamond Harbour Subdivision, 21.04 per cent of Alipur Sadar Subdivision and 11.19 per cent of the population of Barakpur Subdivision. Excepting in Barakpur Subdivision, an overwhelming majority of Muslims live in the rural areas of each subdivision. The Muslims who live in the industrial urban areas of Barakpur Subdivision are mostly non-Bengali immigrants. But the Muslim industrial workers of Baj Baj and Mahestala thana areas of Alipur Sadar Subdivision are mostly Bengalis, though there too are a large number of non-Bengali Muslim immigrants.

In 1951, there were 11,68,629 persons in the district professing faith in Islam. They comprised 25.35 per cent of the then district population. This shows that there was a slight fall in the Muslim share in total district population in course of twenty years from 1951 to 1971. While Muslim population did not decline from what it was in 1951, the rate of growth of Muslim population was lower than the rates of growths of populations belonging to other religious faiths. In course of twenty years from 1951, while the general population of the district grew at the average rate of 4.17 per cent per year, the Muslim population grew at the average rate of 3.13 per cent per year. The rate of reproduction per fertile man and woman being a little higher among the Muslims, as per Census of 1931, this fall in the rate of growth among the Muslims of this district cannot be explained but by regarding it as an expression of steep fall in the rate of immigration and an equally steep rise in the rate of emigration of Muslims.

There are numerous *masjids* or prayer halls, *dargas* or congregational buildings perpetuating the memory of illustrious religious teachers or saints, *khanquas* or *astanas* or places from where illustrious religious preachers and saints preach or used to preside over religious congregations and *mazars* or holy grave-yard structures to commemorate the memories of illustrious saints and preachers all over the district. Some are very old and date back to

the early centuries of penetration of Islam into the district; some are as new as to have been constructed as late as years before the partition of the country. Very few *masjids*, *khanquas*, *astanas* and *mazars* have been constructed in course of last thirty years, but a number got rennovated lately.

Some of these *masjids* are exclusive to certain ritualistic sects, some other, though initially they had some sectarian exclusiveness, do not retain their sectarian character any more and a majority of the *masjids*—especially of the rural and semi-rural areas do not have any sectarian character. *Khanquas*, *astanas* and *mazars*, on the other hand, are basically individual-oriented centres.

The oldest extant and the most famous mosque of the district is the *Salik masjid* of Basirhat town. The mosque was commissioned by one Ulugh Majlis-i-Azam in A.D. 1466-67 during the reign of Yusuf Shah. This *masjid* serves as the venue for the special prayers offered in the celebration of Eid-ul-Fitr, Bakr-i-Eid and Muharrum festivals of the town.

There are a number of imposing mosques within the jurisdiction of Metiabruz thana, some of which are found within the bounds of Garden Reach municipality while some are outside the municipal area. Among these, the most important are the Metiabruz Imambara and the Shahi Masjid. These were commissioned by the members of the family of the exiled Nawab of Oudh after 1856. The Nawabs were Shiahhs to whom Muharrum had a special tragic significance.

Though there is no mosque in the village of Uttar Kusum Karbalahat in Magrahat thana, the Muharrum festival and the fair accompanying it, held at the Karbala plains of the mauza, attract pilgrims from all over the south 24-Parganas.

Universally observed Muslim festivals like Eid-ul-Fitr, Bakri-i-Eid, Muharrum, Sab-e-barat and Fatehaduazdaham are held wherever there are Muslim concentrations, and wherever there are mosques and the rites observed in holding these festivals differ very little from place to place. Those differences in rites that can be observed are ascribable to sectarian difference between Shiahhs and Sunnis.

What makes Islam in eastern India distinctive in character, is what can be called Pirism or worship of the Pirs as demigods. There are two types of Pirs and Fakirs. Some Pirs and Fakirs were historic persons whose eventful lives and exploits have made them heroes with supernatural powers leading to growth of legends around them making them deified heroes. And there are Pirs and Fakirs who never existed as persons. Legends also empower them with supernatural powers giving them a deified hero status. Their supposed

astanas and *mazars* are held as objects of worship by common people.

Pir Gorachand or Gorai Gazi was born as Shah Sayed Abbas Ali in Arabia in A.H. 693. In his youth he left home and became a disciple of Syed Jalal Razi. After being with him for twelve years he attained spiritual wisdom and then he moved towards Hindusthan with twelve *aulias* to preach Islam. For a short while he had been in Sylhet (now in Bangladesh) with Shah Jalal. From there he moved on to Balanda Pargana under Satgaon, roughly corresponding to Haroa-Hasnabad area of present Basirhat Subdivision. On reaching there he endeavoured to convert the local Hindu Raja, Chandraketu to Islam by performing some miracles. But as the Raja would not entertain his wishes, he moved on to further south to Hatigarh area in Sundarbans. There he picked up a quarrel with the local Hindu Raja, Mahidananda over the question of human sacrifice during Kalipuja and was badly wounded by the Raja's son in a fracas. The wounded Pir was brought down to Haroa by a Goala named Kalu Ghosh and was taken care of. But he died probably of gangrene and was buried by Kalu Ghosh. The burial of the Pir by Kalu Ghosh was observed by another person who tried to blackmail Kalu. Enraged at the blackmail, Kalu murdered the co-villager. For the murder Kalu was taken to the Sultan of Gaur for the crime. Kalu's wife went to the grave of the Pir and began praying for his intervention to save Kalu's life. At that the Pir rose from his grave, went to Gaur and saved Kalu's life. On hearing everything, the Sultan not only released Kalu, but also gave him rent-free land to build a proper *mazar* over the grave of the Pir and maintain the *mazar* from the proceeds of the land. The Sultan also sent a governor named Pir Shah to Balanda Pargana to teach Chandraketu and Mahidananda the lessons they were believed to deserve. For a long time the Hindu Goala descendants of Kalu Ghosh remained the *Khadems* of the *mazar*.

To commemorate the occasion of the supposed demise of the Pir a memorial festival is held at the village of Haroa every year between the 11th day and 13th day of the Bengali month of Phalgun at his *mazar* at Haroa. A part of the memorial ritual is carried out according to orthodox Islamic rites in which only the Muslims participate. There is the other part of the ritual which is very much syncretic, folkish and local in character, in which people irrespective of religious creeds and castes participate. In this part of the ritual the local Hindu Goalas have a big role to play. They bring unboiled milk and pour it over the *mazar*. As the milk thus poured on the

Pir Gorachand or
Gorai Gazi

mazar drains down, it is collected by the devotees who drink it. This milk is supposed to have magical curative properties.

But Haroa, where Gorai Gazi was buried, is not the only village where his supposed demise is commemorated or supposed birth is celebrated with festival. A festival is held and fair is organised in the memory of Pir Gorachand on the 12th Phalgun every year at the village of Nehalpur within the jurisdiction of Basirhat police station. The Hindus and Muslims of the village of Bamunpukuria, within the jurisdiction of Mina Khan police station, along with devotees from other neighbouring villages commemorate the memory of Pir Gorachand every year during the month of Chaitra at a village *dargah* constructed by a local Hindu gentleman. The rituals observed during the festival are unorthodox and folkish in character, in which Muslims and Hindus take part equally. A fair is held on the occasion of the *urs* of Pir Gorachand in Phalgun, at the village of Bamunia within the jurisdiction of Bhangar police station.

Whether Pir Mobarak Gazi of Ghutiari Sarif within the jurisdiction of Canning police station, was a historic character or only a legendary hero is a debatable question. But popular belief in south 24-Parganas makes him a legendary hero of many incredible events and supernatural happenings. His exploits find mention in the late medieval ballad in praise of the folkish Hindu god Dakshin Rai, called the *Raymangal* as well as in the late medieval Muslim ballad in Bengali called *Banabibir Jahurnama*.

In his life time Mobra Gazi or Mobarak Gazi had special power over the tiger population of Sundarbans as his brother Kalu Gazi had over the crocodile and alligator population of the area. Both of them are regarded to have retained the same hold on tigers and crocodiles even after their demise. This belief gives them deified existence.

Deep inside the forest region of Sundarban, there are raised pedestals of clay daubed over bricks, dedicated to Mobra Gazi. Irrespective of their religions, wood-cutters and honey collectors go to these places to offer their prayers to the Gazi begging him to protect themselves from tigers, before they enter the forest. There are Muslim fakirs at all these places, claiming descent from the Gazi, who provide the ritual services to the devotees in their prayers. The rituals they perform are a curious mixture of folkish animism, magic, Hinduism and Islam. Along with Mobarak Gazi and his brother Kalu Gazi they propitiate Jagabandhu the friend of the world, Mahadevi the god of storm, Mansadevi the snake-goddess,

Rupapari the elusive *famme fatale* of the forest, Kali the kinetic mother, Kali-maya her daughter, Mobra Gazi's son Chhawal Pir and Kalu Gazi's son Ram Gazi, with the offerings of uncooked rice, plantain and sugar.

Pir Mobarak Gazi died, it is believed, under unusual circumstances. He was buried alive by some of his devotees who took him to be dead, while he was actually under spiritual trance. His devotees then built a *dargah* on his grave as a memorial. The *dargah* is still there in the village of Ghutiari Sarif within the jurisdiction of Canning thana. On the occasion of the Pir's birth anniversary an annual festival is held with much pomp for seven days, beginning on the 6th of Ashad. Another annual festival is held at the *dargah* on the 17th Sraavan to commemorate the death of the Pir. During both the occasions devotees irrespective of castes, creeds and religions assemble at the *dargah* and make offerings of uncooked rice, sugar, *batasa* (sugar balls) and *sirni* (a concoction of milk, sugar, *ata* or flour, grated coconut, etc.). Devotees who go to the Pir seeking special privilege, keep *manasik* and offer castrated he-goats and/or hens and fowls after their prayers are fulfilled. The Pir and his *dargah* attract thousands of devotees from far away places.

One aspect of the worship of the memory of the Pirs is that though the priestly services are conducted by Muslim fakirs the devotees comprise, besides Muslims, a good many persons belonging to *asat-sudra* and *antyaja* castes of the Hindus. Some of them often perform some fixed and assigned ritual roles in the worship. In some cases the *dargahs*, *astanas* and *mazars* of the Pirs stand on rent-free *Pirottar* lands given by Hindu devotees of the Pirs.

A number of Pirs are worshipped locally in different areas of the district as deified heroes. Among the Pirs who are so worshipped and had been historic persons, mentioned should be made of Abdul Kadar Gilani who is worshipped as Barapir at the village of Atalia within the jurisdiction of Baduria thana. An annual festival is held in his memory in the month of Kartik at his *dargah*. He is said to have flourished about three hundred and fifty years ago. Devotees go to Pagla Pir's *astana* in the village of Gachha within the jurisdiction of Basirhat thana to offer *manasik* for getting healthy children. At the village of Mallickpur, within the jurisdiction of Baruipur thana, there is a *dargah* of the Nakhoda sect that commemorates the memory of Fakir Abdullah Attas. People believe that if they drink water from the well of the *dargah*, they will get cured of the diseases they suffer from and on every Friday devotees from afar, irrespective

Pir Mobarak
Gazi or Mobra
Gazi

Other deified
historic person-
alities

of their religions come to collect water here. Pir Bhangar Sultan's *urs* at the village of Gobindapur within Bhangar thana attract Hindu and Muslim devotees to the place on the 16th Chaitra each year. The Pir whose real name was Mir Ali Asgar was alive a hundred and fifty years ago. His unadorned *mazar* stands in the village Babanpur. He was said to have been born in a poor peasant family of the village of Sanksahar within the jurisdiction of Bhangar thana. He was of spiritual temperament from his childhood. Legend has it, that Manik Pir, an imaginary non-historical Pir, visited him in his dream and gave him the formula of a magic potion. Thereafter he began to distribute that magic potion for curative purposes. Since the base of the magic potion used to be mustard oil during Baban's life time, people still go to his *mazar* carrying mustard oil and carry back the same, thinking that the oil in the process has imbibed magical properties. To commemorate Baban Pir's demise, an annual festival is held at the time of Poush *sankranti*. One significant aspect of the festival is that besides Muslims and Hindus belonging to *asat-sudra* and *antyaja-srenis* many Santal, Munda and Koras living in Sundarbans come to pay their homage to the Pir with offerings of goats, fowls, sugar-balls and flowers. On the occasion of the *urs* of a certain Pir Ismail Shah, a festival is held every year for a few days from the 20th Phalgun near his *mazar* at the village of Maricha within Bhangar thana. In his life time Munsir Panaulah Shah Pir was a *hekim* or a physician who would treat his patients without a fee out of compassion. To commemorate his demise a festival is held in his *mazar* at the village of Uttar Kalas within Magrahat thana area for three days from the 7th Chaitra every year. The rituals observed are those observed by orthodox Sufis and as such singing of *quwalis* form an essential part of the observance. There is a *dargah* of an unknown Pir Gazi Sahib at the village of Nazra in Magrahat thana area and on the 1st of the Magh every year the *urs* of Pir is celebrated.

At Kajipara locality of Barasat town there is a mosque called Chand Khan mosque which is supposed to have been miraculously constructed by a Pir named Ekdil Sahib. Legend has it that Ekdil Sahib came to Anarpur parganas from Saudi Arabia, and could perform miracles. Every year, towards the end of December, a festival is held around his tomb to commemorate his memory.

i Among the imaginary Pirs, who should better be designated as divinities to distinguish them from deified heroes. Barakhan Gazi is the most important, insofar as 24-Parganas district is concerned. Legends, however, always try to give to Barakhan Gazi a historic

existence. According to these legends, Barakhan Gazi was one of the early warrior saints of Islam who came to south 24-Parganas to preach Islam, convert local people and punish oppressive infidel zamindars by compassion, coercion or magic. He picked up enmity with a Hindu warrior saint named Dakshin Rai, in whom he met his match. The ballads in praise of Dakshin Rai—*Raymangal*—are full of stories about their rivalry.

Barakhan Gazi's *astanas* are found in many villages of south 24-Parganas. Barakhan Gazi has an anthropomorphic iconic representation, though at many of the village *asthanas* a clay mound represents him. In many of these *astanas* a clay image of a warrior riding a horse (having a beard, wearing a turban on his head and wearing boots and holding flags and arms) is worshipped as Barakhan Gazi. Gazi is regarded as the protector of hunters, woodcutters and honey gatherers who go to the deep animal and reptile infested forests of Sundarbans. These people offer *hazat* puja to the Gazi before entering the deep woods.

Though in most of the places the priestly functions of the worship of Barakhan Gazi are carried out by Muslim *Khadems*, the rituals they perform are a mixture of Islam, folkish Hinduism of the so-called lower caste Hindus and magical practices. Barakhan Gazi is often found to share a *than* or a temple not only with folkish Hindu divinities but also with Puranic divinities. At the village of Khari within the jurisdiction of Mathurapur thana there is a temple of a Sakti divinity locally known as Narayani (Narayani is four-armed and three-eyed fully draped and ornamented female who rides a lion). An image of Barakhan Gazi shares the divine pedestal with Narayani as a subsidiary divinity. Here, a Brahman priest performs the ritual services of Barakhan Gazi along with that he performs for Narayani. But there is another Barakhan Gazi in a separate *astana* in the same village where the ritual services are carried out by Muslim *Khadems*.

Often Barakhan Gazi is worshipped with Bibima in the villages of south 24-Parganas. Like Barakhan Gazi, Bibima too has an anthropomorphic iconic appearance. In areas where Muslims predominate Bibima or Banabibi appears as an adolescent girl wearing *pyjama*-pant or *ghagra*, *kamij*, *orna*, socks and shoes riding either a tiger or a hen. In those areas Muslim *fakirs* perform the *hazat* puja of Bibima with offerings of *sirni* and fowl. These *fakirs* even utter a few *suras* and *bayets* from the Qaran during the puja. In the areas where Hindus predominate she takes on the appearance of a be-jewelled female holding a child on her lap and sitting on a tiger.

Bibima o
Banabibi

No proper Brahman would ever perform her rituals. A late medieval balad called *Banabibir jahurnama* records a legend about rivalry between Banabibi and Narayani. Bibima is supposed to be the presiding deity of the jungles. Irrespective of their religion, the hunters, wood-cutters and honey collectors beg her blessings before they enter the jungles. At the village of Dhaniramer Chak (Mauza-Shyampur), within the jurisdiction of Magrahat police station, Bibima shares a *than* with Dakshineswar Siva and Babathakur. When a special annual festival is held during the full-moon day of Chaitra a local Molla acts as priest in Bibima's puja and a degraded Brahman performs the puja of other two divinities. At the village of Haurir Hat (Mauza Jagdispur), within the jurisdiction of Mandir-bazar police station, eight clay mounds representing Bibima, share the *than* with Barakhan Gazi riding his horse. Bibima's annual festival called '*mangan*' is held here in the month of Phalgun. In the village of Kultikari within Diamond Harbour thana, Banabibi and Barakhan Gazi are housed in the same *astana*. Devotees offer cooked chicken curry and bread to Bibima here on each day of the month of Phalgun. On each Saturday and Tuesday between Agrahayan and Chaitra Bibima's *hazat* puja is held in which though a Muslim Khadem presides as the priest, Hindus and Muslims alike participate.

Manik Pir

Manik Pir is another legendary Pir who is worshipped alike by the Hindus and the Muslims. In his worship both Muslims and Hindus have specified ritual roles to play. But unlike Barakhan Gazi and Bibima he does not have iconic form. A raised platform symbolizes his *astana* or *than*. Manik Pir does not have so much following in the district as he has in East Bengal. Yet, there is an important *dargah* of Manik Pir at the village of Kadambagachhi within the jurisdiction of Barasat thana. The annual festival in honour of the Pir is held here on the 3rd Magh every year.

Non-Bengali Muslims

The non-Bengali Muslims, most of whom are temporary immigrants into the district living in the Calcutta conurbation region and working in mills and factories or engaged in trade and commerce do not usually worship Pirs. They mostly remain attached to the Khanquas of their respective areas or respective sects and take parts in the orthodox Muslim festivals like Muharrum, Eid-ul-Fitr, Bakri-Eid, Sab-e-barat, Fatehaduazdaham in manners demanded traditionally by their respective sects.

CHAPTER IV

AGRICULTURE AND IRRIGATION

On economic and geographical considerations, the district may be divided into two parts, north and south, the north being more urbanized than the south. While most of the factory establishments are located in the north, the south is predominantly agricultural and has a large forest area.

LAND RECLAMATION AND UTILIZATION

According to the *Settlement Report of 1924-33*, the total area under paddy was around 499 thousand hectares and the total yield was 91,36,570.84 quintals at that time. About 68 per cent of the land area was cultivated and 13 per cent was culturable but not cultivated. The share of unculturable land was 19 per cent while the percentage of area cultivated to total culturable area was 83.¹ The following table gives an idea of change in land utilization during 1976-77.

Cultivable waste

LAND UTILIZATION IN 24-PARGANAS DISTRICT*

(Area in thousand hectares)

	1976-77
Total area of the district	1,460.18
Area under forest	426.26
Area not available for cultivation	305.71
Other uncultivated land, excluding current fallow	23.95
Net area sown	702.25

The foregoing table reveals that the total area of the district is 1,460.18 thousand hectares, of which the area under forests is 426.26 thousand hectares, being about 29 per cent of the total area. The net area sown in 1976-77 was 702.25 thousand hectares, the percentage to the total area being 50.15. The land not available for cultivation was 305.71 thousand hectares.

The following table shows the percentage of area cultivated to total culturable area in the five subdivisions of the district as recorded in the *Settlement Report of 1924-33*.

¹ A. C. Lahiri—*Final Report on the Survey and Settlement Operations in the District of 24-Parganas (1924-1933)*.

* Source: Bureau of Applied Economics & Statistics, Govt. of West Bengal.

Name of the Subdivision	Area cultivated		Area culturable, but not cultivated		Area unculturable		Area cultivated to total culturable	Total area in the Sub-division
	Sq. km.	Per cent	Sq. km.	Per cent	Sq. km.	Per cent	Per cent	Sq. km.
Basirhat	1,418.93	67	223.21	11	474.44	22	86	2,116.57
Barasat	716.89	72	142.09	14	135.51	14	83	994.59
Barakpur	154.11	53	68.84	24	70.76	23	69	293.71
Diamond Harbour	1,652.39	67	388.76	16	402.95	17	81	2,444.11
Sadar	1,750.58	67	312.10	12	538.00	21	85	2,600.67
Total of district	5,692.90	65.2	1,135.00	15.4	1,621.66	19.4	81	8,449.65

In 1951-52 again, the total area not available for cultivation was around 2,47,500 hectares and the total area sown was around 662 thousand hectares.¹ The arable land in the district can be broadly divided into three classes, namely, (i) the comparatively high land along the banks of the rivers, (ii) the low-lying depressions that stretch below the river banks and (iii) the lands adjoining the Sundarbans, which have been reclaimed to a large extent. In the riparian tracts, mentioned first, the land is fairly well raised, and the drainage passes easily to the basins below. This land has been elevated by the gradual deposit of silt from the rivers in the past, and has attained a height which protects it from inundation but at the same time prevents it from receiving the fertile soil layer that the floods formerly left behind them. The low lands, again, constitute the greater portion of the cultivated land and are mainly under rice and jute. Large areas of such lands are occupied by *bils*, which are usually either large fresh water lakes or water-logged swamps. In the third tract, which are generally the reclaimed lands adjoining the Sundarbans, cultivation has been made possible by construction of embankments to keep out saline water. Cultivation is spreading rapidly in the Sundarbans and all over the district the swamps are being gradually drained and reclaimed. Owing to the large extent of waste land included in the Sundarbans, the proportion of cultivated land is small. The district, on the whole, is studded with large marshes situated between the elevated tracts which mark the courses of the rivers. Some of the large marshes have already

¹ Source: *Census 1961, District Census Handbook : 24-Parganas.*

been drained and rendered fit for cultivation by the construction of embankments and sluices. A big water-logged area within the police stations of Baruipur and Sonarpur have been reclaimed in recent years by draining out water from these areas with the help of the pumping station functioning at Uttarbhag under the Sonarpur-Arapanch Drainage Project. The vast marshy land in the Salt Lake area has also been reclaimed. While the Drainage Project has helped to bring a vast tract of marshy land under cultivation, the reclaimed lands in the Salt Lake area have been conveniently utilized for setting up a new township.

The question of clearing of forests and recovery of swamps for agricultural purposes is mainly related to the task of development of the Sundarbans. The Sundarbans within the district lie at the mouth of the Bhagirathi and consequently, the treatment of this vast tract is of vital importance to the port of Calcutta. First, a large spill-area is required for the enormous quantity of water brought down by the river Bhagirathi, Damodar and Rupnarayan during the flood season in order to prevent deterioration to the channel of the port. Secondly, the area is subject to abnormally high tides. Thirdly, extension of reclamation for agricultural purposes requires erection of embankments which, while limiting the spill area, prevents the elevation of the ground level by the natural process of silt deposition.

The total expanse of the Sundarbans is about 2.05 million hectares (20,720 sq. kms.) of which 0.79 million hectares (80,005.1 sq. kms.) lie in the district and the rest in Bangladesh. The long forest belt within the Sundarbans was known to be very fertile and attempt to settle the outskirts of the forest belt started about 1870 and a systematic settlement of parts of the area started after 1880 when the Survey of India first demarcated the northern boundary of the forest areas. At present, out of the 0.79 million hectares (80,005.1 sq. kms.) of the West Bengal Sundarbans area, 4,219.11 sq. kms. are under Reserve Forests, including about 1,895.88 sq. kms. covered by creeks and channels. Out of the remaining 3,781.4 sq. kms. reclaimed from forests, 2,590 sq. kms. are under cultivation.¹ While the land is reasonably fertile in the Sundarbans, there is every risk of destruction of the standing crops by saline inundation from the sea. In the past, this saline inundation not only destroyed the season's crops but rendered the land unfit for cultivation for a few seasons. Hence attempt was made by the early

Clearing of forests and recovery of swamps

¹ Source: *Director, River Research Institute, West Bengal.*

settlers to save cultivated lands from saline inundation by raising embankment on the banks of the nearest tidal creeks. In the past, these embankments were mainly raised by local people with the help of local landholders, but such construction of embankments was not a planned affair. Lack of engineering skill and foresight made the problem more complicated. While solving some immediate problems it created many new ones. In 1955, however, with the abolition of the zamindari system, the entire responsibility of the maintenance of such a huge length of embankments has devolved upon the Government. So far embankments were built for the purpose of re-settlement of agricultural population. It is now considered that forest areas should also have embankments built to prevent saline water invading the forest land and help in organizing proper drainage of forest lands in the Sundarbans. In swampy lands, roots of trees do not go deep into the soil and better quality timber cannot grow there. Unless drainage schemes are introduced, it is not possible to improve the quality of the forest produce.

At present two kinds of embankments are being maintained, the boundary bunds and the cross bunds. Boundary bunds are usually constructed on the banks of a river to keep away saline water from flooding agricultural and homestead lands. Cross bunds are constructed by people occasionally as test relief measures. At present the development of the Sundarbans is the responsibility of the Sundarbans Development Board which started functioning in March 1973. It is stated by the Board that in the riverine Sundarbans, sluice is the gateway to prosperity and consequently, the first emphasis has been laid on improving the drainage system of the area. It has been pointed out by the Board that if only the excess water could be drained out, farm production per hectare may increase on an average by about 50 per cent and due to better drainage, the *rabi* season cropping can also improve. For these reasons, development of drainage system has been considered essential. The cost of construction of sluices controlling water flow, however, is very high. In 1975-76, the construction of sluices was started at Satbanki Khal in Sagar Island, at Kalasekhali in Lahiripur Anchal, Gosaba; at Labutala Khal in village Chakpatli, Hasnabad; at Parbhabanipur village, Hasnabad; at Bishalakshmipur village in Namkhana and at Hasnabad village in Kakdwip. The proper functioning of these sluices is expected to improve drainage conditions in about 1,600 hectares of agricultural land. In 1975-76, a sum of Rs. 1,25,000 was spent for part construction of these six sluices. Other measures adopted by the Board to improve drainage include construction of

road culverts and masonry crossdrains. As success of *rabi* season cropping depends partly on mechanical ploughing, the Board has purchased several power-tillers recently for introducing scientific agriculture. Plant protection measures, hitherto not well-known in the area, have also been adopted to tackle insects and their invasion. In 1974, Growth Centre Project was initiated by the Board to augment agricultural production in selected areas. During the *rabi* season of the following year, about 500 hectares were brought under various crops. *Boro* paddy, wheat, chilli, sweet potato, water-melon, pulses and other crops were introduced in 510.75 hectares of hitherto unutilised or under-utilized areas under 25 Growth Centres of the Sundarbans.¹

In the district as a whole cultivation suffers more frequently from excessive rainfall than deficient rainfall. With the exception of high land along the banks of the rivers, the country is low and swampy, and tends to become water-logged whenever there is heavy rainfall. As such, development of drainage system is as much important for 24-Parganas as development of sources for irrigation. There is little scope for irrigation from rivers, dams and canals in south 24-Parganas as the water in winter is saline. Pumping out of water from the water-logged areas being a serious problem, various small scale drainage schemes are executed at different intervals. In this district, however, there are some possibilities of irrigation by the excavation of tanks and sinking of deep tube-wells in some selected areas particularly in the police stations of Bhangar, Baruipur, Sonarpur, Behala and Bishnupur of Alipur Sadar Subdivision.

While trials are conducted in other parts of the district for growing a second crop, no significant second crop is grown in the Sundarbans area due to scarcity of water. In the Sundarbans irrigation resources can be built up by storing excess rain water which flows down the creeks and it is under such conditions that water may be stored in tanks for use during winter and summer. The above creeks, if closed at their openings, can serve as reservoir. Small tanks, with 1½ metre high embankments may also serve two purposes, namely, providing water for irrigation and reservoir for tank fisheries.

The rivers were formerly distributaries of the Ganga, that is, these rivers were the channels by which water was distributed and ultimately discharged into the sea. The main current of the Ganga, however, has long been deflected to the east and their connection

Drainage and
Irrigation

Irrigation faci-
lities: Rivers

¹ Sundarban Development Board—A Review of Activities of 1975-76: Calcutta, 31 March, 1976.

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24-PARGANAS

with its channel has been closed or silted up so that they have ceased to be effective effluents. The principal rivers of the district are the Hugli, Bidyadhari, Piyali and the Jamuna, but practically each river forms the centre of a minor system of interlacing distributaries of its own. With the exception of strips of high land along the banks of the rivers, the country is low and swampy and tends to become waterlogged whenever there is heavy rainfall.

According to the figures available for 1978-79, the net sown area in the district was about 702.25 thousand hectares, the area under irrigation being 93 thousand hectares which work out to 13.28 per cent of the net sown area. Incidentally, irrigation by private canals is the most important source of irrigation covering almost 88 per cent of the total irrigated area.

In 24-Parganas (North), the Community Development Blocks with better irrigation facilities are Gaighata, Barasat II, Habra I, Deganga, Barasat I, Amdanga and Habra II. Shallow tube-wells constitute one of the most important sources of irrigation in this part of the district. Apart from Govt. owned and operated shallow and deep tube-wells, hundreds of filter points are operated through diesel pumps in these areas. Deep tube-wells are also another important source of irrigation in this area of which Habra and Deganga blocks had the largest number in 1971.

The Community Development Blocks in South 24-Parganas part of the district with better irrigation facilities are Sagar, Baruipur, Sonarpur, Behala-Jadabpur and Phalta. In 1971, these blocks together constituted about 61.90 per cent of the total irrigated area in 24-Parganas (South). The irrigation facilities available in this part is helpful for cultivation of winter crops and *boro* rice. Availability of irrigation facilities in this part has induced vegetable cultivation, particularly in areas adjacent to Calcutta.

Irrigation from tanks cover a little over 10 per cent of the irrigated area. It has already been stated that tank irrigation is resorted to in many areas for growing vegetables. In the Sundarbans excavation of new tanks for storing rain water for irrigation purpose during the dry periods is considered essential. In excavating such tanks care should be taken to ascertain the depth of the tank, so that sub-oil salinity may not pose a problem. According to a report on the survey of the Sundarbans region, a scheme for excavation of new tank for irrigation purpose has been recently prepared in consultation with the local government officials. The estimated cost which may vary according to the rate of earth work, size, shape and depth of the tank. is Rs. 4,500 approximately for a 0.20 hectare tank having

2.74 metres depth. Only those farmers who have their own tank of at least 0.20 hectare water area besides 20.25 hectares of cultivable land will be entitled to financial assistance in form of loan. At present, there is a proposal for survey of ground water of Sundarban region to explore the possibilities of sinking tube-wells and study the economic viability for irrigation purposes. As the water of the rivers and rivulets is not suitable for irrigation for its high saline content, the only way out, at present, in this area, is to excavate new tanks with high banks for storing rain water for irrigation purpose during dry periods. Apart from the two crops to be raised by the owner farmers with the help of irrigation water from the tank, they may derive additional income from fish rearing also.

The following table present a sourcewise picture of net command area for irrigation in this district:

SOURCE-WISE ESTIMATED NET COMMAND AREA FOR IRRIGATION IN NEAREST THOUSAND HECTARES AS IN 1979¹

Sources for Irrigation	No. of Units	Command areas in thousand hectares
Private canals	—	48.00
Tanks	44,771	19.00
Shallow tube-wells		
(Govt. owned)	318*	1.00
Deep tube-wells	228	9.00
River lift irrigation	140	11.00
Other schemes	—	5.00
Total		93.00

The soil of the district may be broadly divided into two classes, namely, non-saline soils and coastal soils of tidal origin. The parent materials are (i) Ganga alluvium, and (ii) salinised Ganga alluvium. The direct deposits of Ganga alluvium which are either rich in calcium or magnesite are salt-free and are rich in nutrients. The Ganga alluvium differs in composition in different periods.

The indirect deposits of Ganga alluvium, going into the sea, gets salinised and are returned back by tides, to get deposited in the

AGRICULTURE INCLUDING HORTICULTURE

Soil and Crop

¹ Source: (a) Directorate of Agriculture, Govt. of West Bengal. (b) Bureau of Applied Economics & Statistics, Govt. of West Bengal.

* Excludes private canals, shallow tube-wells and filter points.

Shallow tube-wells

Deep tube-wells

Tank irrigation

estuarine region as alluvium, very rich in salt. The silt and clay loads carried down into the sea beyond the delta undergo partial transformation in their exchange complex due to the exchange reaction with sodium chloride of sea water. During tides, these constituents in suspension rush back through the numerous tidal creeks in the coastal region and get partially deposited due to the gravitational force becoming greater than the force of suction exerted by ebb water in the flood plains situated inland.

Non-saline soils are, on the whole, composed of Ganga riverine soils, Ganga low land soils and Ganga flat land soils, while coastal soils of tidal origin are formed of saline soils, saline alkaline soils, non-saline alkaline soils and degraded alkaline soils. A brief description of the above soil associations and their phases are given in the following paragraphs.

Ganga riverine soils are formed on recent alluvial plains, flood plains or other secondary deposits, having undeveloped profiles and underlain by unconsolidated material. These profiles show no accumulation of clay or lime in the sub-soil resulting in weathering and downward movement of water from surface horizon. Deposits of alluvium having different texture in different layers in an unsystematic manner is evident. The soils of this association occur in the police stations of Kanchrapara, Jagaddal, Amdanga, Habra, Barasat, Deganga, Baduria, Basirhat, Hasnabad, Swarnapurnagar, Bagda, Bangaon, Gaighata, Baranagar, Baruipur, Kulpi and Magrahat.

Ganga low lands usually include the region comprising soils of lower plains, depressions, dried river beds, having a good accumulation of surface soil, underlain by unconsolidated material. Buried organic peat or thick organic layer composed of partially decomposed buried plant materials are also met with at different depths. The soils of this association occur partly or wholly in the police stations of Naihati, Amdanga, Habra, Baduria, Barasat, Dam Dam, Rajarhat, Sonarpur, Baruipur, Bagda, Bangaon and Gaighata.

Ganga flat land soils are formed of soils on young alluvial flats or other secondary deposits. The profiles are slightly developed. The soils of this association occur wholly or partly in the police stations of Bagda, Bangaon and Gaighata.

Saline soil comprises soils which have been deposited due to back tides over the old flood plains in the river beds, river courses, creeks and land depressions. These are of more recent origin. Such soils occur wholly or partly in the police stations of Rajarhat, Tollyganj, Behala, Maheshtala, Baj Baj, Phalta, Diamond

Harbour, Sandeshkhali, Haroa, Magrahat, Hasnabad, Canning and Sonarpur. Saline alkaline soils, on the other hand, are deposited by back tides in depressions, and river beds. Such soils occur wholly or partly in the police stations of Sagar, Kakdwip, Kulpi, Mathurapur, Canning and Sandeshkhali. Non-saline alkaline soils, again, are formed by the following process: At places the tidal deposits are found when sufficient calcium is not present to prevent sodium getting into the exchange complex or where calcium is replaced by sodium during the process of leaching of sodium chloride leading to the production of a sodium soil where exchange complex has more than 15 per cent sodium. These soils have been termed as alkaline soils. Such soils occur wholly or partly in the police stations of Bhangar, Barasat, Swarnapurnagar and Mathurapur. Leaching of these soils, especially in the presence of the decomposing vegetation within 1.22—1.83 metres of the surface has led to the formation of soil acidity. The organic acids and high salt content have jointly acted upon the tidal deposit and have formed the unsaturated saline soils referred to above. These soils occur in the police stations of Sandeshkhali, Canning and Hasnabad in varying degrees.

In all the Ganga riverine lands the topography is plain, with a very mild slope towards the south. Only *rabi* crops like potato, wheat and vegetables are irrigated from tanks and *bils*. The calcareous, well aerated soil, rich in silt, having a good moisture status in the sub-soils, afford a good medium for growing sugarcane. The soil moisture conditions favour planting of sugarcane after October. Ganga low lands, again, having a basin shaped topography gets submerged partially by accumulated rain water. Crops are usually irrigated from *bils*. The soils are clayey and offer great resistance during dry months to mechanical appliances. During rains, the clay soil becomes soft, the plough can be moved easily and the earth get puddles for transplantation of paddy. The clay particles choke the big pores which make downward movement of water difficult and thus the water stands on the field up to November or December, a condition highly favourable for growing *aman* paddy. With the first rains, jute is sown. In July and August, the jute is harvested and is allowed to lie on the plots to shed their stems for rotting.

The saline soils, with a plain topography, have been formed, as a result of interaction between two different soil forming agencies, acting under different environmental conditions. These are, the Ganga alluvium, which is deposited when Ganga flows from north to south to meet the sea, and the second, the mud with tidal flows, which move in the opposite direction. During rainy season, the area

of saline soil goes under *aman* paddy. Except in the *bheris* or fisheries, the entire area presents a landscape of *aman* paddy. Water stands from 0.31—0.91 metre (one to three feet) over the entire area, which moves slowly into drainage channels. The drainage channels have lock-gates so that the water may move out during ebb tides. Thus seemingly stagnant, water-logged paddy fields have a slow moving current of water in them. This helps to reduce the concentration of injurious salts and seems to help the paddy crop during the subsequent dry periods. The nature of the saline alkaline soil, again, is predominantly silty. These soils have lower organic matter and nitrogen content, as compared to other types of coastal soils. The composition of this soil in many areas indicate that growing of crop becomes difficult and uneconomical as the salt concentration increases. Choked channels and creeks maintain saline water in them throughout the year. Non-saline alkaline soils are formed when the leaching of the saline or saline alkaline soils take place under condition of higher topographical situation and good surface drainage conditions so that the rain water which dissolves away the salts has a way out to escape. The factors usually responsible for the formation of these soils are higher topography leading to an easy drainage condition which facilitates removal of salts and absence of free calcium carbonate in the deposited parent alluvium and high rainfall. In such a soil regim jute and *rabi* pulses grow on a fairly wide area. High silt content of these soils give them a moderate power of penetration by roots so that various types of crops and orchards can grow. As regards degraded saline alkaline soils it may be briefly stated that these soils are usually formed in areas where the land has subsided owing to sudden depression caused by big land masses sinking under its weight into the plastic semi-fluid mud in the sub-soil layers. If the salinity which is already high in these areas owing to constant action of saline water immerses the paddy, the crop gets completely damaged. The crop yield in this region is already low and, therefore, cultivation is abandoned over large tracts when it becomes uneconomical.

Major and
subsidiary crops

Apart from rice, potato, pulses, gram, etc. are important food crops in 24-Parganas. Jute is the most important cash crop. A brief description of the mode of traditional cultivation of rice in the district is given below.

Aman

Aman rice is cultivated on low land, where water lies from one foot to three feet (0.31—0.91 metre) deep in the rains. The preparation of the land begins in the beginning of March, the land being ploughed several times before sowing. In May,

after the first fall of rain, seed is prepared in seed beds. When the seedlings grow, field is made ready for transplanting. After the rainy season has thoroughly set in, the field is repeatedly ploughed until the water reaches deep into the soil, and the whole is reduced to thick mud. The paddy seedlings are then taken from seed beds and transplanted in rows in the paddy field. The crop usually becomes ready for harvesting in November or December. *Aman* rice is also occasionally broadcast on marshy lands and such practice may be found in parts of the Sundarbans where land, suitable for seed beds, is not available. In such areas, sowing takes place in early July and the crop is ready for reaping in January. The soil easily retains the moisture, necessary for the maturing of the paddy. When crop is grown in deep waters, it is reaped by cutting off the heads, and the straw is subsequently burnt down when the land dries up. It may be added that the finest outturn of winter rice is obtained from the reclaimed portions of the Sundarbans.

Aus rice is generally sown on high ground. The field is ploughed ten or twelve times over when the early rains set in, till the soil is nearly reduced to dust, and the seed is sown broadcast in April or May. As soon as the young plants rise six inches in height, the land is harrowed in order to thin the crop and clear it of weeds. The crop is harvested in August or September and a second crop of pulse or oil seeds is generally taken off the land in cold weather.

Aus

Boro rice is the new major paddy crop in the district. It is sown in low lying lands with heavy soil. The preparation of the land commences in November and December when seed beds are raised. Normally seedlings are sown in the field from seed beds after a month. Harvesting commences from late March and continues to April. Almost hundred per cent of *Boro* seed is of high yielding variety. Another comparatively unknown local variety of rice classed as *uri dhan* is grown in the deep marshes, and is occasionally used as food by poor people, such as, fishermen and boatmen. The plant looks like a confused mass of creepers floating on the water and shoots forth its ears of grain in every direction. A peculiarity of this rice is that the grain drops from the ear into water when it attains maturity. To prevent this, the ears are bound together before the paddy ripens. This rice grows on a wide scale in the marshes, but very little is collected, for the swamps are deep, and the crop hardly repays the labour of binding the ears and collecting the grain.

Boro

In order of importance, jute comes next to rice. The demand for this non-food crop increased towards the end of the last century. Its introduction is described in the *Statistical Account of Bengal*,

Jute

Volume I, published in 1875 in the following manner: "Jute was formerly very little cultivated in the district and the small quantities that were produced only sufficed for local requirements, such as rope making, etc. About fifteen years ago a great demand arose for gunny cloth, and almost every family that could get a little money to establish a jute loom did so. Nearly all the day-labourers took to weaving, and the women and children to spinning the thread, causing the rate of labour to sudden rise. Jute cultivation accordingly received an impetus, and although the gunny-weaving was carried to excess, and ruined many families in the 24-Parganas, other outlets for the jute fibre sprang up, and its production has steadily increased. A large part of the high lands in the district, formerly devoted to *aus* rice, is now entirely given up to jute cultivation." In 1901-02, the actual area under jute cultivation was about 22,000 hectares while it was about 31,000 hectares in 1911-1912.

According to the *Settlement Report of 1924-33*, the total area under jute in the district was 27,925.37 hectares. This indicates a shrinkage of jute acreage in later years. Jute being a non-food cash crop, its cultivation very much depends on the extent of its demand.

The seasons for sowing and growth of jute are the same as for *aus* or early rice. After the usual ploughing, the seed is sown broadcast from the middle or end of March to the beginning of June, and the plant is generally cut from the middle of August to the middle of October, by which time it has attained a height of five to ten feet. The stalks, when cut, are made up into bundless and immersed in some pool, tank or stream, and left to steep; this process is called rotting. While the bundles are under water, they are examined from time to time to see how far decomposition has proceeded. As soon as it is found that the fibre will peel off easily from the stem, the bundles are taken out, and the stalks are beaten or shaken in the water till the glutinous substance in the bark is entirely washed away. The fibre is then dried in the sun, and when dry, is made up into tanks and sold to agents, who consign it to the jute presses and mills.

Sugarcane also occupies a considerable area in the north-west of the district where cultivation of sugar-yielding date palms (commonly known as *Khejur*) is also carried on an extensive scale. Sugarcane is grown on *suna* lands, preferably heavy clayey soils, retaining moisture. Tobacco is also grown on a limited scale for domestic use only.

The cultivation of garden crops, and especially of *pan* (betel leaf)

and *baigun* (brinjal) is of considerable importance in the district from which Calcutta obtains a large portion of its supplies. The betel leaf creeper, called *pan*, is grown in gardens known as *boroj*, mainly by members of the *Barui* caste, with whom its cultivation is an hereditary occupation. The garden is laid out on high land in the vicinity of a stream or tank. It is enclosed by a wall of bamboo and reed, about five or six feet (1.52—1.83 metres) in height, and covered over with the same material to protect the creeper from the sun, and to prevent cows, goats, etc. from destroying it. The enclosure thus prepared is divided off into parallel ridges about eighteen inches (45.72 cm), apart up right of this bamboo and across a framework of other thin bamboos. The land requires to be well dug up previous to planting. Cuttings are planted in February and March, and in four months, that is by June or July, have grown sufficiently for the leaves to be plucked. There are three crops during a year, which are called by the names of the months, in which they are plucked, namely, Kartik *pan*, Phalgun *pan* and Ashar *pan*, the first being the best. The cultivation of the plant requires constant care, but fetches a good money. A garden lasts for a long period varying from 5 to 20 years.

The brinjal or egg plant (*baigun* in Bengali) is cultivated extensively, and is of considerable economic importance. There are several species, commonly known as *muktakesi* and *elokesi*, according to the size and colour. There is a variety which is smaller in size and grows in bunches. This variety is known as *duko* or *kuli baigun*. The plant grows on sandy loam and also on clay soils. The land should be well manured and several ploughings are necessary, and the soil has to be levelled, weeded and pulverized. The two main variety being *Aus* and *Paush*, the cultivation of *Aus baigun* follows the procedure given above. The cultivation of *Paush baigun* follows a different method. It grows best on clayey soil, and thrives in the Baruipur area, the brinjals of which have special repute.

The table in the next page furnish the acreage, production and rate of yield of the principal crops in respect of 24-Parganas for 1977-78 and 1978-79.

Traditional implements are still in use in the district, though the cultivators are gradually becoming aware of improved agricultural practices. Even today, about 90 per cent of the cultivators use older type of implements, such as, indigenous plough, commonly known as *Langol*, bamboo ladders—*Moye*, *Khurpi*, *Nirani*, *Done*

PROGRESS OF
SCIENTIFIC
AGRICULTURE

Agricultural
implements

Sugarcane,
Tobacco

Garden crops

ACREAGE, PRODUCTION AND RATE OF YIELD OF THE PRINCIPAL CROPS IN 24-PARGANAS FOR THE YEARS 1977-78 AND 1978-79

Name of Crops	Area in thousand hectares kgs.		Production in thousand tonnes kgs.		Rate of yield per hectares in kgs.	
	1977-78	1978-79	1977-78	1978-79	1977-78	1978-79
Aus Paddy	32.6	20.4	46.8	25.4	1,436	1,245
Aman Paddy	587.0	—	749.6	—	1,277	—
Boro Paddy	37.7	48.1	115.8	146.6	3,071	3,048
Potato	5.4	7.7	70.8	95.6	13,111	12,416
Sugarcane	1.2	1.1	6.1†	5.4†	5,083†	4,909†
Wheat	13.1	19.2	31.5	45.3	2,405	2,359
Jute	56.4	63.8	492.5*	564.1*	1,572*	1,592*
Pulses	43.8	54.4	25.4	27.6	580	507
Oil seeds	10.7	—	4.7	—	439	—

(*Don?a*), etc. for land preparation and irrigation purposes. The progress in respect of use of modern agricultural implements is slow, though in recent years attempts have been made to popularise improved implements, such as, seed drill, wheelhoe, paddy weeder, mould board plough and seed dresser. A small number of the registered growers and progressive cultivators are now in possession of some of these implements, but their use is limited.

Use of quality seeds and seedlings is gaining in popularity. For arranging timely supply of the improved seeds, thana seed farms at Bishnupur, Canning and Mathurapur were set up in the early sixties. Improved varieties of banana, *sapeta*, mango plants are also distributed from Government nurseries as well as from selected private nurseries. The cultivators are now practising rotation of crops, such as, jute followed by *aman* and, thereafter, followed by different vegetables almost throughout the year and also *aman* followed by *chaitali* vegetables. They do not leave their lands fallow, except a few patches of permanently water-logged areas by the side of rivers. There is some traditional methods of increasing fertility of soil which involve application of cowdung and rotting of weeds and grasses in the field, but as present they also use composts. green

Source: Directorate of Applied Economics & Statistics, Government of West Bengal.

† In terms of Gur.

* Bales of 180 kg. each.

manures and chemical fertilizers.

There were in all 21 seed distributing agents in 24-Parganas (North) in 1969, while the number was 38 for 24-Parganas (South). Distribution of seeds is mostly carried out through the agency of the National Seeds Corporation and the Block Development Offices. In 1969, the total quantity of seeds distributed in the various Development Blocks of 24-Parganas (North) was 242.82 metric tonnes approximately, of which 79.25 metric tonnes were paddy seeds. High Yielding Variety Seeds constituted the major share of the total quantity distributed during the year. In 24-Parganas (South), the total quantity of seeds distributed in the same year was 3,241.1 metric tonnes, of which 192.02 metric tonnes were distributed through Government agents. Of the 38 agents of this region, 24 were private agents and 14 Government agents.

The following table gives an idea of the distribution of seeds in the district as a whole during 1972-73 to 1974-75.

DISTRIBUTION OF SEEDS

24-PARGANAS (SOUTH)

Kind of seed	1972-73		1973-74		1974-75	
	Quantity (tonnes)	Area (hectares)	Quantity (tonnes)	Area (hectares)	Quantity (tonnes)	Area (hectares)
Paddy	2,300	4,600	2,400	4,800	2,560	5,120
Wheat	1,350	1,350	2,500	2,500	3,174	3,174
Pulses	2.5	10.0	3.5	14.0	5.0	20.6
Potato	—	—	—	—	—	—
Jute	39.20	522.8	—	—	—	—
Mustard	2.5	33.0	1.5	21.0	1.0	13.0

24-PARGANAS (NORTH)

Paddy	13,750	22,000	14,000	22,400	14,200	22,720
Wheat	12,500	12,500	13,300	13,300	15,000	15,000
Pulses	25	100	30	120	30	120
Potato	—	—	—	—	—	—
Jute	—	—	—	—	—	—
Mustard	—	—	—	—	—	—

The number of fruit plants distributed in the south of the district was 12,977 in 1975-76, while it was 26,500 for the north during the same period. Besides fruit plants groundnut, cotton and sunflower seeds were also distributed to the villagers from the Agricultural office of the 24-Parganas (South) in recent years. The coconut and arecanut seedlings distributed in the north numbered 36,400 and 26,500 respectively in 1974-75.

State Assistance
to agriculture

Various kinds of loans, sanctioned by the Collector of the district and disbursed by the B.D.Os., are advanced to agriculturists for increasing agricultural production. The different types of loan and the amount disbursed for 1973-74 to 1975-76 are given in the following statement:

Year	Agricultural Group Loan	Fertilizer Purchase Loan	Cattle Purchase Loan
1973-74	16,42,000	11,95,570	1,41,000
1974-75	45,000	nil	nil
1975-76	2,29,300	18,28,708	nil

Besides these, there are other loans provided through the budget for community development in respect of schemes for distribution of improved poultry, irrigation, reclamation of waste land etc.

Agricultural
diseases and
pests

Among animal pests, mention may be made of wild pigs, jackals and monkeys. Bird pests include bats, parrots and parakeets which damage guava, lichi and mango groves. Insects cause extensive damage to crops. The pests which cause maximum harm to various crops are named below:

Crop	Insect Pests	Diseases
Paddy	Rice swarming caterpillar, Rice Hispa, Rice Bug, Rice Stem borer	Leaf spot, False grants, stem rot or sclerotial diseases
Jute	Jute Semilooper	Stem rot
Sugarcane	Sugarcane stem borer, Sugarcane leaf hopper, White ant (termites)	Red rot, Smut, Demp off
Vegetables	Cut worm, Aphids, Lady bird beetles, Mole cricket, Stem borer, Leaf folder, Black Vein of Cabbage	Early blight viruses

There is very little pasturage and cattle usually graze in the fields after the crops have been reaped, having very little to eat in the open. The local cattle are usually of non-descript type, ill-fed in most cases. The land for raising fodder crops is extremely limited as all available cultivable lands are being utilized for growing important crops. Nevertheless, villagers are interested in the cultivation of seasonal fodder and every year fodder seeds are distributed at a subsidised rate among cultivators. There are also Fodder Demonstration Plots on cultivators' land to demonstrate raising of quality fodder. The district is situated within the Intensive Cattle Development Project Area with headquarters at Barasat. The district has 11 Artificial Insemination Centres for the purpose of cattle development work, the number of sub-centres being around 100. The three centralized semen collection stations are located at Barasat, Gobardanga and Narendrapur.

ANIMAL HUS-
BANDRY AND
FISHERIES

There are 4 State Poultry Farms located at Tollyganj, Gobardanga, Nimpith (P. S. Jaynagar) and Kakdwip. While farms at Tollyganj and Gobardanga are working with 6,000 and 1,500 layers, the poultry farm at Kakdwip is a new one. There is one training centre at Tollyganj for imparting training in poultry keeping and a stipend of Rs. 30 per month is given to a trainee. Free hostel accommodation is also provided. The trainees are normally selected from the poultry farmers. The poultry marketing scheme is operating in the district. The object of the scheme is to supply balanced poultry feed to the registered farmers at a reasonable price and to collect part of the farm produce from cultivators. The poultry development scheme under Applied Nutrition Programme is also being implemented through the Block Development Offices.

Poultry develop-
ment activities

The Government poultry farm at Nimpith will have good demonstration effect and will encourage local farmers to start poultry units on a small-scale. Due to its proximity to Calcutta it will not be very difficult to dispose of the poultry produce. However, in view of the shortage and high cost of poultry feed, small units are being encouraged to depend mostly on local feeds. Incidentally, Canning Town, which falls within the Sundarbans area, has one of the oldest wholesale markets for poultry in West Bengal. The Sundarbans Development Board has also a plan to develop Poultry Farm and Poultry Multiplication Centre at Namkhana.

In each veterinary unit there are arrangements for treatment of the diseases. Rinderpest, black-quarter, foot and mouth disease and anthrax are the principal cattle diseases while poultry suffer from

Cattle and
poultry diseases

the Ranikhet disease, fowl pox and fowl cholera. The following two statements give an idea of the cases treated in 1970-71 to 1972-73 and 1974-75 to 1977-78.

Name of the disease	1970-71	1971-72	1972-73
Rinderpest	51,301	32,540	1,07,497
Black-quarter	323	415	6,382
Anthrax	192	231	200
Haemorrhagic Septicaemia	1,204	537	21,096
Fowl pox	41,328	31,367	69,962
Fowl cholera	1,573	391	3,014

Year	Total no. of cases treated
1974-75	3,40,722
1975-76	3,20,415
1976-77	4,14,975
1977-78	4,70,439

The following two statements give the category and number of diseaseds treated during the same period:

Category	No. of diseaseds treated		
	1970-71	1971-72	1972-73
Surgical			
including castration	7,310	6,580	3,598
Clinical	92,461	1,05,414	89,280
Gynaecological	3,921	4,877	3,666

Category	No. of diseaseds treated		
	1975-76	1976-77	1977-78
Surgical			
including castration	7,185	30,057	28,077
Clinical	—	—	—
Gynaecological	6,981	10,094	13,821
Others	3,06,249	3,74,834	4,28,541

In the district ten Artificial Insemination Centres have been functioning since 1974 besides the old A.9. Centres which are now attached to the three different State Veterinary Hospitals of the district. In 1969-70, the number of cows inseminated by artificial insemination was 2,308, while it was 2,294 in 1970-71. The figure

for 1971-72 was 2,273. The three State Veterinary Hospitals are located at Behala ('A' type), Kakdwip ('A' type) and Diamond Harbour ('B' type).

The number of Veterinary Dispensaries in block areas in 1975 was 29, while the number of Artificial Breeding Centres attached to various hospitals and dispensaries was 13. The total strength of the Veterinary Officers employed in the same year in the different areas was 42. In a Development Block the staff consists of one Veterinary Surgeon, two Veterinary Field Assistants, a Compounder, an Animal Attendant and a Peon. The following statement shows the number of cattle and poultry diseases attended by the veterinary staff of the district from 1971 to 1978.

CATTLE AND POULTRY DISEASES ATTENDED IN THE DISTRICT: 1971-78

Year	No. of cattle diseases attended	No. of poultry diseases attended
1971-72	42	46
1972-73	7	11
1973-74	4	15
1975-76	1,76,037	1,03,286
1976-77	1,63,968	1,22,703
1977-78	2,50,411	86,332

The following statement shows the number of cattle and birds treated from 1969-70 to 1973-74.

NUMBER OF CATTLE AND BIRDS TREATED DURING THE PERIOD: 1969-74

Year	No. of cattle	No. of birds
1969-70	77,867	29,561
1970-71	28,129	28,369
1971-72	88,011	28,860
1972-73	96,785	28,946
1973-74	67,203	30,075

Fish constitutes a major item of staple food, but the supplies in the market are poor. There is no arrangement for the preservation of fish and they are mostly consumed fresh. There are at least seventy varieties of fishes found in the district of which the most important are *Air*, *Bacha*, *Bele*, *Bhetki*, *Boal*, *Chanda*, *Chital*, *Punti*, *Gurjaoli*, *Ilish* (Hilsa), *Katla*, *Kalbaus*, *Khoira*, *Koi*, *Lata*, *Magur*, Fisheries

Mourala, Mrigel, Pabda, Pholui, Rita, Rui, Sole, Tangra and Topsey. The varieties commonly found in the Sundarbans are *Bhetki, Hilsa, Tapsey, Bhangan, Kanmagur, Tangra, Pangas* and *Bagda Chingri*. Fishes are normally preserved with ice. In 24-Parganas (North) wholesale fish markets are located at Barasat, Basirhat, Bangaon and Barakpur.

Fishing is done with nets and hooks. Small fishermen keep their catch in bamboo cage in water tied to their boats. This keeps the fish alive till the market is reached. Other traders employ motor launches or special boats to collect and carry fish from fishing boats to markets. They use ice for preservation.

In recent years, various schemes have been implemented for development of fisheries and for improving the lot of the poor fishermen families. These families have been encouraged to form co-operatives. In 1971, there were altogether 94 fishermen co-operatives of which 22 were located in 24-Parganas (North) and the rest were in the South. In 24-Parganas (North), a sum of Rs. 38,204 was advanced to fishermen families as loan while the financial assistance in the form of grant given to these families amounted to Rs. 2,992 only.

Plenty of sea-fish is available in the lower Sundarbans. On an average, about 3,200 metric tonnes of sea-fish are reported to be the annual output of this area. The following gives on account of the landing from the Sundarbans estuary for the three-year period from 1960.

Year	Arrival (metric tonnes)
1960-61	2,566
1961-62	3,243
1962-63	3,808

There are altogether 12 landing centres in the Sundarbans region and these are Basanti, Kultali, Gosaba, Sandeshkhali, Namkhana, Kakdwip, Hasnabad, Diamond Harbour, Kalinagar, Raidighi and Port Canning. Wholesale fish market of the region is Canning which serves as an important fishing centre. Bulk of the fish is collected from different parts of the Sundarbans, including Basanti, Gosaba and Sandeshkhali and part of Kultali. The trade attains its peak volume from August to March when the daily arrival of fish in the market reaches nearly 200 quintals a day. The fish market of Canning area provides employment to about 500 persons in about

150 stalls and the daily revenue earned by Government is about Rs. 300.

At present over half of the area of the Sundarbans is under forests, the present area of which is about 4,221.7 sq. kms. excluding 38.85 sq. kms. of protected forests. As forestry has been fully dealt with in Chapter I, its role as linked with agriculture is given briefly in the following paragraph.

The vegetation in the Sundarbans has some 40 different species of trees and shrubs. The area which is usually inundated by floods and tides is covered with Goran trees alternating with strips and patches of Hental and Golpata. As the level of the tract rises other trees, of which the most frequently met is Sundari, appear in abundance in the higher regions which are less susceptible to floods or salt water. Other species include Passur, Keora, Genwa and Sundari which grow up to a girth of 1.83 metres and can be conveniently used as beams and rafters in building construction. Genwa grows up to a girth of about 0.91 metre and sometimes also attains a height of 9.14 metres. It can be used for making packing boxes and dunnage timber for cargo vessel. The present stock of timber is estimated at 40.32 million cft. while the stock of firewood is estimated at 69.12 million cft. The exploitation of timber and firewood, however, has not been satisfactory, the average exploitation up to 1967 being only 1.2 million cft. and 1.3 million cft. respectively. Non-availability of good quality timber is said to be the main reason of this low rate of exploitation. As a result of such low utilization of the forest resources, the income earned from this source has not been so far substantial. Between 1962-63 and 1964-65, the forests yielded an average annual income of Rs. 6.58 lakhs, which barely covered the related expenditure. Besides timber and firewood, about 1,119 quintals of honey are estimated to be produced every year in the Sundarbans forests. The production is expected to increase manifold if canning and marketing facilities can be arranged. In order to facilitate economic exploitation of the forest resources the setting up of industries like paper or paper board is considered essential as the available small-sized wood may then be conveniently used as industrial inputs.

During the period from 1823 to 1871, floods occurred in the district on several occasions seriously affecting the crops. The flood of 1871 caused by excessive rainfall inundated the eastern and north-eastern portions of the district. In the inundated tracts, a large portion of the *aman* paddy was destroyed and when the flood water receded, a large number of cattle died, partly from eating grass

Forestry

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which had become rotten from long immersion in water. The southern tracts of the district, however, benefited by the large amount of fresh water brought down producing a bumper crop.

Floods of 1900,
1904 and 1907

Serious floods of the present century had been those of 1900, 1904 and 1907. In September 1900, there was a heavy rainfall which caused floods all over the district and damaged nearly the whole of the standing crops. There was again failure of the crops in some areas owing to excessive rainfall in June and July 1904 and as a result the lowlying lands were inundated and winter rice could not be grown on them. In 1905, the rainfall was not only heavy, but also uneven in its distribution. The lowlying tracts in the south of the Basirhat and Diamond Harbour Subdivisions were inundated at the time of transplantation, and the standing crops were damaged. The following year, the rainfall was altogether insufficient and this was not also evenly distributed, resulting in failure of crops. In 1907, again it was excessive rain in June and July that damaged the jute and rice crops in the lowlying areas, while in the higher lands also the crops suffered in the latter part of the year on account of scanty rain in October and November leading to distress. Agricultural loans were distributed and other relief measures were taken to help the suffering people.

Floods of 1913,
1922 and 1933

Floods occurred in 1913, 1922 and 1933 when the crops were seriously affected in some areas and relief measures had to be taken for the village people. The main cause of the flood was excessive rains in June and July. The people of the affected areas were given financial assistance in the form of gratuitous relief for some time.

Floods of 1935,
1939 and 1941

Floods visited the district in 1935, 1939 and 1941, the cause of the floods being prolonged and continuous heavy rains and water-logging of paddy fields in lowlying areas. The principal damage in the affected areas was confined to huts and *kutchha* houses. Gratuitous relief, mainly for the re-building of houses, were given to deserving cause and cash doles were also provided.

Floods of 1956
and 1959

The most serious floods since Independence occurred in 1956 when many tracts of land were submerged owing to heavy and continuous rainfall in the months of June and July. The loss to cattle and crops was heavy and the lowlying tracts were completely inundated. House building grants and agricultural loans were given. Relief operations continued for a considerable period and these included Test Relief Works, Gratuitous Relief and Land Improvement Loans.

Flood of 1978

In 1978, West Bengal suffered one of the heaviest floods ever experienced by the State. In two separate occasions once from

26.9.1978 to 30.9.1978 and again from 7.10.1978 to 8.10.1978, there was extensive rainfall leading to several flood in this district causing damages of great magnitude. Though the havoc created by the flood in the districts like Medinipur, etc. was much more extensive, still the impact of it, in 24-Parganas was the severest for the district within a century. The flood was caused by extensive rainfall in the catchment area of the major rivers going through particularly the central and southern parts of West Bengal, accompanied by insistent autumn high tides in the mouth of the river Hugli and persistent cyclonic rain storm in the districts. As per report of the District Magistrate, 24-Parganas, more than 2,000 sq. kms. of area was totally submerged for days together. Of the six subdivisions, in 24-Parganas, Basirhat and Sadar Subdivisions had the maximum area under flood. In Basirhat, more than 900 sq. kms. and in Sadar Subdivision, more than 600 sq. kms. were under water for a considerable period of time. On the whole 1,912 *maujas* and 233 wards of 16 municipalities were submerged during this period. The total number of people affected by the flood was estimated to be 33 lakhs 72 thousands. On the whole, over 62,000 houses were totally damaged and 1,13,000 were partially damaged. The Sadar and Basirhat Subdivisions suffered more in this respect. The total number of death occurred due to flood was 61 out of which 38 died in the Sadar Subdivision. The district had to run 2,134 gruel centres out of which 584 were opened in Sadar Subdivision, 499 in Barakpur, 454 in Bangaon, 326 in Barasat, 246 in Basirhat and 15 in Diamond Harbour. More than 3 hundred thousand persons had to be evacuated from Sadar Subdivision, more than 2,00,000 from Barakpur, 1,34,000 from Bangaon, 1,23,000 from Basirhat and 1,00,000 from Barasat. A total of 2,124 camps had to be set up to accommodate these persons. More than 2,40,000 hectares of area under *aman* crop were heavily water-logged. Out of this, crop of around 80,000 hectares was totally damaged. The total estimated loss of crop including *aman* and *aus* paddy and vegetable was over 1,77,000 M.T. In terms of money value, the loss of crop was over Rs. 20 crores 78 lakhs. 1,193 tube-wells for drinking water were totally destroyed. Over 800 primary school buildings were damaged. Over 2,869 kms. of village roads were heavily damaged. The maximum damage in this respect occurred in Barasat where 882 kms. of village roads were damaged followed by 681 kms. in Basirhat, and 656 kms. in the Sadar Subdivision. Over 300 shallow tube-wells for irrigation purposes were totally damaged. On the whole, excluding Diamond Harbour, all the other subdivisions in the district

were adversely affected because of these floods. However, the relief measures were very quickly geared up. The District Magistrate's Office, the Zilla Parishad and the Panchayat Samities organised relief and rehabilitation measures immediately during and after the flood and by November, almost all the persons in camps returned to their respective houses. Particularly, the Panchayat Samities under the rural restoration schemes geared up voluntary and local effort to re-construct the damaged houses as well as the village roads within a short time.

In 1959, an extensive area was affected by flood. Rescue operations were conducted by the District authorities in the lowlying water-logged areas and relief in the form of cash and dry doles was also given. House building grants were also given.

Famine of 1866

The district suffered from famine in 1866, which, however, did not affect it very seriously. The first symptoms of distress were noticed in October 1865 when the rice crop had entirely failed and the price was rising rapidly. In May 1866, the Collector adopted relief measures in the form of test relief works to provide employment to the distressed people, the distress being felt most severely in the Diamond Harbour Subdivision. It was in this subdivision that people were reported to be living on leaves and roots and the grain which had been reserved for sowing was being used for food. Money and rice were distributed to the affected persons and Relief Committees were organized in July for handling the situation more effectively. About 223.8 quintals of rice were imported from Kusthia (now in Bangladesh) and sent to Kulpi, south of Diamond Harbour, through the Sundarbans. The number of relief centres in the district was 19 and test relief works covered about 31,876 persons during the period from July to November. The mortality from direct starvation was small. Only in two localities were deaths reported to have been directly attributed to starvation.

Famine of 1943

Towards the end of 1942 when the Second World War was in full swing, a grave shortage of food began to be felt in Bengal. This crisis developed rapidly in the Greater Calcutta Area and became acute in March 1943. As was the case with other districts of the State, 24-Parganas was also faced with food shortage. The failure of the winter crop (*aman*) of 1942 combined with meagre stock of rice carried forward from 1942 led to a very serious shortage in the supply of rice available for consumption in Bengal. Import of rice from Burma had already been stopped owing to war and lack of movement of supplies from other provinces of the country added to the difficulties. Among other reasons was the denial policy adopted

by the military authorities which hindered distribution and led to hoarding and profiteering. Though exact mortality figure for the district on account of the great famine is not available, it may be said that like Calcutta and its neighbouring areas, the district of 24-Parganas also witnessed the death of hundreds of village people on the pavements while coming to towns in search of food. With the gradual improvement in the import of foodgrains towards the end of the year the situation improved to some extent while a good number of people died due to malnutrition. During the period when the famine was serious, gruel kitchens were opened throughout the district and rush of half-starved and famine-stricken people to these relief centres was a common sight. Besides government measures, many non-official organizations also set up relief centres and medical units to help the distressed humanity.

A disastrous cyclone occurred on the night of 4th October 1864. The violent wind caused widespread destruction to houses and trees while the storm wave brought up by the gale swept over the country to a distance of 12.88 kms. inland on either side of the Hugli as far north as Achipur. At Sagar Island the wave was about 4.57 metre above land level and the embankment, houses, huts, *golas* and buildings were destroyed. Out of a population of nearly 6,000, less than 1,500 survived. At Diamond Harbour, the wave was 3.35 metre high and it took a heavy toll of lives, many houses were swept away with most of the inhabitants.

Cyclones

In November 1867, the district was again affected by a cyclone and villages lying between Calcutta and Basirhat were badly affected, and there was loss of human life. The most affected places were Baruipur, Diamond Harbour, Basirhat and Gobardanga. Port Canning was also affected severely by the storm-wave where station-house, goods' sheds and railway hotel were damaged.

Cyclone of 1867

The district was also visited by a cyclone in May 1833 and heavy damage was caused to roads and embankments and crops in Sagar Island. The island was submerged to a depth of 3.05 metres and a population of 3,000 to 4,000 perished.

CHAPTER V

INDUSTRIES

INDUSTRIES

24-Parganas is the largest industrialised district in the State of West Bengal, having the largest number of working factories located here. The number of registered working factories stood at 3,032 in 1981 as against 1,632 in 1960 and 2,971 in 1980. In this respect Haora comes next with 1,421 registered factories in 1981. Many large-scale industries are operating around Calcutta and the presence of such industries provides ample scope for development of ancillary and down-stream industries. Also, besides the large-scale industries, there are small-scale and cottage industries in different parts of the district which contribute substantially to the economy of the State as a whole.

Old-time Industries

Old-time industries existing from before the present century include handloom weaving of cotton, leather tanning, manufacturing of cutlery, brass and bell-metal industries, pottery, embroidery and lace work commonly known as *chikan*. All these industries are located in different rural areas, some of which are languishing mainly for want of adequate capital, modernization, marketing facilities, etc.

The centres for manufacture of cutlery and agricultural implements are located in many places. Though these products are old-fashioned and not of high quality, yet there is a steady demand for these throughout the State. Leather tanning is done at Mollarhat, Sahpur and Gopalpur, while Basirhat and Baduria are well-known for brass and bell-metal industries. The pottery industry is located at Hasnabad, Jaynagar, Baruipur, Baj Baj and Barasat. Button making is done in small towns around Calcutta while manufacture of steel trunks and suitcases is a common phenomenon in almost all the towns. Small lock and key industries are located in places like Duttapukur, Khamarpara, Deuliar, Sonli, Nimta and Natagore. Bidi making units are in existence everywhere in the district. The manufacture of *gur* from date —palm juice is mainly carried on in Jaynagar, Taki and Bangaon and also throughout the Diamond

Harbour Subdivision. Dhanyakuria is famous for mat-making industry.

Cotton handloom weaving is an old-time industry which still maintains its importance. Huge quantities of handloom products are exported outside the district. This has become largely possible because of various measures taken by the government to boost handloom industry. A good number of cooperative societies are also in the field to render technical, financial and marketing assistance to weavers. There were 220 handloom weavers' cooperative societies in 1981-82 having 10,377 looms and producing 148.32 lakh meters of cloth valued at about Rs. 6.67 crore. The principal centres of handloom weaving are Bhangar, Khoragachi, Gorarah, Sayesnagar, Bainhat, Begampur, Itinda, Bankia, Ranipur, Purna, Gopalnagar, Baduria, Barasat, Hadipur, Ekbalpur, Suria, Gopalpur, Taki, Kadihati, Sonli, Nimta, Jhikira, Kolsur, Jadabpur, Jalpukuria, Panchghoria, Kulipara, Nahala Gaighata, Dakshindari, Basirhat, Panitar, Bankra, Matia, Deara, Kholapota and Kanyanagar. The main products of the handloom industry are gauze and bandage, napkins (count of yarn ranging from 20s to 40s) *Saris* and *Dhutis* of 60s, 80s and 100s. *Saris* and *Dhutis* of 80 and 100 counts are quite attractive and good in quality.

The types of loom usually worked on in this district are semi-automatic looms and fly-shuttle looms, which are, however, being progressively replaced by semi-automatic looms for higher production and standardization.

The handloom products are generally marketed in local hats and also through the West Bengal Handloom Weavers' Cooperative Society, which acts as the Handloom Apex Society, and the West Bengal Handloom Development Corporation.

	77-78	78-79	79-80	80-81	81-82
No. of Handloom Weavers' Cooperative Societies	188	195	231	231	220
No. of looms under cooperative fold	10,105	10,228	11,016	1105	10,377
Quantity of cloth produced (in lakh metres)	116.62	126.16	150.54	154.40	148.32
Approximate value (in crore Rs.)	4.14	4.48	5.34	6.17	6.67

Cotton Handloom Weaving

The table on page 217 indicates the total number of cooperative societies and looms with quantity of cloth produced and their value for the period from 1977-78 to 1981-82 in the district.¹

There are 24 powerloom centres in this district operating 104 powerlooms which produce 15,625 metres of cloth per day worth about Rs. 39,026.50.²

The West Bengal Khadi and Village Industries Board played a very important role in promoting the development of *khadi* and village industries. The activities of the Board were considerably expanded and intensified during the period from 1980 to 1983, involving the various agencies of the State Government, particularly the District Industries Centres, CADC, Zilla Parishads and the Panchayat Samitis. All these agencies were closely associated with the Board's effort to identify the artisans/beneficiaries. All the developmental schemes were also implemented with the active support and patronage of these agencies. The list of village industries under the purview of this Board was enlarged by a government notification dated 23.9.1982 to suit the need for harnessing various resources and potentials available within the State. Under the said order, manufacture of *polyvastra*, introduced as a new scheme under the village industries programme, had already been set into operation in 24-Parganas district. During the period from 1980 to 1983, 4 departmental *polyvastra* units were started at Gaighata in Bangaon Subdivision, and Deganga and Chhota-Jagulia in Barasat Subdivision. Under this new scheme, employment was offered to 128 workers (mostly women). In order to have wide coverage of artisans in consonance with the national objectives of generating more employment opportunities in the State, greater recourse was taken to by the Board to associate individual artisans and small entrepreneurs. Loans and grants under different village industries were disbursed to beneficiaries out of the Khadi and Village Industries Commission Funds during the period from 1978-79 to 1982-83 in the district of 24-Parganas as indicated below:

¹ Source: Deputy Director, Handloom and Textiles, West Bengal.

² Source: Directorate of Handloom and Textiles, Govt. of West Bengal.

INDUSTRIES

Sl. No.	Name of the Industry	1978-79		1979-80		1980-81		1981-82		1982-83		Total	
		No. of Unit	Amount	No. of Unit	Amount	No. of Unit	Amount	No. of Unit	Amount	No. of Unit	Amount	No. of Unit	Amount
1.	Handpounding of Rice	91	1,64,000/-	21	46,000/-	165	1,65,000/-	165	1,75,250/-	177	2,24,000/-	619	7,74,250/-
2.	Village Pottery	70	1,59,800/-	24	1,05,628/-	6	16,800/-	28	1,22,400/-	8	34,680/-	136	4,39,308/-
3.	Leather	17	42,500/-	16	32,850/-	27	93,400/-	15	67,150/-	25	36,000/-	100	2,77,900/-
4.	Village Oil	1	2,450/-	1	36,500/-	2	77,000/-	2	5,07,400/-	—	—	6	6,23,350/-
5.	Palm Gur	—	—	320	3,21,000/-	330	3,30,000/-	—	—	412	3,50,600/-	1,062	10,01,600/-
6.	Carpentry & Blacksmithy	—	—	12	7,800/-	—	—	68	56,300/-	16	8,000/-	96	72,100/-
7.	Khadi Spinning	—	—	1	1,23,500/-	—	—	—	—	—	—	1	1,23,500/-
8.	Handmade Paper	—	—	—	—	—	—	1	1,20,000/-	—	—	1	1,20,000/-

N.B.: In addition to one Khadi Spinning Institution, the Board has one Rajkot Charkha Centre and one New Model Charkha Centre in the district of 24-Parganas directly run by the Board.

Source: Chairman, Khadi & Village Industries Board.
Financial Adviser & Chief Accounts Officer, West Bengal Khadi & Village Industries Board.

Powerloom

Khadi and
Village
Industries

Leather Goods

Leather goods produced in this district have a good market both inside and outside the district. The items of manufacture include bags, chappals, shoes, hand-gloves, suitcases, etc. The list of products, quantity of goods produced, their approximate value, etc. for the year 1978-79 to 1982-83 are shown in the following table:¹

Year	Items of Manufacture	No. of Units	No. of persons employed	Quantity of leather goods produced	Approximate Value (in Rs.)
1978-79	Leather Bag	1	10	2,640 pcs.	6,600
	Leather Tanning	1	38	11,00,000 pcs.	3,74,50,000
	Leather Meal	4	50	3,220 r	8,00,000
	Leather Chappal & Shoe	4	8	10,575 pair	1,81,150
1979-80	Leather Bag	2	12	3,72,350 pcs.	19,40,000
	Leather Tanning	1	10	2,50,000 pcs.	68,930
	Leather Meal	1	18	2,200 T	1,26,000
	Leather Chappal & Shoe	41	147	37,070 pair	9,14,325
1980-81	Leather Bag	3	34	27,140 pcs.	3,26,150
	Leather Chappal & Shoe	7	26	29,960 pair	3,69,060
	Fancy Leather goods	1	6	400 pcs.	6,000
1981-82	Leather Bag	5	37	1,56,250 pcs.	12,17,700
	Leather Meal	1	7	9,48,560 T	4,89,180
	Leather Chappal	9	52	63,530 pair	11,23,500
	Leather Hand-gloves	1	15	60,000 pcs.	11,80,000
	Leather Board	1	8	1,50,000 pair	15,00,000
1982-83	Leather Bag	3	17	21,860 pcs.	3,27,000
	Leather Chappal	4	15	29,690 pair	4,41,280
	Leather Suitcases	1	6	2,400 pcs.	91,800

Handicrafts

Handicrafts of this district deserve special mention. They reflect the skill and dexterity of the artisans and their sense of finesse. These goods comprise mats and *asans*, earthen dolls and images, cane and bamboo products, conchshell products, etc. The under-mentioned data indicate the performance of the handicrafts industries in the last five years.²

¹⁻² Source: General Manager, District Industries Centre, 24-Parganas.

INDUSTRIES

Year	Items of manufacture	No. of Units	No. of persons employed	Quantity of goods produced	Approximate Value (in Rs.)
1978-79	Mat & <i>Asan</i>	4	10	5,370 pcs.	58,280
	Earthen Image	1	1	500 pcs.	8,000
	Cane & Bamboo products	1	68	25,00,000 pcs.	45,00,000
1979-80	Mat	2	6	2,700 pcs.	27,000
	Earthen Image	19	69	9,000 pcs.	2,22,700
	Cane Products	1	4	4,00,000 pcs.	10,100
	Conchshell Bungle	1	7	1,100 pcs.	5,350
	Silver Jewellery	2	12	60 kgs.	60,000
	<i>Sital Paty</i>	1	3	1,400 pcs.	14,700
1980-81	Mat & <i>Asan</i>	25	86	22,770 pcs.	2,16,220
	Clay modelling	4	9	29,450 nos.	41,800
	Horn Products	1	4	10,000 pcs.	1,35,000
	Cane & Bamboo Products	4	18	5,64,128 nos.	2,07,390
	Silver Filigree	4	21	70 kgs.	1,80,000
	Embroidery	3	13	1,800 pcs.	2,40,000
	Palmleaf Fan	2	9	62,000 nos.	38,700
	Coir Products	4	20	48,000 kgs.	70,000
1981-82	Clay modelling	3	11	45,000 pcs.	57,750
	Embroidery	7	38	15,950 pcs.	4,07,000
	Cane & Bamboo Products	3	23	9,02,058 pcs.	1,61,144
	Jewellery	1	3	10 kgs.	15,000
	Batik Print	1	14	1,000 pcs.	50,000
1982-83	Earthen Image	6	25	82,860 pcs.	1,82,250
	Mat	1	4	1,440 pcs.	14,000
	Silver Filigree	2	14	112 kgs.	3,05,600
	Embroidery	4	26	3,850 pcs.	2,17,080
	<i>Sola Products</i>	2	15	1,084 pcs.	8,322

Loans under the Bengal State Aid to the Industries Act are sanctioned in suitable cases by the General Manager, District Industries Centres to small scale units. The total amount of Rs. 6,24,800 was distributed as loan to 177 small scale units, in 1981-82, the nature of industries being tailoring, ready-made garment making, cycle repairing, wheat crushing, blacksmithy etc.

In a modern developing economy, the growing need for power

Assistance under State Aid to the Industries Act

Power

can hardly be over-estimated. Rural and urban electrification has progressed steadily, especially from 1961 onwards. While, according to 1961 Census, in 24-Parganas, 86 villages and 49 municipal and non-municipal towns were electrified, the number of electrified villages stood at 3,792 villages in 1982-83. In terms of percentage, it is 49.3%. Likewise, 70 towns have also been served with electricity. The sources of supply of power in 24-Parganas district are two agencies namely, the West Bengal State Electricity Board and the Calcutta Electric Supply Corporation (India) Ltd. While the West Bengal State Electricity Board has no power generating plant located in this district, all the five power generating stations of the Calcutta Electric Supply Corporation (India) Limited are situated in this district at Cossipore, Garden Reach, New Cossipore, Mulajore and the latest one at Titagar. The Titagar generating station will have an installed capacity of 240 MW when all the four units of 60 MW each will be completed. The first unit of 60 MW capacity was commissioned in 1983 in a record time. In this district, the industrial consumption and non-industrial consumption of electricity during the year 1980-81 supplied by the West Bengal State Electricity Board were of the order of 203, 041, 812 KWH and 173, 398, 372 KWH respectively. The total consumption of electricity supplied by the Calcutta Electric Supply Corporation (India) Limited in 1981-82 was 113 million units.

Development of
Power

Immediately after the commissioning of the first public utility electricity plant at Darjiling, a private company started supplying electricity in the greater Calcutta area in 1899. At that time, Calcutta was not a separate district. Hence, it may be said that this district had the first electricity undertaking in 1899. In 1906, another private company (Messrs Kilburn & Co.) started an undertaking at Barakpur. Messrs Kilburn & Co., however, handed over in 1947 their undertaking to the then Electricity Development Department of the Government of West Bengal. Another private electricity company, namely, Gourepur E/S Co. Ltd. obtained a licence for supply of electricity. In 1921, they installed a steam power station at Gouripur to supply power at high voltage to some jute mills and other industrial units in the nearby industrial belt. The installed capacity of the power station in 1948 was 34.75 MW. At that time, the installed capacity of Mulajore power station of the Calcutta Electric Supply Corporation was 91 MW. Apart from the industrial consumers, three distributing licencees, namely Naihati Electric Supply Limited, and East India Electric Supply and Traction Company

Ltd. (2 licencees) started to purchase electricity from the Gourepore Electric Supply Co. and the East India Electric Supply and Traction Co. Ltd. commissioned their undertaking at Hugly in 1922, followed by one at Bansberia in 1936.

The Naihati Electric Supply Company Limited, however, commenced their undertaking at Naihati in 1935. The said company started supplying electricity in Kanchrapara area in 1948. Another licence was granted in 1952 for supplying electricity in Sodepur. This undertaking was subsequently taken over by the West Bengal State Electricity Board on revocation of licence in 1956. Licence was also granted to the Bongaon Electric Supply Co. Ltd. and the Jaynagar-Majilpur Electric Supply Co. Ltd. The former commissioned their undertaking in 1954 and the latter in 1955. These two undertakings were taken over by the West Bengal State Electricity Board in 1968 and 1965 respectively. Apart from these, during 1952-55 licencees were granted for electrification of Basirhat, Gobardanga and Diamond Harbour. But none of these licencees could commence their supply and ultimately West Bengal State Electricity Board electrified the above towns by extending its distribution mains. In 1954, a 66 KV single circuit line was drawn from Syamnagar to Baharampur in the district of Murshidabad. For this purpose, electricity was purchased from the Mulajore power station of the Calcutta Electric Supply Corporation Ltd. at 33 KV and the same was stepped up to 66 KV. The Syamnagar station was the first E.H.T. sub-station in the district of 24-Parganas. After the formation of the West Bengal State Electricity Board on 1st May 1955, several schemes were undertaken to erect and install more E.H.T. transmission lines and sub-stations. For the purpose of supplying electricity to different parts of the district through a network of transmission lines, 132 KV sub-stations have been erected at Behala, Sonarpur, Kasba, Titagar, Ashok Nagar, Salt Lake City, etc. The WBSEB arranges supply of electricity to this district from the Bandel Thermal Power Station.

There are no mines of any kind in the district and there are also no collieries. The heavy industries, however, are mainly represented by jute and cotton mills and undertakings connected with manufacture of heavy chemicals, engineering goods, automobiles, rubber and rubber goods and paper. The jute and cotton mills are the oldest industrial units in the district, the former employing, as a group, the largest number of people.

The jute manufacturing units in the State are located on the two banks of the river Hugli in the districts of Haora, Hugli and

Industries and
Manufactures

Jute Industry

24-Parganas. The district of 24-Parganas has the largest concentration of jute mills. From Hukumchand Jute Mills near Halisahar in the north to Birlapore at the south-western end of the district, there are about 39 jute mills, although all of them may not be in operation at present. About 51% of the looms installed in West Bengal are concentrated in this district.

The jute industry from its very inception in the mid-fifties of the nineteenth century has passed through periods of ups and downs in line with the general economic conditions all over the world, the jute goods being primarily export commodities. A special feature of the jute industry in the pre-independence days was that although the manufacturing units, the mills, were in the hands of British enterprises and British management, raw jute and the manufactured articles were under the control of the Indian businessmen. Another noteworthy feature in those days was that all the manufacturing units were clustered along the two banks of the river Hugli in the district of Haora, Hugli and 24-Parganas, while raw jute was primarily grown in East Bengal. As such, the story of jute industry in the post-independence era is an account of gradual but rapid transfer of management of the manufacturing units from British to Indian hands and a period of hardship and tussle in the sphere of obtaining supply of raw jute. Urgent and effective steps were taken by the Indian Union to increase jute cultivation in the jute growing States even at the cost of reducing rice growing areas and at the same time reducing consumption of jute by a section of jute looms. These measures have produced good results; India today is self-sufficient in her requirements of raw jute, although some shortage still persists in the production of quality jute as available in erstwhile East Bengal.

The mills that are situated on the eastern Bank of the Hugli river, to the north and south of Calcutta, lie mostly within the district of 24-Parganas. The important centres are Titagar with 9 mills, Jagaddal with 8 mills and Baj Baj with 8 mills. In 1969, there were 79 working mills in the State of which 45 mills were situated in 24-Parganas. The items of jute goods produced here include hessian sacking bags and twine, sacking and decorative fabrics, fine scale yarn, carpet backing cloth, carpet and wobbling, canvass of A twills and B twills, D.W. tarpaulin etc. A list of jute mills situated in the district is given at Appendix 'A'. Appendix 'B' contains information on some jute mills in this district.

In 1961, there were 40 textile units in West Bengal, mostly consisting of cotton textile mills. The number dropped to 35 in 1970

and again increased to 41 in 1975, with 9,762 looms at work daily. The average number of workers daily employed was 45,197 in 1975.¹ There are 23 textile mills located in 24-Parganas, a list of which is given at Appendix B. All the units located in the district enjoy such locational advantages as the moist climate of the riverine region, cheap fuel, power and labour and a good local market. The only serious problem from which the cotton mills in this district suffer is the paucity of raw material supply which usually leads to the blocking of an appreciably large part of the capital with these units in maintaining large stock of raw materials. For production of raw cotton in the Sundarbans, an experimental cotton farming programme was undertaken in an area of 4,455 hectares. Though the experiment initially succeeded in showing some good result, it ultimately flopped.

Andrew Yule & Co. Limited (Yule Switch Gear factory in collaboration with Togami Electric of Japan) is today a Government of India enterprise and has over a century old tradition of playing a pivotal role in the economic development of the country. It was started as a managing agency in 1863 and became agent for Horrock's long cloth and three British insurance companies. By the turn of the century the company had expanded its activities to include coal mining, tea plantations, jute manufacture, general insurance, inland water transport, real estates business etc. It became a public limited company in 1909 and apart from functioning as a major Managing Agency House till the mid-sixties, it diversified into manufacturing activities and formed its Electrical Engineering Division.

In 1974, Andrew Yule & Co. Limited became a government controlled company when the government of India acquired 49% of the equity from the foreign share-holders. In 1979, the government of India acquired a further 2% of the equity of the company and thus the company became a Government of India enterprise under the direct administrative purview of the Ministry of Industries, Government of India. As a government enterprise the company entered into various collaboration agreements with internationally renowned concerns for design and manufacture of heavy duty industrial fans, air pollution control equipment, conveyer belting, electromagnetic contactors, bi-metal overload relays, moulded case, circuit breakers etc. with the application of new technology and expertise for catering to the needs of eastern India. Andrew Yule & Co. has set up a

Some Large Scale Industrial units

¹ Source: *Statistical Abstract, West Bengal 1976-77* (Combined).

factory at Thakurpukur in south 24-Parganas. This factory started its commercial production from August 1983. Technology transfer within the quickest possible time was possible due to constant co-operation and assistance from the foreign collaborators and by way of training of the company's engineers at the collaborators' works in Japan. With the expected turnover of Rs. 5 crores within the next three years this unit would make substantial contribution to the development of small-scale industries, manpower, etc. in and around the locality.

Avery India Ltd.

This is a weighing machine manufacturing company of international repute, having its business in India since 1909. The Registered Head Office of the company is housed at 28/2, Waterloo Street, Calcutta-700 069. The company has 81 branches and sales offices throughout India. The company has two workshops equipped with most modern machine tools, one situated at Hide Road Extension in the district of 24-Parganas and the other at Faridabad, Haryana, which produce a wide range of industrial weighing, counting and testing machines. The annual turnover of the company was Rs. 1,552.70 lakhs in 1982 and the total number of persons employed in this concern was 2,257.

Bata India Ltd

Bata is the largest and highly modernized shoe making concern in India. The Bata India Ltd. is located at Batanagar in south 24-Parganas. The company's turnover of Rs. 1,593 million in 1983 shows an increase of Rs. 140 million over 1982 representing a 10% rise. Profit before depreciation and tax stood at Rs. 62.4 million and after charging depreciation of Rs. 14.9 million, the profit improved to Rs. 47.5 million. Profit after tax amounted to Rs. 19.5 million. The Directors of the company recommended payment of dividend of 20% in 1983 as against Rs. 15% in 1982. A sum of Rs. 3 million has been transferred to investment allowances reserve and Rs. 12 million to general reserve in 1983. The company is reported to be continuing its re-equipment and modernization programme for better production and performance. The company, originally known as Bata Shoe Company, was set up at Batanagar. The Bata Shoe Company and the National Tannery in Calcutta are still the two principal units in this region producing different types of tanned leather, chrome tanned upper hides and also vegetable-tanned leather. The Bata Shoe Company, which has recently changed its name as Bata India Limited, has a production capacity of about 4 lakh pairs of shoes of different varieties per month. The products of the company have a sizeable export market.

In 1901, a new chemical and pharmaceutical company was

formed and the name of this company was Bengal Chemical & Pharmaceutical. Founded by Late Acharya Prafulla Chandra Ray, Bengal Chemical had served the nation for long years as a pioneering concern in the field of manufacture of chemicals and drugs. It was the patriotic spirit, dedication and hard work of Acharya Ray and his committed band of scientists, researchers and scholars that helped the company to rapidly grow into a multi-unit organization with great emphasis on technological self-reliance and quality which have been the guiding principles for this company throughout its existence. Bengal Chemical's first sulphuric acid plant was installed at Maniktola and began production in 1907. During the world war I, when the activities of the company increased in all departments, the manufacture of sulphuric acid, nitric acid and other chemicals was also increased manifold. The company developed the process of manufacturing caffeine. It started manufacture of sterilized surgical dressing in 1916. Between 1919 and 1921, the Bengal Chemical purchased 45 acres of land at Panihati on Barakpur Trunk Road in 24-Parganas. On completion of the construction of the new unit at Panihati a new line of manufacture began at the end of 1922.

It started distillation of coal tar and large scale manufacture of alum in 1924 as planned by Acharya Ray. The company opened a biological department in 1928 with well-equipped laboratories and attached stables. Manufacture of gland products and vitamin preparation started in 1931-32. The Company began manufacturing of soap at Panihati factory and printing ink at Maniktala in 1934. To cope with its increasing marketing activities in western India, the Bengal Chemical established a manufacturing unit at Bombay in 1938. In 1941, a new contact plant for sulphuric acid was installed at Panihati and another new plant for production of alum was installed in 1952. To increase the production capacity, another contact plant for sulphuric acid was installed in 1954. An existing pharmaceutical factory in Uttar Pradesh was acquired through purchase in 1949 for manufacture of spirituous preparations. The Bengal Chemical also embarked on a project of manufacturing life-saving drugs to serve the interest of the common people by introducing T.A.B.C. and snake venom anti-serum. Simultaneously with drugs, Bengal Chemical started manufacturing products like phenol etc. and a long range of cosmetics to meet the daily requirements of common Indians. In fact, the Bengal Chemical products became household names all over the country for the quality and utility of the products.

Unfortunately, the condition of the company started deteriorating from 1969 onwards. This happened mainly due to inadequate technical and financial management within the company. By the end of 1971, it was on the verge of closure, when it approached the Industrial Reconstruction Corporation of India (IRCI) for reconstruction assistance. Reconstruction loan and technical surveillance by the IRCI helped only marginally for a couple of years and the company's health started deteriorating thereafter. It was at that point of time that in consideration of the rich heritage, vital significance and vast potential of the company, Government of India intervened and took over its management in 1977.

Since the take-over of the management of Bengal Chemical activities were initiated in various directions to make this national institute a healthy unit. Subsequently the company was nationalized in December 1980. From 1st April 1981, Bengal Chemical became a fully government owned and managed organization with a new name—"Bengal Chemical and Pharmaceutical Ltd." A new life and enthusiasm having been injected into the organization after nationalization, the company took up various development and modernization plans in different stages with new and result-oriented management strategies. As a result, the company has shown considerable improvement in its operation with the company's production having steadily increased and additional capacities coming up for several of its products.

Britannia Industries Ltd.

It is one of the foremost confectionary industries in the country. It has a big factory at Taratala Road in the district of 24-Parganas. Besides, it has factories in the cities of Delhi, Bombay and Madras also. The Britannia Industries manufacture almost all kinds of biscuits, breads and cakes. The company was incorporated in March 1918. It also trades with general merchandising items as an export house. The company made a public issue in 1978 to reduce its foreign shareholding to a total of 40% as per Foreign Exchange Regulation Act, 1973. In the year 1981-82, the annual turnover of the company was Rs. 93.68 crores. The Britannia Industries Ltd. has about 6,000 employees.¹

Chloride India Ltd.

This company was established as a private company on 31st January 1947 and was converted into a public limited company on 4th January 1960. Chloride India is a professionally managed company and a subsidiary of Chloride group PLC, the acknowledged world leader in packaged power technology. The company

manufactures various types of automotive and industrial lead acid storage batteries which find application in country's power generation, agriculture, transportation and communication infrastructure. Some of the products of the company are: batteries for railway lighting, fans and airconditioners; batteries for power stations, closing and tripping circuit breakers and contactors, alarm systems, lubricating lamps, batteries for energizing track signal circuit and booster stations in railways, batteries for telecommunication for maintaining optimum exchange voltage at all times, batteries for emergency lighting for operation theatres in hospitals, batteries to provide lighting power in non-electrified rural and semi-urban areas like tea plantations etc., miners' cap lamp battery, aircraft/ground starter batteries, spill-proof batteries for defence transmission equipment, heavy duty and motive power batteries etc. etc.

The company has three factories. The first factory was set up at New Chord Road, Syamnagar in the district of 24-Parganas in 1946. Since then the factory has been progressively modernised, expanded and equipped to manufacture batteries for a wide range of operations. It is the largest battery manufacturing factory in the country employing over 1500 people. The two other existing factories are at Haldia in Medinipur district and Chinchwad at Pune. The company's turnover has increased 6-fold from below Rs. 10 crores in 1970 to about Rs. 60 crores in 1981. During the last decade exports have grown from Rs. 40 lakhs to Rs. 6 crores. During 1981, the company paid nearly Rs. 23 crores as various government duties and taxes. Salaries or wages and other benefits were over Rs. 5 crores and the net dividend amounted to Rs 1.5 crores.¹

It is an important unit of ship building in the district of 24-Parganas. It is on the eastern bank of the river Hugli, adjacent to Calcutta. In 1960, it was taken over by the Ministry of Defence. Various development measures taken by the company have resulted in a continuous growth during the recent years. In the light of past performance supported by professional skill, experience, expertise gained over long years and equipped with excellent facilities, the Garden Reach Ship Builders & Engineers is ever keen to contribute its share to the development of the nation in ever increasing measures. On 31st March 1982 its annual turnover was Rs. 5,856.13 lakhs and the number of persons employed was 10,743. The company has a capacity to build ships up to 28,000 dwt. It builds

Garden Reach Ship Builders & Engineers Ltd.

¹ Source: Secretary, Chloride India Ltd. and Publicity folder issued by the company.

¹ Source: General Manager, Britannia Industries Ltd.

specialised crafts like dredgers and tugs, largest in India being built by this company. It meets the ship building requirements of the Navy by providing seaward defence boats, survey vessels, ocean-going tugs etc. The company designs all ships built by it and has a large Ship Design Department. The company can repair all types of ships including war ships which can come up the river Hugli. The company has a factory established at Ranchi in 1971 for manufacturing high-speed and medium-speed diesel engines. This unit can meet the requirements of all sea-going ships at present built in this country (except war ships). The company has facilities for dealing with high speed engines at its Calcutta factory. Among the other items of produce there are the cargo winches, boat davits, steering gears, cranes, road rollers, pumps, steel plant technological equipment, conveyor systems for mines and thermal power stations, equipment like Bailey type bridges and army recovery equipment, heat exchangers, pressure vessels etc.¹

The General
Electric Company
Ltd.

This is a large electrical engineering concern and established at Taratala on 14 November 1911. It has two factories here. It has two other workshops, one at Naini, UP and the other at Coimbatore, Tamil Nadu. The company manufactures transformers, motors, pump-sets, switch gears, furnaces, induction heat equipment, fans, meters, lighting fittings, chokes, high speed D.C. circuit breakers, air pollution control equipment etc. It employs 3,593 persons in its West Bengal sector. In the year 1981-82, the annual turnover of the company was Rs. 67,67,25,159/- and its exported goods were valued at Rs. 1,08,56,638/- on an all-India basis.²

Indian Oxygen
Ltd.

This company had its origin in 1935 as a private limited company, viz., the Indian Oxygen and Acetylene Company Ltd. which was formed by amalgamating three existing units in the industrial gas business. The company was then a wholly-owned subsidiary of the British Oxygen Ltd., known as the BOC Group, PLC. In 1958, the company was converted into a public limited company and its name was changed to Indian Oxygen Ltd. (IOL) with a paid up capital of Rs. 2 crores, out of which BOC's holding was 70%. BOC's holding was reduced to 66.06% in 1966. In compliance with this requirement under the Foreign Exchange Regulation Act of 1973, the Indian Oxygen Ltd. diluted its foreign share holding to 40% on 29.1.79 and the holding of the BOC Group PLC, now stands at 39.75% of the total paid up share capital of IOL. Between 1940

¹ Source: Public Relations Officer, Garden Reach Ship Builders & Engineers Ltd.

² Source: Secretary, G.E.C. Ltd.

and 1964 IOL gradually expanded its gas manufacturing capacity by installing a number of gas factories and gas compressing stations. Today IOL has 12 gas factories and 6 gas compressing stations all over India, out of which 3 factories are located in the district of 24-Parganas. It has one Electrode Factory on B. T. Road, Khardah, one Equipment Factory at P-33 Taratala Road, and one plant manufacturing works at P-33 Taratala Road, Calcutta 700 088. IOL installed the first electrode welding factory on B. T. Road, Khardah in 1947. The second electrode factory was established at Ambattur in Tamil Nadu in 1966. In 1957, IOL started manufacturing welding and cutting equipment and medical equipment in its Equipment Factory on Taratala Road. Liquid oxygen explosive cartridge factory (Loxete factory) went into production in 1962. The company set up its Research and Development Unit in Calcutta in 1966. This unit has recently been shifted to Joka in 24-Parganas district, near Calcutta. The Research and Development unit is recognised by the Department of Science and Technology, Government of India. In 1969, manufacture of Air Separation and Gas Plants and Associated Cryogenic Equipment was started in the company's plant manufacturing works on Taratala Road. The fixed capital investment of the three factories was Rs. 887.11 lakhs as on 30.9.82. 970 persons were employed in this factory in 1982. The items of production are welding electrodes, welding fluxes, M/S welding (copper-coated), gas and electric welding and cutting equipment accessories, gas cylinder valves, medical equipment accessories and air separation and gas plants and associated and cryogenic equipment. The total turnover of this factory was Rs. 2,227.72 lakhs for the year ended 30.9.82.¹

It is situated at Kamarhati, a suburban town in 24-Parganas (North). It is the manufacturer of aluminium foils and container sheet/strips, etc. which are extensively used as packaging materials mainly for pharmaceuticals, contraceptives, bulk and packaged tea, coffee, cigarette and tobacco, milk and dairy products, etc. The company was incorporated on 8.11.1960 as a private limited company. By an agreement dated 15th February 1977 made between the company and the India Foils Limited, U.K. (the Sterling Company), the Company took over the undertaking in India of the Sterling Company as a going concern effective from 1st September 1977. The Company was converted into a public limited on 23.11.1977 and the word "Private" was deleted. The Company has

India Foils
Limited

¹ Source: *Report of Indian Oxygen Limited*. Oxygen House, P-33, Taratala Road, Calcutta-700 088.

India Paper
Pulp

taken up a phased modernisation programme of the plant. In 1982, the company exported goods worth of Rs. 1.91 crores. In the same year, its annual turnover was Rs. 3,619.36 lakhs, the total number of employees in 1982 was 1,052.¹

The management of this factory lies with the West Bengal Industrial Development Corporation Ltd. India Paper Pulp is one of the major paper mills in West Bengal. Its factory is situated at Hazinagar, Naihati, in the district of 24-Parganas. The India Paper Pulp, which had been in existence for over 50 years, ran into difficulties towards the end of the 1970s and ultimately went into liquidation after a long closure. The Government of West Bengal stepped in and acquired all the assets of the paper mill in an open public auction in the High Court of Calcutta in 1981 and entrusted the responsibility of reviving this sick unit to the West Bengal Industrial Development Corporation Ltd. The India Paper Pulp is unique in the paper industry of the country in so far as the manufacturing process is concerned. The unit works on the Magnesium Bi-sulphite pulping process and is the only mill of this kind in this part of the world. This paper pulp industry employs 1,500 persons daily. About Rs. 885 lakh was invested as total capital of the project. Principal products of the factory are various types of writing and printing papers, Azum ledgers, Bonds and Cover papers. Besides, it produces CELEX (Magnesium Lingo Sulphate) Dye and powder. Presently, the company is producing 10/12 thousand MT per year which is likely to be increased with the progress of all the rehabilitation programmes. The installed capacity is 16,150 MT per year. The total turnover of all the items is valued at Rs. 12 crore approximately. It has started exporting magnesium lingo sulphate and the first consignment was exported to the Gulf countries.²

Jessop & Co.
and Textile
Machinery
Corporation

Jessop & Co. is located at Dam Dam. It is an important firm which manufactures locomotives and wagons. Jessop & Co. normally manufactures about 300 coaches for the meter gauge railway lines and 300 under frames every year. The factory employs about 600 persons. The Textile Machinery Corporation has its workshop at Belghoria. The annual output of the corporation in 1970 was 600 tank wagons and 300 under frames. The raw material requirements of this industry are grey iron and steel castings, wood and miscellaneous engineering goods. The units are favourably located near

¹ Source: Secretary, India Foils Limited.

² Source: Report of the Industrial Reconstruction Department, Government of West Bengal.

the raw material source, besides having technically skilled labour, cheap electricity and port facilities of Calcutta. The city of Calcutta also offers a ready market for these goods.

The Company was established as S F Products India Private Limited on 30th July 1960 with 60% of the capital subscribed to by A. B. Sevenska Flakt Fabriken, Sweden, the leading Company in the world in the field of air and gas handling equipment, and the balance of 40% of the capital was subscribed to by New India Individual Investors and later on, a factory was set up at Mahestala near Calcutta. The name of the company was changed to S F India Limited with effect from 21st June 1961. The present name 'Flakt India Limited' was adopted by the company on 31st December, in 1982 to signify his close association with the Flakt Group of the Companies operating all over the world and to adopt the trade name Flakt under which the company manufactures and markets its equipment. When the company started its operation in 1961, air and gas handling and control technology was still in its infancy and adequate appreciation for prevention and control of industrial pollution was significantly wanting. The Flakt India maintained its leadership in manufacture of air and gas control equipments and promoted widespread adoption of pollution control equipments in this country. The Company has achieved impressive growth over the years in terms of performance and in developing its own expertise to suit the specific needs of the country. Besides, the well-established factory in 24-Parganas, it has seven engineering and sales offices in Calcutta, Bombay, Delhi, Madras, Bangalore, Pune and Hyderabad to cater to the needs of the entire country. Among 750 of its employees, about 1/3rd are graduate engineers and technically qualified personnel.

The Company's products and systems are mainly used by the core sector industries, both in public and private sectors. Its clientele includes cement, steel, meteorological, paper, sugar, textile, ship building, defence and power generation industries. The Flakt India mainly manufactures air handling and pollution control equipment and also equipment used for recovery of valuable materials from industrial processes for re-cycling and also for recovery and conservation of energy. The Company has obtained licence to manufacture annually 3,462 fans and blowers, 14 electrostatic precipitators and 4,841 air treatment including air pollution control equipment. The sophisticated and intricate range of system and equipments produced by Flakt India can be classified on the basis of their applicability, as under: (1) Air pollution control equipment, (2) Industrial Venti-

Flakt India
Limited

lation and Air conditioning systems, (3) Industrial Fans, (4) Marine Air Conditioning systems, (5) Industrial Drying Equipment, (6) Surface Treatment Equipments, (7) Industrial Vacuum cleaning systems, (8) Material handling conveying and other equipments. Gross income of the company in 1982 stood at Rs. 15,86,48,000, net profit after tax at Rs. 32,32,000 as against Rs. 6,90,28,000 and 11,00,000 respectively in 1978.

There has been encouraging demand for the company's systems and equipments from the neighbouring countries of Asia, Africa and the Middle East largely due to sophisticated technology and reliable expertise at its command.¹

A new factory complex of this company was opened on 3rd February 1984 on Transport Depot Road, Taratala. The MSA was situated in the same locality in the year 1965 as a joint venture between MSA/USA and ABMEL (now Chloride India Limited). Later Voltas, Tata Iron and Steel Company Limited and New India Assurance Co. Ltd. joined the same as share-holding partners. At the time of establishment of the MSA, Miners' Cap Lamp was its only product. But it has now been able to add high-technology life-saving equipment like Detectors for Carbon Monoxide and Methane, Carbon Monoxide Filter, Self-Rescuers, Breathing Apparatus etc. to its production range. Today MSA is one of the largest safety equipment manufacturers of India and is backed by world-wide MSA Group of companies whose headquarters are in Pittsburgh, USA.

Locomotive Carriage and Wagon Workshop at Kanchrapara, built in 1863, is the largest workshop in this region. Kanchrapara workshop overhauled and repaired locomotives carriages and wagons owned by the then Eastern Bengal Railway and after the partition coaches and wagons of the Eastern Railway. Meanwhile, during the World War II, the workshop was taken over by the Defence Ministry.

As electric traction was introduced in Eastern India in 1957 and the major trunk routes were progressively electrified, the task of overhauling the fleet of electric engines and of the electric multiple units was assigned to the Kanchrapara Workshop. In 1966, the workshop turned out the first overhauled electric locomotive. Kanchrapara has now been entrusted with the overhauling of the entire electric fleet of the Eastern, South Eastern and Northern Railways. Not only was it a new task altogether, but what added to the complexity of the job was that there were seven different

¹ Source: Abstract Report of Flakt India Ltd., 1982.

types of engines to handle. These types of electric engines were of German make, French make, and Japanese make and indigenously manufactured at the Chittaranjan Locomotive Workshop. Similarly, the EMUs had four different types of equipment—two types of European manufacture and one each of Japan and Bharat Heavy Electricals (Bhopal) make. The development wing of the workshop has evolved a new technique for reconditioning and reclaiming engine parts with little assistance from the overseas suppliers but mainly with indigenously developed technique, skill and expertise. They have also modified certain designs of the locomotive to suit the local conditions. With the assistance of the Research, Designs and Standardization Organization of the Indian Railways at Lucknow they have been able to reclaim damaged locomotive armatures and also imported battery charger of the EMUs. They have successfully repaired sealed transformers and converted them to standard type and also re-built heavily damaged under frames and bogies of the electric locomotives involved in accidents. They have also been able to modify one-class locomotives and the ventilation arrangements of EMU traction motors and their modifications have prolonged the life of motors. The workshop is now in a position to overhaul quite a number of electric engines, motor coaches and trailer coaches every month. The capacity has been increased. The machine shop of the workshop has been extensively remodelled so as to repair electric locomotives of EMU stocks. A good number of jigs and fixtures were designed and manufactured here to ensure quality control of various components and assemblies. Sophisticated testing facilities have also been provided. Items like vacuum exhausters, compressors, relays, speedo-meters, electric magnetic contactors and a host of other equipment are also fabricated at Kanchrapara. One of the major hurdles faced by the maintenance wing was the supply of spares which the Development Wing has since overcome. Most of the spares are now indigenously manufactured and as a result import content has been substantially brought down. Moreover, 150 small scale industries have been benefited by the indigenisation programme. Self-propelled rail cars popularly known as "tower wagon" are now manufactured in the workshop to meet the requirements of various zonal railways which have been electrified. The re-winding shop was set up in 1974.

The Kanchrapara workshops carry a heavy responsibility in ensuring satisfactory working of electric traction over those Railways—Eastern, South-Eastern and Northern Railways, where 50% goods traffic, 25% passenger traffic and 95% suburban traffic

Mines Safety
Appliances
Limited (MSA-
India)

Railway Work-
shop

Shalimar Tar
Products Co.
Limited

are operated on electric traction.

Shalimar Tar Products Company Limited has been in existence since 1935. The factory is situated at P-46 Hide Road Extension in the southern part of the district of 24-Parganas. The factory produces roofing felts, blown bitumen, emulsions, roofing and sealing compounds, paints etc. The total annual turnover is Rs. 4.5 crores approximately. The company employs 211 workers daily. Only the emulsions were exported in 1982, the value of which was Rs. 30 lakhs.

The Titagur
Paper Mills Co.
Limited

The company was founded in 1882 at Titagar in 24-Parganas. It is one of the oldest and best known paper factories in West Bengal. The first plant for paper production was installed at Titagar in the year of the company's establishment. Later the second unit of the company was set up at Kankinara, in N. 24-Parganas. Thus there are two factories of the company in the district of 24-Parganas located respectively at Titagar and Kankinara. These factories produce paper and paper-board. Reportedly, the total annual production of Titagar factory is 28,500 tonnes valued at Rs. 1,960.90 lakhs and that of the Kankinara factory is 27,280 tonnes worth Rs. 1,791.70 lakhs in the year 1981-82. Approximately 5,900 persons are working daily in the two factories. The company does not export its products.

Union Carbide
India Ltd.

This Company has two factories in the district of 24-Parganas, one is National Carbon Co. at Taratala Road, and the other is Metals & Ores Company at Transport Depot Road, Taratola. These companies' predecessor, Ever-Ready Company (Great Britain) started manufacturing flash-light batteries in Calcutta in 1926. The Ever-Ready (India) Co. Ltd. purchased the Ever-Ready Co. (Great Britain) Ltd. in 1934 and was incorporated in India as a Private Company. The name of this company was changed to National Carbon (India) Ltd. in 1941 and thereafter to Union Carbide India Ltd. in 1959. It is a Public Limited Company. In 1940, a large battery plant with an initial capacity of 40 million dry batteries was established in Calcutta. After independence the company launched a programme of expansion and diversification. In 1959, a modern flashlight case factory was set up at Lucknow. The Company has mills and factories in Calcutta, Madras, Hyderabad, Bombay and Bhopal, for manufacturing a wide range of products. In 1971, the Company started Marine Products Operations—100% export-oriented activity—with two trawlers. The Company employed 15 deep sea trawlers for harvesting marine products of the coasts of Visakhapatnam and Cochin in 1982. In 1982, the annual turn-

over of the company was Rs. 207.5 crores including exports worth Rs. 12 crores. The total number of employees in all the units of the company is about 10,000.

Wellman Machinery Corporation is located at Belghoria in 24-Parganas. It manufactured an automatic multi-colour reverse flexo-printing machine, the first of its kind in the country. Its cost would be about Rs. 2.5 lakhs. Until recently such machines used to be imported from Taiwan and Germany at much higher costs, the corporation claimed that it had already bagged a good number of orders both from domestic markets and abroad. Bangladesh and Nepal are two countries which imported machines from this Corporation. The Corporation has thus helped in saving foreign exchange and reducing dependence on foreign countries through import substitution.

Wellman
Machinery
Corporation

The Department of Public Undertakings has 9 Undertakings under its control of which the following are located in the district of 24-Parganas.

LIMITED
UNDERTAKINGS

The company was incorporated on 13.1.1960 and its unit No. 1 was first commissioned at Kalyani, District Nadia, for production of fine counts of yarn. The second unit (unit No. 2) was established at Habra, District 24-Parganas. This unit started production from 9.8.1966 producing coarser cotton yarn counts of 20's, 30's, 32's and 40's. The present spindle capacity is 33,356 spindles. The main objectives of Kalyani Spinning Mills Limited are: (a) to manufacture all kinds of yarn and bleach, gas, print, mercerize or process such yarn; (b) to carry all or any of the businesses namely, cotton spinners and doublers, flaxhemp, silk, nylon, jute spinners, linen and cloth manufacturers, bleachers and dyers and makers of vitriol, and cloth manufacturing materials; (c) to purchase, comb, prepare bleaching and dyeing materials; (d) to make and otherwise manufacture, buy and sell and deal in linen, cloth and other goods and fabrics; (e) to manufacture all counts of fabrics, bleach, wash and dye yarn or cloth, to print clothes, grow cotton gin kapas, etc.; (f) to buy cotton, wool, silk, jute, hemp, flax, staple fibres and to spin the same, etc.; (g) to buy, sell import and export, manufacture, manipulate, treat, prepare and deal in merchandise, commodities and articles, made of various fabrics. The unit has a fully paid-up equity share capital of Rs. 158.21 lakhs as on 31.3.1983. This unit employs 1,026 persons daily. The total annual production for 1982-83 was of the order of 6.43 lakh kgs.

Kalyani Spinning
Mills Ltd.
(Unit No. 2)

Electro Medical
and Allied
Industries Ltd.

Electro Medical and Allied Industries Limited was set up in 1981 as a Government of West Bengal Undertaking to meet the growing need of the country for electro-medical equipments, particularly life saving devices like diagnostic X-Ray machines etc. It is situated at 4/2 B. T. Road, Calcutta 56 near the Dunlop Bridge. The company started production in 1967 and the first one 100 mA machine manufactured by the company was sold out in August 1968. Since 1978 it diversified its manufacturing programme and started manufacturing 15 mA, 50 mA, 200 mA X-Ray machines and bio-medical equipments like E.C.G., Cardio-Monitor, Pace-Maker, etc. Recently the company successfully developed the technology of 300 mA X-Ray machine and started manufacturing such machines on a commercial basis. The company has got a servicing wing which arranges the servicing of its own products as well as repairing job for all sorts of equipment of hospitals under the Government of West Bengal. It has started selling its products to Army Hospitals, Railways Hospitals and private individuals throughout India. Recently, it has also appointed dealers in Bangladesh and Nepal for export of its products to these countries. The total capital invested in the industry/unit as on 31.3.1983 was Rs. 1,92,97,000 and the turnover in 1982-83 was Rs. 19.08 lakhs (approx.). The Unit employs 160 persons daily.

West Bengal
Ceramic
Development
Corporation

There are 2 units under the West Bengal Ceramic Development Corporation Limited. The first unit is at Calcutta and the second unit is situated at 5/5 B. T. Road, Calcutta 50 (Dist. 24-Parganas). The Corporation took over the control of 2 State Government Ceramic factories, one at Beliaghata and the other at Belghoria (District 24-Parganas) on and from 1.6.1976. The factories are engaged in production-cum-servicing. Nearly 75 small units are getting servicing facilities from the Belghoria unit. This unit produces items like crockeries, Insulators, Tower Packings, Ceramic Balls and Processed clay. Besides, the Corporation offers firing facilities to cottage units. The unit employed 99 persons daily up to 31.3.1983. The total turnover of this factory was worth of Rs. 5.83 lakhs.

West Bengal
Agro Industries
Corporation
Limited

The Corporation has a mechanical compost plant situated at Bantala, P.O. Dhapa, District 24-Parganas. This project was commissioned in October 1978. The project's cost was 63 lakhs and the requirement of yearly working capital is Rs. 3.50 lakhs (approx.). This unit produces compost from the garbage mainly collected from the Calcutta Corporation area. It employs 40 persons daily. The annual production in 1982-83 was 600 M.T. and the total turnover in 1982-83 was about Rs. 5 lakhs in terms of money

value.

Krishna Glass & Silicate Works Ltd. has two units in the district of 24-Parganas. The first one is situated at Baruipur and the second at Jadabpur. This glass manufacturing unit along with its management was taken over by the Government of India as per the provision of the I (D & R) Act, 1951 on 5.3.1973. The total investment was Rs. 574.56 lakhs as capital, out of which Rs. 549.56 lakhs came from the Central loan and the remaining Rs. 25 lakhs was added from the guarantee provided by the Government of India. The unit employs 1,200 persons daily. It produces glasses, the annual production of which was 4419.70 MT in 1982-83, the money value of the total turnover being Rs. 186.40 lakhs in the same year.

Engel India Machines & Tools Ltd. is situated at 1 Taratala Road, Dist. 24-Parganas. It is a manufacturing unit of plastic injection mouldings, extruders etc. The unit was taken over by the Government of India on 5.8.1975. A sum of Rs. 367.86 lakhs was invested as capital. The factory produces plastic machines and employs 250 workers daily. The annual production for the year 1982-83 was 44 units of moulding machines, the total turnover being Rs. 152.71 lakhs in terms of money value.

It is situated at Titagar in the district of 24-Parganas. This factory manufactures varieties of items of engineering goods including road rollers and tea and jute machinery. It was taken over by the Government of India on 22.5.1976. The total investment was Rs. 424.55 lakhs as capital. The factory employs 1700 workers daily. 333 units of road rollers, tea machinery etc. were produced during the year 1982-83. Rs. 538 lakhs was the total turnover for the same year.

This concern is located at Kalipur, Baj Baj, district 24-Parganas. This is a ply-wood manufacturing unit which was taken over by the Government of India on 29.3.78. Rs. 53 lakhs was invested as out of which Rs. 46 lakhs was central loan and the remaining Rs. 7 lakhs was added from the guarantee provided by the Government of India. The principal product of the factory is ply-wood. The factory employs 424 workers daily. The annual production of the factory was 7,05,200 sq. meters for the year 1982-83, the money value of which was Rs 160.27. lakhs.

This unit is situated at 145/1 Jessore Road, Dam Dam, Dist. 24-Parganas. It manufactures fine chemicals for industrial purposes. This industry was taken over by the Government of India on 10.11.78 and the invested capital amounted to Rs. 97.63 lakhs. The principal products of this factory are chemicals. It employs 170 workers

TAKEN-OVER
INDUSTRIES
LOCATED IN
24-PARGANAS

M/S Krishna
Silicate and
Glass Works Ltd.

M/S Engel
India Machines &
Tools Ltd.

M/S Britannia
Engineering Co.
Ltd.

M/S Alokudvog
Vanaspati Pvt.
Ltd.

M/S Dr. Paul
Lohman (I) Ltd.

daily. The annual turnover in terms of money value was Rs. 35.90 lakhs in the year 1982-83.

Lily Biscuits Co.
Ltd. & Barley
Mills Ltd.

This combined unit is located at Mirhati in the Barasat subdivision of 24-Parganas district. The unit produces biscuits, barley etc. The unit was taken over by the Government on 29.3.79, the total investment being Rs. 86.55 lakhs, out of which Rs. 18.75 lakhs was from central loan, Rs. 20 lakhs from the guarantee provided by the Govt. of India and Rs. 47.80 lakhs was provided by the banks/financial institutions. The number of daily workers is 430. The annual production of this unit for the year 1982-83 was 2841 MT., the total turnover in terms of money value being Rs. 265.13 lakhs.

Apollo Zipper
Co. Ltd.

This unit is located at 4 Robert Row, Dam Dam, in the district of 24-Parganas. This industry is manufacturing all—metallic zip fasteners. It was taken over by the Govt. of India on 26.5.79. A total sum of Rs. 80.05 lakhs was invested as capital. The principal product of this industry is zip fastener. The industry employs 400 persons daily. The annual production of this industry was about 1.18 lakh meters, valued at Rs. 63.50 lakhs in the year 1982-83.

Indian Health
Institute and
Laboratory Ltd.

Situated at 1 Health Institute Road, Dam Dam Cantonment, Dist. 24-Parganas, this unit manufactures drugs, medicines, injections etc. The unit was taken over by the Government of India on 4.7.79 and Rs. 212.30 lakhs was invested as capital. The unit employs 400 persons daily. The total turnover in terms of money value was Rs. 201.12 lakhs for the year 1982-83.

Sree Saraswati
Press Ltd.

Sree Saraswati Press Ltd. is situated at 11 B. T. Road, Belgharia, Dist. 24-Parganas. The unit is engaged in printing works since its inception. It was taken over by the Government on 31.10.79. Rs. 161.96 lakhs were invested as total capital out of which Rs. 16.57 lakhs was used as loan and Rs. 145.39 lakhs came from guarantee provided by Govt. of India. The principal activity of this unit is printing books, labels, balance sheet, calendars etc. It employs 800 persons daily for this unit. Rs. 188.81 lakhs was the total turnover in terms of money value for the year 1982-83.

Electronics
Industries

The under-mentioned electronics industrial units are operating under the aegis of the West Bengal Electronics Industry Development Corporation Limited (WBEIDC) and manufacturing various items of electronics under licences received from the Government of India. All these units are located at Taratala Electronics Complex, P-I Taratala Road, Calcutta 700 088 within the district of 24-Parganas.

WEBEL Tele-
vision Ltd.

This unit, a 100% subsidiary of the WBEIDC is engaged in the manufacture of Television Receiver Sets (Black & White and

Colour). It employs 40 persons daily. Annual capacity of the WEBEL Television Limited is 1,000 sets (approx.) The total investment as capital amounted to Rs. 80 lakhs and the total turnover for the period from October 1982 to September 1983 is Rs. 66 lakhs in terms of money value. No product of this unit is exported.

This unit, a 100% WBEIDC subsidiary, manufactures 'black and white' T.V. Picture Tubes. Number of workers engaged daily is 100. This unit produces T.V. picture tubes (B&W) and has the capacity to produce 40,000 pieces annually. The total capital investment was of the order of Rs. 250 lakhs. The total turnover in terms of money value in 1982-83 was Rs. 60 lakhs. The unit does not export its products.

WEBEL Video
Devices Ltd.

This unit, a joint sector company, manufactures Thyristor controlled DC Drives. This Unit employs 20 workers daily. It produces Thyristor Controlled Moduler Drives system and has the capacity to produce 20 sets annually. The total investment was Rs. 25 lakhs. The turnover in 1982-83 was valued at Rs. 9 lakhs.

WEBEL-Jyoti
Electronics
Limited

This unit, a joint sector company, is engaged in the manufacture of studio equipment of the All India Radio, battery/float chargers for the Post and Telegraph Department and several other custom built systems. 30 persons are employed daily in this unit. It produces studio equipment, battery/float chargers, transformers, railway equipment, etc. It has the capacity to produce goods worth of Rs. 10 lakhs annually. Total investment in this unit was Rs. 10 lakhs.

WEBEL-Dawn
Limited

This unit, a joint sector company, manufactures electronically controlled portable handtools, etc. The unit employs 30 workers daily. It produces portable electric power tools and has the capacity of producing of 20,000 pieces annually. Rs. 64 lakhs was invested as capital in this unit. The turnover was Rs. 4 lakhs in 1982-83.

WEBEL
TOOLSIND
Limited

This unit, a 100% subsidiary of WBEIDC, is engaged in the manufacture of microprocessor-based industrial control system, calculators etc. Only 15 workers are engaged daily. The annual capacity of production is of 15,000 pieces. The total investment was Rs. 30 lakhs.

WEBEL Business
Machine Ltd.

Besides the above WEBEL Units, the Taratala Electronics Complex is also the location of the Electronics Regional Test Laboratory (East) of the Department of Electronics, Government of India, which provides testing and calibration facilities to the Electronics Industries in the Eastern Region of India. Further, about 30 more small-scale units are located in the Industrial Estates

Hosiery
Industries

at P-I Taratala Road, Calcutta 700 088, and are carrying on manufacturing and business activities in various areas of electronics.

The hosiery industry like many other small-scale industries in 24-Parganas is facing a very uncertain future largely due to lack of modernisation, diversification and adequate marketing facilities. There are more than 2000 hosiery goods manufacturing units of various sizes in and around this district. Out of the units located in this district, only 50 are composite units doing knitting, stitching, cutting etc.

Some 7000 stitching machines are also in operation doing stitching jobs against orders received from the fabricators. About 90% of the hosiery goods produced in West Bengal are being contributed by the non-composite units. All units, large and small, composite and non-composite, have an annual turnover estimated at Rs. 60 crores having an investment of about 6 crores in machinery including knitting and stitching machines. But the machines of all units, barring a few exceptions, are very old and outdated, and as a result, their productivity is low. According to the industry sources, more than 30% of knitting machines are obsolete as they have been running from the pre-war days. Some replacements have, however, taken in a number of units during the last few years by second-hand machines, mostly imported at reduced prices. This, however, does not indicate a satisfactory position. It is also said that indigenous manufacturers do not or cannot produce quality machines required for production of quality goods. Hosiery owners also have no adequate resources to finance costly modernisation and as a result, they have to remain content only with conventional items. To give them the much-needed financial support a scheme for soft loan has now been introduced by the Industrial Development Bank of India (IDBI) for modernisation of hosiery industry along with some other selected industries. But as this loan is available mainly to limited companies, the hosiery units in the district, being mostly proprietary concerns, can hardly take advantage of this loan. If the existing situation persists, it will be pretty difficult for this industry to survive, much less to flourish.

WELFARE OF
INDUSTRIAL
LABOUR

At present twelve Labour Welfare Centres are functioning in the district. These centres provide facilities for education, recreation, physical culture etc. to industrial workers and are mostly situated near the labour lines. The name of the Labour Welfare Centres with addresses and their activities are as follows:

Name and Address	Kind of welfare done
1. Sundia M. L. W. Centre, Govt. Industrial Housing Estate, P.O. Jagaddal, Dist: 24-Parganas	Different types of recreations —indoor and outdoor games (Carom, Table tennis, Foot- ball, Volley ball, Radio, T.V. sets etc.), Basket making training, Physical training, Music class, Library, Reading room etc.
2. Patulia M. L. W. Centre, Industrial Housing Estate, P.O. Titagar, 24-Parganas	-do-
3. Birlapur Model Labour Welfare Centre, P.O. Birlapur, Dist: 24-Parganas	-do-
4. Dam Dam Model Labour Welfare Centre, Industrial Housing Estate, Motijheel, Calcutta-700 014	-do-
5. Belghoria Model Labour Welfare Centre, Industrial Housing Estate, 9 B.T. Road, Calcutta-700 056	-do-
6. Kankinara Labour Welfare Centre, 19 & 20 Station Road, P.O. Kankinara, 24-Parganas	Different types of recreations —Indoor, Outdoor games (Football, Volley ball, Ca- rom, Table tennis, Radio etc.), Sewing, Knitting Sec- tion and Library.
7. Sodepur Labour Welfare Centre, Near Panihati Nursing Home, P.O. Panihati, 24-Parganas	-do-

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Name and Address	Kind of welfare done
8. Naihati Labour Welfare Centre, 18 Girish Ghosal Road, P.O. Garifa, Dist. 24-Parganas	Different types of recreations —indoor and outdoor games, Basket making training, Physical training, Music class, Library, Reading room etc. (Carom, Table tennis, Football, Volley ball, Radio, T.V. sets etc.)
9. Baruipur Labour Welfare Centre, Government Industrial Estate, Piali Nagar, Baruipur, Dist: 24-Parganas	Different types of recreations —Football, Volley ball, Carom, Table tennis, Radio, Library.
10. Nawabganj Labour Welfare Centre, Chunaripara, P.O. Ichhapur, Dist: 24-Parganas	Different types of recreations —Football, Volley ball, Carom, Table tennis, Radio, Library.
11. Budge Budge Labour Welfare Centre, Baj Baj Trunk Road, P.O. Sarangabad (Battala) Dist: 24-Parganas	-do-
12. Bangaon Labour Welfare Centre, Town Hall, P.O. Bangaon, Dist: 24-Parganas	-do- T.V. set.

APPENDIX A

NAMES & ADDRESS OF WORKING JUTE MILLS IN
24-PARGANAS

1. The Agarpara Co. Ltd. 1 & 2 Old Court House Corner Calcutta-700 001.	10. Calodonian Jute and Industries Ltd. 9 Brabourne Road Calcutta-700 001.
2. The Alexandra Jute Mills Ltd. 3 Netaji Subhas Road Calcutta-700 001.	11. The Eastern Manufacturing Co. Ltd. 9 Brabourne Road Calcutta-700 001.
3. Anglo-India Jute Mills Co. Ltd. 31 Netaji Subhas Road Calcutta-700 001.	12. The Empire Jute Co. Ltd. 8 Old Court House Street Calcutta-700 001.
4. The Auckland Jute Co. Ltd. 6 Little Russel Street Calcutta-700 016.	13. The Gourepore Co. Ltd. 2 Fairlie Place Calcutta-700 001.
5. Bally Jute Co. Ltd. (Mills No. 2) 102 Narkeldanga Main Rd. Calcutta-700 054.	14. Hooghly Mills Co. Ltd. 10 Clive Row Calcutta-700 001.
6. The Baranagar Jute Factory Co. Ltd. 4 Clive Row Calcutta-700 001.	15. Hukumchand Jute Mills Ltd. 15 India Exchange Place Calcutta-700 001.
7. Birla Jute Manufacturing Co. Ltd. Birla Buildings 9/1, R. N. Mukherjee Road Calcutta-700 001.	16. Kamarhati Co. Ltd. 16A Brabourne Road (8th floor) Calcutta-700 001.
8. Cheviot Company Ltd. 9 Brabourne Road (5th floor) Calcutta-700 001.	17. Kankinarrah Co. Ltd., 4 Clive Row Calcutta-700 001.
9. The Calcutta Jute Manufacturing Co. Ltd. 20 Old Court House Street (3rd floor) Calcutta-700 001.	18. The Kelvin Jute Co. Ltd. 3 Netaji Subhas Road Calcutta-700 001.
	19. Khardah Co. Ltd. 7 Welesley Place Calcutta-700 001.

Source: Deputy Welfare Commissioner, West Bengal Labour Welfare Board.

APPENDIX A—(Contd.)

- | | |
|---|--|
| 20. The Kinision Jute Mills Co. Ltd.
Chartered Bank Buildings
Calcutta-700 001.
21. The Megna Mills Co Ltd.
16 Strand Road
Calcutta-700 001.
22. The Naihati Jute Mills Co. Ltd.
7 Hare Street
Calcutta-700 001.
23. The Nuddea Mills Co. Ltd.
2 Fairlie Place
Calcutta-700 001.
24. The Reliance Jute & Industries Ltd.
9 Brabourne Road
Calcutta-700 001. | 25. Shri Gouri Sankar Jute Mills Ltd.
9 Brabourne Road
Calcutta-700 001.
26. The Titaghur Jute Factory Co. Ltd.
3 Clive Row
Calcutta-700 001.
27. Union Jute Co. Ltd.
Chartered Bank Buildings
Calcutta-700 001.
28. Budge Budge Jute Industries Ltd.
16A Brabourne Road
(9th floor)
Calcutta-700 001. |
|---|--|

APPENDIX B

LIST OF TEXTILE MILLS LOCATED IN 24-PARGANAS¹

- | No. | Name and address of the Textile Mill |
|-----|---|
| 1. | M/s. Shri Annapurna Cotton Mills & Industry Shyamnagar, 24-Parganas |
| 2. | M/s. Mohini Mills Ltd. Belghoria, 24-Parganas |
| 3. | M/s. Bangasri Cotton Mills P.O. Sukchar, 24-Parganas |
| 4. | M/s. Swan Mills (Unit Basanti Cotton Mills) Panihati, 24-Parganas |
| 5. | M/s. Mahalaxmi Cotton Mills Palta, 24-Parganas |
| 6. | M/s. Bangodaya Cotton Mills Panihati, 24-Parganas |
| 7. | M/s. Hada Textile Industries Ltd. Bishnupur, 24-Parganas |
| 8. | M/s. Birla Jute Mfg. Co. Ltd. Birlapur, 24-Parganas |
| 9. | M/s. Sodepur Cotton Mills Sodepur, 24-Parganas |
| 10. | M/s. Eastern Spg. Mills & Industries Ltd. P.O. Kadongachhi, Barasat, 24-Parganas |
| 11. | M/s. Kalyani Spg. Mills (No. 2) Ashok Nagar, Habra, 24-Parganas |
| 12. | M/s. Keshoram Industries & Cotton Mills 42, Garden Reach Road, 24-Parganas, Calcutta-24 |
| 13. | M/s. Poddar Projects Ltd. 1, Taratala Road, Calcutta, 24-Parganas |
| 14. | M/s. Dunbar Mills Shyamnagar, 24-Parganas |

¹ Source: Textile Commissioner, Govt. of India.

APPENDIX B (Contd.)

No.	Name and address of the Textile Mill	
15.	M/s. Jyoti Weaving Factory (P) Ltd.	69, S. K. Deb Road, Cal-48, 24-Parganas
16.	M/s. Calcutta Silk Mfg. Co.	Sodepur, 24-Parganas
17.	M/s. Vinar Ltd.	9, B. T. Road, Calcutta-2, 24-Parganas
18.	M/s. East India Industries	Panihati, 24-Parganas
19.	M/s. Sarat Textile Mills	9, B. T. Road, Calcutta-2 24-Parganas
20.	M/s. Bengal National Textile Mills	Birati, 24-Parganas
21.	M/s. Wool Combers of India	Jagaddal, 24-Parganas
22.	M/s. Bharat Wollen Mills (No. 1)	Tollyganj, Calcutta-46 24-Parganas
23.	M/s. Bharat Wollen Mills (No. 2)	Belghoria, Calcutta-56 24-Parganas

APPENDIX C

*A LIST OF MANUFACTURING INDUSTRIES IN THE DISTRICT
(Period covered up to 1976-77)

	West Bengal Number	24-Parganas Number
Castings and forgings	331	56
Manufacture of tools	6	3
Manufacture of others (foundries or casting and forging of iron and steel)	16	11
Manufacture of sanitary and plumbing fixtures and fittings of metals	33	8
Manufacture of others (fabricated metal product)	103	60
Manufacture of bolts and nuts	68	13
Manufacture of agricultural handtools implements	2	1
Manufacture of general hardware	34	18
Manufacture of springs	34	21
Manufacture of tractors, harvestors and other heavy machinery	1	1
Manufacture of light agricultural machinery and equipment	5	4
Manufacture of other agricultural machinery etc.	2	2
Manufacture of earth moving machinery	8	6
Manufacture of other heavy machinery	3	3
Manufacture of boilers and steam generating plants	2	1

* Source: West Bengal Bureau of Applied Economics and Statistics, *Statistical Abstract, 1976-77 (Combined). New Series Nos. 2 & 3*, pp. 426-37. The list is not exhaustive.

APPENDIX C (Contd.)

	West Bengal Number	24-Parganas Number
Manufacture of internal combustion engines	3	3
Manufacture of rice, <i>dal</i> and flour mill machinery	5	3
Manufacture of oil mill industry	2	2
Manufacture of sugar machinery	2	1
Manufacture of tea machinery	7	5
Manufacture of textile machinery	2	2
Manufacture of jute machinery	7	1
Manufacture of pharmaceutical machinery	4	2
Manufacture of chemical machinery	4	4
Manufacture of paper machinery	5	3
Manufacture of mining machinery	1	1
Manufacture of boring, broaching, drilling and treading machines	3	2
Manufacture of grinding, lapping, honing and polishing machines	1	1
Manufacture of duplicators	3	3
Manufacture of weighing machines	14	6
Manufacture of sewing machines	1	1
Manufacture of knitting machines	1	1
Manufacture of arms and armaments	3	2
Manufacture of generators	4	2
Manufacture of transformers	23	18
Manufacture of switch gears	15	11

APPENDIX C (Contd.)

	West Bengal Number	24-Parganas Number
Manufacture of electric motors	12	6
Manufacture of parts and accessories of electrical industrial machinery	9	6
Manufacture of insulated wires and cables	13	8
Manufacture of storage batteries	3	3
Manufacture of dry cells	2	2
Manufacture of other (dry and wet) batteries	2	1
Manufacture of electric fans	20	17
Manufacture of ordinary electric lamps	10	8
Manufacture of power capacitors	1	1
Manufacture of radios	3	3
Manufacture of television sets	2	2
Manufacture of telephones	1	1
Manufacture of phonogram and record changers	1	1
Manufacture of carbon and wire wound resisters	1	1
Manufacture of electric furnaces and ovens	3	2
Manufacture of ships and other vessels drawn by power	21	12
Manufacture of parts and accessories of locomotives	4	1
Manufacture of railway coaches	1	1
Manufacture of railway wagons	7	1

APPENDIX C (Contd.)

	West Bengal Number	24-Parganas Number
Manufacture of parts and accessories of railway wagons and coaches	25	10
Manufacture of tramway works	8	8
Manufacture of motor cars	2	1
Manufacture of buses, trucks etc.	11	9
Manufacture of bi-cycle	2	1
Manufacture of surgical and medical instruments	4	4
Manufacture of laboratory and scientific instruments	5	4
Manufacture of mathematical instruments	4	2
Manufacture of optical lenses	3	2
Manufacture of optical instruments	1	1
Manufacture of photographic copying equipments	1	1
Manufacture of watches	1	1
Minting of coins	1	1

CHAPTER VI

BANKING, TRADE AND COMMERCE

The earliest reference to the existence of a system of banking in this region, as traceable in Kavikankan Mukundaram's *Chandi Mangal*, a work of circa A.D. 1600, relates to the activities of a "class of shroffs usually called *poddars*, who exchanged *cowries* (shells) and silver coins, the usual currency of a Bengal market". "These persons acted as bankers and money-changers, and remitted money for others, from one town to another and issued letters of exchange." They had cornered the bulk of the specie of the land and operated a network of houses in almost every part of the country. The Bengal District Records of the 18th century show that revenue was not paid by the Zamindars to the officers of the East India Company direct, but was collected through the agency of these shroffs. As losses due to misappropriation by the middlemen in various ways was inherent in this system, it was abolished in 1778.

The banking house of Jagat Seth played a part so significant in the economic life of Bengal that Burke compared it with the Bank of England. The neighbouring district of Murshidabad was the main centre of their activities.

For the English East India Company's investment and the private trade of the Company's servants, the services of these banking houses were frequently made use of. But the Company's servants sometimes defaulted in re-payment, which created occasionally tension between this banking house and the President and the Council at Calcutta. The Company's servants would not afford to acknowledge any distinction between their private and public trade and bankers could not, therefore, recognize this distinction. . . . The Seth house was at that time doing extensive banking business with branches at Calcutta, Dacca, Hugli and other places.¹

Up to 1717, the mint of Murshidabad was under the control of Superintendence of the Government Officers. But Murshid Quli Khan permitted the shroffs to coin money out of their own bullion on payment of usual customs. The efforts of the English Company to have the privilege of coining money free from customs did not meet with success even after they received imperial *firman* in 1717. By 1721, Jagat Seth got entire control over the mint, so that he alone

BANKING AND
FINANCEHistory of indi-
genous banking
in the district

¹ Narendra Krishna Sinha—*The Economic History of Bengal (Vol. 1)*, Calcutta, 1961, p. 148.

had the privilege of coining money.¹ This privilege not only made him the premier banker but also gave him an opportunity to control the price of bullion imported by European Companies, including the English Company.² He became most influential in Murshidabad and the consultations of the Calcutta Council call him "the Nabab's chief favourite".

At the beginning of Ali Vardi's reign, the Seths possessed a capital of ten crores of rupees. Soon they established a virtual monopoly in banking over the whole province and all the bankers in Bengal were their factors, if not members of their house. With huge cash in their counters, they were not only the bankers and treasurers of the Nawab but also of the revenue-farmers and zamindars. Inland traders must have also thronged their kuthis for the supply of credit, for their terms were lenient. The battle of Palashi marked the end of their prosperity and their decline was very rapid after brutal murder of Jagat Seth and Maharaja Swarup Chand at the instance of Mir Quasim. After the grant of Diwani, this institution ceased to be channel of revenue payment and when the treasury was transferred to Calcutta, the Seths practically ceased to act as the bankers to the Company. Their source of wealth dried up and their trade in rupees passed into the hands of the smaller shroffs.

The indigenous bankers suffered a serious set-back following the rise of agency houses and the joint-stock companies at the beginning of the nineteenth century. But, as noticed by the Banking Enquiry Committee in 1929-30, they played an important role in the financing of agriculture, industries and trade. They usually combined banking with some forms of trade, wholesale or retail.

According to the Bengal Provincial Banking Enquiry Committee, the agriculturists of this district obtained their finance from local mahajans (indigenous bankers), merchants dealing in special crops, landlords who have got money-lending business, co-operative societies where they exist and the Government under the Land Improvement Loans Act and Agriculturists' Loans Act.³ The first two sources played the most important part in agricultural finance.⁴ The security generally offered for long term loans comprised landed property, houses and other assets.⁵ The proportion of secured and unsecured loans was 80 and 20 in case of long term loans.

The General Review Report of the Rural Credit Follow Up

¹ Consultations, 28 August and 9 November 1721.

² *Ibid.*, 9 November 1721.

³ *Report of the Bengal Provincial Banking Enquiry Committee, 1929-30, (Vol.-II), pp. 21 and 245-46.*

⁴⁻⁵ *Ibid.*, p. 21.

Survey, 1956-57 published by the Reserve Bank of India provides certain interesting features about the state of indebtedness in the adjoining district of Nadia which may be taken to reflect the condition prevailing in this district too. According to the report there had been marked increase in the proportion of indebted families in the district. The character of the agricultural seasons in the immediate past influenced the proportion of indebted families. Small cultivators were more affected by the bad agricultural condition of the preceding years than the bigger ones. The data of classification of debt according to purpose as percentage of total debt outstanding at the end of the year shows that the agricultural purpose accounted for 35.4 while consumption purposes about 60.

Transaction in cash or kinds between private credit agencies and agriculturists are now regulated by the Bengal Money Lender's Act of 1940, which requires every money-lender to obtain a licence valid for three years from appropriate authorities, maintain a cash-book, ledger and a receipt book and observe other relevant formalities. Under the Act, the borrower is not liable to pay any amount in respect of the principal and interest of a loan which, together with any amount already paid exceeds twice the principal of the original loan. He is also not bound to pay simple interest exceeding 10 per cent on unsecured loans and 8 per cent on secured ones.

There are many branches of well-known commercial banks in the urban and rural areas of the district, which play a very important role in mobilising the savings of the people. The United Bank of India has been declared the Lead-Bank for the district. The following table gives relevant particulars about the banks functioning in the district.

Commercial
banks

Name of the bank	Location of the Office
United Bank of India	Amdanga, Amtala, Bagda, Baguihati, Baranagar (three offices), Barakpur, Baruipur, Chowdhurybazar, Basanti, Banihat, Batanagar, Berachampa, Bhatpara, Bangaon, Baj Baj, Canning Town, Champahati, Chandpara, Dattapukur, De-ganga, Diamond Harbour, Dam Dam, Phalta, Gaighata, Garfa, Garia, Garulia, Gobardanga, Gopalnagar, Govt. Housing Colony—Behala, Halisahar, Hasnabad,

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Name of the bank	Location of the Office
United Bank of India	Kanchrapara, Khardah-Rahara, Magrahat, Maheshtala, Mathurapur, Minakhan, Naihati, Namkhana, Narendrapur, Nazat, New Barakpur, Nilganj, Raidighi, Rajarhat, Rajpur, Santoshpur, Sonarpur, South Dam Dam, South Suburbs (two offices), Titagarh.
State Bank of India	Baduria, Baguihati, Baranagar (two offices), Barasat, Barakpur (seven offices), Baruipur, Basirhat, Belghoria, Bhatpara—Kankinara, Bangaon, Canning, Diamond Harbour, Dam Dam (five offices), Dam Dam Cantonment, Garden Reach (three offices), Garfa, Garulia, Gosaba, Habra, Ichapur (two offices), Kakdwip, Kamarhati, Kanchrapara, Khardah, Madhyamgram, Metiabruz, Naihati, Nimpith, Panihati, Rajpur, South Suburbs (four offices), Swarupnagar.
Allhabad Bank	Baduria, Barasat, Barakpur (two offices), Berachampa, Birati, Baj Baj Deulpara, Dam Dam, Hridaypur, Kamarhati, Dakshineswar, Kanchrapara, Khardah, South Suburbs.
United Commercial Bank	Ashokenagar, Bansdrone, Baruipur, Bhatpara, Birlapur, Birati, Dam Dam Cant., Hingalganj, Madhyamgram, Nungi, Salt Lake, Sodepur, South Dam Dam, Titagarh.
United Industrial Bank Ltd.	Barasat, Basirhat, Bangaon, Dam Dam, Haroa, Madhyamgram, Santoshpur, South Suburbs, Sultanpur, Swarupnagar.
Bank of Baroda	Dam Dam, Sodepur, South Dam Dam, South Suburbs.
Bank of India	Golabari, Jaynagar-Majilpur, Kamarhati, Nabapally, South Suburbs.

Name of the bank	Location of the Office
Punjab National Bank	Halisahar, Ichhapur, North Dam Dam, Salt Lake, Dhukrijhara, Chakda.
Central Bank of India	Baranagar, Basirhat, Barakpur, Dam Dam, Jadavpur, Naihati, Rahara, Salt Lake.
Union Bank	Bakhrabat.

The district has a bank of its own, known as the Sagar Gramin Bank, with its head office at Amtala and several branches located in the rural areas of the district.

There were two Central Co-operative banks in the district styled as the 24-Parganas Northern Central Co-operative Bank Ltd. and the 24-Parganas Southern Central Co-operative Bank Ltd. These two banks have been amalgamated with the West Bengal State Co-operative Bank Ltd., with effect from 1 July, 1973 and have come to be known as the West Bengal State Co-operative Bank Ltd. Unit—Barasat with operational jurisdiction over Barasat, Bangaon, Basirhat and Barakpur Subdivisions and the West Bengal State Co-operative Bank Ltd. Unit—Diamond Harbour having operational jurisdiction over the Sadar and Diamond Harbour Subdivisions. The position of the Diamond Harbour Unit of the West Bengal State Co-operative Bank Ltd. for the year 1975-76 was as follows: membership 904, working capital Rs. 2.74 crores, loans issued Rs. 1.77 crores, loans outstanding Rs. 1.92 crores, deposits Rs. 0.98 crores and profit Rs. 3.27 lakhs.¹

The district has two co-operative land development banks styled as the 24-Parganas (North) Co-operative Land Development Bank Ltd. and the 24-Parganas (South) Co-operative Land Development Bank Ltd. The position of the 24-Parganas (North) Co-operative Land Development Bank Ltd. during the years 1972-73, 1973-74 and 1974-75 is indicated below.²

	1972-73	1973-74	1974-75
Membership	523	618	730
	(in thousands of rupees)		
Working capital	1,864	1,548	1,770
Loans issued	193	173	365
Loans outstanding	1,274	1,279	1,440
Profit	1	6	25

¹⁻²Source: Reserve Bank of India, Bombay and Assistant Registrars of Co-operative Societies (North and South), 24-Parganas.

The position of the 24-Parganas (South) Co-operative Land Development Bank Ltd., during 1975-76 was as follows: membership 3,566, working capital Rs. 56.23 lakhs, loans issued Rs. 9.16 lakhs, loans outstanding Rs. 51.31 lakhs, deposits Rs. 14,000, profit Rs. 67,000.¹

The number of agricultural co-operative societies in Barasat, Bangaon, Basirhat and Bangaon Subdivisions was 836 in 1972-73, 838 in 1973-74 and 850 in 1974-75. Their position during these years is indicated below.²

	1972-73	1973-74	1974-75
Membership	54,000	65,000	80,000
		(in thousands of rupees)	
Working capital	17,363	17,508	21,575
Loans issued	1,541	4,248	16,360
Loans outstanding	13,501	13,227	17,948
Profits (+)	+ 130	+ 240	+ 23
	(640 societies)	(729 societies)	(736 societies)
Loss (-)	- 139	- 33	- 35
	(196 societies)	(109 societies)	(114 societies)

Relevant particulars about the primary agricultural co-operative societies in the Sadar and Diamond Harbour Subdivisions during 1975-76 are as follows: No. of societies 515, membership 99,000, working capital Rs. 266.20 lakhs, loans issued Rs. 175.41 lakhs, loans outstanding Rs. 172.63 lakhs, deposited Rs. 4.86 lakhs and profits Rs. 2 lakhs.³

Life Insurance

The Life Insurance Corporation of India has seven branches in the district, on each at Baranagar, Barakpur, Basirhat, Diamond Harbour, Habra, Jadavpur and Naihati. Besides, there is also a development centre at Baj Baj. It had a total business of Rs. 9.44 crores in 1971-72, Rs. 10.49 crores in 1972-73, Rs. 13.54 crores in 1973-74, Rs. 11.71 crores in 1974-75 and Rs. 13.87 crores in 1975-76 against 18,551, 19,988, 23,290, 18,394 and 20,085 policies issued in the respective years.⁴

State Assistance to industrial development

The State Government renders financial assistance to cottage and small scale industries of different categories under the Bengal State Aid to Industries Act. Besides, the Industrial Finance Corporation of India advanced loans amounting to Rs. 2.5 lakhs to Hindusthan Heavy Chemicals Ltd., Rs. 10 lakhs to Associated Pigments Ltd.,

Rs. 16 lakhs to Jay Engineering Works Ltd., Rs. 10 lakhs to National Rolling & Steel Ropes Ltd., Rs. 25.25 lakhs to Gouripore Electric Supply Company, Rs. 10 lakhs to Bangasri Cotton Mills Ltd., Rs. 30 lakhs to Bengal Chemical & Pharmaceutical Works Ltd., Rs. 50 lakhs to Britannia Engineering Co. Ltd., during the First Five Year Plan; Rs. 16.5 lakhs to Hindusthan Heavy Chemicals Ltd. (besides standing as guarantor for Rs. 32.39 lakhs), Rs. 35 lakhs to Bengal Chemical and Pharmaceutical Works Ltd., Rs. 50 lakhs to Jay Engineering Works Ltd. (Bansdroni, 24-Parganas), Rs. 60 lakhs to Inchek Tyres Ltd., Rs. 12 lakhs to Agrind Fabrications Ltd., Rs. 50 lakhs to Britannia Engineering Co. Ltd., during the Second Five Year Plan; Rs. 25 lakhs to Gajraj Pannalal Ltd., Rs. 54 lakhs to Hindusthan Wire Ltd., Rs. 9 lakhs to Electric Construction & Equipment Co. Ltd., Rs. 35 lakhs to Hada Textile Industries Ltd., Rs. 64.68 lakhs to Hindusthan Gas & Industries Ltd., Rs. 80 lakhs to Inchek Tyres Ltd., Rs. 3.45 lakhs to Hada Textile Industries Ltd., during the Third Five Year Plan; Rs. 37.5 lakhs (together with Rs. 6 lakhs by way of under wiring) to Gontermann Peipers (India) Ltd., Rs. 17.46 lakhs (together with Rs. 1 lakh by way of under-writing) to Hada Tools Ltd., Rs. 45 lakhs to Auckland Jute Mills Ltd., Rs. 48 lakhs to Kamarhatty Co. Ltd., Rs. 39 lakhs to Megna Mills Co. Ltd., Rs. 50 lakhs to Titagarh Paper Mills Co. Ltd., Rs. 40 lakhs to India Paper & Pulp Co. Ltd., Rs. 20.25 lakhs to Khardah Co. Ltd., and Rs. 30.82 lakhs to Sen-Raleigh Ltd. (Taratala), during the Fourth Five Year Plan; Rs. 1.17 lakhs to Allied Resins & Chemicals Ltd., Rs. 45 lakhs to Auckland Jute Co. Ltd., Rs. 30 lakhs to Bright Wires Ltd., Rs. 80 lakhs to Empire Jute Co. Ltd., Rs. 5.41 lakhs to George Salter (India) Ltd., Rs. 23 lakhs to Hada Textile Industries Ltd., Rs. 11.74 lakhs to Kamarhatty Co. Ltd., Rs. 50 lakhs to Textile Processing Corporation of India, Rs. 10 lakhs to Bright Wires Ltd., Rs. 50 lakhs to India Paper Pulp Ltd., Rs. 4 lakhs to Bright Wires Ltd., Rs. 5 lakhs to Indian Record Manufacturing Co., Rs. 67.50 lakhs to Gouripore Co. Ltd., Rs. 5.78 lakhs to Hindusthan Gas & Industries Ltd., and Rs. 61.25 lakhs to Nuddea Mills Co. Ltd., during the period from July, 1972 to June 1977.¹ The West Bengal Financial Corporation sanctioned Rs. 41.39 lakhs to 16 units during 1972-73, Rs. 38.67 lakhs to 12 units during 1973-74, Rs. 31.90 lakhs to 9 units during 1974-75, Rs. 160.33 lakhs to 31 units during 1975-76 and Rs. 105.72 lakhs to 30 units during 1976-77.² The West Bengal Industrial Development Corporation

¹ Source: Industrial Finance Corporation of India, New Delhi.

² Source: West Bengal Financial Corporation, Calcutta.

¹⁻³ Source: Reserve Bank of India, Bombay and Assistant Registrars of Co-operative Societies (North & South), 24-Parganas.

⁴ Source: Senior Divisional Manager, Calcutta Divisional Office, Calcutta.

Ltd., also rendered assistance to the tune of Rs. 47.50 lakhs to Hind Wire Industries Ltd., Rs. 64.55 lakhs to S & P Engg. Products Ltd., Rs. 48.76 lakhs to Bengal Tools Ltd., Rs. 135 lakhs to Bright Wires Ltd., Rs. 183 lakhs to Eastern Spinning Mills Ltd., Rs. 146 lakhs to Jupiter Breweries Industries Ltd., Rs. 55.68 lakhs to Bengal Water Proof Works Ltd., Rs. 153 lakhs to Bengal Chemical & Pharmaceutical Works Ltd., Rs. 36.79 lakhs to Indian Lead Ltd., Rs. 237.25 lakhs to Titagarh Paper Mills Co. Ltd., Rs. 75 lakhs to Usha Atlas Hydraulic Equipment Ltd., Rs. 5.20 lakhs to Perin Steel & Alloy Ltd., Rs. 38.53 lakhs to North India Wires Ltd., Rs. 68 lakhs to Universal Electric Ltd., Rs. 54 lakhs to Allied Resins & Chemicals Ltd., Rs. 92 lakhs to Reliance Jute & Industries Ltd., Rs. 15.50 lakhs to Eastern Abrasives Ltd., Rs. 82.00 lakhs to Albert David Ltd., Rs. 66.77 lakhs to Tecalemit India Ltd., Rs. 34 lakhs to Organda India Ltd., Rs. 41.71 lakhs to Calcutta Electric Supply Corporation Ltd., and Rs. 104 lakhs to the Gramophone Co. of India Ltd.¹

TRADE AND COMMERCE

The important agricultural commodities of this district, that are marketed, are paddy, rice, jute, wheat, pulses, chillies, water melon, vegetables and cocoanut. Of these commodities, the marketing of rice and paddy through the traditional trade channels has ceased following the introduction of West Bengal Rice (Movement Control) Order, 1964 and West Bengal Essential Commodities (Restriction on Movement) Control Order, 1965. The village growers instead of selling their produce to the *aratdars* or to the local mills are now required to deliver it to the authorised agencies like the Food Corporation of India which entered the field under the West Bengal Food Grains' Control (Levy) Order, 1966. In consequence, the market functionaries like *fariahs*, *aratdars*, brokers and rice mills, as the case may be, are now simply agents through whom rice or paddy is procured.

However, the responsibility for supplying rice to the village consumers still lies mainly upon the growers, village merchants, *beparis* and *aratdars*. Besides, there exists another class of middlemen, known as '*Bhankis*' who buy paddy from the primary assembling markets, process it in *dhenkis* or husking machines and market the product to the *aratdars* and retailers and sometimes to the consumers direct. These market functionaries handle about 75% of marketed surplus.

¹ Source: West Bengal Industrial Development Corporation Ltd.

The most important feature in the marketing of jute is that the growers sell an overwhelmingly large proportion of jute in the villages to the peripatetic dealers. In its movement there are three district stages, namely, (i) from village growers to the primary assembling markets, that is, village hats, (ii) from the primary assembling markets to the *aratdars* of the secondary assembling markets and (iii) from secondary markets to the wholesale jute markets in Calcutta or to the mills (tertiary stage). In the primary sales, about 60 per cent of the marketable surplus is disposed of by the growers as loose and unassorted stock at their own houses and 30 per cent in hats to the *fariahs*, *paikars* and *beparis* and 10 per cent to the secondary markets direct through other functionaries.

In recent years, the Jute Corporation of India has entered into the raw jute-trade. It makes purchases of jute through a chain of direct purchasing centres and co-operative marketing societies and thereby tends to protect the interests of the growers' from the speculative activities of the rural middlemen, specially through ensuring the minimum support price to the growers as announced by the Government of India from time to time.

The important jute assembling centres of the district are Bangaon, Bagdah, Basirhat, Baduria, Bagjola, Berachampa, Chandpara, Deganga, Habra and Metiahat.

Vegetables form a very important group of commodities of this district. The most commonly grown and marketed are cabbage, cauliflower, tomato, radish, brinjal, *patal*, *jhinga*, ladies finger, sweet pumpkin, bottle-gourd, bitter gourd, papaya, spinach, carrot, beet and potato. In the village hats and markets the growers assemble their entire surplus stock in bags or baskets and dispose them of to the local *fariahs* or *beparis* who, in turn, make retail sale of the stock in the same or another market to the consumers. A class of itinerant buyers frequent the assembling markets on hat days, and make bulk purchase of vegetables from the growers direct and despatch the stock in lorry, tempo, etc. or by train to the assembling markets in Calcutta for disposal in the wholesale markets. In big assembling centres, wholesale and retail operations take place side by side. The most important wholesale markets in the district are Basirhat, Baruipur, Bhangar, Bangaon, Chandpara, Deganga, Gaighata, Gobordanga, Habra, Kamdevpur and Maslandapur.

Chilli is one of the most important cash crops in the Sundarbans belt of this district. The important assembling markets for this crop are Baduria, Bagjola, Bagdah, Beltali, Bongaon, Chotamollakhali, Charghat, Chandpara, Satijelia, Swarnnagar, Kakdwip, Deganga

and Habra. The growers assemble large quantities of green chillies in small lots in primary markets and dispose them of to the *fariahs* visiting these markets on hat days. The latter, in their turn, despatch the same to the wholesale and retail markets in Calcutta and elsewhere. The dry crop is, similarly, sold by growers in lots in primary markets to the *fariahs* which ultimately reach the hands of the *aratdars* at big assembling points. The *aratdars* keep strict watch over Calcutta market prices and regulate despatch of the produce to Calcutta markets in such a way as to avail a better price.

Green coconut is another important cash crop of the district. The most important assembling markets for the crop are Amtala, Bhangar, Bagjola, Deganga, Berachampa, Kholapota, Basirhat, Baduria, Haroa and Bangaon where local produce is assembled before despatch to Calcutta, mainly to Koley Market and College Street Market or elsewhere. A set of middlemen known as *beparis*, makes outright purchase of 80% of the produce at the growers' door and brings them to the assembling markets at their own cost. The growers themselves bring about 10% of the produce to the assembling markets for sale to the *fariahs* or *aratdars*. Sometimes the *aratdars* deal with the growers through *beparis* working in the interiors who work for the former (*aratdars*) on commission basis. *Beparis* and *aratdars* are responsible for carrying the produce to Calcutta for disposal to wholesale merchants.

Water melon is grown in the southern part of the district, particularly in the Sundarbans belt, in rotation with paddy and chillis. Of late, this crop has assumed tremendous importance in this mono-cropped area. The main assembling markets are Kakdwip, Diamond Harbour, Calcutta and its suburbs. There is, however, no primary assembling market in the producing areas. These markets are fed by growers themselves and sometimes by middlemen like *fariahs* and *beparis* who make purchases of the fruits at the farms of the growers and transport them to the assembling markets. A set of growers also acts as wholesale traders for the produce of other growers. At Diamond Harbour and Kakdwip the produce passes to the hands of the *aratdars*. About 75 per cent of the marketable surplus is sold at the farms and 20 per cent is brought by growers themselves to the assembling centres. Growers' retention is around 5 per cent of the produce. From Sagar and Patharpratima, the melons are brought to Kakdwip by boat at a cost of Re. 1.00 per quintal. Other incidental charges being Rs. 2.00 per quintal. The *aratdars* charge 3 per cent as commission from the *beparis* and wholesalers and arrange despatch

of the produce to the terminal markets by trucks, tempos and by boat (to Haldia).

Export trade of the district mainly consists of jute and mesta, vegetables, chillies, fruits (specially guava, water melon and cocoanut), fish and *gur*. Jute is mainly exported to Calcutta. Import trade is mainly constituted of pulses, sugar, mustard oil, potato and onion. The nature of trade in different commodities of the district during 1975-76 is indicated in the table below:¹

IMPORT OF AGRICULTURAL PRODUCE INTO 24-PARGANAS DISTRICT

Article	Volume (in thousand tonnes)	Value (in crores of rupees)	Sources of Import
Pulses	750	187.5	Haora, Calcutta, U.P., M.P. and Bihar
Sugar	500	200	Calcutta
<i>Gur</i>	800	160	"
Mustard seeds & Oil	100	50	M.P., U.P., Calcutta
Fruits	250	50	Calcutta
Potato	650	58.5	Calcutta, Hugli, Bardhaman, U.P., and Punjab
Onion	200	16	Calcutta

EXPORT OF AGRICULTURAL PRODUCE FROM 24-PARGANAS DISTRICT

Article	Volume	Value (in crores of rupees)	Destination
Jute & Mesta	300 bales	9.7	Calcutta & Haora
Vegetables	350 tonnes	12.3	Calcutta
Fruits	100 "	6.5	"
Chillies (dry & green)	1 "	0.6	"
Dry cocoanut	35 lakhs	0.28	Calcutta
Green "	3 lakhs	0.09	"
Tomato	20 tonnes	0.5	"

Besides, the district exports jute goods, cotton textiles, engineering products, paper and cardboard, ceramic products, matches, rubber goods, shoes, medicines, liquors, hosiery goods, ready-made garments, straw, earthen-wares, flattened rice, parched rice, etc., the volume and value of which are not, however, known.

¹ Source: Sri D. C. Biswas, District Agricultural Marketing Officer, 24-Parganas.

Fairs & Melas

A list of fairs and markets dealing in agricultural commodities is given in the Appendices A, B and C at the end of this Chapter.

The fairs and melas held chiefly on religious occasions and mostly in rural areas provide opportunities for sale of huge quantities of country produce as also some quantity of industrial products, chiefly consisting of articles of daily necessities. A detailed list of fairs and melas held round the year in the district is given in Table-1 at the end of Chapter XIX.

Co-operative Marketing

There are seventeen co-operative agricultural marketing society in the Sadar and Diamond Harbour Subdivisions of the district. Their position during the year 1985-86 is given in Appendix D.

There are thirteen large-sized Co-operative agricultural marketing societies in Barasat, Bangaon, Basirhat and Barakpur Subdivisions of the district. Their position during the year 1974-75 was as follows: membership 2,470, working capital Rs. 19.13 lakhs, value of sales Rs. 152.27 lakhs; profit (+) 0.33 lakhs (5 societies) and loss (-) Rs. 0.35 lakhs (5 societies).²

There are 2 wholesale consumers' co-operative societies in the Sadar Subdivision of the district. Their position during the year 1975-76 was as below.³

Name of the Society		Member-ship	Working Capital	Purchase	Sale	Profit
				(In lakhs of rupees)		
Jadavpur	Wholesale Consumers' Co-operative Society Ltd.	151	8.2	37.3	38	0.53
Behala	"	149	18.24	97.7	97.2	0.24

Most of the industries of the district, big or small are affiliated with some Chamber of Commerce or other which have their headquarters in Calcutta. However, the following locally situated merchants' associations deserve mention.⁴

Name of the Merchants' Association	Location
Bangaon Merchants' Associations	Bangaon
Barasat Byabasayee Samity	Barasat
Baruipur Merchants' Association	Baruipur
Basirhat Natunbazar Byabasayee Samity	Basirhat
Charial Bazar Byabasayee Samity	Baj Baj

¹ Source: Assistant Registrar of Co-operative Societies (South), 24-Parganas.

² Source: Assistant Registrar of Co-operative Societies (North), 24-Parganas.

³ Source: A.R.C.S. (South), 24-Parganas.

⁴ *Statistics on Industrial Potential : 24-Parganas*, Government of West Bengal. p. 11.

Name of the Merchants' Association	Location
Canning Central Business Association	Canning Town
Garia Banik Samity	Garia Bazar
Gobardanga Byabasayee Samity	Gobardanga
Habra Bazar Samity	Tababaria
Jaynagar Metraganj Byabasayee	Jaynagar
Pratiraksha Samity	Jhinkihat
Jhinkihat Byabasayee Samity	Kanchrapara
Kanchrapara Byabasayee Samity	Khardah
Khardah Merchants' Association	Magrahat
Magrahat Byabasayee Samity	Naihati
Naihati Byabasayee Samity	Rajpur
Rajpur Bazar Byabasayee Samity	Titagarh
Titagarh Merchants' Association	

Dissemination of trade news, etc. is mainly done by the Commercial journals newspapers published from Calcutta and house magazines published from the respective place where the industry is located. The State Government maintains market intelligence centres at Bangaon, Basirhat, Kalinagar, Hingalganj, Metiahat, Barasat, Deganga, Habra, Bhatpara, Kamarhati, Canning, Diamond Harbour and Kakdwip markets which were established during Second and Third Plan period under the 'Scheme for the Improvement of Market Intelligence'. The reporters posted therein are responsible for collection, processing, compilation, supply and dissemination of market news and intelligence data regarding wholesale and retail prices as also prices at the primary and secondary markets, market arrivals, imports and exports, local consumption, trade stocks, etc. which are sent regularly to the relevant authorities of the Union and State Governments as also to the local agencies like the anchal panchayats, etc. Broadcasts of prices over the Calcutta station of All India Radio as also dissemination of trade news locally have enabled grower-sellers to become acquainted with the prevailing market trends of agricultural commodities and to obtain reasonable return for their produce.¹

Prior to the introduction of metric system of weights and measures in the district with effect from 1 April 1962, the traditional units in vogue are indicated below.²

The standard maund, of 40 seers or 82 lbs. Avoirdupois and the

Organs for dissemination of trade news

Weights and measures

¹ Source: District Agricultural Marketing Officer, 24-Parganas.

² L.S.S. O'Malley—*Bengal District Gazetteers : 24-Parganas*, Calcutta, 1914. pp. 142-43.

standard seer of 80 tolas were in universal use throughout the district in buying and selling by weight. Gold, silver, and precious stones were weighed thus; 4 *dhan*=1 *rati* or 1,875 grains Troy; 6 *rati*=1 *anna*, 8 *rati*=1 *masa*, or 15 grains Troy; 12 *masa*=1 *tola*, or 180 grains Troy. For large articles the following weights were used=5 tolas=1 *chhattack*, or 2 ozs.; 4 *chhattacks*=1 *Poa*; =1 seer, or 2 lbs. 0 oz. 14 drs.; 5 seers=1 *pasuri* or 40 seers=1 maund of 82 lbs. avoirdupois.

The local measures varied in different parts of the district. In Barasat Subdivision the scale was as follows: 2½ seers=1 *pali*; 2 *pali*=1 *don*; 2 *don*=1 *kati*; 8 *kati*=1 *arhi*; 20 *arhi*=1 *bis*; 16 *bis*=1 *kahan*. In Diamond Harbour: 2½ seers=1 *pali*; 4 *pali*=1 *katha*; 5 *katha*=1 *pan*; 4 *pan*=1 *sali*; 4 *sali*=1 *kahan*. In the south of Diamond Harbour the scale was: 2 seers and 6 tolas (or 166 tolas)=1 *pali*; 20 *palis*=1 *kurih*; 10 *kurihs*=1 *bisi*; 16 *kurihs*=1 *kahan*. In parts of Basirhat 5½ seers=1 *pali* and 16 *palis*=1 *bis*. In other places the following measures were found: (1) 2½ seers=1 *katha* or *pali*; 20 *palis*=1 *sali*; 16 *salis*=1 *kahan*; (2) 6 seers and 6 *chhattacks* (or 1½ *poas*)=1 *pali*; 2 *palis*=1 *kahan*; 4 *kahans*=1 *arhi*; 20 *arhis*=1 *bis*. (3) 2½ *poas* (or 10 *chhattacks*)=1 *khanchi* or *wanki*; 2 *khanchis*=1 *rek*; 2 *reks*=1 *pali*; 16 *palis*=1 *maund*. (4) 5 *chhattacks*=1 *kaniks*; 4 *kanikas*=1 *rek*; 4 *reks*=1 *pali*; 20 *palis*=1 *sali*; 16 *salis*=1 *kahan*.

The following measure of numbers is used for cowries, bundles of straw, mangoes, eggs, etc.: 4 units=1 *ganda*; 5 *gandas*=1 *buri*; 4 *buris* (or 20 *gandas*)=1 *pan*; 16 *pan*=1 *kahan*. In selling cloth a yard is equal to 16 *giras* and a *gira* to 2¼ inches.

The unit of lineal and square land measure was the *hath*, which may be anything from 18 to 29 inches, usually 18 inches. Using this as the unit, the usual scale was 4 *haths*=1 *katha*; 20 *kathas*=1 *bigha*. *Amins* used the following measures: 1 *kara*=3 *krantis* or 16 *bisas* or 80 *tils*; 4 *karas*=1 *ganda*; 5 *gandas*=1 *kachchha*; 4 *kachchhas*=1 *chhattack*; 16 *chhattacks*=1 *katha*; 20 *kathas*=1 *bigha*. There were in the district *bighas* varying from eighty to a hundred *haths* square, of 18 inches each, and also one of fifty-five *haths*, of 29 inches each.

The *bigha* comprises (1) 80 *haths* in parganas Magura Azimabad. Havilisahar, Khaspur and Garh; (2) 90 *haths* in Parganas Dakshin Sagar; (3) 93 *haths* in Parganas Panchakuli; (4) 95 *haths* in Parganas Munragacha, and (5) 110 *haths* in Parganas Anwarpur, Balanda, Amirabad, Bhaluka, Buran, Maithati, Sarfrazpur, Chausasi, and part of Dhuliapur.

APPENDIX A

LIST OF HATS AND MARKETS IN THE DISTRICT OF 24-PARGANAS

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
P.S. Amdanga					
Nilganj Hat	Not known	Wednesday and Saturday	Rice, pulses, paddy, straw, vegetables green chillies, potato, green cocoanut, fruits, fish, <i>gur</i> , meat, betel leaf	Wholesale-cum-retail	3,500-5,000
Kamdevpur Hat	1930	Thursday and Sunday	Jute, rice, pulses, mustard, paddy, straw, vegetables, potato, green cocoanut, fruits, fish, meat, <i>gur</i>	-do-	7,000-8,000
Madhabpur hat	1900	Tuesday & Friday	Rice, vegetables and fresh fruits	Retail	700
Rampur hat	1845	Wednesday & Saturday	-do-	-do-	400
P.S. Baduria					
Bagjola hat	1880	Wednesday & Saturday	Jute, paddy, rice, pulses, potato	Wholesale-cum-retail	4,000-5,000
Jaduhati hat	1900	Monday & Thursday	Paddy, rice, jute and vegetables	Retail	700
Taraguria hat	1800	Monday & Thursday	Pulses, vegetables and rice	Retail	1,000
Rudrapur hat	1850	-do-	-do-	-do-	700
Purna Daily Bazar	1750	Daily morning	-do-	-do-	600
Dakshin Chatra hat	1900	Tuesday & Thursday	-do-	-do-	550
Kotia hat	1850	Monday & Thursday	Paddy, rice, jute, and vegetables	-do-	800
Aturia hat	1890	Tuesday & Friday	-do-	-do-	800
Sayestanagar	1850	Wednesday & Saturday	-do-	-do-	600
Polar hat	1915	Tuesday & Saturday	-do-	-do-	650

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
P.S. Bagdah					
Nataberia hat	1880	Saturday & Tuesday	Vegetables, potatoes and date-palm, <i>gur</i>	Retail	600-800
Bajitpur hat	1938	Sunday & Wednesday	Vegetables and potato	-do-	450-500
Sindrani hat	1850	Tuesday & Friday	-do-	-do-	500-500
Boara hat	1940	-do-	-do-	-do-	600-700
Bagdah hat	1918	Tuesday & Saturday	Paddy and vegetables	-do-	400-500
Boyra hat	1850	Saturday & Wednesday	Paddy and vegetables	-do-	400-500
Kurulia hat	1950	Tuesday & Friday	Vegetables	-do-	450-600
Jhowkhali hat	1950	Monday & Wednesday	-do-	-do-	400-500
Asharu hat	1902	-do-	-do-	-do-	400-500
P.S. Baranagar					
Jiban Babur Bazar (Kamarhati Bazar)	1902	Daily (Morning)	Rice, fish and vegetables	Retail	500
Seth Babur Bazar	1877	Daily (Evening)	Rice, fish, meat and vegetables	-do-	600
Belgharia Bazar	1907	Daily	-do-	Wholesale and retail	800
P.S. Barasat					
Duttapukur hat	1907	Saturday & Tuesday	Jute, rice, whole pulses, paddy, straw, vegetables, potato, green cocoanut, fruits, fish, meat, <i>gur</i> , betel-leaf	Wholesale-cum-retail	10,000-12,000
Barasat market	1948	Daily	Rice, vegetables, fish, fresh fruits and potato	Retail	500
Maynar hat	1947	Monday & Friday	Rice, vegetables, fresh fruits, etc.	Wholesale and retail	600
Bhaturia hat	1947	Thursday & Sunday	Split pulses, fish, vegetables and potato	-do-	550

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Khamarpara hat	1890	Tuesday & Friday	Rice, vegetables, fresh fruits	Retail	600
Bamangachhi hat	1945	Thursday & Sunday	Rice, vegetables and fresh fruits, etc.	Wholesale and retail	500
Khariberia hat	1949	Wednesday & Saturday	Rice, potato, vegetables and fresh fruits	Retail	700
Badu hat	1900	Thursday & Monday	Rice, vegetables, paddy, straw and fresh fruits	-do-	400
Gholar hat	1833	Wednesday & Sunday	-do-	Wholesale and retail	1,000
P.S. Barakpur					
Sadar Bazar	1887	Daily (Evening)	Rice, fish, meat and vegetables	Retail	1,000
P.S. Basirhat					
Dandir hat	1802	Wednesday & Saturday	Rice, fish, vegetables, <i>gur</i> and betel leaf	-do-	550
Mandir hat	1862	Monday & Friday	Rice, fish, vegetables and betel leaf	-do-	400
Mogra hat	1922	-do-	-do-	-do-	1,000
Solanandana hat	1780	Sunday, Tuesday and Thursday	-do-	-do-	550
Harjatola hat	1902	Sunday and Wednesday	Paddy, rice, fish, <i>gur</i> and vegetables	-do-	400
Champapukur hat	1900	-do-	-do-	-do-	450
Benkir hat	1850	Monday, Wednesday and Saturday	-do-	Retail & Wholesale	2,500
Neora hat	1937	Tuesday and Saturday	-do-	Retail	450
Dhallita hat	1925	Tuesday and Friday	Rice, <i>gur</i> and vegetables	-do-	450
Ghona hat	1925	Monday and Thursday	-do-	-do-	550
Kankura hat	1850	Wednesday & Saturday	-do-	-do-	550

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Debhog hat	1901	Tuesday and Saturday	Rice, <i>gur</i> , vegetables	Retail	650
Kachuaswarup-nagar Market	1920	Daily	Rice, vegetables & fish	Retail	600
Dhankuria bazar	1940	Daily	-do-	-do-	400
P.S. Basirhat					
Raghunathpur	1954	Monday and Friday	Paddy, rice, fish and vegetables	Retail	300
Hazratola hat	1951	Wednesday & Saturday	Paddy, jute, rice and vegetables	-do-	3,000
Tentra hat	1935	Monday, Wednesday and Friday	Paddy, rice, fish, <i>gur</i> , vegetables & betel leaf	-do-	600
Dhapdhapi hat and bazar	1927	Daily	Fruits, vegetables, jute and paddy	-do-	400
Surjapur hat	1852	Monday and Thursday	Vegetables, jute, paddy and straw	Wholesale & retail	2,000
Champahati hat and bazar	1912	Daily	Rice, paddy, vegetables and fish	-do-	2,000
Atghara bazar	1850	-do-	Vegetables and fruits	-do-	1,500
P.S. Baruipur					
Sankarpur hat	1922	Friday and Saturday	-do-	-do-	600
Ramnagar hat	1852	Daily	Fish and vegetables	Wholesale & Retail	1,500
P.S. Behala					
Thakurpukur market	1912	Daily	Fish, vegetables, egg, meat	-do-	4,000
Sakher bazar	1852	-do-	-do-	-do-	2,000
Keorapukur bazar	1852	-do-	-do-	-do-	560
Gholsahapur bazar	1852	-do-	-do-	-do-	500

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
P.S. Bhangar					
Bejayganj hat	1906	Sunday & Thursday	Jute, rice, paddy, vegetables, gram, cocoanut, egg, poultry	Wholesale-cum-retail	2,000-2,500
Bamunghata hat	1896	Tuesday & Friday	Rice and vegetables	Retail and wholesale	1,000
Pakapol hat	1932	Tuesday & Sunday	Vegetables and green cocoanut	-do-	600
Bhojir hat	1852	Monday & Friday	Jute, tomato and green cocoanut	-do-	800
Sonarpur hat	1937	Tuesday & Saturday	Vegetables, fruits & green cocoanut	-do-	700
Kantalata hat	1915	Sunday & Wednesday	Rice & vegetables	Retail	600
Bodra bazar	1882	Wednesday & Saturday	Green cocoanut, fruits & vegetables	Wholesale & Retail	700
Sakherpur Bazar	1860	Daily	Vegetables & fruits	-do-	600
Kanchua hat	1910	Monday & Friday	Rice, vegetables & green cocoanut	-do-	800
Paglar hat	1948	Wednesday & Saturday	Vegetables and Tomato	-do-	400
Poler hat	1932	Monday & Friday	Vegetables, tomato & green cocoanut	-do-	800
Chandaneswar hat	1800	Daily	Vegetables, jute & tomato	Wholesale & Retail	800
Pranganj Bazar	1895	Sunday & Thursday	Rice and vegetables	Retail	450
P.S. Bishnupur					
Pailan hat	1902	Sunday and Thursday	Vegetables	Wholesale & Retail	800
Bakra hat	1752	-do-	-do-	-do-	2,000
Bibir hat	1852	Thursday	Cattle	Retail	800
Gouripur hat	1937	Wednesday & Saturday	Rice and vegetables	-do-	300

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Gotala hat	1922	Wednesday & Saturday	Vegetables	Retail	400
Nepalganj hat	1852	Monday, Wednesday & Saturday	-do-	Wholesale & retail	800
Balakhali hat	1800	Wednesday & Sunday	Vegetables	Wholesale & retail	600
Keotola hat	1922	Sunday & Thursday	Vegetables & banana	Retail	1,200
Ghosher hat	1938	Monday & Friday	Vegetables	-do-	300
P.S. Bijpur					
Gazipirer hat	1952	Sunday & Thursday	Rice, fish and vegetables	Retail and wholesale	1,500
P.S. Bangaon					
Garapota hat	1919	Monday and Thursday	Vegetables, fruits, potato, lemon, rice	Wholesale-cum-retail	400-600
Gopalaagar hat	1823	Sunday and Thursday	Rice, potato, fish, vegetables, gram, chillies	-do-	1,000-1,500
Nahata hat	1930	Tuesday & Saturday	Pulses, paddy and vegetables	-do-	700-800
Palla hat	1940	Wednesday & Friday	-do-	-do-	400-500
Simulia hat	1930	Monday & Friday	-do-	-do-	400-500
Akaipore hat	1931	Wednesday	-do-	-do-	400-500
Garibpore hat	1945	Monday & Friday	-do-	-do-	400-450
Mendia hat	1945	Thursday	Cattle	Wholesale & retail	400-500
Panchpota hat	1945	Tuesday & Saturday	Vegetables and fish	Retail	450-500
Chitrangopore hat	1920	Monday & Friday	-do-	-do-	400-500

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Gobrapore hat	1950	Sunday & Wednesday	Vegetables and fish	Retail	200-300
Nackful hat	1951	Tuesday & Friday	-do-	-do-	200-350
P.S. Baj Baj					
Mohanpur hat	1910	Wednesday & Saturday	Vegetables	-do-	500
Naskarpur hat	1921	Tuesday & Friday	-do-	-do-	400
Sakher bazar	1852	Daily	Green cocoanut & vegetables	-do-	450
Birlapur bazar	1940	Daily	Milk, meat and vegetables	-do-	500
Raipur hat	1898	Monday and Friday	Vegetables	-do-	300
Burul hat	1920	-do-	Vegetables, fish, meat and eggs	-do-	500
Achipur bazar	1927	Daily	Vegetables and fish	-do-	300
Charial bazar	1927	Daily	Rice, vegetables, fish, fruits, etc.	-do-	2,000
Natun bazar	1907	-do-	Rice, vegetables, fruits, etc.	-do-	400
P.S. Canning					
Natun hat	1944	Tuesday & Saturday	Vegetables, rice, paddy and eggs	-do-	450
Garer hat	1938	Wednesday & Sunday	-do-	-do-	550
Narayantala hat	1912	Monday & Friday	Rice, onion and vegetables	-do-	800
P.S. Deganga					
Dakshin Kalsur hat	1943	Monday & Thursday	Rice, vegetables & fresh fruits	Retail	600
Rajpur hat	1892	Monday & Friday	-do-	-do-	400

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Harinkhola hat	1930	Thursday & Sunday	Rice, vegetables & fresh fruits	Retail	500
Jibanpur hat	1751	Monday & Friday	-do-	-do-	550
Durir hat	1926	Tuesday & Saturday	-do-	-do-	500
Amulia hat	1928	Thursday & Sunday	-do-	-do-	700
Niramisha hat	1923	Tuesday & Friday	-do-	-do-	500
Sodepur hat	1892	Monday & Thursday	-do-	Wholesale & retail	600
Sashi hat	1852	Wednesday & Saturday	-do-	-do-	700
Dewlia hat	1835	Wednesday & Sunday	Rice, vegetables, paddy, straw and fresh fruits	-do-	3,000
Padmapukur hat	1821	Tuesday & Saturday	Rice, vegetables, paddy, straw, fruits and potato	Retail	500
Gosaipur hat	1770	Monday & Friday	-do-	-do-	700
Shonpukur hat	1820	Tuesday & Saturday	-do-	-do-	800
Enoda hat	1896	Monday & Friday	-do-	-do-	600
Hadipur hat	1895	-do-	-do-	-do-	450
Berachampa hat	1835	Wednesday & Sunday	Jute, paddy, paddy, straw, rice, vegetables, fresh fruits and fish	-do-	600
P.S. Diamond Harbour					
Basuldanga hat	1882	Sunday & Thursday	Rice and paddy	Wholesale-cum-retail	700
Kalatala hat	1870	-do-	-do-	-do-	400
Kapater hat	1892	Wednesday & Saturday	Rice, paddy and vegetables	Wholesale-cum-retail	850

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Masat hat	1925	Thursday & Sunday	Paddy, rice and vegetables	Retail	700
Panar hat	1872	Monday and Friday	-do-	-do-	500
Netra hat	1950	-do-	Rice, paddy and vegetables	-do-	600
Natun hat	1948	Thursday & Monday	Rice and paddy	-do-	500
Sadhur hat	1954	Wednesday & Saturday	Rice, paddy and vegetables	Retail	800
P.S. Dam Dam					
Gopaljiur Bazar	1957	Daily	Fish and vegetables	-do-	400
Nager bazar	1827	-do-	Rice, fish, meat and vegetables	-do-	800
P. S. Gaighata					
Backchara hat	1915	Saturday	Cattle	Wholesale and retail	500
Joytara hat	1945	-do-	Vegetables	-do-	300
Chonja hat	1948	-do-	Rice, vegetables and banana	-do-	600
Thakurnagar hat	1948	Wednesday & Saturday	Jute, vegetables, pulses & paddy	-do-	600
Ichapur hat	1950	Tuesday & Saturday	Rice, vegetables and green mango	-do-	300
Sutia hat	1920	-do-	Rice, potato, vegetables and banana	-do-	800
Ramchandrapur hat	1952	Monday & Thursday	-do-	-do-	300
Gachtala hat	1954	Tuesday & Saturday	Vegetables	-do-	300
Sasadanga hat	1942	Wednesday & Sunday	Jute, paddy, green plantain and jackfruit	-do-	400-600
Gopalnagar hat	1922	Monday & Thursday	Jute, rice and vegetables	-do-	600-800
Tetulbaria hat	Not known	Sunday & Tuesday	-do-	-do-	300-500

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Jhowdanga hat	1918	Monday & Friday	Jute, rice and vegetables	wholesale and retail	400-500
Angrail hat	1948	Saturday & Tuesday	Jute, rice, onion, vegetables and jack-fruit	-do-	400-500
Dooma hat	1920	Wednesday & Saturday	Vegetables and pulses	Retail	400
Kalasim hat	1902	Thursday & Sunday	Rice, potato, brinjal and <i>patal</i>	-do-	500
Helancha hat	1955	Monday & Wednesday	Vegetables	-do-	600-700
Amdove hat	1935	Tuesday & Saturday	-do-	-do-	400-500
NalJugrai hat	1937	Monday & Thursday	-do-	-do-	350-400
P.S. Habra					
Moshpukur (Sabdulpur hat)	1900	Tuesday & Saturday	Rice, fish, vegetables (Cattle in winter)	-do-	400
Sandanga hat	1955	Wednesday & Saturday	Rice, vegetables and straw	-do-	400
Ashudi hat	1949	Monday & Friday	Jute, paddy, paddy straw, rice, vegetables, fresh fruits & fish	-do-	400
Dighir hat	1815	Thursday & Sunday	Jute, paddy, fresh fruits, rice, vegetables and fish	-do-	400
Rajibpur hat	1868	-do-	Jute, paddy, paddy straw, rice, fresh fruits, vegetables and fish	Wholesale and retail	450
Patdanga hat	1856	Wednesday & Saturday	-do-	-do-	400
Dogachhia hat	1922	Monday & Friday	-do-	-do-	350
Lakshmipur hat	1893	Tuesday & Friday	-do-	-do-	400
Bodar hat	1872	Wednesday & Saturday	Rice, vegetables, fresh fruits, potato, jute, paddy straw	-do-	3,000
Baser hat	1948	Monday & Tuesday	Rice, paddy, vegetables and fresh fruits	-do-	300

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Putia hat	1919	Wednesday & Saturday	Rice, paddy, vegetables and fresh fruits	wholesale & retail	300
Kalyangarh hat	1949	Daily	-do-	-do-	400
Kumra hat	1929	Wednesday & Saturday	Rice, paddy, vegetables and fresh fruits	-do-	400
Mahisa-Maslandapur hat	1932	Monday & Thursday	Rice, vegetables and fresh fruits	-do-	500
Bergoom hat	1949	Thursday & Sunday	-do-	-do-	300
Pyragachi hat	1955	-do-	Rice, jute, vegetables and fresh fruits	-do-	400
Ashokenagar Urban colony market	1948	Daily	Rice, paddy, jute, vegetables, fresh fruits, fish, etc.	-do-	8,000
P.S. Haroa					
Minakhan hat	1850	Monday & Friday	Paddy, rice, fish & vegetables	Retail	450
Malancha hat	1850	Wednesday & Saturday	Paddy, rice, fish, etc.	-do-	500
Kadamtala hat	1951	-do-	-do-	-do-	1,000
Nimichi hat	1948	Tuesday & Saturday	Paddy, rice, vegetables and fish	-do-	500
Hasnabad hat	1902	-do-	-do-	-do-	800
Kalutala hat	1948	-do-	-do-	-do-	400
Kalibari hat	1910	Sunday & Thursday	-do-	-do-	500
Haroa hat	1840	Sunday & Thursday	Paddy, rice, vegetables, paddy straw, pulses and fish	Wholesale and retail	2,500
Boalghata hat	1850	Wednesday & Saturday	Paddy, rice, vegetables and fish	Retail	800
Telia hat	1900	Monday & Friday	-do-	-do-	500

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Dhanpota Bazar	1850	Daily Morning	Paddy, rice, vegetables and fish	Retail	400
Gopalpur hat	1750	Tuesday & Friday	-do-	-do-	1,500
P.S. Hasnabad					
Chakpatti hat	1910	Thursday & Sunday	Paddy, rice, vegetables & onion	-do-	500
Takipur hat	1925	Monday & Friday	-do-	-do-	500
Amalani hat	1895	Tuesday & Sunday	-do-	-do-	500
Talpukur hat	1902	Wednesday & Friday	-do-	-do-	700
Makalgachha	1850	Sunday & Thursday	-do-	-do-	600
Bhebia hat	1900	Monday & Friday	Jute, paddy, rice, vegetables and fish	-do-	1,000
Chourather hat	1954	-do-	Paddy, rice, fish & vegetables	-do-	500
Chimta hat	1950	Tuesday & Sunday	Jute, paddy, rice, fish and vegetables	-do-	500
Gurakupi hat	1930	Wednesday	-do-	-do-	500
Bhurkunda hat	1914	Thursday & Sunday	-do-	-do-	800
Parghata hat	1948	Wednesday & Saturday	-do-	-do-	700
Bailami hat	1920	Monday & Friday	Paddy, rice, fish, and vegetables	-do-	700
Rupamari hat	1917	Wednesday & Saturday	-do-	-do-	600
Thuba hat	1908	Thursday	-do-	-do-	900
Taki Railway market	1900	Daily morning	-do-	-do-	1,000
Bhanderkhali hat	1940	Monday & Friday	-do-	-do-	700
Dulduli hat	1930	Tuesday & Saturday	-do-	-do-	400

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Rampur hat	1920	Monday & Friday	Paddy, rice, fish and vegetables	Retail	500
Sahebkhalī hat	1945	Tuesday & Saturday	-do-	-do-	300
Bankra hat	1931	Wednesday & Saturday	-do-	-do-	450
Jogeshganj hat	1910	-do-	-do-	-do-	400
Kanaikathi hat	1948	Friday	-do-	-do-	350
Ghumti hat	1902	Wednesday & Saturday	-do-	-do-	400
Palghora hat	1950	Tuesday & Friday	-do-	-do-	500
Kalatala hat	1903	Monday & Friday	Paddy, rice, fish, etc.	-do-	700
Kasakhali Bazar	1925	Daily Morning	Paddy, rice, fish & vegetables	-do-	200
P.S. Jadavpur					
Jadavpur market	1940	-do-	Vegetables, fish & milk	-do-	2000
Bejoygarh market	1948	-do-	Vegetables, fish, eggs and meat	-do-	1500
Bagha Jatin market	1951	Daily	-do-	-do-	1300
P.S. Jagaddal					
Shyamnagar market	1937	Daily	Vegetables, potato, fish, rice, etc.	Wholesale & retail	4,000
Kankinara market	1887	-do-	-do-	-do-	10,000
Atpur market	1952	-do-	-do-	-do-	500
P.S. Jaynagar					
Tilkumar hat	1936	Monday & Friday	Vegetables	-do-	300
Basanti hat	1872	Thursday	Rice and vegetables	-do-	8,000
Mazidbari hat	1873	Friday	-do-	-do-	1,500
Nafarganj hat	1918	Sunday	-do-	Retail	500

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Mashirpur hat	1942	Monday	Rice, eggs, poultry & vegetables	Retail	500
Kumarkhali hat	1945	Monday & Friday	Rice, fish and vegetables	-do-	400
Chunakhali hat	1882	Wednesday	-do-	Wholesale & Retail	2,000
Satkawra hat	1931	Sunday & Thursday	Vegetables	Retail	350
Daria hat	1860	Tuesday & Friday	Rice and vegetables	Wholesale & Retail	8,000
Deuli hat	1928	Wednesday & Friday	-do-	Retail	300
Parguti hat	1930	Monday & Friday	Rice, fish and vegetables	-do-	500
Chandibaria hat	1937	-do-	Vegetables, paddy, rice and eggs	-do-	400
Mallikathi hat	1922	Wednesday & Sunday	-do-	-do-	400
Herobhanga hat	1870	Wednesday & Saturday	Rice, vegetables and fish	-do-	500
Golabari hat	1912	-do-	-do-	-do-	400
Kalikatala hat	1932	-do-	-do-	-do-	300
Matherdighi hat	1917	Thursday & Sunday	Rice and vegetables	-do-	1,000
Narberi hat	1852	Monday & Friday	-do-	-do-	2,000
Dharani hat	1955	Tuesday & Saturday	Vegetables	Retail	500
Takli hat	1925	Tuesday & Friday	Rice and vegetables	-do-	800
Jibantala hat	1923	Daily	Vegetables, rice, and paddy	-do-	400
Nagurtala hat	1927	Monday & Friday	-do-	-do-	450
Haora hat	1927	Wednesday & Sunday	-do-	-do-	300
Dhoaghata hat	1925	Monday & Thursday	Vegetables, rice, paddy and eggs	-do-	450

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Jiban Mondal hat	1921	Monday & Friday	Paddy, rice, fish, betel-leaf and vegetables	Wholesale & Retail	2,000
Mullar hat	1902	Sunday & Thursday	Eggs, fish and vegetables	Wholesale	800
Nalgora hat	1852	Thursday & Saturday	Pulses, rice and vegetables	-do-	500
Deulberi hat	1945	Wednesday & Saturday	Paddy, rice and vegetables	-do-	600
Gopalganj hat	1945	Monday & Friday	-do-	-do-	800
Baharu bazar	1850	Daily	Fish, vegetables, rice and paddy	Wholesale & retail	600
Mitraganj hat	1850	Monday & Friday	Vegetables, fish & jaggery	-do-	1,000
Chaltaberi hat	1870	-do-	Paddy, rice and vegetables	Retail	350
Dhosa hat	1800	Sunday & Thursday	Paddy, rice, fish and vegetables	Wholesale & retail	1,000
Karabeg hat	1926	Tuesday & Saturday	Paddy, rice, pulses and vegetables	-do-	400
Belechandi hat	1894	Daily	Vegetables and betel leaves	Retail	500
Khakurdah hat	1872	Thursday & Sunday	Paddy, jute, rice, fruits and vegetables	Wholesale & retail	3,000
Khakurdah market	1872	Daily	-do-	-do-	3,000
Sarberia bazar	1891	-do-	Rice, fruits and vegetables	-do-	400
Garia hat	1800	Wednesday & Saturday	Paddy, vegetables, rice and eggs	-do-	400
Dakhin Barasat bazar	1872	Daily	Fish, vegetables, rice and paddy	Retail	800
Dutta bazar	1852	-do-	-do-	-do-	400
Banktar hat	1922	Tuesday & Saturday	-do-	-do-	400
Chatraser hat	1922	Wednesday & Saturday	Paddy, rice and vegetables	-do-	400

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Mohismari hat	1912	Sunday & Thursday	Vegetables, fish, rice and paddy	Wholesale & retail	1400
Dighir bazar	1815	Daily	Rice, vegetables and fruits	-do-	1300
Amjhara hat	1902	Sunday & Wednesday	Rice and vegetables	-do-	1500
P.S. Kakdwip					
Monsimi hat	1932	Monday & Friday	Rice and paddy	Retail	1400
Hat of Lot No. 5	1890	-do-	-do-	-do-	1250
Hamkhana hat	1924	Sunday & Thursday	Rice, paddy and vegetables	-do-	1500
Harindanga hat	1902	Daily	-do-	-do-	1150
Malickpur hat	1927	Wednesday & Saturday	-do-	-do-	1300
Gopalpur hat	1850	Monday & Friday	-do-	-do-	1300
Sara hat	1876	Sunday & Thursday	-do-	-do-	1800
Dighirpur hat	1905	Wednesday & Thursday	-do-	-do-	1250
P.S. Kasba					
Haltu bazar	1948	Daily	Fish, vegetables & eggs	Wholesale & retail	1400
Ranilaler bazar	1948	-do-	-do-	-do-	1200
Dhapa market	1942	-do-	-do-	-do-	1300
Bantala hat	1930	Wednesday & Saturday	-do-	Retail	1000
P.S. Khardaha					
Mollar hat, Agarpara	1957	Thursday & Friday	Vegetables, potato, fish and rice, etc.	-do-	1500
Muktarampur hat	1937	Sunday & Thursday	Rice, vegetables & straw	-do-	1300

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Sahajir hat	1941	Sunday & Wednesday	Rice, fish and vegetables	Retail	1200
Sodepur Market	1949	Monday, Thursday & Sunday	Vegetables, potato, fish, rice, etc.	-do-	2,000
P.S. Kulpi					
Ghattaswara hat	1897	Monday & Friday	Rice, paddy and vegetables	-do-	1700
Mandirbazar hat	1775	-do-	-do-	-do-	2,000
Jamtala hat	1946	Thursday & Saturday	-do-	-do-	1200
Purbaraghunathpur hat	1941	-do-	-do-	-do-	1250
Chandipur hat	1945	Sunday & Thursday	-do-	-do-	1240
Jhonkhali hat	1855	Thursday & Friday	-do-	-do-	1200
Belpukur hat	1946	Wednesday & Sunday	-do-	-do-	1000
Ramtaunagar hat	1946	Sunday & Wednesday	Rice and Paddy	-do-	1250
Jatighata hat	1930	Tuesday & Saturday	-do-	-do-	1000
Ukilar hat	1910	Sunday & Wednesday	-do-	-do-	1400
Shibrampur hat	1925	Saturday & Tuesday	-do-	-do-	1200
Jumainaskar hat	1883	Monday & Thursday	-do-	-do-	1500
Pollar hat	1890	Monday & Friday	Rice, potato, vegetables, onion, pulses, mustard oil, mustard cakes, tobacco, sugar, gur, cattle, eggs, dry chillies	Wholesale-cum-retail	2000
Bhola hat	1835	Sunday & Wednesday	Rice, paddy and vegetables	-do-	1600

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
P.S. Magrahat					
Srichanda hat	1951	Tuesday & Saturday	Fish, vegetables and egg	Retail	1200
Sangrampur hat	1865	Sunday and Thursday	-do-	-do-	1500
Hottar hat	1890	Monday & Friday	-do-	-do-	1300
Hotuganj hat	1848	Wednesday & Saturday	-do-	-do-	1500
Jhinkir hat	1880	Tuesday & Friday	-do-	-do-	1600
Karbala hat	1940	-do-	-do-	-do-	500
Bholar hat	1951	-do-	-do-	-do-	1500
Balunir hat	1948	Daily	-do-	-do-	500
Chankitala hat	1925	Monday & Friday	-do-	-do-	500
Chakdah hat	1850	Thursday & Saturday	-do-	-do-	1500
Mashigh hat	1887	Monday & Friday	-do-	-do-	1000
Sakundarpur hat	1873	Saturday & Friday	-do-	-do-	500
Bazarbaria hat	1850	Tuesday & Saturday	-do-	-do-	500
P.S. Mahestala					
Santoshpur bazar	1932	Daily	Rice & vegetables	-do-	1150
Banerjee hat	1852	Sunday & Thursday	-do-	Wholesale & retail	2,000
Akra bazar	1917	Daily	Rice, vegetables, fish and cocoanut	Retail	1400
Nunganj bazar	1880	-do-	Rice, vegetables and fish	Wholesale & retail	2,000

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
P.S. Mathurapur					
Khatirbazar	1852	-do-	Rice, paddy, vegetables and fish	wholesale & Retail	1250
Addi hat	1939	Saturday & Thursday	-do-	-do-	500
Parchimaripati-nagar hat	1934	Saturday & Thursday	-do-	-do-	500
Ramnagar hat	1942	Tuesday & Friday	-do-	-do-	500
Pandar hat	1929	Monday & Friday	-do-	-do-	500
Dakhinraipur hat	1925	Wednesday & Saturday	-do-	-do-	400
Chamaguri hat	1903	Sunday & Thursday	-do-	-do-	500
Magra hat	1910	Wednesday & Saturday	-do-	-do-	500
Kamalpur hat	1873	Thursday & Saturday	-do-	-do-	500
Mandirtala hat	1927	Sunday	-do-	-do-	500
Hara hat	1907	Daily	-do-	-do-	500
Gabberia hat	1905	Sunday & Thursday	-do-	-do-	600
Kashinagar hat	1859	Monday & Thursday	Rice, paddy and vegetables	-do-	2,000
Mathurapur Road Station Market	1920	Sunday & Thursday	-do-	Retail	400
Bapulir Bazar	1928	Daily	-do-	-do-	800
Sunduri hat	1890	Wednesday & Sunday	Rice and paddy	-do-	450
Raidighi hat	1900	Sunday & Friday	-do-	-do-	350
Nolua hat	1868	Monday & Friday	Rice, paddy and fish	Wholesale & retail	2,000

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Sridharnagar hat	1930	Tuesday & Friday	Rice and paddy	Retail	500
Gilerchar hat	1952	Tuesday & Saturday	-do-	-do-	500
Jata 5th Part	1937	Tuesday & Friday	-do-	-do-	500
Gayadham hat	1936	Wednesday & Saturday	-do-	-do-	400
Ghoradal hat	1867	Sunday & Thursday	-do-	-do-	600
Indranarayanpur hat	1946	Thursday & Saturday	-do-	-do-	400
Nandakumarpur hat	1930	Sunday	-do-	-do-	400
Dhakinaipur hat	1932	Wednesday & Sunday	-do-	-do-	400
Surendraganj hat	1931	Tuesday & Saturday	-do-	-do-	600
Rajrajeswarpur hat	1945	Monday & Friday	-do-	-do-	500
Kalabanan hat	1940	Tuesday & Saturday	-do-	-do-	400
Haripur hat	1900	Wednesday & Saturday	-do-	-do-	800
Bisundarpur hat	1931	Monday & Friday	-do-	-do-	600
Patharpratima hat	1936	-do-	-do-	-do-	700
P.S. Metiabruz					
Rajabazar hat	1887	Wednesday & Saturday	Rice, vegetables and fish	-do-	2,000
Bangali bazar	1890	Daily	Vegetables	Wholesale & retail	2,000
Paharpur bazar	1942	-do-	Vegetables, fish and rice	Retail	2,000

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Fatepur bazar	1949	Daily	Vegetables and fish	Retail	1,500
Badartala bazar	1917	-do-	Rice, fish and vegetables	-do-	1,500
Bottala bazar	1917	-do-	-do-	-do-	1,500
P.S. Naihati					
Garifa market	1900	-do-	Rice, fish, vegetables, <i>gur</i> and meat	-do-	2,000
Hajinagar market	1912	-do- (Evening)	Rice, fish and vegetables	-do-	700
P.S. Noapara					
Garulia bazar	1917	Daily	Vegetables, potato, fish, rice, etc.	Wholesale & retail	2,000
Natun Bazar	1930	Daily (Morning)	Vegetables, potato, fish, rice, meat, etc.	Retail	900
Ardali bazar	1887	Monday & Friday	Vegetables, potato, fish, rice, etc.	Wholesale & retail	1,500
P.S. Rajar hat					
Rajar hat	1802	-do-	Rice, vegetables, fresh fruits and potato	-do-	2,000
Chhapra hat	1867	Tuesday & Saturday	-do-	-do-	4,000
Bishnupur hat	1880	Monday & Friday	Rice, vegetables and fresh fruits	Retail	750
Chandpur hat	1920	Wednesday & Saturday	Rice, vegetables, paddy straw	Wholesale & retail	1,800
Kashinathpur hat	1890	Thursday & Sunday	Rice, vegetables and fresh fruits	Retail	600
Krishnapur market	1845	Daily	-do-	-do-	500
P.S. Regent Park					
Bansdroni market	1950	-do-	Vegetables, fish & eggs	-do-	2000
Chanditala market	1945	-do-	-do-	-do-	1300

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Garia hat	1940	Daily	Vegetables, milk & rice	Wholesale & retail	6000
Garia market	1946	-do-	-do-	Retail	2000
Keorapukur market	1948	-do-	-do-	-do-	1300
Purbaputiari bazar	1948	-do-	-do-	-do-	2000
Netajinagar Market	—	-do- (Evening)	-do-	Retail	1000
Regent Park Market	—	-do-	-do-	-do-	1000
P.S. Sagar					
Pulduji hat	1932	Thursday	Rice and paddy	-do-	650
Kayalpara hat	1925	Thursday & Sunday	-do-	-do-	400
Kulpi hat	1860	Saturday & Tuesday	Rice, paddy and vegetables	-do-	400
Gazipur hat	1914	Daily	Rice, paddy and vegetables	Retail	400
Ramkrishnapur hat	1951	Sunday & Wednesday	-do-	-do-	400
Chokal hat	1922	Monday & Friday	Rice and paddy	-do-	400
Lakipur hat	1949	-do-	Rice, paddy & vegetables	Wholesale-cum-retail	500
Tanti hat	1906	-do-	-do-	-do-	500
Monoharpur hat	1902	-do-	-do-	-do-	300
Tangra hat	1894	Saturday & Thursday	-do-	-do-	300
Shambanseechak hat	1945	-do-	-do-	-do-	800
P.S. Sandeshkhali					
Kainmari hat	1900	Monday & Friday	Paddy, rice, fish, vegetables	Retail	1000

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
Nazat hat	1910	Monday & Friday	Paddis, rice fish vegetables	Retail	900
Khulna hat	1900	Tuesday & Saturday	-do-	-do-	500
Rampur hat	1902	-do-	-do-	-do-	1,500
Treshkhali hat	1940	Friday	Paddy, rice, fish, etc.	-do-	800
Konakhali hat	1920	Tuesday & Saturday	-do-	-do-	900
Durgamandali hat	1940	Tuesday	-do-	-do-	600
Gabberia hat	1920	Monday & Friday	-do-	-do-	900
Amtoli hat	1944	Sunday	-do-	Wholesale & retail	1200
Beltoli hat	1929	-do-	-do-	-do-	1200
Kachukhali hat	1930	Friday	-do-	Retail	700
Satjelia hat	1929	Tuesday	-do-	Wholesale & retail	600
P.S. Sonarpur					
Rajpur bazar (Market)	1853	Daily	Vegetables, fruits, green cocoanut	Wholesale-cum-retail	1500
Natun hat	1872	Daily	Vegetables	Wholesale & retail	1300
Tetulberia bazar	1947	-do-	Rice, vegetables, etc.	Retail	500
Gobindapur hat	1922	Tuesday, Thursday & Saturday	Vegetables, fruits, etc.	Wholesale & retail	700
Sonarpur hat	1800	Tuesday & Saturday	Vegetables	Retail	500
Sonarpur market	1800	Daily	-do-	-do-	600
Pratapnagar bazar	1752	Daily	Vegetables	Wholesale & retail	700

APPENDIX A—Contd.

Name of the Market	Years of origin	Days of sitting	Principal agricultural commodities handled	Mainly wholesale or retail	Daily average attendance
P.S. Swarupnagar					
Gobarah hat	1947	Sunday, Tuesday & Thursday	Paddy, rice, jute & vegetables	Retail	300
Kalijuri	1848	Wednesday & Saturday	Paddy, rice, jute & vegetables	-do-	600
Tantulia hat	1920	Monday & Friday	Rice, jute, vegetables	-do-	700
Bunkra bazar	1852	Daily	-do-	-do-	700
Gokulpur bazar	1800	-do-	-do-	-do-	600
Swarupnagar hat	1890	Sunday & Thursday	-do-	-do-	100
Sarapat (Amtala) hat	1700	Monday & Friday	-do-	Wholesale & retail	4,000
Sarapul (Dhubdupi) hat	1920	Wednesday & Saturday	-do-	Retail	900
Hatalganj bazar	1951	Daily (Morning)	-do-	-do-	600
Govindapur hat	1910	Saturday & Thursday	-do-	-do-	900
Duttapara hat	1929	Monday & Thursday	-do-	-do-	650
Bittari hat	1870	Tuesday & Saturday	-do-	-do-	900
Amodia hat	1900	-do-	-do-	-do-	900
Charghat hat	1890	Sunday & Thursday	Rice, fish, paddy, jute	Wholesale & retail	3000
Bargharia bazar	1830	Daily (Morning)	Rice, fish and vegetables	Retail	300
Badhiya hat	1931	Tuesday & Friday	-do-	-do-	800

APPENDIX B
LIST OF "A" CLASS MARKETS IN 24-PARGANAS DISTRICT

Police Station	Name of Market	Year of starting	Days of sitting	Principal Agricultural Commodities dealt with	Mainly wholesale or retail	Daily average attendance
Amdanga	Amdanga hat	1850	Tuesday & Friday	Vegetables, potato, fish, fruits, rice	Retail	1500
	Baduria hat	1870	Sunday & Friday	Jute, rice, pulses, <i>gur</i> , potato, vegetables, fish, spices, fruits, Cocoanut, broomstick	Wholesale & retail	6,000
Baj Baj	Pujali hat	1901	Tuesday & Saturday	Vegetables, green-cocoanut, jute, fruits	Wholesale & retail	400 to 500
Baruipur	Baruipur bazar (old)	1700	Daily	Fruits, jute, vegetables	Wholesale & retail	3,000
	Baruipur hat	1700	Sunday & Wednesday	Vegetables & fruits	Wholesale & retail	6,000
Bishnupur	Baruipur Sarkar Bazar (Kachari Bazar)	1919	Daily	Jute, rice, <i>chira</i> , <i>muri</i> , vegetables, fruits, cocoanut	Wholesale & retail	500
	Amtolla hat	1907	Tuesday & Saturday	Jute, rice, potato, vegetables, fish, pulses, tobacco, <i>gur</i> , fruits, spices, poultry, goat	Wholesale & retail	6,000
Basirhat	Basirhat hat	1840	Sunday & Thursday	Jute, vegetables, paddy, rice	Wholesale & retail	5,000 to 7,000
	Metia hat	1850	Sunday & Thursday	Cattle	Wholesale & retail	4,000 to 5,000
Bangaon	Bangaon cattle hat	1948	Friday	Jute, <i>mesra</i> , pulses, paddy, rice	Retail	1,300
	Bangaon market	1903	Daily	Paddy straw	Wholesale & retail	1,500
	Bangaon paddy straw hat	1905	Monday & Friday		Retail	800

APPENDIX B—Contd.

Police Station	Name of Market	Year of starting	Days of sitting	Principal Agricultural Commodities dealt with	Mainly wholesale or retail	Daily average attendance
Canning	Canning market (Metia bazar)	1912	Daily	Paddy, rice, eggs, fish, poultry, milk, milk-products	Wholesale & retail	3,000 to 4,500
Deganga	Deganga hat	1756	Sunday & Thursday	Jute, pulses, vegetables, potato	Wholesale & retail	6,000 to 9,000
Gaighata	Bakchara cattle hat	1915	Saturday	Cattle	Wholesale & retail	500 to 600
Habra	Habra hat	1901	Tuesday & Friday	Jute, paddy, rice, pulses, vegetables, <i>gur</i> , straw, fruits, fish, betel-leaf	Wholesale & retail	9,000 to 11,000
Hasnabad	Hingalganj	1890	Sunday & Thursday	Paddy, rice, potato, <i>gur</i> , vegetables	Wholesale & retail	3,000 to 6,000
Kakdwip	Kakdwip market	1901	Sunday & Thursday	Rice, pulses, potato, <i>gur</i> , spices, vegetables, fruits, betel-leaf, green cocoanut, eggs, fish	Wholesale & retail	4,000 to 5,000
Sandeshkhali	Kalinagar	1890	Monday & Friday	Rice, paddy, vegetables, fish, <i>ghee</i> , <i>chhana</i>	Wholesale & retail	4,000 to 6,000

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APPENDIX C

LIST OF "B" CLASS MARKETS IN 24-PARGANAS DISTRICT

Police Station	Name of Market	Year of starting	Days of sitting	Principal Agricultural Commodities dealt with	Mainly wholesale or retail	Daily average attendance
Amdanga	Gadamara hat	1892	Wednesday and Saturday	Rice, Jute, fresh fruits, potato, paddy straw, fish, spices, etc.	Wholesale	2,500
	Jiral hat	1900	Monday and Friday	do	do	3,000
Baduria	Baduria daily market	1890	Daily (Morning and evening)	Rice, fish, vegetables	Retail	900
Baranagar	Alambazar	1872	Daily (Morning and evening)	Rice, vegetables, fresh fruits, potato, paddy straw, fish species, etc.	Mainly wholesale	5,000
	Baranagar market	1852	Daily (Morning and evening)	Rice, vegetables, fresh fruits, potato, paddy straw, fish, spices, etc.	Mainly wholesale	8,500
Barasat	Barasat hat	1869	Monday & Friday	Rice, vegetables, fresh fruits, potato, paddy straw, fish, spices, etc.	Mainly wholesale	6,000
	Beliaghata hat	1920	Monday & Friday	Ric, jute, vegetables, fresh fruits, potato, paddy straw, fish, spices, etc.	Wholesale	5,000
	Golabari hat	1945	Wednesday & Sunday	-do-	-do-	2,500
	Gouripurhat	1950	Thursday & Sunday	-do-	-do-	4,000

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APPENDIX C—Contd.

Police Station	Name of Market	Year of starting	Days of sitting	Principal Agricultural Commodities dealt with	Mainly wholesale or retail	Daily average attendance
	Jagulia hat	1804	Monday & Thursday	-do-	-do-	2,500
	Kadambagachi hat	1926	Tuesday & Saturday	-do-	-do-	3,500
	Madhyamgram hat	1948	do	-do-	-do-	4,500
	Sasan hat	About 125 years ago (date of publication 1958)	Thursday & Sunday	-do-	-do-	2,800
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Barakpur	Santi bazar	1948	Daily	Rice, vegetables, potato, fish, fresh fruits, spices, etc.	Retail	2000
	Talpukur bazar	1923	Daily (Morning)	-do-	-do-	3,000
Basirhat	Basirhat bazar	1903	Daily (Morning & evening)	Rice, fish, vegetables, etc. and consumer's goods	-do-	1,500
	Basirhat Nutan bazar	1922	Daily	-do-	-do-	500
Behala	Behala bazar	1806	-do-	Seasonal vegetables, rice, fish, eggs, etc.	Mainly retail (wholesale for vegetables)	4,000
Bhangar	Bhangar hat (known as Bejayganja hat)	1906	Thursday & Sunday	Rice, paddy, jute, fish, vegetables & fruits	Wholesale and retail (Mainly wholesale)	3000
Bijpur						
	Kanchrapara market	1910	Daily (Morning & evening)	Rice, vegetables, fish, fresh fruits, potato, paddy-straw, spices, etc.	Mainly wholesale	5,500
	Mandal bazar	1943	Daily	Rice, vegetables, potato, fish, fresh fruits, spices, etc.	Retail	5,000
Bishnupur						
	Enayetnagar hat	1940	Monday & Thursday	Seasonal vegetables fish, dry fish, etc.	-do-	250 to 350
	Itinda hat	1870	Wednesday & Saturday	Paddy, rice, seasonal vegetables, etc.	-do-	3,500
	Kholapota hat	1870	Tuesday & Saturday	Paddy, rice, seasonal vegetables, jute, paddy straw, etc.	Retail (wholesale for vegetables)	900
	Sarisha hat	1935	Monday & Friday	Rice, fish, vegetables	Retail	1000
Bangraon						
	Bangaon Rail bazar	1947	Daily	Vegetables & fish	-do-	200 to 350
	Matiganj	1876	Monday & Friday	Rice, paddy, vegetables, date-palm, gur, fish	Wholesale and retail	10,000 to 12,000
Diamond Harbour						
	Diamond Harbour market	1932	Daily	Rice, oilcakes, pulses, (split), potato, sweet potato, onion & tobacco	Retail	3000
Dum Dum						
	Sarisha hat	1760	Tuesday & Friday	Paddy, rice, vegetables and pulses	Wholesale and retail	5,500 to 6,500
	Gorabazar	1945	Daily (Morning & evening)	Rice, vegetables, fresh fruits, potato, paddy-straw, fish, spices, etc.	Mainly wholesale	5,000
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APPENDIX C—Contd.

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24-PARGANAS

Police Station	Name of Market	Year of starting	Days of sitting	Principal Agricultural Commodities dealt with	Mainly wholesale or retail	Daily average attendance
Gaighata	Chandpara	1907	Sunday & Thursday	Paddy, mango, fish, pulses, jackfruits, date-palm, gur, vegetables	-do-	10,000 to 12,000
	Gaighata hat	1704	Monday & Friday	Vegetables, paddy rice, jute	-do-	1,000 to 2,000
Habra	Beswer hat	1937	Monday & Thursday	Rice, jute, vegetables, fresh fruits, potato, paddy straw, fish, spices, etc.	Wholesale	2,000
	Gobardanga hat	1932	Wednesday and Saturday	-do-	-do-	1,500
Hasnabad	Gurmahat	1940	Thursday & Sunday	-do-	-do-	2,700
	Hasnabad market	1880	Daily	Rice, potato, fish, brinjal, betel-leaf, mango, gur, green cocoanut, eggs	Wholesale-cum-retail	600 to 800
	Hingalganja daily market	1900	-do-	Rice, fish, vegetables	Retail	300
	Bhatpara market	1658	-do-	Rice, vegetable, potato, fish, fresh-fruits, spices, etc.	-do-	5,500
Kasba	Kasba market	1938	-do-	Potato, vegetable, brinjal, rice, gur, etc.	-do-	1000 to 1,500
Khardaha	Khardah market	1900	-do-	-do-	-do-	5,300
Magrahat	Mograhat	1850	Sunday & Thursday	Rice, potato, onion, vegetables, green and dry chillies, poultry, eggs, gur, sugar	Wholesale and retail	3,000 to 4,000

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Naihati	Naihati market	1912	Daily	Rice, vegetables, potato, fish, fresh fruits, spices, etc.	Retail	4,800
Phalta	Phalta hat	1784	Tuesday & Saturday	Rice, vegetables & pulses	Wholesale & retail	550
	Saharar hat		Sunday & Thursday	-do-	-do-	400
Sandeshkhali	Shibanipur hat	1750	Monday & Tuesday	Rice, potato, spices, vegetables, green cocoanut	-do-	500 to 800
	Chhoto Mollakhali hat	1917	Monday	Paddy, rice, fish, eggs, etc.	Retail (Wholesale for paddy)	4,000
	Gosaba hat	1929	Saturday	Paddy, rice, vegetables, eggs, etc.	-do-	1,000
	Sandeshkhali hat	1900	Thursday & Saturday	Paddy, rice, fish, vegetables, etc.	Retail	600
Titagarh	Sambhunagar hat	1950	-do-	-do-	-do-	300
	Nawabganj bazar	1925	Daily	Rice, vegetables, potato, fish, fresh fruits, spices, etc.	-do-	5,500
	Titagarh bazar	1910	Daily (Evening)	Rice, vegetables, potato, fish, fresh fruits, spices, etc.	-do-	4,800

APPENDIX D

CO-OPERATIVE MARKETING SOCIETIES IN
24-PARGANAS DISTRICT : 1985-86.

Names of Marketing Societies	No. of members	Share capital (Figures in thousands of rupees)	Working capital	Value of sales	Profit (+) Loss (-)	
Mathurapur	Large-sized Co-oper. Agril. Marketing Society Ltd.	115	58	611	4,916	(-)19
Magrahat-I	"	81	214	415	7,490	(+)16
Diamond Harbour	"	21	76	118	50	(-) 2.5
Jaynagar	"	259	99	138	215	(-) 4.7
Namkhana	"	98	117	483	226	(-) 8
Baruipur	"	42	106	697	722	(-)21
Kakdwip	"	137	185	N.A.	122	(+)29
Canning Thana	"	99	19	33	19	(+)22
Basanti	"	74	69	105	1,241	(+)12
Mandirbazar	"	85	146	303	280	(-)16
Kulpi	"	18	30	205	574	(-) 2
Bhangar-I	"	N.A.	N.A.	N.A.	N.A.	N.A.
Bhangar-II	"	N.A.	N.A.	N.A.	N.A.	N.A.
Bishnupur	Co-op. Agril. Marketing Society Ltd.	106	16	66	901	(-)15
Bishnupur Block-I	Co-op. Marketing Society Ltd.	N.A.	N.A.	N.A.	N.A.	N.A.
Magrahat	"	63	47	N.A.	N.A.	N.A.
Sagar Thana	"	22	88	139	219	(-) 6

Source : Asstt. Registrar of Co-operative Societies (South), 24-Parganas.

CHAPTER VII

COMMUNICATIONS

The rivers and canals of the district, especially the Ganga which flows past its western boundary, were the chief routes of trade, both internal and external. The Ganga-Sagara-Sangama, that is the estuary of the Ganga in South Bengal, referred to both in connection with the legend of Bhagiratha and the pilgrimage of Yudhishtira shows that the Aryans had an intimate knowledge of, and close contact with the district in the far old days. The archaeological finds from Harinarayanpur near Diamond Harbour on the Ganga and Chandraketurgh, not very far from the Vidyadhari and the Adi-Ganga, attest to the fact that the early trade and commerce of the district (between the Gupta and the Pala ages) was carried on along the river-routes. The biographical literature on Sri Chaitanya, namely, Brindabandas's *Chaitanya Bhagabata* and also Bipradas Piplai's *Manasa Mangal* throw much light on the river-route along the Ganga and the Adi-Ganga. In course of his pilgrimage to Puri, Sri Chaitanya sojourned at Kumarhatta (Halisahar), Panihati, Baranagar, Atisara and Chhatrabhog before crossing the Ganga from the last-named place. The Portuguese invaders also came along the river-routes and carried on their depredations in the Sundarbans area which was shown as depopulated by Rennell in his map. Baranagar had a Portuguese establishment which was taken over by the Dutch on the former's rout by Emperor Shah Jehan's men from Hugli. Apparently, they all followed the river-route along the Ganga. That the Adi-ganga formed the downward course of the Ganga has recorded evidence in the biographical literature on Sri Chaitanya. The present course of the Ganga in the south is believed to have been excavated sometimes during the Mughal Period.

From the description of Sri Chaitanya's itinerary through this district it is clear that there existed a land-route from Santipur to Chhatrabhog which passed very close to the Ganga. The present road-system connecting all these places and passing by the Ganga appears to be the continuation of the old route. The legend also refers to some old routes along which Mansingh travelled via Shyam-nagar to curb the uprising of King Pratapaditya in Jessore. There is also a legendary reference to a road passing from Panihati to Chandraketurgh.

As to the land routes of the 18th century, history refers to the

Old time trade routes and high-ways

journey of Nawab Siraj-ud-daula to Calcutta from Murshidabad along the present Barakpur Trunk Road. Even in early British days this military road assumed great importance. It has been said, "as early as 1804, steps were taken towards the survey of a new alignment of the road in the direction of Burdwan via Barrackpore and Hooghly and this ultimately led to the establishment of the first section of the line afterwards adopted for the Grand Trunk Road. W. H. Carey tells that the road from Calcutta to Barrackpore was opened to the public in July 1805."¹

In 1875, Hunter noticed, "total length of military roads, 216½ miles, which with 367¾ miles of road maintained from local funds, make a total of 584¼ miles of roads regularly kept up, besides short roads of less than a mile of length and a number of minor tracks between villages."²

O'malley wrote, "according to the Returns for 1911-12, the roads of the district have a length of 1690 miles, viz, (1) provincial roads, metalled, bridged and drained throughout 88 miles; (2) District Board Roads, metalled, bridged and drained throughout 179 miles; (3) District Board Roads, unmetalled but bridged and drained throughout 292 miles; (4) District Board Roads, unmetalled and only partially bridged and drained, 43 miles; (5) District Board Roads, banked and surfaced with murrum (gravel) or similar material, but not drained, 46 miles; and (6) village roads, 1042 miles. Over one-half of the roads are village roads, which are rough tracks passable only in fair weather. Only the two 1st classes with aggregate length of 264 miles, can be required as passable for wheeled traffic throughout the year."³

In 1948, the Works and Buildings Department maintained 299.2 miles of metalled roads, and the District Board 261.3 miles of metalled and 720.1 miles of unmetalled roads. The municipalities maintained 515.6 miles of metalled and 350.6 miles of unmetalled roads.⁴

In the late twenties of this century the Government of India realised the need for subsidizing provincial work on road and so proceeded to constitute a committee, styled as Road Development Committee, under the Chairmanship of Mr. M. R. Jayakar in 1928. On the recommendation of the Committee, the Government of India

Road Development Committee,
1928

¹ *Bengal : Past and Present*, Volume XXIX, January-December, 1925. p. 26.
² W. W. Hunter—*Statistical Account of Bengal*, Volume I. Delhi (Reprints), 1973. p. 165.

³ *Bengal District Gazetteers : 24-Parganas*, Calcutta, 1914, p. 169.

⁴ A. Mitra—*Census 1961 : West Bengal : District Hand Book : 24-Parganas*, Calcutta 1954. p. 351. 1 Mile = 1.6093 Km.

set up in 1929 a Central Road Fund (C.R.F.) with the proceeds of a surcharge on petrol which enabled the Government to make annual block grants to the provinces for subsidizing provincial work on roads. As Bengal had then no road development plan worth the name, the Government appointed Mr. A. J. King as Special Officer for road development in 1934, whose survey of the 24-Parganas District shows that it had on 31 March 1937 a total of 5,826 miles of metalled and unmetalled roads of various descriptions, of which 105 miles of metalled road are maintained by the Government, 231 miles of metalled road by the District Board, and 3,346 miles of unmetalled subdivisinal road by the Local Boards working under the control of the District Board, 192 miles of metalled and 127 miles of unmetalled road by the Municipalities and 1,825 miles of unmetalled village road by the Union Boards. A complete scheme has, therefore, been framed for a road system in the district which is considered sufficiently comprehensive to serve the needs of the district to a reasonable degree, in respect of both internal communication within the district itself, and of inter-district, provincial and inter-provincial communication. His plan envisages a total of 433 miles of improved road which would include 226 miles of existing metalled road, 153 miles of existing unmetalled road and 54 miles of entirely new road. The scheme provides 1 mile of road in respect of every 8.4 sq. miles of area, or in respect of every 6,267 heads of population in the district. Assuming that a road, railway or steamer service is capable of tapping the country lying within 5 miles on either side of it (neglecting the obstruction likely to be offered by unbridged rivers), the existing railways, steamer services and the proposed roads taken together will serve 97.1 per cent of the total area of the district. The area directly served by the road system alone amounts to 3,526 sq. miles approximately or 96.5 per cent of the total area of the district. The scheme further provides for the connection by road of the district headquarter and the headquarters of all the subdivisions. Direct road connection has also been provided to 31 thana headquarters, while 7 thana headquarters, although not directly connected, will be within 5 miles of an improved road, which will make it easy for a short connecting link to be added at a later stage. It has not been found possible to provide any improved road within 5 miles of the remaining 2 thana headquarters of the district.

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THE ROADS PROPOSED TO BE CONSTRUCTED UNDER KING'S
PLAN ARE DETAILED BELOW:

From	Location To	Approximate length (in miles)	Classification
Calcutta	Bhalka	33	Provincial Trunk
Calcutta	Nalkura	29	-do-
Gouripur	Bhomra	38	-do-
Barasat	Jaguli	16	-do-
Calcutta	Kakdwip	55	-do-
Behala	Pujali	15	District Main
Baj Baj	Canning	41	-do-
Calcutta	Baruipur	14	-do-
Phalta	Gobindapur	33	-do-
Magrahat	Raydighi	21	-do-
Sirakole	Kolessur	4	District Secondary
Sarisha	Durgapur	8	District Main
Baruipur (about 2 miles east)	Haripur	23	-do-
Barakpur	Barasat	8	District Secondary
Naihati	Maniknagar	15	-do-
Habra (about 1 mile south)	Kholapota	17	-do-
Baduria	Haroa	14	-do-
Basirhat	Port Canning	29	District Main
North-east corner of Sagar Island	South-West corner of Sagar Island	20	District Secondary
Total		433	

In 1941-42 the Government of India had frozen the C.R.F. and in 1943 convened the famous Nagpur Conference to formulate a co-ordinated road policy for the whole country. The Nagpur Plan envisaged the construction of three categories of roads—national, provincial and local. The national highways were to carry uninterrupted road traffic across the states, the provincial roads were to serve as the main arteries of trade, commerce and administration, while the local roads were to be of two types, namely, the district roads and the village roads, the former branching off from the National and State Highways and lying within 2 to 5 miles of important villages, while the latter were to be the outer links of this network connecting isolated rural settlements. The King report had to be modified in the light of the above recommendations and the then Central Government finalized a plan for construction and improvement of roads for a period of 20 years beginning from 1946-47.

Work along these lines commenced in 1948 but the whole scheme was reviewed again by the Planning Commission which laid down the following road-building specifications in 1951: National and State Highways were to have 32 feet wide embankments and 12 feet wide metalled crust; curves and crossings were to bear an average speed of 40 to 50 miles per hour outside urban limits; sufficient road-side land was to be kept reserved for future widening. The District Roads were to follow the same specifications except that the width of the embankment was to be 24 feet only. The village roads were to have 16 feet embankments and would remain *cutchha* or to be provided with either cement concrete or brick trackways and improved culverts so that they might serve as fair weather roads.

Road construction received fillip during the successive Five Year Plans and the existing road system serves the district fairly well. In the First Five-Year Plan there was an allocation of Rs. 13.85 crores for State roads when the aim was to link the district headquarters with their subdivisional counter parts. The programme of bridging the riverine district was given sufficient attention. In the Second Five-Year Plan the State outlay of Rs. 14.80 crores put more emphasis on the length of roads. A fresh appraisal of the then policy with regard to existing road system was done at the conference of the Chief Engineers and a new target was fixed in their 20-year road development plan. It was decided that the distance of any place from a metalled road should not exceed 6 km., 13 km. and 19 km. in the developed, agricultural and semi-developed areas respectively. The corresponding distance from any other road should be 2.5 km.,

5 km. and 8 km. respectively. In the Third Plan with a State outlay of Rs. 21.56 crores, the emphasis was on constructing bridges, rather than on mere roads. During the three annual plans (1966-69) and the Fourth Plan 1969-74 the outlay for road construction was negligible. In the Fifth Five-Year Plan the State expenditure on roads accounted for 3.30% of the total plan outlay. Till March 1975, 2,054 km. length of *pucca* road has been completed. This amounts to 14.89 km. per 100 sq. km. area and 0.2 km. per 100 of population of the district.

In 1979, there were 111 km. of National Highway, 565 km. of State Highway and a total of 1,497 km. of major district roads, other district roads and village roads in the district, under the control of the Public Works Department and the Public Works (Roads) Department. All these roads were black-topped, though the State Highway included some cement-concrete roads.

The progress of construction of the different categories of roads in the district during the period 1951-1979 will be discerned from the table below:

SURFACED ROADS UNDER MAINTENANCE OF P.W.D. (ROADS) AND P.W.D. IN THE DISTRICT OF 24-PARGANAS (IN KM.)

Year	National Highways	State Highways	Major District Roads	Other District Roads	Village Roads	Grand Total
1951	98	218	—	142	—	458
1956	98	262	182	168	62	772
1961	98	277	301	232	115	1,023
1966	98	277	363	533	194	1,465
1969	—	—	—	—	—	1,747 (approx)
1974	111	565	597	537	194	2,004
1979	111	565	609	609	279	2,193

The Public Works Department besides had 38 km. of waterbound macadam and 70 km. of unsurfaced roads under its control. The P. W. (Roads) Department spent Rs. 7.24 lakhs for construction of State Highways and Major District Roads and Rs. 202 lakhs for construction of district roads and other roads between 1974 and 1976-77.

As on 31st March '75, the P.W.D. and P. W. (Roads) Deptt. together maintained extra-Municipal roads to the extent of 2,212 km. in the district.¹

The Zilla Parishad maintained 190.48 km. of metalled roads and 872.3 km. of unmetalled roads.

A list of the different categories of important roads taken up for construction during the different Five-Year Plans is given in Appendix 'A' at the end of this chapter.

The Zilla Parishad maintained the following number of culverts (up to six metres) in different subdivisions of the district.

Name of the Subdivision	No. of culverts
Barasat	500
Barakpur	200
Basirhat	750
Bangaon	450
Diamond Harbour	1,500
Sadar	2,000

Roads in villages were also constructed under the relief scheme or under the scheme styled as Food for Work. The Panchayat Department initiated contributory village road scheme since 1968 for construction of village roads which was executed by the Zilla Parishad. The scheme provides for repairing of village roads, reconstruction of small bridges or culverts or renovation of drains. The Zilla Parishad or the Panchayat bodies maintained the roads, bridges etc. after their construction.

The ceiling for each scheme was Rs. 15,000/- of which one-third was raised by public subscription and the balance was given by the Government. The following table shows the amount spent by the Zilla Parishad during the period from 1972-73 to 1976-77.

1972-73	1973-74	1974-75	1975-76	1976-77
Rs.	Rs.	Rs.	Rs.	Rs.
1,64,393	1,00,947	79,624	69,706	54,273

The Calcutta Metropolitan Development Authority also developed some roads in the district. One of their major projects is the Barakpur-Kalyani Express Way (opened to traffic on 3.5.1982). Their work generally relates to the improvement and the widening

¹ Government of West Bengal, *Economic Review* 1976-77, Calcutta 1977, p. 64.

of existing roads. They undertook the work relating to the improvement and widening of the following roads: (1) Diamond Harbour Road, (2) Raja S. C. Mallik Road, (3) Prince Anwar Shah Road, (4) Desapran Sasmal Road, (5) Circular Garden Reach Road (From Diamond Harbour Road Jn. to Brace Bridge).

The authority also completed the following roads:

- (1) Link road: Jessore Road to Calcutta-Dam Dam Super High Way.
- (2) Link road: Banamali Naskar Road to Taratala Road.
- (3) Road from Thakurpukur to Tollygunge Circular Road through Keorapukur-B. L. Saha Road.
- (4) Calcutta-Dam Dam Super High Way.

The following new roads were also constructed, namely, (1) Diamond Harbour Road—By-pass, (2) Link road between Prince Anwar Shah Road and Layalka Road, (3) Link road from Belgharia to Birati.

The Eastern Metropolitan By-pass, which is one of the most important arterial roads planned by the C.M.D.A. to relieve traffic congestion of the city is a 17.72 km. stretch of road extending from Salt Lake to Garia, provided with three connectors, namely, Park Circus connector (4.16 km.), Rasbehari Avenue connector (2.82 km.) and Prince Anwar Shah Road connector (3.2 km.). It will be connected to N.H.-2 by-pass through the V.I.P. road, N.H.-6 and Calcutta-Durgapur Express Way and Belgharia Express Way in the north and to Diamond Harbour Road near Joka through the proposed Southern Express Way in the south of the city. This By-pass will be connected to Ultadanga Main Road. When completed this road will provide communication facilities from five to twenty thousand vehicles daily.

The Public Works (Roads) Directorate has a Roads and Buildings Research Institute under the charge of a Director which carries out various types of tests, namely, soil-tests for important road projects, sub-soil analysis for bridge foundation, testing of concrete etc. It also conducts research on soil stabilisation and suggests low-cost specifications mainly through the use of locally available materials. It renders a similar technical assistance to the sister directorates and sometimes to the private sector even. The institute derives some income for the State by way of fees for testing samples of soil referred to it by other State Governments and private parties. During 1972-73 the income amounted to Rs. 1,23,606.

The Eastern
Metropolitan
By-pass

Roads and Build-
ings Research
Institute, Pailan

The director of this Institute is also in charge of the Road Test Track which belongs to the Government of India. It conducts performance test of different types of specifications of the road pavement under the system of controlled loading.

The district had a total of 28,497 numbers of registered vehicles in 1980-81 as against 16,884 in 1971-72. The break-up of the different categories of vehicles during the same years is given below:

Public Transport

CATEGORYWISE NUMBER OF REGISTERED VEHICLES IN THE DISTRICT OF 24-PARGANAS

Year	Goods vehicles	Motor cars and jeeps	Motor cycles and scooters	Auto rick-shaws	Taxis	Contract carriages	State carriages	Other vehicles	Total
1971-72	5,108	7,197	1,792	392	152	125	996	822	16,584
1980-81	9,556	9,664	3,787	128	66	—	1,305	3,991	28,497

Owing to the proximity of the district to Calcutta, the State capital, the bus services plying through the district mostly originate from or terminate in Calcutta (Esplanade, B.B.D. Bag, Babughat or Shyambazar) and provide cheap communication facilities to almost every place of some importance, not only within the district but also to several important places in the adjoining districts. Among the important places outside the district connected by bus routes are, besides Calcutta, Nadiya, Mursidabad, Malda, West Dinajpur, Darjiling, Jalpaiguri, Haora, Hugli, Bardhaman and Bankura. The Calcutta State Transport Corporation operates regular bus services between Calcutta on the one hand and the districts mentioned above, on the other, which pass through this district. A list of bus routes connecting different places within and outside the district is given in Appendix-B at the end of the chapter.

Railway was introduced in the district in 1862 when the sections, Calcutta-Sonarpur-Champahati and Calcutta-Ranaghat, were opened to traffic on 2 January and 29 September respectively. The former was constructed under the management of the Calcutta and the South Eastern Railway Company while the latter under the Eastern Bengal Railway Company. Next year the rail at Sonarpur was extended to Port Canning which was opened on 15 May 1863. The Calcutta-Port Canning line was in fact the first strip of railway to come under the State management in India, and this was necessitated soon after construction, chiefly by the low economic return

RAILWAYS

of the line while under company management. The Calcutta-Diamond Harbour line was opened to traffic in different stages, viz., the section from Sonarpur to Baruipur was opened on 10 June 1882, that from Baruipur to Magrahat on 18 December 1882 and that from Magrahat to Diamond Harbour on 25 April 1883. The section from Dam Dam junction to Bangaon was likewise opened in stages: the line from Dam Dam junction to Dattapukur was opened on 2 April 1883, that from Dattapukur to Gobardanga on 7 December 1883 and that from Gobardanga to Bangaon on 22 April 1884. The Ranaghat-Bongaon section and the Bandel-Naihati section were opened on 16 October 1882 and 15 March 1887 respectively. The Baliganj-Baj Baj section was commissioned on 1 May 1890 while the Baruipur-Lakshmikantapur section on 15 December 1928.

The district has at present a total of 313 km. of railways the detailed particulars of which along with the names of the railway stations in different sections now under the control and management of the Sealdah Division of the Eastern Railway are given in Appendix-C at the end of this chapter.

There were two non-government railways, namely, Barasat-Basirhat Light Railway and Kalighat-Phalta Railway. The railways were dismantled in 1955 and 1957 respectively.

New works costing Rs. 7.77 crores for increasing the capacity for running trains have been undertaken for the Sealdah-Bangaon Section in 1979-80. These include improvement in the junction arrangement at Dam Dam Jn., so that trains to and from Bongaon may have an easier passage through that busy station; (b) the doubling of the section between Dam Dam Jn. and Barasat, the busiest stretch on the Bangaon section, (c) facilities for simultaneous reception of trains at three stations—Bira, Asokenagar and Thakurnagar; (d) additional stabling line for E.M.U. rakes at Habra station to facilitate running of early morning trains and (e) installation of "Tokenless Block" system working between Habra and Bangaon to do away with the time consuming process of extracting, handing over and collection of tokens. The 'Tokenless Block' system is already in operation up to Habra.

The above works will generate sufficient capacity to meet the demands of the Bangaon section till the turn of the century, according to a survey conducted by West Bengal Government in February 1978. As a point of interest, in 1995-96, Bangaon section will have 1.78 lakh passengers a day of whom nearly 40,000 will travel to Calcutta during the two-hour morning peak. Currently, 1.2 lakh

passengers travel on the section daily, of whom 22,000 travel during morning peak.

Writing in 1875 W. W. Hunter in his Statistical Account of Bengal gives us detailed information about the canals or artificial water courses then in existence in the district of 24-Parganas. These may be described as follows:

Waterways,
Ferries etc.

(1) The Circular Road Canal from Baghbazar to the old toll house on the Salt Water Lake, 9.6 km. in length. It was commenced in 1829 and leads from the Hugli river by means of tidal gates, a little to the north of the old Marhatta Ditch at Chitpur.

(2) The New Canal from Ultadanga to the old toll house on the Salt Water Lake, 6.4 km. in length. O'Malley informs us that a channel was made from Ultadanga to Bamanghata in order to save the boats from the eastern districts from having to go from Baman-ghata to Dhapa through the congested Salt Lake Channel on entering the canal at Kulti the boats could proceed to Calcutta without further lockage. The new canal completed in 1910-11 took off from the New-Cut Canal near where the railway crossed it and alongside the Arathoon Mills and joined the Bamanghata-Kulti Canal. It passed round the Northern Salt Lake and facilitated drainage as well as navigation. He further writes that we had a system of natural channels connected by a few artificial canals in the district of 24-Parganas which carried the produce of Eastern Bengal and the Bramhaputra valley to Calcutta. The natural channels, mainly tidal creeks in Sundarbans, stretched eastward from the Hugli across the Ganges delta and afforded means of inter-communication between the rivers and estuaries. These channels were under the supervision and control of Government. Tolls were charged on vehicles when they entered the Circular Canal at Dhapa Lock, 8 km. east of the Hugli. Dhapa was connected with Calcutta by Beliaghata Canal and with the Northern suburb of Chitpur by the New Cut Circular Canal.

(3) The Beliaghata Canal from the old to the new toll house, (8.8 km.).

(4) The Kantatala Kata Khal, a continuation of the former Canal, (8.8 km.).

(5) The Bhangar Kata Khal, a continuation of the foregoing, (12 km.).

- (6) Ghipukur Kata Khal joins the Sealdah Khal with the Akhratala River, (1.6 km.).
- (7) The Bhwanipur Kata Khal joins Helencha with Gobragang, (1.6 km.).
- (8) The Sulkuni Kata Khal from the Gobra to the Hangara River, (2.5 km.).
- (9) The Dhansara or Husainabad Kata Khal, from the Hangara to the Jamuna River, (1.6 km.).
- (10) The Gobin Kata Khal or Wazirpur Kata Khal joins Kanksiali with the Guintiakhali.
- (11) The Sahib Khali joins the Banakulia with the Kalindi River.
- (12) The Naya Kata Khal from the Kumarkhali into the Bayra Lake, (3.2 km.).
- (13) The Bayra-bil Kata Khal, (3.2 km.).
- (14) The Satkhira Kata Khal joins Bayra-bil Khals with the Betna River, (9.6 km.).
- (15) The Dandia Kata Khal from the Kabadak to the Betna river, nevigable throughout the year up to Senerganti (a distance of 5 km.) and the entire course of 9.6 km. is navigable during the rains.
- (16) Tolly's Nullah extending from Khidirpur, about a mile south of Calcutta to Tardaha, for a length of 29 km., connects the Hugli with the Bidyadhari. The canal owes its origin to the pioneering work of Major Tolly who in 1777 canalised an old body of the Ganga from its confluence with the Hugli at Hastings, southward to Garia, a distance of 13 km. From this point the canal (named as Tolly's *Nullah* after him) was carried east to meet the Bidyadhari river at Samukpota and thus gave access to an inner route which leads eastwards from Canning. This channel was widened several times until it became a much frequented passage and the source of considerable revenue to Government.
- (17) Keorapukur Khal connecting Tolly's Nullah below the village of Tollygunge with the Magrakhal is 37 km. in length. It is not navigable through the entire course all the year round.
- (18) The Magra or Narayantala Khal passes by Bankipur and Jaynagar to the Diga Khal which connects it with the Piyali River.
- (19) The Charial Khal from Baj Baj to Joka (14.5 km.).
- (20) The Diamond Harbour canal from Thakurpukur to Kholakhali (37 km.).
- (21) The Ichhapur Khal runs from the Hugli at Ichhapur to Bartti-bil (8 km.) and is navigable throughout the year.

The present Sundarban regions, embracing fifteen police stations, namely, Haroa, Hasnabad, Hingalganj, Minakhan, Canning, Basanti, Sandeshkhali, Kultali, Jaynagar, Mathurapur, Pathar Pratima Gosaba, Kakdwip, Namkhana and Sagar, covers an area of 9629.09 sq. km. of which 4221.7 sq. km. are under forest. It is a recognised backward region crisscrossed by a network of rivers, creeks and islands.

The development of transport system was not also properly balanced—it was developed primarily keeping an eye to the administrative needs. While metalled roads have been developed upto Fraserganj and Bakkhali and while a railway line and a district highway connect Taki with Calcutta, the same connectivity is not enjoyed by a point on identical distance in Sandeshkhali-Gosaba region. The Sundarban region may be classified into three sub-regions, depending on the mode of its connectivity with Calcutta: (i) directly connected by bus or railway or both—Hasnabad, Haroa, Canning, Jaynagar and Mathurapur (upto Raidighi), (ii) indirectly well-connected by bus—Kakdwip, Namkhana, Sagar, Minakhan, Sandeshkhali (up to Nezat), Basanti and Kultali and (iii) without any connection by bus or rail—Hingalganj, Gosaba and Pathar Pratima.

The region covers an area of 2167.80 sq. km. having no other internal route than the waterways. Calcutta has also links with this region through waterway. The Hasnabad-Calcutta boat route follows Haroganj-Bhangar Canal-Tolly's Nullah-Bhangar Canal-lake canal-circular canal. The Canning-Calcutta boat route proceeds first through the Bidyadhari river and then by the circular canal of Tolly's Nullah (from Samukpota onwards). Besides, there is a steamer route which is directed through the Hugli river, Channel creek via Hatania-Doania to Saptamukhi, thence through Bahilla creek, Muranganj, Nukchara nadi, Wakinla Ganj, Thakuran, Kaikalmari, Cattleganj, Gosaba river, Harinbhanga river to Bangladesh. At present Bhangar Canal is used for draining purposes while Tolly's Nullah suffers from poor navigation due to siltation. Fate of the international river-route has been uncertain for some time.

The inland launch services in the Sundarbans commenced from four stations, namely, Hasnabad, Canning, Kakdwip and Raidighi in mid-forties. The most important stations are Hasnabad and Canning. The service was conducted on individual initiative, but it has now been taken over by the Launch Association. Detailed particulars of these routes are given in the following statement:

Canning is connected with Deulbari by one launch, Gabberia by

Communications
in the Sundar-
ban region

The Sea Faced
Region

Inland Water
Route Connec-
tion

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two, Gosaba by three and Chhotamollakhali by one a day. Gabberia is attended also by the service from Chhotamollakhali.

Leading Stations	Year of starting	No. of Launch routes	Major Attending Stations
Hasnabad	1951	6	Hingalganj, Kalinagar.
	1961	9	Gosaba, Hingalganj, Chhotamollakhali, Kalinagar, Sandeshkhali, Gabberia.
	1971	9	Chhotamollakhali, Gosaba, Satjelia, Gabberia, Sandeshkhali, Gumtia, Atapur, Kalinagar, Hingalganj.
Canning	1951	1	Golabari, Basanti, Gosaba.
	1961	7	Golabari, Basanti, Kultali, Deulbari, Gosaba, Chhotamollakhali.
	1971	7	-do- and Gabberia.
Kakdwip	1971	2	Pathar Pratima.

Services from Hasnabad to Chhotamollakhali, Gosaba, Satjelia, Gumtia and Atapur follow the course of Ichhamati river via Hingalganj.

Country boats mainly carry commodities. They also carry passengers. They are largely used for ferry services. At Canning ferry ghat about sixty boats are found almost every day to carry goods to the surrounding villages. Canning-Bhangankhali ferry crossing is done by launch. Hasnabad ferry on Katakhal is operated by boats. People of the Sundarbans have to depend on boats to a large extent for their travel. A list of ferries is given in Appendix-D at the end of this chapter.

A list of rivers and cross channels according to service-originating centres is given below:

Starting point	Destination	Rivers and cross channels
Kakdwip	Pathar Pratima	Kakdwip khal, Ghughudanga river, Gobodia river
Raidighi	Pathar Pratima	Raidighi nadi, Mridanga Bhang, Calcherra river
Raidighi	Kultali	Raidighi nadi, Mani river, Thakuran river, Nabinpukhur river

Rivers and Channels used for navigation

Starting point	Destination	Rivers and cross channels
Canning	Deulbari	Matla
-do-	Gosaba	Matla
-do-	Chhotamollakhali	Matla, Hana, Bidya, Durgamandap khal, Sukdoani khal
Hasnabad	Gosaba	Kata khal, Denti nadi
-do-	(via Kalinagar)	Chhoto Kalagachi, Rampur, Bidya
-do-	Sandeshkhali and Alapara	Kokakhal, Dasa
-do-	Chhotamollakhali (via Kalinagar)	Katakhal-Bidya, Durgamandap, Pusirjati nadi
-do-	Chhotamollakhali-Ichhamati (via Hingalganj)	Saheekhali, Raimangal river

In 1975-76, there were 3,444 registered boat licensees for Diamond Harbour and Sadar Subdivisions while in Barasat, Basirhat and Barakpur Subdivisions, such licensees numbered 2,300 (excluding 500 pending cases till September 1977).

The Dam Dam Airport had a very insignificant beginning when a primitive air-strip was constructed at Dam Dam in 1924. When the Civil Aviation Department of the Government of India was formed, it became one of the first three controlled aerodromes. Its main development, however, took place during the Second World War when the 6,000 feet long runway was constructed to meet the needs of the war. After the war, it opened the eastern gate of India for international flights. Subsequently, following partition of the country, it reached the peak of its importance in providing air-link to the north-eastern states of India, namely, Assam, Manipur, Tripura etc. With the introduction of jets in the world of civil

Transport by Air

aviation, this airport was blessed with two runways, 11,900 ft. and 7,700 ft. long with all the modern radio navigation aids and radars.

A new terminal building provides three nose in parking positions in addition to many other conventional parking stands, both for international and domestic flights. All types of popular wide-bodied air-crafts including B-747, DC-10, A-300 etc. operate through this airport.

Previously almost all the international airlines operated through it, but now only a few such, namely, the British Airways, Scandinavian Airlines System, the Union of Burma Airways, the Bangladesh Biman, the Air India, the Royal Nepal Airline Corpn., the Thai Airways International, Singapore Airways and the Aeroflot touch at this airport.

A nine-storied building provides accommodation for the Control Tower and other Air Traffic Control Units. Radio Navigation and Radar facilities with their transmitting stations are spread over different corners of Calcutta. The Meteorology Deptt., however, maintains an office, headed by a Director, in this building.

Air traffic control services, communication and radio navigation facilities and aircraft inspection fall under the jurisdiction of the Civil Aviation Deptt. and are looked after by three Directors under the over-all supervision of one Regional Director who also looks after all other aerodromes in the eastern region. The General Manager, International Airport Authority of India, looks after the interest of the passengers and terminal facilities at the airport. To meet the international requirements, the Customs Deptt., the Health Deptt., the Police (Immigration) Deptt., are also functioning at the airport.

The import consists principally of machinery and spares, chemicals, medicine and various miscellaneous articles while the chief exports are leather, garments, silk, musical goods, engineering goods, mica, meat and fish, handicraft, live-stock, opium, book, jute, tea, human skeleton etc.

The nature of the goods uplifted for various countries from this airport by different airlines is indicated below :

Air India : Watch cases, Resin solution, Electrical components, Transistors, Capacitor, Copper Beryllium, Surgical dressing, Human skeleton, Finished leather, Leather goods, Wood products, Fabricated mica, Musical instruments, Indian black tea, Silk fabric and costumes and stage accessories.

Bangladesh	:	Silk scarves, Surgical dressing, Surgical equipment,
Biman	:	Printed books, Bags, Carpets, Leather bag and spare accessories.
S.A.S.	:	Tea, Scarves, Leather goods and Mica.
British Airways	:	Gramophone records, Sterile solution, Garments, Strychnine salts, Rump units, Cock neck feathers, Sheep guts string, Ceiling fan and Emetine Hydrochloride.
UBA	:	Steel wire braid, Spare parts, Books, Fruits, Fish, Ice-cream and Thermocol.
RNAC	:	Cold storage equipments, Film and publicity materials.
Aeroflot	:	Handicraft, Woolen carpets and Finished leather.
Thai International	:	Mica, Jute fabrics, Scarves, Life orchid, Blades, Brass products and Silk garments.

The table at Appendix E gives relevant information about the flight routes of different airlines, while those at F, G and H about the passenger traffic, airline-wise statistics of export and import, nature of goods handled respectively during the year 1980-81.¹

The Bengal Flying Club was re-christened as the Flying Training Institute, Behala, from 8th August 1963, the date on which the management of the Club was taken over by the Government of West Bengal, in the Home Transport Department.

Flying Club

Since then this Institute, manned by the Flight Inspectors, Aero-Engineers and the contingent of mechanical staff mostly drawn from the ex-employees of the erstwhile Bengal Flying Club has been carrying on inspectional as well as hobby flying. This Institute imparts training in flying for conferring private pilot licences and the commercial pilot licences. Besides, cadets sponsored by the N.C.C. Authority and also hobby fliers undergo training here. It also imparts practical training for issue of A.M.E. About 25 trainees obtained A.M.E. licences till 1971.

The Institute has five Pushpak aircrafts and two Tiger Moth aircrafts. The Tiger Moth aircrafts are not in operation now owing to non-availability of spare parts in this country.

This Institute is housed in a hanger of Behala Civil Aerodrome which is also used for accommodation of the aircrafts and the workshop. The hanger is the property of Civil Aviation Department,

¹ Source : Regional Director, Calcutta Region, Civil Aviation Deptt., Govt. of India.
International Airport Authority of India.

Government of India which do not charge anything from the Institute.

It has got a workshop of its own where the maintenance of the Pushpak Aircrafts are undertaken by the Engineer in-charge being assisted by the contingent of 14 technical staff.

The expenditure incurred in imparting training to the trainees is mostly made by the Education Department of the State Government as well as the Central Government in the shape of flying charges of the N.C.C. trainees and subvention.

Other Means
of Transport

Trams were introduced in the Behala region from the year 1908, which operate ordinarily upto Esplanade. The management of the Calcutta Tramways were taken over by the Government of West Bengal on 19th July 1967 and the undertaking was nationalized in 1978. No rent is given to the South Suburban Municipality by the Calcutta Tramways. Recently, Behala has got connected to Ballyganj by tramways. At present (1977), only 16 tram cars are in operation in Behala region. Tram services have been extended from Behala to Joka on 31.12.'86.¹

Travel and
Tourist facilities

A list of Zilla Parishad bungalows is given below :

Name	Police Station	Location	Date of Establishment	Remarks
Amdanga	Amdanga	Near Amdanga Police Station	1918	—
Baduria	Baduria	Near Baduria Bazar	1918	Leased out in July 1976
Banshidharpur	Mandirbazar	On Baruipur-Bishnupur Road	1918	—
Bhangar	Bhangar	Near Bhangar Dispensary at the end of Lauhati-Bhangar PWD Road	1918	—
Diamond Harbour	Diamond Harbour	Near S.D.O's Bungalow	1959	—
Devalaya	Deganga	Near Devalaya Bazar, 46 km. from Raj Bhavan, Calcutta	1940	Now a dispensary
Phalta	Phalta	End of Dostipur-Falta Road	1915	—
Ganrapota	Bangaon	Bangaon-Bayra PWD Road near Ganrapota High School	1947	Let out to P.H. Engineering Directorate
Hasnabad	Hasnabad	Near Police Station	1917	—
Kakdwip	Kakdwip	On Kakdwip Steamer Ghat	1943	Leased out to PWD

¹ Source: Press and Public Relation Officer, Calcutta Tramways Company Limited.

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Name	Police Station	Location	Date of Establishment	Remarks
Mollahati	Bangaon	On Gopalnagar-Ganrapota Road, on Ichamati-90 km. from Raj Bhavan	1947	Closed
Magrahat	Magrahat	On Magrahat-Usthi PWD Road, in front of Magrahat High School	1918	—
Maslandapur	Habra	Near Maslandapur Railway Station, 56 km. from Raj Bhavan	1923	Dilapidated
Rajarhat	Rajarhat	On Dam Dam-Louhati PWD Road, 26 km. from Raj Bhavan	1912	—
Sanrapole	Swarupnagar	Sanrapole-Hakimpur PWD Road at the junction of Sangrampur-Gopalnagar PWD Road	1917	—

There is a Tourist Lodge named Sagarika at Diamond Harbour facing the Ganga, constructed in 1967. It is under the management and control of the West Bengal Tourism Development Corporation.

The tourist lodge at Bak-khali near Fraserganj, off Namkhana, constructed in 1972 and another (Sundar-Chital) at Sajnekhali Bird Sanctuary are maintained by the West Bengal Tourism Development Corporation.

Tourist Lodge
Sagarika
Diamond Harbour
Bak-khali and
Sajnekhali
Tourist Lodge

The District had two Postal Divisions, namely, the North Presidency Division with headquarters at Barakpur and the South Presidency Division with headquarters in Calcutta. Recently, the Barasat Postal Division has been created out of the North Presidency Division which also has its headquarters at Barakpur.

The North Presidency Division (including the Barasat Division) has three Head Post Offices, on each at Barakpur, Belgharia and Barasat. Since Independence 1 Head Office, 55 Sub-Offices and 145 Branch Offices have been opened in this Division.

There are five Postal Subdivisions under the South Presidency Division, namely, the Central Subdivision created at the headquarters, Canning Town Subdivision, Baruipur Subdivision, Jainagar-Majilpur Subdivision and Diamond Harbour Subdivision. It has 1 Head Office, 10 L.S.G. Offices, 30 Sub-Offices, 5 extra-

POSTS AND
TELEGRAPHS

N.B. Except Diamond Harbour Bungalow, none is electrified. Diamond Harbour Bungalow has 3 rooms, the rest 2 each. Rental for 2 rooms in each is Rs. 11/- for 24 hours or part. Diamond Harbour charges Rs. 10/- per room.

departmental sub-offices and 478 extra-departmental branch offices. Since Independence altogether 419 post offices have been opened in this postal division. There are 41 non-delivery sub-offices in the North Presidency Division (including Barasat Division) and 4 non-delivery sub-offices in the South Presidency Division. The following table shows the number of different kinds of post offices in the Divisions under different police stations.

Name of Postal Division	Name of Sub-Division/ Police Station	Name of Head Post Offices	No. of Sub-Offices	No. of Branch Offices
North Presidency Division (including Barasat Divn.)	BARAKPUR			
	Barakpur	Barakpur	4	—
	Titagar		6	3
	Noapara		9	—
	Jagaddal		10	7
	Naihati		3	4
	Bijpur		8	7
	Belgharia	Belgharia	12	—
	Khardah		16	7
	Dam Dam		3	3
	BARASAT			
	Barasat		6	18
	Habra		12	31
	Rajarhat		—	—
	Deganga		1	7
	Amdanga		1	5
	BANGAON			
	Bangaon		7	35
	Gaighata		4	13
	Bagdah		2	12
	ALIPUR SADAR			
	Bhangar		1	17
	BASIRHAT			
	Baduria		2	12

Name of Postal Division	Name of Sub-Division/ Police Station	Name of Head Post Offices	No. of Sub-Offices	No. of Branch Offices
South Presidency Division	CALCUTTA CITY			
	Kasba		1	—
	Beliaghata		—	1
	ALIPUR SADAR			
	Mahestala		2	21
	Behala		1	1
	Bhangar		—	4
	Jadabpur		5	—
	Sonarpur		6	14
	Baj Baj		4	21
	Baruipur	Baruipur	2	29
	Bishnupur		1	32
	Canning		1	21
	Basanti		1	18
	Jaynagar		2	35
	Kultali		—	16
	DIAMOND HARBOUR			
	Mathurapur		4	45
	Pathar Pratima		1	25
	Diamond Harbour		3	24
	Phalta		1	16
	Magra Hat		2	29
	Mandir Bazar		—	16
	Kulpi		3	29
	Kakdwip		1	19
	Nam Khana		1	15
	Sagar		2	22
	BASIRHAT			
	Gosaba		1	25

In the North Presidency Division there are 21 call offices attached to 21 Sub-Offices under Barakpur Head Office. There are 22 call offices attached to 16 Sub-Offices and 6 Branch Offices under Barasat Head Office and 23 call offices attached to 23 Sub-Offices under

Belgharia Head Office. In the South Preisdency Division 36 post offices work as public call offices.

Postal Em-
ployees' Union

There are 41 non-delivery sub-Offices in the North Presidency Division (including Barasat division) and 4 non-delivery sub-Offices in South Presidency Division. The table at the end of Chapter XIX shows the postal transaction undertaken in 1975-76.

In both the divisions there are the following employees' unions, namely, (1) All India National Union of Postal Employees' Class III, (2) All India National Union of Postal Employees' Postmen and Class IV, (3) All India National Employees' Union Class III, (4) All India Postal Employees' Union; Postmen and Class IV and (5) All India National Union of Extra-Departmental Employees.

PORT TRUST

The first River Trust for improving the port of Calcutta came into being under Act X (B.C.) of 1886. Under Act V of 1870, a permanent body for the port administration was constituted. The Port Commissioners under the Act so constituted controlled the navigation on the Hugli which passes along this district. The Government of Bengal made over conservancy of this river to the Port Commissioners in 1881 when dredging assumed much importance owing to the deterioration of the navigable channel. After Independence, this port became a busy centre for import and export of commodities. The following organisations of the Port Trust are located in this district:

Sagar Semaphore
Diamond Harbour Station (River Survey)
Hugli Point Station (River Survey and Hydraulic Study)
Mayapur Semaphore
Akra Semaphore
Baj Baj Station (Petroleum import)
Sagar Lighthouse
Falta Point Station.

APPENDIX A

LIST OF ROADS TAKEN UP FOR CONSTRUCTION DURING DIFFERENT FIVE-YEAR PLANS

Head of classification	Project and works	Length
State Highway	Diamond Harbour—Kakdwip	28 miles
	Kakdwip—Namkhana	9 "
	Dhap Dhapi—Dhap Dhapi R.S.	2 "
	Dosahat—Gocharan	6 "
	Thakurpukur—Bibirhat—	
	Bakhrhat—Raipur	13 "
	Sonarpur Rly. Station Road	2 "
	Milansangha Road	1.2 "
	Raghabpur—Bhebia	1.75 "
	Kulti Road Bridge-Bhangar Bazar	2 "
	Kulti Road—Khedah Hathkhola (Sainthala)	2 "
	Sonarpur—Langalberia	1 "
	Kriparampur—Srikrishnapur—	
	Gotalghata	3 "
	Boral—Rajpur Bazar	5 "
Bridges	Mayapur Road	1 "
	Bridge at Gaighata	170 rft.
	Bridge over Kakdwip khal with approaches	90 rft.
Improved Ferry arrangements	Extension of Canning Jetty	
Bus route	Dam Dam Gouripur—Nawhata	6.75 miles
Roads	Bangaon Station Road (Feeder Road)	3.271 ft.
	Namkhana—Amaraboti (Fraserganj)	12 miles
	Upgrading of Namkhana—Amaraboti (Fraserganj) Road	
	Hatuganj—Purbabishnupur	10 "
	Purbabishnupur—Raidighi	12 "
Major District Roads	Habra—Jirat	8.5 "
	Basirhat—Hasnabad	10 "
	Hasnabad—Hingalganj	10 "

APPENDIX A—Contd.

Major District Roads	Kholapota—Baduria—		
	Maslandapur—Habra	20	miles
	Bagdah—Sindrani	10	„
	Baruipur—Ramnagar—Uttarbhat—		
	Port Canning	15	„
	Tentulia—Maslandapur—		
	Nakphool	14.5	„
	Gobardanga—Gaighata		
	Dakshin Barasat—Magrahat—Usthi	15	„
	Upgrading of Magrahat—Usthi—		
	Section of Dakshin Barasat—		
	Magrahat—Usthi		
	Kachuberia—Gangasagar	16	„
	Belgharia—N.H. 35 via Birati	5	„
	Naihati—Jirat	8	„
	Garia Station Road	2	„
	Upgrading of Maslandapur—		
	Tentulia Section of Itina—Tentulia		
	—Maslandapur Nakphool Gobardanga—Gaighata Road		
	(up to a stage)		
	Diamond Harbour—Kakdwip Road		
	to Harwood Point	2	„
Other District Roads	Dakshin Barasat—Gorerhat—		
	Moyda Road with branch road		
	from Gorerhat to Khakurda hat	5	„
	Badu—Kharibari	5	„
	Bhebia—Murarisha—Taki	7	„
	Madhyamgram—Badu—Bamunmura	6	„
	(i) Chandnagar (Madhyamgram)—		
	Badu		
	(ii) Badu—Purba—Ichapur		
	(Bamunmura)		
	Widenning the crust of Basirhat—		
	Pipa—Raghabpur—Murarisha		
	Patipukur—Beliaghata Bridge	16	„
	Amdanga—Ramtara—Baduhat	9	„

APPENDIX A—Contd.

Other District Roads	Improvement of the road from		
	Champahati to Calcutta-Baruipur		
	Road via South Garia	5	miles
	Baguihati to N.H. 35	4	„
	Haroa—Ranigachi	6	„
	Lawhata to Bhangar Bazar	8	„
	Road connecting Kakdwip		
	Lawhata to Bhangar Bazar	8	„
	Kakdwip Jetty	$\frac{1}{2}$	„
	Gobardanga—Gopalpurhat		
	(via Panchpota)	10	„
	Gobra—Gobindapur—Swarupnagar	6	„
	Upgrading of Bhebia—Murarisha—		
	Section of Bhebia—Murarisha—Taki		
	Road		
	Upgrading of Murarisha—Kalinagar		
	—Sandeshkhali Road		
	Upgrading of Taki—Murarisha		
	Section of Bhebia—Murarisha—		
	Taki Road		
	Padmerhat—Magrahat	4	„
	Kantalberia—Fakirtakia to		
	Kalinagar—Sandeshkhali Road	18	„
	Bamungachi R. S.—Bamunmura	4	„
	Sonarhat—Birlapur	10	„
	Fakirtakia—Malancha—Minakhali		
	—Kulti	16	„
	Upgrading of Fakirtakia—Malancha		
	Section of Fakirtakia—Malancha		
	—Minakhali—Kulti Road with		
	links to Kanmarikhat		
	Upgrading of Kanthalberia—Fakirtakia to Kalinagar—Sandeshkhali		
	Bodra—Champahati		
	Improvement of Brahmapur Road		
	(Rishi Rajnarain Bose Road)		
	and Bansdroni Road		
	Surjapur—Dhasmua Road	5.5	„
	Jaynagar—Mayda—Dhosa Road		
	via Jiban Mandal Hat	11	„

APPENDIX A—*Contd.*

Other District Roads	Upgrading of Canning Herobhanga Road with a link to Tangrakhal College		
	Canning Herobhangahat with a link road to Tangra Khali College		
	Berachampa—Baduria	7	miles
	Upgrading of Berachampa—Baduria	7	„
	Arbelia R.S. to Arbelia—		
	Berachampa—Baduria Road		
	Bangaon—Jhaudanga—Panchpota		
	—Ramnagar—Gobra Ferry	12	„
	Jaynagar—Mollarchak—Jalaberia—		
	Kultala	12	„
	Upgrading of Ditto		
	Lawhata—Haroa	12	„
	Link from Ghoshpara—Jagulia		
	Road to Kalyani—Muragacha Road via Kanchrapara R.S. and Fishery Research Station	1	„
Village Road	(i) Golabari—Aminpur Section of Golabari—Aminpur Boalghat Road		
	(ii) Aminpur—Boalghat Section of Golabari—Aminpur Boalghat Road		
	Kheyadah—Hatkholā—Gangajhowara—Sonarpur Road with a link to Sonarpur Primary School	5	„
	Upgrading of Kheyadah—Hatkholā—Gangajhowara—Sonarpur Road		
	Gopalnagar—Chowberia—Ukhra	16	„
	Guma—Rajibpur—Balisha	6	„
	Kanthalberia—Basanti—Godkhali—Gosaba	16	„
	Upgrading of Ditto		
	Kasinagar—Raipur Ferryghat		
	Hingalganj—Dulduli—Hemnagar	20	„
	Nalua—Radhakantapur—Abad	5	„
	Construction of Punra—Katiahāt at Baduria—Nilganj—Santoshpur		

APPENDIX A—*Contd.*

Village Road	—Dattapur Road	8	miles
	Upgrading of Kasningar—Raipur Ferry Ghat Road		
	Upgrading of Bhebia—Chaital		
	Upgrading of Nilganj—Santoshpur		
	—Duttapukur Road		
	Upgrading of Gopalnagar—Chowberia—Ukhra Road		
	Upgrading of Punra—Katiahāt Road		
	Upgrading Prithiba—Beliaghata Bridge		
	Upgrading of Aminpur—Boalghat Road		
	Basanti—Herobhanga Road	6	„
	Bhebia—Chaital	4	„
	Guma—Prithiba—Beliaghata Road	10	„
	Upgrading of Guma—Rajibpur—Balisa		
	Maslandapur—Ghoshpur—Salua—		
	Charghat	4	„
	Habra—Ukhra (Upgrading)	8. 5	„
	Upgrading of Kheerdah—Hatkholā—Sonarpur Road		
	Chumphuli—Singerhat	4. 5	„
	Sandeshkhali—Dulduli	6	„
	Upgrading of Nalua—Radhakantapur—Abad		
	Shikara—Kulingram—Haroa	5	„
	Gaighata—Thakurnagar	3	„
	Chandpara—Thakurnagar R.S.	3	„
	Dhola—Nischintapur Road	5	„
	Chandpara—Jhaudanga	5. 5	„
	Habra—Simulpur Road (connecting Jessore Road with Kholapota—Baduria—Maslandapur—Habra Road)	6. 5	„
	Ratipur—Padmalavpur—Kankinara	8	„

APPENDIX A—*Contd.*

Village Road	Sikarpur—Kulti Canal Bridge over Diamond Harbour Canal on Diamond Harbour—Kakdwip Road Construction of R. C. Pile bridge over Kharikhal on Nalua—Radha- kantapur—Abad Road Construction of R. C. Pile bridges on Bishnupur—Beliaghata Road	7 miles
SDFR	Construction of link road from Uttarbhag—Canning Road to Taldi Rly. Stn. Construction of link road from Lakshmikantapur—Dhola Road to Immadipur Improvement of the Feeder Road from Nilganj—Dattapukur Road to Nibadhui Bazar with a link to Duttapukur H.C. Improvement of the Feeder Road connecting Kakdwip Bazar, Jetty and Thana Construction of the link road from the Naihati—Jeerat Road to the Municipal Road to the east of railway embankment near Naihati Railway Station Construction of a link road from Chandpara—Banarlis to Chandpara Rly. Station Improvement of the Sibpur Road Improvement of Road from Kanthalberia to Hatur Rly. Station Approach road to Rice Research Institute of Canning from Uttarbhag—Canning Road	

APPENDIX B

BUS ROUTES IN THE DISTRICT OF 24-PARGANAS

Route No.	Name of the Route
1	Netaji Subhas Dock—Palbazar (Jadabpur)
L1	Ramlalbazar (Haltu)—B.B.D. Bag
1A	Netaji Subhas Dock—Santoshpur (Jadabpur)
3	Shambazar—Serampore (Private bus)
3A	Kankurgachhi—Thakurpukur
L3C	Bangur Avenue—Esplanade
3C/1	Nager Bazer—Esplanade
3B	Belghachia (Milk Colony)—New Alipur
3D	Belgachhia (Milk Colony)—Behala (ODRC)
3D/1	Sakher Bazar—Belgachia (Milk Colony)
L3E	Amtala—Esplanade
4B	Baranagar—Esplanade
4C	Haridebpur—B.B.D. Bag
5	Garia—Howrah Stn. via Raja Subodh Mallik Road, Gariahat Road, Rash Behari Avenue etc.
6	Garia—Haora Station via Baishnabghata, Naktala, Deshpran Shashmal Road
6 (Special)	Garia—Haora Stn.
7	Hajra Park—Sarsuna
L7A	Sarsuna—Haora Stn.
L7B	Sarsuna—Nimtala Ghat
8B	Jadabpur—Haora Stn.
9	Jadabpur Railway Stn.—Ultadanga Stn.
L9	Golpark—Dunlop Bridge
9 (Shuttle)	Maniktala Bazar—Sechbhavan (Salt Lake)
9A (Shuttle)	Santoshpur—Gariahat
11	Belgharia—Haora Stn.
12	Scaldah—Badamtala via Khidirpur, B.N.R. Office, Garden Reach, Metiabruz
12A	Haora Stn.—Badamtala
12B	Esplanade—Akra Station
12C	Haora Stn.—Pailan via Khidirpur, Garden Reach Road, Hide Road, Taratala Road, Diamond Harbour Road
12D	Thakurpukur—Haora Stn.
12C/1	Behala Chowrasta—Dam Dam Park

APPENDIX B—*Contd.*

Route No.	Name of the Route
13	Parnashree—B. B. D. Bag
13A	S. M. Nagar Housing Estate—B. B. D. Bag
14	Bengal Chemical—Behala Bakrahat—Behala
L14A	Esplanade—Salt Lake
L14B	Sechbhavan—Esplanade
18	Sarsuna—Esplanade
18A	Dakghar—Haora Maidan
L19	Metiabruz—Esplanade
L20	Barakpur—Esplanade
L20A	Shyambazar—Barasat
L20B	Esplanade—Barasat
21	Barisha—Esplanade
23	Barasat—Goalghata
24A	Chowbhaga—Bandaghat
25 & 26	Dakshineswar—Champadanga
28	Amdanga (Barasat)—Habra
29	Amdanga (Barasat)—Belegghata
30	Esplanade (Babughat)—Madhyamgram
30B	Esplanade (Babughat)—Dam Dam Airport
30C	Hatiara—Esplanade (Babughat)
30D	Dam Dam Cantt.—Esplanade (Babughat)
32	Esplanade—Dakshineswar
34	Esplanade—Ariadaha
34B	Esplanade—Dunlop Bridge
34C	Esplanade—Barahanagar
40	Thakurpukur—B. B. D. Bag (Babughat)
40A	Nepalganj Hat—B. B. D. Bag (Babughat)
42	Park Circus—B.N.R. Office (Bichali Ghat)
42A	Park Circus—B.N.R. Office (via Khidirpur)
43	Esplanade—Banhugli (Barahanagar)
44	Baguihati—Haora Stn.
44A	Salt Lake—Haora Stn.
45	Dam Dam Airport—Padmasree
45A	Dam Dam Airport—Garia Stn.
46	Dam Dam Airport—Esplanade
46A	Salt Lake—Esplanade
47	Laketown—Dhakuria via Raja Dinendra Street, Gariahat Road, etc.

APPENDIX B—*Contd.*

Route No.	Name of the Route
47A	Laketown—Dhakuria via A.P.C. Road, Southern Avenue
47B	Laketown—Dhakuria via Kalindi Housing Estate
48	Ghatakpur—Sarberia Hat
72	Basirhat—Nazat
73	Habra—Naihati
74	Diamond Harbour—Hugli Point
75	Esplanade (Babughat)—Raipur
L75A	Behala Bazar—Bakrahat
76	Esplanade (Babughat)—Diamond Harbour
76A	Esplanade (Babughat)—Baj Baj
77	Esplanade—Achipur
77A	Esplanade—Birlapur
77B	Esplanade—Batanagar
78	Shambazar—Barakpur— Madhyamgram—Kharibari
78/1	Babughat—Raharabazar
78/A	Shambazar—Bangaon
78B	Shambazar—Ghola
78C	Esplanade (Babughat)—Belgharia Stn.
78E	Bangaon—Sodepur via Belgharia Stn.
78C/1	Dakshineswar—Jessore Road via Nimta, Birati Stn.
79	Shambazar—Itindaghat
79/1	Esplanade (Babughat)—Habra via Jessore Road
79A	Shambazar—Baduria
79B	Esplanade (Babughat)—Barasat
79C	Shambazar—Hasnabad
79D	Esplanade (Babughat)—Michael Nagar
80	Esplanade—Garia (Bapuli Bazar)
80A	Esplanade—Garia—Canning
80B	Esplanade—Garia (Harinabhi)
80C	Garia—Herobhanga
82	Maslandapur—Basirhat
83	Esplanade (Babughat)—Phalta
84	Sangrampur—Hatimpur

APPENDIX B—Contd.

Route No.	Name of the Route
84A	Sangrampur—Gopalpur
86	Barakpur—Kanchrapara
85	Barakpur—Haroa
87	Barasat—Jagulia
87A	Barasat—Naihati
88	Barasat—Kanchrapara
89	Diamond Harbour—Kakdwip
90	Shambazar—Birohi
91	Shambazar—Bhangar via Lauhati
91A	Shambazar—Haroa
L91D	Shambazar—Rajarhat
92	Bangaon—Boyra
92A	Bangaon—Sinorani ghat
93	Bangaon—Kharibari
94	Kakdwip—Namkhana
95	Barasat—Habra
96	Bangaon—Gobardanga
96D	Gobardanga—Gopalpur
96C	Bangaon—Bheri Gopalpur
97	Amtala—Ghatakpur
97A	Amtala—Ghatakpur via Piali
99	Diamond Harbour—Magrahat
99A	Diamond Harbour—Doshershat
201	Salt Lake—Belgharia
202	Topsia—Nagerbazar
203	Barahanagar—Esplanade
205	Bansdrone—B.B.D. Bag
206	Santoshpur—Babughat
209	Ramnagar—Dam Dam Park
212	Paler Bazar—B.B.D. Bag
245	Phatepur—Baj Baj
246	Diamond Harbour—Mallikpur via Dhukrijhara
Ladies Special	Garia—Haora Station (along route number '5')
	Garia—Haora Station (along route number '6')
	(Plies only one during office hours)
Special Services	S-5 Lake Town—B.B.D. Bag
	S-7 Garia—Haora Station
	S-8 Thakurpukur—Haora Station
	S-9 Dunlop Bridge—Gole Park

APPENDIX B—Contd.

Route No.	Name of the Route	
S-10	Dam Dam Airport—B.B.D. Bag	
S-11	Esplanade—Barakpur Court	
S-13	Santoshpur (Maheshtala)—Esplanade	
S-14	Salt Lake—Garia	
S-15	Dam Dam Airport—Dhakuria	
S-16	Salt Lake—Thakurpukur	
S-17	Chetla—Ariadaha	
	Gariahat—Narendrapur	
Calcutta—Namkhana	Calcutta—Sikarpur	Long-distance Bus-routes
Calcutta—Mallickpur	Calcutta—Domkal	
Calcutta—Kakdwip	Calcutta—Maldah	
Calcutta—Diamond Harbour	Calcutta—Kaliaganj	
Calcutta—Hasnabad	Calcutta—Ziaganj	
Calcutta—Basirhat Court	Calcutta—Siliguri	
Calcutta—Nazat	Calcutta—Jalpaiguri	
Calcutta—Baduria	Calcutta—Hili	
Calcutta—Habra	Calcutta—Balurghat	
Calcutta—Hakimpur	Calcutta (via Baharampur)— Rampurhat	
Calcutta—Hariharpara	Calcutta—Arambagh	
Calcutta—Bagda	Calcutta—Bishnupur	
Calcutta (Babughat)—Kalyani	Calcutta—Jayrambati	
Calcutta—Palasipara	Calcutta—Katoya	
Calcutta—Baharampur	Calcutta—Bardhaman	
Calcutta—Kanchrapara	Calcutta—Durgapur	
Calcutta—Kandi	Calcutta—Raiganj	
Calcutta—Karimpur		
Bagha Jatin—B.B.D. Bag	Dakshineswar—Babughat	Mini Buses
Dam Dam Airport—Babughat	Parnasree via Taratola— B.B.D. Bag	
Metiabruz—Haora	Parnasree via Banamali Naskar Road—B.B.D. Bag	
Behala Bakultala—B.B.D. Bag	Dunlop—B.B.D. Bag	
Behala Chowrasta—B.B.D. Bag	Sinthee More—Babughat	

APPENDIX B—Contd.

Baj Baj via Kalipur—	Ramgarh—B.B.D. Bag
Bandstand	Kudghat—B.B.D. Bag
Batanagar—Bandstand	
Laketown—B.B.D. Bag	
Salt Lake—Haora via	
B.B.D. Bag	Phulbagan—Karunamayee
Baguihati—B.B.D. Bag	Phulbagan—Chiriakhana
Santoshpur—B.B.D. Bag	Garia—B.B.D. Bag
Kasba (Rathtala)—B.B.D. Bag	Thakurpukur—B.B.D. Bag
Joka—Bandstand	
Banerjeehat—Milk Colony	
Garia—Salt Lake	Salt Lake—Chiriakhana
	Nagerbazar—B.B.D. Bag
	Dam Dam Park—Bhawani
	Bhawan
Sampa Mirzanagar Housing	
Estate—Milk Colony	Dunlop—Bhawani Bhawan

APPENDIX C

POLICE-STATIONWISE LIST OF RAILWAY STATIONS IN THE DISTRICT OF 24-PARGANAS

Section of Railway	Police Stations	Names of the Railway Stn.	Distance from Sealdah (in kms.)
Sealdah-Ranaghat Section (electrified on 29-11-1963)	Dam Dam	Dam Dam Junction	7
	Belgharia	Belgharia	12
	Khardah	Agarpara	14
	"	Sodepur	16
	"	Khardah	19
	Titagar	Titagar	21
	Barakpur	Barakpur	23
	Noapara	Palta	25
	"	Ichhapur	27
	Jagaddal	Shyamnagar	31
	"	Kankinara	36
	Naihati	Naihati Junction	38
	Bijpur	Halisahar	42
	"	Kanchrapara	46
	Dam Dam	Dam Dam Junction	7
Sealdah-Barasat-Bangaon Section (electrified on 29-11-1963)	"	Dam Dam Cantt.	10
	"	Durga Nagar	12
	"	Birati	14
	"	New Barakpur	17
	Khardah	Madhyamgram	18
	Barasat	Hridaypur	21
	"	Barasat	24
	"	Bamangachhi	27
	"	Duttapukur	30
	"	Bira	34
	Habra	Guma	38
	"	Ashoke Nagar Road	41
	"	Habra	
	"	Masalandapur	54
	"	Gobardanga	58
	Gaighata	Thakurnagar	63
	"	Chandpara	67

APPENDIX C—Contd.

Section of Railway	Police Stations	Names of the Railway Stn.	Distance from Sealdah (in kms.)
Sealdah-Dankuni Section (electrified on 23-2-1965)	Bangaon	Bangaon	77
	"	Petrapol	82
	Dam Dam	Dam Dam Junction	7
	Baranagar	Baranagar Road	12
	"	Dakshineswar	14
	Barasat	Barasat	23
	"	Karoa Kadamba Gachi	29
	"	Sondalia	35
	"	Beleghata Road	38
	Deganga	Bhasila	43
Barasat-Basirhat-Hasnabad Section	"	Kankra-Mirzanagar Halt	49
	Basirhat	Malatipur	54
	"	Champapukuria	58
	"	Bhyable Halt	
	"	Basirhat	65
	"	Madhyampur Halt	69
	Hasnabad	Taki Road	73
	"	Hasnabad	75
	Bangaon	Bangaon	77
	"	Gopalnagar	87
Bangaon-Ranaghat Section			
Naihati-Bandel Section (electrified on 14-6-1965)			Distance from Naihati (in kms.)
		Garifa	4
			Distance from Sealdah (in kms.)
Sealdah-Sonarapur-Canning Section (electrified on 22-10-1966)	Jadabpur	Dhakuria	7
	"	Jadabpur	8
	"	Bagha Jatin	10
	Sonarapur	Garia	11
	"	Sonarapur	17
	"	Radhikapur	23
	Baruipur	Champahati	24
	"	Piali	27

APPENDIX C—Contd.

Section of Railway	Police Stations	Names of the Railway Stn.	Distance from Sealdah (in kms.)
Sealdah-Baruipur-Lakshmikantapur Section (electrified on 17-7-1966)	Baruipur	Ghusharip	32
	"	Bet Beria Halt	35
	Canning	Taldi	39
	"	Canning	46
	Sonarapur	Sonarapur	17
	Sonarapur	Subhasgram	20
	Baruipur	Mallikpur	22
	"	Baruipur	25
	"	Sasan Road	28
	"	Dhap Dhapi	32
Sealdah-Baruipur-Diamond Harbour Section (electrified on 4-7-1966)	"	Suryapur	34
	"	Gocharan	36
	"	Hogla	38
	Jaynagar	Dakhin Barasat	42
	"	Baharu	45
	"	Jaynagar Majilpur	50
	Mathurapur	Mathurapur	54
	"	Madhabpur Halt	59
	Jaynagar	Lakshmikantapur	62
	Baruipur	Baruipur	25
Sealdah-Baj Baj Section (electrified on 15-12-1966)	"	Kalyanpur	28
	Magrahat	Hotar	32
	"	Dhamua	35
	"	Uttar Radhanagar	37
	"	Magrahat	40
	"	Sangrampur	45
	"	Deula	50
	Diamond Harbour	Netra	53
	"	Basul Danga	55
	"	Gurudas Nagar	57
Sealdah-Baj Baj Section (electrified on 15-12-1966)	Mahestala	Diamond Harbour	60
	"	Brace Bridge	14
	"	Santoshpur	17
	"	Akra	20
	"	Nungi	23
	Baj Baj	Baj Baj	26

APPENDIX D

APPENDIX D—Contd.

A LIST OF FERRIES MAINTAINED BY THE ZILLA PARISHAD,
24-PARGANAS IN 1977

Name of Ferry	Police Station	Across River	Annual Revenue (1977-78) Rs.
Akra ferry (inter-district)	Mahestala	Hugli	10,000
Badakuli ferry	Canning & Jaynagar	Piali	1,510
Bajitpur ferry (Basirhat)	Basirhat & Baduria	Ichhamati	650
Bajitpur ferry (Bangaon)	Bagdah	Goureswar	3,820
Balibamni ferry (Rainy Season)	Baruipur	—	30
Bermajur with subsidiary at Nezat Gazikhali ferry	Sandeshkhali	Chhota Kalagachia & Bidyadhari	5,205
Bhowanipur-Bhurkunda ferry	Hasnabad	Bhowanipur Kata khal	5,500
Bhulat with its subsidiaries ferry	Bangaon	Kodalia	130
Bisnur ferry	Hasnabad	Goureswar	1,560
Canning ferry	Canning	Matla	19,000
Charamadary ferry (inter-district)	Baj Baj	Hugli	22,000
Dhosakharampara ferry	Canning & Jaynagar	Piali	1,650
Gokulpur ferry	Swarupnagar Baduria	Ichhamati	65
Garankati ferry	Jaynagar	Piali	240
Itinda ferry	Basirhat	Ichhamati	25,000
Kakdwip-Kachubaria ferry	Kakdwip	Gangakata Channel creek	130
Kakdwip-Mud-point ferry	Kakdwip & Sagar	Muriganga	139
Kaligungle ferry	Sagar	Creek in Mud-point	230
Khoakhali ferry (inter-district)	Diamond Harbour	Hugli	—
Kuirabhanga ferry	Canning	Karatia	150

Name of Ferry	Police Station	Across River	Annual Revenue (1977-78)
Lakshminathpur ferry	Baduria	Ichhamati	2,850
Lot No. 111-112 ferry	Kakdwip	Ghughudanga & Saptamukhi	280
Lot No. 15 ferry (with subsidiary)	Kakdwip	Ghughudanga & Saptamukhi	810
Manirtat ferry	Jaynagar & Mathurapur	Manirtat khal	200
Meraganj-Baratala (with Pachukhali subsidiary)	Jaynagar	Piali	440
Manoharganj ferry	Diamond Harbour	Diamond Harbour creek	100
Mollahati ferry (with Morighata & Kanchikata subsidiary)	Bangaon	Kodalia	1,015
Ramchandrakhali ferry	Canning	Matla	57,125
Sandeshkhali ferry	Sandeshkhali	Rampur	4,960
Swarupnagar ferry	Swarupnagar	Ichhamati	2,150
Taragunia ferry (with Sikpara subsidiary)	Baduria	Ichhamati	2,330
Taranipur-Srinathpur ferry	Gaighata & Swarupnagar	Ichhamati	14,000
Tambuldaha-Canning ferry (with Koukhali subsidiary)	Canning	Matla	90
Taldi ferry	Canning	Bidyadhari (now abolished)	
Bhangar-Bibirhat ferry	Bhangar	Bhangar-Katakhali (being abolished)	
Karaidanga ferry	Bhangar	Bhangar-Katakhali	840
Bhojerhat subsidiary to Koraidanga	Bhangar	Bhangar-Katakhali	

APPENDIX E

FLIGHT ROUTES OF DIFFERENT AIRLINES
(1987)

Air India	Calcutta-Delhi-London-New York	Weekly 1 Flight
	Calcutta-Bombay-Dubai-London-New York	" 1 "
	Bombay-Calcutta-Bangkok-Hongkong-Tokyo	" 2 Flights
	Tokyo-Osaka-Hongkong-Bangkok-Calcutta-Bombay	" 1 Flight
	Paris-Frankfurt-Delhi-Calcutta	" 1 "
	London-Rome-Delhi-Bombay-Calcutta	" 1 "
Aeroflot	Moscow-Calcutta-Moscow	Weekly 1 Flight
Bangladesh Biman	Dhaka-Calcutta-Dhaka	Daily
	Chittagong-Calcutta-Chittagong	Weekly 3 Flights
Indian Airlines	Calcutta-Bangkok-Calcutta	Weekly 3 Flights
	Calcutta-Dhaka-Calcutta	Daily
	Calcutta-Chittagong-Calcutta	Weekly 3 Flights
	Calcutta-Kathmandu-Calcutta	" 5 "
	Calcutta-Port Blair-Calcutta	" 3 "
	Calcutta-Bhubaneswar-Nagpur-Bombay-Calcutta	" 3 "
	Calcutta-Bhubaneswar-Nagpur-Hyderabad	" 4 "
	Calcutta-Guwahati-Calcutta	Daily
	Calcutta-Dibrugarh-Calcutta	"
	Calcutta-Delhi-Calcutta	"
	Calcutta-Bombay-Calcutta	"
	Calcutta-Madras-Calcutta	"
	Calcutta-Ranchi-Patna-Lucknow-Delhi-Calcutta	"
	Calcutta-Vizag-Madras-Calcutta	Weekly 6 Flights
	Calcutta-Guwahati-Tezpur-Jorhat-Calcutta	Daily
	Calcutta-Agartala-Silchar-Calcutta	Weekly 4 Flights
	Calcutta-Hyderabad-Bangalore-Calcutta	Daily
	Calcutta-Silchar-Imphal-Calcutta	"
	Calcutta-Agartala-Calcutta	"
	Calcutta-Bagdogra-Calcutta	"
	Calcutta-Guwahati-Jorhat-Calcutta	"
	Calcutta-Kanpur-Ahmedabad-Bombay-Calcutta	Weekly 3 Flights
	Calcutta-Patna-Ahmedabad-Bombay-Calcutta	" 4 "
	Calcutta-Varanasi-Delhi-Calcutta	Daily
	Calcutta-Gorakhpur-Calcutta	Weekly 3 Flights
Royal Nepal Airlines	Kathmandu-Calcutta-Kathmandu	Weekly 2 Flights
Singapore Airlines	Singapore-Calcutta-Singapore	Weekly 2 Flights

APPENDIX E—Contd.

Thai International	Bangkok-Calcutta-Bangkok	Weekly 3 Flights
Vayudoot	Calcutta-Bhubaneswar-Calcutta	Weekly 6 Flights
	Calcutta-Malda-Balurghat-Calcutta	" 3 "
	Calcutta-Jamshedpur-Calcutta	" 3 "
	Calcutta-Jamshedpur-Patna-Calcutta	" 3 "
	Calcutta-Shillong-Guwahati-Silchar-Calcutta	Daily
	Calcutta-Imphal-Dimapur-Calcutta	Weekly 3 Flights
	Calcutta-Kochbihar-Calcutta	" 3 "
	Calcutta-Agartala-Kamarpur-Kailashar-Calcutta	" 3 "
	Calcutta-Rourkela-Ranchi-Calcutta	" 3 "
	Calcutta-Aizwal-Silchar-Calcutta	" 6 "
	Calcutta-Guwahati-Lilabari-Ziro-Daparizo-Calcutta	" 3 "
	Calcutta-Guwahati-Dibrugarh-Passighat-Along-Calcutta	" 3 "

APPENDIX F

PASSENGERS EMBARKED AND DISEMBARKED THROUGH CALCUTTA AIRPORT

Name of Airline	April '80		May		June		July		August	
	Arrival	Departure	Arrival	Departure	Arrival	Departure	Arrival	Departure	Arrival	Departure
Air India	1,328	1,472	1,286	1,739	1,394	1,453	1,111	289	1,121	1,698
British Airways	502	623	488	824	762	616	743	446	783	1,151
Thai Airways International	1,250	1,417	1,405	1,517	1,476	1,458	1,467	1,200	1,878	1,77
Scandinavian Airlines System	302	215	296	206	353	253	224	218	308	316
Aeroflot	225	258	210	192	160	222	319	205	210	263
Royal Nepal Airlines Corporation	430	63	588	745	883	387	266	42	30	158
Union of Burma Airways	335	300	269	145	236	151	198	103	307	231
Bangladesh Biman	1,841	1,966	1,618	1,739	1,519	2,115	1,483	1,544	1,669	1,43
Indian Airlines	47,217	46,093	50,439	53,176	51,237	57,979	42,610	43,559	36,408	38,654

DURING THE PERIOD FROM APRIL '80 to MARCH '81

September		October		November		December		January '81		February		March '81	
Arrival	Departure	Arrival	Departure	Arrival	Departure	Arrival	Departure	Arrival	Departure	Arrival	Departure	Arrival	Departure
1,073	1,477	1,529	1,062	1,409	1,276	1,008	1,223	925	1,172	1,075	1,125	1,218	1,275
754	1,109	1,212	804	1,042	981	1,056	916	1,215	1,072	1,147	1,085	1,051	1,014
1,290	1,314	1,527	1,410	1,656	1,115	1,286	1,355	1,310	1,378	1,423	1,363	1,230	1,655
460	337	229	262	603	235	525	289	423	251	354	281	327	253
234	180	425	315	241	152	208	176	197	173	202	184	350	192
550	—	170	—	129	—	182	58	297	—	247	202	264	273
234	118	430	595	395	320	480	376	490	528	365	257	410	382
1,270	1,722	1,653	1,720	1,798	1,814	1,750	1,918	1,798	1,731	1,602	1,660	1,930	1,837
40,351	47,464	46,061	45,028	49,128	48,376	49,395	48,918	42,952	43,559	44,163	43,491	44,889	45,014

APPENDIX G

AIRLINE-WISE STATISTICS OF EXPORT AND IMPORT CARGO
APRIL '80 TO MARCH '81

Name of Airline	Export		Import	
	Quantity (In tonnes)	Percentage	Quantity (In tonnes)	Percentage
Air India	1,490.08	28.88	710.47	51.79
British Airways	1,343.11	26.04	283.42	20.66
Indian Airlines	1,087.28	21.08	183.18	13.35
Thai Airways International	512.55	9.94	135.18	9.85
Bangladesh Biman	344.21	6.67	8.28	0.60
Scandinavian Airways System	114.18	2.21	25.06	1.83
Aeroflot	81.65	1.58	20.93	1.53
Union of Burma Airways	76.61	1.49	0.42	0.03
Royal Nepal Airlines Corpn.	57.90	1.12	4.26	0.31
Misc.	51.13	0.99	0.63	0.05
	<u>5,158.70</u>	<u>100.00</u>	<u>1,371.83</u>	<u>100.00</u>

APPENDIX H

NATURE OF CARGO HANDLED DURING THE PERIOD FROM
APRIL '80 TO MARCH '81

Name	Export		Name	Import	
	Quantity (In tonnes)	Percentage		Quantity (In tonnes)	Percentage
Leather	1,487.45	28.84	Spares & Machinery	621.82	45.33
Garments	748.11	14.50	Chemicals	48.11	3.51
Silk	387.66	7.51	Medicine	16.60	1.21
Musical instruments	196.91	3.82	Misc.	685.30	49.95
Engineering goods	164.00	3.18			
Mica	224.36	4.35			
Meat, fish and vegetables	74.80	1.45			
Handicraft	38.49	0.75			
Livestock	19.34	0.38			
Opium	11.83	0.23			
Precious Cargo	5.65	0.10			
Misc. (Book, jute, tea, human skeleton etc.)	1,347.62	26.12			
Others	447.48	8.77			
	<u>5,158.70</u>	<u>100.00</u>		<u>1,371.83</u>	<u>100.00</u>

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS

LEARNED
PROFESSIONS

Teachers

In 1961, there were 22,223 teachers in the district, of whom 18,660 were men and 3,563 women. 10,937 teachers (including 2,835 women) were employed in urban areas and 11,286 teachers (including 728 women) in rural areas. University teachers numbered 1,169 of whom 113 were women. The Secondary schools entertained 4,783 teachers including 978 women, of which those located in urban areas, had 3,046 teachers (including 892 women). Primary and Basic schools had by far the largest concentration of teachers, namely, 7,302 (including 1,006 women) of whom 1,949 (including 768 women) were in urban areas. Nursery and Kindergarten schools employed 582 teachers, of whom 204 were women. The rest were employed in *tols*, *madrassahs*, technical schools etc. The teachers have their respective associations for safeguarding and promoting their interests.

Doctors

In 1961, there were 6,272 doctors (including dentists) in the district of whom 6,156 were men and 116 women. 3,543 doctors (including 92 women) practised in urban areas and 2,729 doctors (including 24 women) in rural areas. Allopathic physicians numbered 1,470 (including 22 women), of whom 1,081 (including 21 women) practised in urban areas. Ayurvedic physicians totalled 1,187 (including 16 women), of whom 811 (including 7 women) practised in urban areas. Homoeopathic physicians numbered 906 (including 12 women), of whom 498 (including 11 women) practised in urban areas. Other physicians numbered 2,513 (including 65 women), of whom only 989 (including 52 women) were in urban areas. The doctors have their respective associations, like the Indian Medical Association for the allopaths, Indian Homoeopathic Medical Association for the homoeopaths, etc. to look after their interests.

Engineers

24-Parganas, being one of the most important industrial districts of West Bengal, absorbs a large number of engineers of all descriptions, mostly in urban areas. In 1961, there were 4,129 engineers, architects and surveyors in the district, of whom 74 were women. Civil engineers including overseers numbered 1,329 (including 10 women), of whom 1,257 (including 10 women) were in urban areas. A number of associations like the Institute of Engineers (India) looks after the interest of the profession.

Writers, artists,
musicians etc.

According to the 1961 Census, there were 2,588 writers, artists, musicians and related workers (including 400 women) in the district,

of whom 1,771 (including 200 women) lived in towns and the rest in villages.

According to the same Census, there were 1,688 legal practitioners (including 23 women) in the district, of whom 1,023 (including 5 women) lived in urban areas and the rest in villages.

Lawyers

According to the Census of 1961, the total number of persons engaged in the district as house-keepers, cooks, domestic servants, maids, etc. was 34,623, of whom 10,953 were females. In these days of high cost of living, it is difficult for most middle and lower middle class people to engage wholtime domestic servants or maids or cooks.

DOMESTIC AND
PERSONAL
SERVICES

Subject to means, people of these groups usually remain content with employing maid-servants on a part-time basis, their wages in the urban areas in the first half of 1977, ranging between Rs. 20 and Rs. 30 per month without food, but with such perquisites as a piece of *sari* on the occasion of Durga Puja festival. It is the high income groups which can afford to have wholtime servants or cooks, the latter being mostly women whose wages vary between Rs. 40 and Rs. 50 per month. Male servants prefer to work in various establishments as cooks, butlers, bearers, waitors and the like.

Domestic
services

The barber has had an important place in Hindu society because of the services rendered by him in connection with religious ceremonies and rituals like *upanayan*, marriage, *sradh* and the like. But the traditional ties that once bound him with the rest of the community are fast loosening and the relationship is becoming more and more formal. During the Census of 1961, 6,675 persons (including 25 women) were enumerated as barbers, hairdressers, beauticians and related workers. Their charges varied from rural to urban areas as also from pavements to hair-cutting 'saloons'. The usual charge of a pavement barber in the first half of 1977 was between 20 and 25 paise for a shave and between 60 and 75 paise for a haircut, the corresponding rates in 'saloons' being 25 paise and between 75 paise and Re. 1 respectively. The barbers employed in 'saloons' receive wages usually on income-sharing basis at the rate of 50 to 60 per cent of their daily earnings, the establishment charge and other incidental charges being borne by the employer or between Rs. 5 and Rs. 6 per diem, depending upon their efficiency and experience. They have associations in most of the urban areas in the district.

Barbers

Tailors

The Census of 1961 put the total number of tailors, cutters, furriers and related workers in the district at 32,557, of whom 2,409 were women. Though they are spread all over the district, they are mostly to be found in urban areas, the number being 20,915 including 990 women. Tailoring has become a specialised art in urban areas, catering for modern fashions of both sexes. Tailoring charges differ according to the quality of the materials as also of the work, the prevailing rate for making a cotton full-shirt or a *punjabi* was between Rs. 6 and Rs. 8, a children's frock between Rs. 4 and Rs. 9, a woman's blouse Rs. 3 and a *pyjama* Rs. 2.50. The charge for making a terrycotton shirt varied between Rs. 10 and Rs. 12 and that of a terrycotton pant between Rs. 25 and Rs. 30.

Washerman

In the 1961 Census, 4,317 persons in the district were enumerated as launderers, cleaners, pressers, washermen, *dhobis*, etc. of whom 332 were women. Their usual charges for washing *dhotis*, *saris*, shirts and *punjabis* were 25 to 35 paise per piece, silk clothings Rs. 3 per piece, terrycotton shirts Re. 1 per piece, terrycotton pants Re. 1 to Rs. 1.50 per piece and warm clothings Rs. 3 to Rs. 5 per piece. Double the above rates were usually charged for all urgent washing. For bulk washing the charge is Rs. 25 to Rs. 30 per hundred cotton articles.

Carpenters,
masons, etc.

There were 15,000 carpenters and allied workers (including 58 women) in the district in 1961. The wage of a carpenter is usually Rs. 10 to Rs. 12 per day. Bricklayers, masons and plasterers numbered 16,001 (including 1,155 women) in the same year. The daily wage of a mason varied between Rs. 10 and Rs. 12 and of helper between Rs. 6 and Rs. 8. During the same year, there were 6,810 cleaners, sweepers and watermen (including 1,318 women) in the district, of whom 5,982 persons (including 1,180 women) lived in urban areas. The watermen supplying water in tin cans to hotels and restaurants charged between 20 and 25 paise per pair of cans.

CHAPTER IX

ECONOMIC TRENDS

LIVELIHOOD
PATTERN

The Census of 1971 divides the general population of the district into two broad categories of workers and non-workers, of which the former comprises the following livelihood classes: (i) Cultivator, (ii) Agricultural labourer, (iii) Livestock, forestry, fishing, hunting and plantations, orchards and allied activities, (iv) Mining and quarrying, (v) Manufacturing, processing, servicing and repairs: (a) Household industry and (b) Other than household industries; (vi) Construction, (vii) Trade and Commerce, (viii) Transport, storage and communications and (ix) Other services.

The distribution of the total population of the district according to the above Classification is given in the table below:

COMPOSITION OF LIVELIHOOD CLASSES IN THE 24-PARGANAS DISTRICT IN 1971¹

Category No.	Description	Persons	Number of Males	Females
	Total no. of persons enumerated	84,49,482	44,88,441	39,61,041
I-IX	Total Workers	21,85,539	21,13,049	72,490
I	Cultivators	5,31,699	5,24,887	6,812
II	Agricultural labourers	6,04,206	5,89,700	14,506
III	Livestock, forestry, fishing, hunting, etc.	23,657	23,003	654
IV	Mining and quarrying	322	296	26
V	Manufacturing, processing, servicing and repairs:			
	(a) Household industry	51,127	48,433	2,694
	(b) Other than household industry	4,31,969	4,19,204	12,765
VI	Construction	21,027	20,547	480
VII	Trade and Commerce	1,77,700	1,73,942	3,758
VIII	Transport, storage & communications	86,212	84,508	1,704
IX	Other services	2,57,620	2,23,529	29,001
	Non-workers	62,63,943	23,75,392	38,88,551

¹ For 'Livelihood Pattern, 1981', see Addenda after Chapter XIX.

The following statement gives the percentages of workers with their sex-wise break-up in the district during the years 1961 and 1971, specifying their proportion under rural and urban categories.

PERCENTAGES OF WORKERS IN THE 24-PARGANAS DISTRICT
IN 1961 AND 1971

		Total	Rural	Urban
Persons	1961	29.35	28.56	31.04
	1971	27.91	27.19	30.12
Males	1961	52.22	52.58	51.51
	1971	48.83	48.48	49.80
Females	1961	2.94	2.80	3.26
	1971	4.43	4.58	3.92

The table below indicates the percentages of cultivators, agricultural labourers and other workers to the total workers of the district during the years 1961 and 1971.

		Persons	Males	Females
Cultivators	1961	31.40	32.10	17.60
	1971	31.97	33.58	12.12
Agricultural labourers	1961	17.60	18.00	11.70
	1971	26.46	25.00	44.50
Other workers	1961	51.00	49.90	70.70
	1971	41.57	41.42	43.38

As will be evident from the above table, the number of people subsisting on agricultural operations increased by 9.43% during the decade, 1961-71. In 1961, the number of agricultural workers in the district was 9,04,247, cultivators and share-croppers being 5,78,859 and agricultural labourers 3,25,388. The corresponding

number in 1971 was 11,35,905, of which 5,31,699 were cultivators and 6,04,206 agricultural labourers. Thus, during the decade, 1961-71, there was a decrease of about 8% in the category of cultivators and an increase of 85% in that of agricultural labourers. This disproportionate growth in the ranks of agricultural labourers, as against the normal increase in the district population, is very significant indeed.

Relevant statistics of the prices of rice which forms the staple food-crop of the district, prevailing in January and September of the quinquennial periods, 1868-1948, has been given below.

General level of prices

PRICES OF COMMON RICE DURING THE QUINQUENNIAL
PERIODS FROM 1868 TO 1948 IN THE
DISTRICT OF 24-PARGANAS

Year	(Prices in seers* per rupee)			
	January		September	
	Sr.	Ch.	Sr.	Ch.
1868	22½	0	18	0
1873	17	1	18	13
1878	12	4	8	4
1883	17	8	14	4
1888	18	0	16	8
1893	12	0	10	12
1898	11	8	11	4
1903	11	4	10	8
1908	7	4	6	4
1913	8	0	6	8
1918	10	10	8	0
1923	6	4	6	3
1928	5	14	5	10
1933	13	4	12	12
1938	14	9	12	5
1943	3	0	1	9
1948	2	7	2	7

As will be evident from the table, there has been a general upward trend in the movement of the prices of rice since the latter

* 1 Seer = 0.933 Kilogram.

half of the 19th century, when such phenomena as the opening of railways, frequent flood or failure of monsoons, heavy export, depreciation of the currency and lastly, stock-holding in the face of rising prices, specially during famines, exerted tremendous upward thrusts on prices.

The fall in rice prices during the decade 1930-39 was due to world-wide economic depression of the thirties; but with the declaration of the Second World War in 1939, prices began to rise again reaching a climax in 1943-44 when a famine, the severest in recent memory, had already broken out in Bengal.

The rise in the price of rice in January 1944 was to the extent of about 600 per cent over that prevailing in the corresponding month in 1939.

This unprecedented situation necessitated stringent Government control over procurement and distribution of foodgrains, etc., besides several other measures adopted in 1942.¹ District reserves of rice and paddy, equivalent to two months' off-take were created to serve as buffer stocks for stabilising prices.² Statutory rationing in rice, wheat, wheat-products, sugar etc. in sixteen urban areas and modified rationing in other deficit areas of the district came into effect from 1 May 1944. As a result, prices remained almost stationary during 1947-49 (after a slight fall in the year 1945-46), but started rising again from the end of 1950. However, special emphasis placed on agriculture in the First Five-Year Plan eased the situation and consecutive good harvests warranted the withdrawal of rationing from the districts in June 1954. The average prices per maund of fine, medium and coarse varieties of rice in Barasat wholesale market were Rs. 17.69, Rs. 16.59 and Rs. 15.69 respectively in 1954. But, in the following years foodgrains production could not cope with the rising demand. Recurring floods in different districts of the State, general growth in population, urbanization and above all the expansion of monetary demand resulting from the budgetary operations of the Central and State Governments aggravated the situation. The average prices per quintal ruling in 1962 were Rs. 61.78, Rs. 67.69 and Rs. 70.60 for coarse, medium and fine varieties of rice respectively in the Barasat wholesale market. This necessitated the reimposition of price-control with effect from 8 January 1964, reintroduction of statutory rationing in eighteen urban areas of the district from 5 January 1965 and the enforcement of various restrictive measures on the storage, movement and consumption of food-

¹ Cf. Bengal Foodgrains Control Order, 1942.

² *Manual of Distribution of Civil Supplies in Districts (Part I)*, p. 42.

grains etc. The maximum wholesale prices per quintal of common, fine and superfine varieties of rice were fixed at Rs. 66.55, Rs. 72.35 and Rs. 78.33 and the corresponding retail prices at Rs. 69.00, Rs. 75.00 and Rs. 81.00 respectively. Compulsory levy of paddy and rice at controlled prices was imposed on producers with effect from 1 December 1965. The retail prices of different varieties of rice ruling at ration shops in the last quarter of 1966 varied from 0.72 paise to Rs. 1.20 paise per kilogram. But the spiralling of price continued unabated and ten years hence in the last quarter of 1976, the price of fine variety of rice ruling at ration shops was 1.72 per kilogram, while the corresponding prices per kilogram in different *hats* of rural areas of the district were, in the middle of February 1977, as follows: Amtala Rs. 2.60, Barasat Rs. 2.70, Bangaon Rs. 2.55, Canning Rs. 2.30, Diamond Harbour Rs. 2.55, Kakdwip Rs. 2.50.¹

The following table indicating, prices of various agricultural produce during the agronomically significant months of January and September of 1966, 1971 and 1975 reflects the extent of spurt in prices during the said decade.

WHOLESALE PRICES OF SELECTED AGRICULTURAL PRODUCE IN SOME IMPORTANT MARKETS OF 24-PARGANAS DISTRICT²

		(Prices per quintal in rupees)					
Commodity	Market	1966		1971		1975	
		Jan.	Sept.	Jan.	Sept.	Jan.	Sept.
Paddy (fine)	Kakdwip	—	—	77.69	109.92	136.00	154.75
"	Kalinagar	—	—	83.62	107.45	115.25	187.50
Rice (fine)	Kakdwip	101.71	186.87	130.24	172.80	212.50	282.50
"	Canning	—	—	146.20	159.25	226.25	290.00
"	Diamond Harbour	—	—	151.60	185.00	250.50	374.25
"	Bangaon	—	—	146.40	193.75	257.50	301.25
" (common)	Basirhat	—	—	116.00	166.25	238.75	275.00
" (fine)	Basirhat	—	—	152.00	171.25	248.75	292.50
" (common)	Maliahat	140.92	209.87	157.33	158.62	—	—
" (fine)	Maliahat	157.20	221.63	158.34	—	240.00	296.25

¹ *Bhumi Lakshmi*, dated 14 February, 1977, p. 1.

² Source: District Agricultural Marketing Officer, 24-Parganas.

Rural wages

Writing in 1914, O'Malley reports that in the *abads* or reclaimed portions of the Sundarbans, the reapers either received wages in cash at the rate of Rs. 7.50 a month with two meals a day, or in kind, being given one or more bundles of paddy for every 20 bundles they cut; eight or ten of these bundles yielded 2.5 seers of paddy. These reapers, called *daulias*, migrated to the Sundarbans for the rice harvest and returned to their homes when it was reaped.

In 1959, the State Government for the first time fixed minimum agricultural wages in terms of the Minimum Wages Act of 1949, the daily rates (without meals) being Rs. 1.50 to Rs. 1.87 for adult males, Rs. 1.37 to Rs. 1.75 for females and Re. 0.87 to Rs. 1.12 for children in the zones of A, B and C respectively.¹

The respective daily rates revised in December 1968 were Rs. 3.54, Rs. 3.00 and Rs. 3.05 for males; Rs. 3.27, Rs. 2.78 and Rs. 2.78 for females and Rs. 2.02, Rs. 1.74 and Rs. 1.77 for children in the aforesaid zones. The minimum monthly rates with two meals and accommodation were also fixed in the aforesaid zones at Rs. 46.00, Rs. 37.00 and Rs. 37.00 for males, Rs. 46.00, Rs. 37.00 and Rs. 37.00 for females and Rs. 26.00, Rs. 20.00 and Rs. 19.00 for children.²

The findings of a survey by the Labour Department of the Government of West Bengal conducted in 1972 disclosed that even at the peak of agricultural season the actual wage (including computed value of fringe benefits) fell substantially short of the minimum rates of wages notified by the Government and that during the slack season their wages fell below the minimum by more than 50 per cent.³

Another inquiry conducted by the same department into the conditions of the agricultural workers of 24-Parganas (South) besides several other districts namely, Birbhum, Nadiya, Maldah and Jalpaiguri makes certain startling revelations.⁴ The average size of an agricultural labourer's family in the places surveyed in 24-Parganas (South) is 5.40 while the average number of earners per family is 1.20 and the average number of dependents per family is 4.20. The average number of working days during the year is 132,

¹ *Labour Gazette*, Calcutta, February 1960, p. 162, Zone A compares the Sadar Subdivision (excepting the police stations of Jaynagar, Canning, Bhangar and Bishnupur), Zone B the Subdivisions of Diamond Harbour, Basirhat, Barasat and Bangaon and Zone C the police stations of Jaynagar, Canning, Bhangar and Bishnupur of the Sadar Subdivision.

² *Labour in West Bengal*, 1973, Government of West Bengal, Calcutta, 1973, p. 241.

³ *Ibid.*, p. 239.

⁴ *Ibid.*, pp. 240-45.

average annual earnings per earner Rs. 410.52 and average annual earnings per member of the family Rs. 91.22. The average earnings per worker per working day from agricultural and non-agricultural pursuits total Rs. 3.11, which works out to an average earning of 25 paise per member of the family per day (calculated on 365 days in a year). It may be mentioned that the Planning Commission has estimated the poverty line at Rs. 20 per month for the year 1961-62. This comes to Rs. 37.20 for the year 1971-72. Expressed in terms of percentage, the earnings per member of the family fell 79.84 per cent below the poverty line.¹

Relevant information about the average daily earnings of different categories of agricultural labourers during the years 1961, 1966, 1971 and 1974 has been given below.

STATEMENT SHOWING RATES OF WAGES OF AGRICULTURAL LABOURERS OF 24-PARGANAS DISTRICT, DURING 1961-74
(in Rupees and paise)

Year	Field Labourers			Herdsman			Other Agril. Lab.		
	Men	Women	Children	Men	Women	Children	Men	Women	Children
1961	1.69	1.22	0.98	1.66	1.25	0.95	1.36	0.94	0.83
1966	2.87	2.01	1.58	2.56	2.18	N.A.	2.38	1.89	1.25
1971	2.89	2.12	1.90	2.46	2.25	1.46	2.68	2.00	2.00
1974	4.08	3.04	2.55	3.40	N.A.	2.65	3.53	2.58	2.17

The spiralling of prices after 1956 resulted in the progressive rise in the general cost of living for all income groups, as will be evident from the table in page 354 which gives relevant information during the period 1956-71.²

It is not possible to give an idea of the family budgets of the well-to-do, the middle and the lower income groups throughout the district as sufficient information is lacking. But the table in page 355 prepared by the Bureau of Applied Economics & Statistics, Government of West Bengal and giving monthly expenditure figures on various counts at Barakpur will indicate the trend of family budgets of different income groups during the period 1950-51 to 1966-67.

¹ *Ibid.*, p. 244.

² Source: Bureau of Applied Economics and Statistics, Government of West Bengal.

CONSUMER PRICE INDEX NUMBERS
(Base: November 1950=100)

Items of consumption	Month & Year		Monthly expenditure levels (in Rs.)				
			1-100	101-200	201-350	351-700	701 & above
Food	February	1956	81.80	81.00	80.30	80.60	79.80
	October	1956	100.60	97.70	97.00	96.60	95.60
	February	1961	100.20	98.50	97.10	98.00	97.60
	October	1961	112.60	110.20	109.20	108.50	109.20
	February	1966	145.00	143.30	142.00	144.70	144.60
	October	1966	156.20	155.60	154.90	157.90	160.80
	February	1971	205.20	201.30	198.00	200.70	199.10
	October	1971	228.80	225.20	221.70	221.60	223.00
All combined	February	1956	87.40	88.00	88.80	91.40	92.40
	October	1956	101.20	99.20	99.10	99.70	99.50
	February	1961	104.20	103.50	104.00	106.90	108.10
	October	1961	113.80	111.90	112.30	113.30	115.00
	February	1966	142.20	142.20	141.10	143.40	145.10
	October	1966	150.80	149.80	149.40	150.40	152.70
	February	1971	192.90	187.90	184.50	183.50	183.50
	October	1971	212.20	205.50	200.70	196.30	197.00

PERCENTAGE EXPENDITURE ON DIFFERENT GROUPS OF ITEMS OF CONSUMPTION BY DIFFERENT EXPENDITURE LEVELS

Centre: Barakpur

Groups of items of consumption	Average of years	Monthly expenditure levels (in Rs.)				
		1-100	101-200	201-350	351-700	701 & above
Food	1950-51	67.48	61.34	56.56	47.06	38.96
	1955-56	66.33	60.52	55.11	47.23	39.12
	1960-61	64.02	64.33	55.23	51.71	42.37
	1966-67	69.04	66.12	62.54	54.50	48.06
Clothing	1950-51	6.80	5.57	5.47	5.13	4.77
	1955-56	7.26	7.15	7.65	7.91	7.80
	1960-61	8.14	8.44	8.16	8.96	5.10
	1966-67	5.75	7.47	7.23	7.11	7.34
Fuel & light	1950-51	6.81	7.64	3.84	3.10	3.73
	1955-56	6.21	5.03	3.55	4.62	3.70
	1960-61	6.79	5.29	4.95	3.87	3.84
	1966-67	7.79	4.94	4.57	4.71	4.36
Housing	1950-51	4.61	5.80	5.50	3.57	5.70
	1955-56	5.35	5.65	4.84	7.75	7.30
	1960-61	8.13	5.34	9.01	5.99	20.12
	1966-67	5.11	4.88	4.24	7.76	6.61
Miscellaneous	1950-51	14.30	19.15	28.63	41.14	46.84
	1955-56	14.85	21.65	28.85	32.49	42.08
	1960-61	12.92	16.60	22.65	29.47	28.57
	1966-67	12.31	16.59	21.42	25.92	33.63
Total	1950-51	100.00	100.00	100.00	100.00	100.00
	1955-56	100.00	100.00	100.00	100.00	100.00
	1960-61	100.00	100.00	100.00	100.00	100.00
	1966-67	100.00	100.00	100.00	100.00	100.00

Besides the Sub-Regional Employment Exchange, Barakpur, which started functioning in July 1947, the district has four employment exchanges styled as District Employment Exchanges, Dam

Employment
Exchanges

Dam, Diamond Harbour, Baj Baj and Basirhat which were opened on 21 March 1966, 4 March 1974, 30 March 1974 and 9 February 1974 respectively. It has also two Employment Information and Assistance Bureau at Rajarhat and Bishnupur functioning under the overall jurisdiction of District Employment Exchange, Dam Dam and Subdivisional Exchange, Khidirpur respectively.

The following table covering the four Exchanges at Barakpur, Dam Dam, Diamond Harbour and Baj Baj and showing figures of registrations, placements, vacancies notified and live register at the close of each year during 1975 will convey an idea of the magnitude of unemployment in the district and efforts of these units to relieve it. As the professional and executive types of applicants such as, doctors, engineers and persons with post-graduate qualifications are registered in Calcutta, their figures are not available with these exchanges.

Year	No. of registrations	Vacancies notified	No. of placement	Live Register at the end of December
Sub-Regional Employment Exchange: Barakpur				
1975	22,850	1,110	287	1,18,708
District Employment Exchange: Dam Dam				
1975	24,964	650	53	1,33,241
District Employment Exchange: Diamond Harbour				
1975	9,321	210	48	29,563
District Employment Exchange: Baj Baj				
1975	6,024	80	14	24,862

The sex-wise break-up of the total applicants as given below, reveals the overwhelming preponderance of male over female among the job-seekers.

SEX-WISE DISTRIBUTION OF JOB-SEEKERS IN 1975

Exchanges	Males	Females	Total
Barakpur	1,09,602	9,106	1,18,708
Dam Dam	1,09,045	24,196	1,33,241
Diamond Harbour	27,718	1,845	29,563
Baj Baj	23,688	1,174	24,862
Total	2,70,053	36,321	3,06,374

The employment exchanges are experiencing shortage of fast and accurate stenographers, supervisors: technical, grade-II (scheduled caste/tribe), upholsters (scheduled tribe), electricians (scheduled caste/tribe), heat-treaters, boiler attendants, diesel engine drivers, diesel engine generator operators, electric generator operators, printing masters (cotton), weaving assistants (cotton), art silk weavers, registered pharmacists, plumbers (Higher Secondary passed), trained masons, galvanisers (Higher Secondary passed), continental cook, poultry man, telephone operators (scheduled tribe), capstan operators, fork-lift drivers, experienced ferro-printers, winders and ward operators.

The exchanges report excess supply of unskilled workers, freshers from schools and colleges, sheet-metal workers, riveters, carpenters, dock crews, engine crews, tailors, platers, markers and motor mechanics.

To relieve congestion in crowded occupations the exchanges notify these cases to other exchanges where vacancies are likely to exist through what is known as the Labour and Vacancy Clearing Processes giving limited and unlimited circulation and also provide vocational guidance to candidates by advising them to equip themselves for absorption in shortage occupations. With the same end in view the Employment Market Information Units attached with the District Employment Exchange, Dam Dam and Sub-Regional Employment Exchange, Barakpur collect various information on the employment pattern in the public and private establishments employing 25 persons or more through Statutory Quarterly Employment and Biennial Occupational-cum-Employment Returns under the Employment Exchanges Compulsory Notification of Vacancies Act, 1959.

Within the framework of the Five-Year Plans, the Community Development Programme aiming at ameliorating the socio-economic condition of the rural people was first launched in the district in October 1952 with the inauguration of the Baruipur and Habra-I development blocks. The programme now covers the entire district with 51 blocks, the particulars of which are given in the table below:

COMMUNITY DEVELOPMENT

Name of Subdivision	Name of Block	Date of inauguration	Present stage
Sadar	Baruipur	2 October 1952	Post-stage II
	Basanti	1 April 1962	Stage II

Name of Subdivision	Name of Block	Date of inauguration	Present stage
Barasat	Bhangar I	1 April 1958	Post-stage II
	Bhangar II	1 April 1958	Post-stage II
	Bishnupur I	2 October 1959	"
	Bishnupur II	"	"
	Baj Baj I	2 October 1961	Stage II
	Baj Baj II	"	"
	Canning I	1 April 1962	"
	Canning II	"	"
	Jadabpur-Behala	"	"
	Jaynagar I	"	"
	Jaynagar II	"	"
	Kultali	1 April 1962	Stage II
	Mahestala	"	"
	Metiabruz	"	"
	Sonarpur	1 April 1957	Post-stage II
	Amdanga	"	"
	Bagda	1 April 1955	"
	Barasat I	2 October 1956	"
	Barasat II	"	"
	Bangaon	1 April 1955	"
	Deganga	2 October 1957	"
	Gaighata	1 April 1955	"
	Habra I	2 October 1952	Post-stage II
	Habra II	2 October 1953	"
	Rajarhat	1 April 1958	"
	Barakpur	1 April 1950	"
Barakpur Bashirhat	Baduria	2 October 1956	Post-stage II
	Bashirhat I	2 October 1961	Stage II
	Bashirhat II	"	"
	Gosaba	1 April 1961	"
	Haroa	2 October 1957	Post-stage II
	Hasnabad	1 April 1959	"
	Hingalganj	"	"
	Minakhan	2 October 1957	"
	Sandeshkhali I	1 April 1961	Stage II
	Sandeshkhali II	"	"
	Swarupnagar	1 April 1958	Post-stage II

Name of Subdivision	Name of Block	Date of inauguration	Present stage
Diamond Harbour	Diamond		
	Harbour I	2 October 1959	"
	Diamond		
	Harbour II	"	"
	Phalta	1 April 1957	"
	Kakdwip	1 April 1959	"
	Kulpi	2 October 1951	Stage II
	Magrahat I	2 October 1958	Post-stage II
	Magrahat II	"	"
	Mandirbazar	2 October 1961	Stage II
	Mathurapur I	"	"
	Mathurapur II	"	"
	Namkhana	1 April 1959	Post-stage II
	Patharpratima	2 October 1961	Stage II
	Sagar	2 October 1956	Post-stage II

Other important details relating to these blocks are given in the following table:

Name of Block	Area (in Sq. Km.)	No. of villages	Total population (as per 1971 census)
Baruipur	205.43	133	1,70,635
Basanti	409.7	67	1,36,043
Bhangar I	323.5	144	2,01,570
Bhangar II			
Bishnupur I	213.4	156	2,41,258
Bishnupur II			
Baj Baj I	134.73	93	1,84,260
Baj Baj II			
Canning I	486.7	124	1,94,751
Canning II			
Jadabpur-Behala	69.87	49	1,00,627
Jaynagar I	359.2	139	2,01,543
Jaynagar II			
Kultali	361.1	52	1,19,809
Mahestala-	661.0	38	2,25,265
Metiabruz			
Sonarpur	149.7	98	1,54,888

Name of Block	Area (in Sq. Km.)	No. of villages	Total population (as per 1971 census)
Amdanga	138.8	79	82,118
Bagda	232.6	105	1,02,590
Barasat I	255.35	187	2,35,350
Barasat II			
Bangaon	336.63	149	1,60,617
Deganga	202.0	108	1,33,510
Gaighata	243.5	107	1,33,916
Habra I	251.0	162	1,63,107
Habra II			
Rajarhat	102.6	55	1,28,478
Barakpur	N.A.	N.A.	N.A.
Baduria	187.4	94	1,30,313
Basirhat I	238.3	140	1,67,501
Basirhat II			
Gosaba	371.4	54	1,40,844
Haroa	303.3	98	1,01,749
Hasnabad	226.7	84	1,21,552
Hingalganj	162.1	31	81,419
Minakhan	110.1	116	63,367
Sandeshkhali I	343.2	54	1,61,344
Sandeshkhali II			
Swarupnagar	216.0	66	1,21,795
Diamond	193.3	174	1,96,016
Harbour I			
Diamond			
Harbour II	135.7	132	1,42,092
Phalta			
Kakdwip	476.8	48	1,27,701
Kulpi	250.7	167	1,46,144
Magrahat I	255.1	170	2,68,613
Magrahat II			
Mandirbazar	117.3	108	1,08,123
Mathurapur I	611.8	121	2,08,426
Mathurapur II			
Namkhana	159.8	25	56,678
Patharpratima	484.6	86	1,60,493
Sagar	580.9	45	91,229

CHAPTER X

GENERAL ADMINISTRATION

The District Magistrate and Collector is the pivot of the district administration. As the executive head, he is responsible for the maintenance of law and order, which he carries out with the help of the Superintendent of Police who, according to the Police Regulation, Bengal, is accountable to the District Magistrate.

As the District Collector, he is the head of the land revenue collection in the district and functions under the Board of Revenue through the Divisional Commissioner. He is the head of the Collectorate and all the Subdivisional Officers are subordinate to him. He has a big say in the various developmental plans and programme that are under active implementation throughout the district.

There are four Additional District Magistrates in 24-Parganas district. While the A.D.M. (General), A.D.M. (Land Reforms) and A.D.M. (Development) are stationed in the Headquarters at Alipur, A.D.M. (North) has his headquarters at Barasat. The posting of an A.D.M. (N) at Barasat is by way of implementation of the proposed bifurcation of the 24-Parganas district into two separate districts viz., North and South—the North district with headquarters at Barasat. The plan for bifurcating the district has made considerable headway. All the 4 A.D.Ms. are vested with the powers of the Collector, subject to the supervision and control of the Collector. The A.D.M. (L.R.) at Sadar and the A.D.M. (N) at Barasat, who are directly concerned with the implementation of Land Reforms in the South and North 24-Parganas respectively, have some additional powers in that respect not exercised by the remaining two A.D.Ms.

The district is divided into 6 subdivisions viz., Alipur (Sadar), Barakpur, Barasat, Bangaon, Basirhat and Diamond Harbour.

There is one S.D.O. for each subdivision. Subject to the overall superintendence and control of the District Magistrate, the S.D.Os. are responsible for the work of administration in their respective subdivisions.

Since the amalgamation of West Bengal Civil Service and West Bengal Junior Civil Service in 1974, there are at present 85 Officers of the unified cadre of the West Bengal Civil Service (Executive) in 24-Parganas district.

The officers of the West Bengal Civil Service cadre are required to shoulder the heavy burden of the day-to-day administration in

The State Government set-up

District Magistrate

Additional District Magistrates

Subdivisional Officers

Deputy Magistrates

the district. This they perform in their capacities as Subdivisional Officers and Officers-in-charge of various departments of the Collectorate and Subdivisional Offices.

Prior to the coming into force of the West Bengal Separation of Judicial and Executive Functions Act, 1968, which took effect in the district in 1974, the Deputy Magistrates of both the senior and junior scales (including the officers designated heretofore as Sub-Deputy Magistrates) used to try criminal cases as well as First, Second and Third class Magistrates. But pursuant to the provisions of the W.B. Separation of Judicial and Executive Functions Act, 1968, the W.B.C.S. (Executive) officers do not any more try criminal cases save and except those cases under certain sections of the Criminal Procedure Code which come exclusively under the purview of maintenance of law and order in the district. Magistrates dealing with such cases are designated as Executive Magistrates. All this is in conformity with the amendments made to the Criminal Procedure Code. There are four such Executive Magistrates at the Sadar Subdivision of the district including one at Sealdah Police Court and one each in the five outlying subdivisions. The officers employed as Block Development Officers are in the junior scale of the W.B.C.S. (Executive).

There are 51 development blocks in the district. The Block Development Committee is to approve the list of persons to be provided with loans for the purchase of milch cows, goats, sheep, pigs etc. in order of priority. Artificial Insemination Centres and Sub-Centres have been established in Barasat, Basirhat, Alipur, Barakpur and part of Diamond Harbour Subdivision. For natural services bulls have been distributed outside the Artificial Insemination zones. Poultry Farms at Tollyganj, Gobardanga, Kakdwip and Nimpith have been established. Training Centre on poultry keeping has been opened at Tollyganj Farm. There are two Intensive Cattle Development Projects at Narendrapur and Barasat.

District Assistant Controller of Weights and Measures is responsible for enforcing the law relating to weights and measures in the district. There is one Inspector of Weights and Measures in each subdivision. The S.D.Os. are required to carry out frequent inspections of the work of the Inspectors to ensure that metric weights are in operation everywhere and that the weights actually being used by traders are genuine.

At the top of the School administration, there are three District Inspectors of Schools viz., D.I. for boys, D.I. for girls and D.I. for primary. The first two D.Is. are directly concerned with High School

(other than Govt. High Schools) for boys and girls respectively. The affairs of Junior High Schools are supervised by Asstt. District Inspectors of Schools. While the D.I. (Primary) is concerned with all Primary Schools in the district, he is assisted by some Deputy A.D.Is.

The District Information and Public Relations Officer, 24-Parganas, is in charge of the District Information and Public Relations Organisation. He is assisted by Subdivisional Information and Public Relations Officers, posted at 6 administrative subdivisions of the district.

The Technical Supervisor, 24-Parganas, posted at the district headquarters under the District Information and Public Relations Officer is to supervise the work of Rural and School Broadcasting Scheme. There are 5 posts of Operators in Audio-Visual Units and 4 posts of Assistant Operators, besides a number of other posts.

The 24-Parganas District administration of the Agricultural Income-tax organization is divided into two ranges, viz., Calcutta Range I and Calcutta Range II. One senior scale Agricultural Income-tax Officer holds the charge of each of the Range. Besides the charge officer, there are also other Agricultural Income-tax Officers attached to the Range. Their offices consist of the usual office personnel.

There are 11 Commercial Tax Officers (of senior and junior scales) and 3 Inspectors of Commercial Taxes besides the usual office staff.

The Superintendent of Excise (North) with his office at Barasat and the Superintendent of Excise (South) with his office at Alipur look after the Excise administration and the collection of Excise dues for the district of 24-Parganas under the overall administrative control of the District Magistrate. The Additional District Magistrate (North) and the Additional District Magistrate (General), respectively supervise their work on behalf of the District Magistrate.

There are one Superintendent of Excise, one Additional Superintendent, one Deputy Superintendent, two Range Inspectors, fourteen Sub-Inspectors and seven Assistant Sub-Inspectors, besides the usual office staff in the office establishment of the Superintendent of Excise, 24-Parganas (South).

As for the Excise administration of 24-Parganas (North), there are one Superintendent of Excise, one Additional Superintendent of Excise, four Deputy Superintendents of Exercise, two Inspectors

Information &
Public Relations

Agricultural
Income-tax

Commercial Tax

Excise

Live-stock
Organization

Weights and
Measures set-up

School Adminis-
tration

Food and
Supplies

of Excise, nineteen Sub-Inspectors of Excise, fourteen Assistant Sub-Inspectors of Excise and one hundred and three Excise Constables, besides the usual office personnel.

For the administration of Food and Supplies, the district is subdivided into (i) Statutory Rationing area and (ii) Non-statutory Rationing or Modified Rationing areas. The Statutory Rationing area in 24-Parganas covers Behala and Jadavpur P.S. areas of Sadar Subdivision and Barakpur, Titagar and other P.S. areas of Barakpur Subdivision. The part of Bijpur P.S. is, however, excluded. The Rationing Area is administered by a number of Rationing Officers, who work under the direct supervision and control of the Director of Rationing. In Modified Rationing areas which comprise the bulk of the area of the district, the D.M. is in overall control of the Food and Supply administration. The D.M. is assisted by the District Controller at the District headquarters and by Subdivisional Controllers of Food & Supplies in the Subdivision. The D.M. exercises overall control over the District and Subdivisional Controllers in the matter of food policy, licences, distribution of foodgrains, consumer goods, etc. The Subdivisional Controllers are assisted by a number of Inspectors and Sub-Inspectors. Special procurement drives for the procurement of surplus stocks of paddy are carried out by the District Magistrate with the assistance of officers and staff mobilised from different offices in the district.

Rationing
Organization

For the supervision of administration of Statutory Rationing in the extended areas in some parts of the Barakpur Subdivision, there is one Deputy Controller of Rationing with his office at Barakpur. He is assisted by a number of Rationing Officers, Inspectors and Sub-Inspectors.

Fisheries

There is one District Fisheries Officer stationed at Alipur. His duty includes *inter alia* registering the names of fisheries that have vested in the State due to implementation of the W.B. Estates Acquisition Act (1953), making periodic settlement of such vested fisheries, making acquisition of sick fisheries for revitalising them and taking effective steps for the overall improvement of pisciculture in the fisheries in general in the district including tank fisheries.

Rural Water
Supply Organiza-
tion

There is a Rural Water Supply Committee at the block level, the members of which are local M.L.A., Block Development Officer, Sub-Assistant Engineer of Rural Water Supply Department and one Government nominee from each of the anchals. B.D.O. is the convener of the Committee.

The Committee selects the pinpointed sites on which new tube-wells are proposed to be sunk or re-sunk. On the resolution of the Committee, B.D.O. will execute the scheme and payment to the contractor will be made by B.D.O. This work has of late been largely transferred to the Panchayats.

There is one Regional Office at Barakpur under the Office of the Labour Commissioner, West Bengal. There are 3 Assistant Labour Commissioners attached to the regional office, besides the usual office personnel.

Labour

The Director of Land Records and Surveys, West Bengal is the head of the settlement organization in the State of West Bengal. The Settlement Officer, 24-Parganas, is in overall control of the settlement organization in the district with his office in Survey Buildings at Alipur. The Settlement Officer is assisted by an Assistant Settlement Officer at the headquarters and by a number of Settlement Charge Officers in the different subdivisions. The Charge Officers are assisted by a number of Circle Officers and they, in their turn, are assisted by a number of *Halka* Officers, mostly Kanungos, spread over the entire district. The work is sub-divided into the distinct wings *viz.*, one for modification of the record of rights already revised and made up-to-date under various provisions of the W.B. Estates Acquisition Act and for active implementation of Land Reforms, principally for recording the rights of *bargadars* or sharecroppers. The field staff consisting of Kanungos and clerical staff have been bifurcated into two separate wings for the aforesaid two items of work and separate Charge Officers and Circle Officers have been allotted for supervision of these two distinct items of work. The work of recording Barga right has gathered great momentum since 1977.

Settlement
Organization

There are a number of Fire Stations in the district at different strategic points with one Station Officer in charge of each station. He is assisted by one Sub-Officer. The Sub-Officer is assisted by one Leader. There are a number of Firemen under each Leader. Then there are the operation car drivers. All the subdivisions of the Fire Service organization are controlled by the Director.

Fire Service
Organization

The District Registrar is in overall charge of the administration and looks after the work pertaining to registration of documents at the Sadar and solemnization of Special and Hindu marriages. There are in all 38 Registration offices in the district (including that of the District Registrar). There are Special Registration Offices with one

Registration
Administration

Sub-Registrar in each office at Behala, Dam Dam, Baruipur and Sonarpur. The following are the particulars of the work transacted by these offices during the year 1973:

No. of documents registered	Receipts (Rs.)	Expenditure (Rs.)	Revenue earned (Rs.)
2,76,140	37,08,335	21,47,225	15,61,110

Refugee Relief
& Rehabilitation

For dealing with the problem of extending relief and rehabilitation of refugees from Bangladesh (erstwhile East Pakistan), there are two Deputy Controllers of Refugee Relief, one at Alipur and the other at Barakpur. They are assisted by a number of Sub-divisional Refugee Relief Officers.

The Central
Government
set-up

The administrative set-up for the imposition and collection of Income Tax in the civil district of 24-Parganas, comprises 8 Income Tax Officers and 4 Inspectors, besides the usual office personnel.

Customs

Areas of the civil district of 24-Parganas, so far as Land Customs work is concerned, are under the jurisdiction of Assistant Collector of Customs, Krishnanagar Division and Assistant Collector of Customs, Calcutta Customs Division, Calcutta. For the imposition and collection of customs duties of 24-Parganas district, there are 4 Superintendents, 57 Inspectors, 6 women searchers, besides other ministerial staff.

Central Excise

The Calcutta Collectorate of Central Excise comprises the districts of Calcutta, 24-Parganas, Haora and Medinipur. All Central Excise matters in the above districts come under the jurisdiction of the Calcutta Collectorate. For administrative convenience the above jurisdiction of the Collectorate has been divided into 11 divisions, each division coming under the control of an Assistant Collector. The divisions are again divided into several assessment units, each unit being under the charge of a Superintendent. The district of 24-Parganas has 5 assessment units.

The Superintendents in charge of the above units are assisted by Inspectors who are sometimes posted away from Unit headquarters.

National Savings
Organization

The set-up of the district field establishment comprises 1 Assistant Regional Director and 7 District Savings Officers, of whom 3 are posted at Alipur, 1 at Dam Dam-Ichhapur, 2 at Barakpur and 1 at Barasat. The total net collection target for the district for 1975-76 was Rs. 6 crores, and the net achievement was Rs. 8.50 crores. The district occupied the 3rd position in the State by virtue

of the excess of collection over the target, Malda and Hoara having occupied the 1st and 2nd positions respectively. The collection has more than doubled in 1978-79.

One notable feature of the district is that the bulk of the collection was made through authorised agents.

The 24-Parganas District comprises two postal divisions, viz., North Presidency Division with headquarters at Barakpur, and South Presidency Division with headquarters at Calcutta.

The North Presidency Division is divided into 6 postal subdivisions, each subdivision being under the charge of one Inspector of Post Offices. The Senior Superintendent of Post Offices is in overall charge of the entire division. There is an Assistant Superintendent to assist him in all matters of administration. The Superintendent of Post Offices is in overall charge of the South Presidency Division. The Division is divided into 5 postal subdivisions with an Inspector in charge of each subdivision.

The district of 24-Parganas falls under the jurisdiction of Calcutta Division of Life Insurance Corporation of India. In the district of 24-Parganas, the Life Insurance Corporation has 7 branch offices and one development centre. The branch offices are at Baranagar, Barakpur, Naihati, Habra, Basirhat, Diamond Harbour and Jadabpur while the development centre is situated at Baj Baj.

The following is the administrative set-up of the West Bengal Khadi and Village Industries Board in the district of 24-Parganas: There is a Circle Inspector of the Board at Barasat. He is in charge of the office. He is assisted by one Assistant Inspector, Palm Gur; one Supervisor, Hand Pounding of Rice Industry; one Supervisor, Village Pottery; one Demonstrator, Cane Gur; one Guide, Cane Gur; and there is also a darwan-cum-night guard.

The Circle Inspector, Sonarpur, in charge of the office and is assisted by one Technical Assistant, Palm Gur. There are, besides, one peon and one night guard-cum-darwan.

There is a *Ghani* centre at Sirakole with an Inspector of *Ghani* to look after the affairs. The *Charkha* centre at Barasat has one Area Inspector of Khadi; one A Grade Supervisor, Khadi and one darwan-cum-night guard.

There is also one *Charkha* centre at Ashoke Nagar. The centre has one Area Inspector, Khadi; one A Grade Supervisor, Khadi and one darwan-cum-night guard.

The Board has also its Village Industries Centres at different other places of the district, such as, Diamond Harbour, Sajirhat,

Postal
Administration

Autonomous
bodies

Life Insurance
Corporation of
India

West Bengal
Khadi and Village
Industries Board

Barakpur, Kanganberia, Hasnabad, Gomapota, Barasat, Monirampur, Kirtipur, Polerhat, Basirhat, Gharugram, Thakurpara and Baidyapur.

Food Corporation
of India

District Manager of the Food Corporation of India is in-charge of procurement, storage and supply of cereals within the district of 24-Parganas with his office situated in Calcutta. He has some Assistant Managers to assist him in the discharge of his official duties.

CHAPTER XI

REVENUE ADMINISTRATION

If we look upon the past of the Twenty-four Parganas district, we will find that the twenty-four parganas were held by a large number of inferior land-holders called chaudhuris, taluqdars, mucuddums or ijaradars. The East India Company, advised by J. Holwel, started with a novel plan of farming out in 15 lots to the highest bidders, for a term of three years, and thus their first settlement raised the assessment to Rs 7,65,700. This, of course, meant a considerable raising of the rents of the land-holders by the new 'farmers', at whose mercy they were placed. They represented that they had with great labour and care, as well as great expense, cleared the same from jungles removing the denizens of the woods in order to bring the lands under cultivation. There was much truth in what they said, and one immediate effect of this method of contracting out the revenue-collection to auction-bidders who had no permanent interest, was that the land-holders lost their zeal in maintaining the embankments which were an absolute necessity for cultivation in a great part of this area.

But the name 24-Parganas which describes the present district of 24-Parganas is rather a misnomer. Of the 24-Mahals granted to the East India Company, only 12 were entire parganas and 11 part parganas, while the Melung mahal or Salt mahal was not a pargana at all. Besides, the mention of 24-Mahals in the grant was an accident inasmuch as 27 mahals were actually given.

Todarmall's was the first Revenue Settlement of Bengal completed in A.D. 1582. This settlement is known as *Asli Jama Tumar*. The Khalsa (rent-paying lands as opposed to Jaagir or rent-free lands) lands of the Subah of Bengal were divided into 19 Sircars composed of 682 Parganas excluding 5 Sircars of Orissa. Total revenue of Bengal was Rs. 1,96,93,069 (*Akbarshahi* rupees).

The next revenue settlement was that of Sultan Shah Sujah, brother of Aurangzeb, who was the governor of the province for sometime. During his tenure of office he revised the assessment, his roll rising to 34 Sircars of 1,350 mahals or parganas and the revenue of Bengal increased to Rs. 1,31,15,907. Murshid Kuli Khan's was the last settlement known as *Jame-i-Kamil Tumar*. Bengal was divided into 13 chaklas or larger divisions of territory comprising 1,660 Parganas of smaller subdivisions. The revenue was fixed at

Land Revenue
Administration

History of land
revenue assess-
ment and
management

Rs. 1,42,88,186 besides *Abwabs* or extra collections from various sources.

This Kamil Tumari was made in A.D. 1722 or only 35 years prior to the Company's acquisition of the 24-Parganas or 43 years previous to the Dewani.

Thus the earliest available record is found in *Ain-i Akbari* which describes Sircar Satgaon as one of the 24 Sircars into which the Subah or province of Bengal (including Orissa) was divided. This Sircar Satgaon had within it 53 mahals or parganas. The whole of the present 24-Parganas district and Calcutta was in Sircar Satgaon.

As it has been already observed, the East India Company while trading in India, purchased from the local zamindars, the Zamindari rights of 3 villages, namely, Dihi Calcutta, Sutanuti and Gobindapur. The Company also obtained Zamindari rights in respect of 24-Parganas and also obtained the charge of revenue administration of the districts of Medinipur and Chhattagram. Finally in 1765, the Company obtained from the Emperor of Delhi the perpetual grant of Dewani of the provinces of Bengal, Bihar and Orissa. In 1772, the Revenue Administration was placed under the direct control of the Governor in Council. The lands were farmed out by public auction. This system brought in the speculators who made high bids and displaced the zamindars in many cases. The system accordingly did not prove convenient to the Company. To do away with risk a Committee of Revenue was appointed in 1773 which was subsequently replaced by a Board of Revenue in 1786 and Pitt's Act, 1784. A settlement for 10 years was made with the actual proprietors.

All the uncertainties were done away with the Permanent Settlement Regulation of 1793 which fixed the revenue demands in perpetuity. Even this could not solve the uncertainty and there was widespread default in the payment of Government dues and as a result sales of the estates took place on an extensive scale for the recovery of arrears. Land-holders had no control over the farmers and intermediate tenants could withhold rents with impunity. The subsequent enactments, however, strengthened the hands of the landlords. Regulation VII of 1779 and Regulation V of 1812 came as the dread of every raiyat in the country. The former empowered landlords summarily to arrest and to imprison any tenant who was a defaulter, while the latter empowered the zamindars to restrain and to sell off to the highest bidder the property of the raiyat who was a defaulter. The object which the Government had in giving such extraordinary powers to landlords was to enable them to realise

their due rent regularly and to transfer them punctually to the public exchequer. But in safeguarding its own interest the Government virtually consigned the entire peasantry to the mercies of the zamindar. The Bengal Rent Act, 1859 which replaced the two regulations, mentioned earlier, was brought in to safeguard the interest of the tenants and introduce the concepts of the right of occupancy and of fair and equitable rent. But this again proved very ineffective. The Bengal Tenancy Act, 1885 aimed at protecting the rights of the tenants in occupation and use of the land and to extend facilities to the landlord in respect of settlement and realisation of rent and due. But even under the Bengal Tenancy Act came a long array of middlemen which brought in subdivision and fragmentation of holdings on an unprecedented scale. The well-to-do raiyats often distributed their lands for cultivation on *Adhi*, *Bhag*, *Thika*, *Sanja*, *Barga*, and lived in perfect idleness. The Government realised that the legislations regulating the land revenue policies have not yielded the desired result and the lot of the peasantry was gradually becoming worse. Accordingly, the Government appointed various commissions like Floud Commission in 1939, Bengal Administrative Committee in 1945 and the Agrarian Reforms Committee. The crux of these recommendations were the abolition of existing land revenue laws to be replaced by a land revenue system which will bring the actual tillers in direct relations as tenants, under the State by acquiring rights and interests of all classes of rent receivers. The land should belong to the actual tillers of the soil and the State to be the sole landlord responsible for the welfare of the cultivators by initiating schemes of improvement of agriculture. The West Bengal Estates Acquisition Act, 1953 is the culmination of the above recommendations. The Act had two distinct ends in view:

- (a) To abolish intermediate rights.
- (b) To fix a ceiling prescribing the maximum quantum of different classes of land retainable by an individual raiyat.

(i) Agricultural	25 acres
(ii) Non-Agricultural (including homestead)	25 acres
(iii) Forest	Nil
(iv) Tank Fisheries	No limit
(v) Trust & Endowment exclusively for religious and charitable purpose	No limit

(vi) Tea Gardens, Mills and Factories

Such areas as are necessary and fixed as such by the Govt.

In order to give effect to the above two measures, it was necessary to have an up-to-date record of rights on the dates of vesting which were 15.4.55 and 14.4.66 for the intermediaries and raiyats, respectively. With this end in view a thorough settlement operation was started in 1954. Unfortunately, this very process of preparation of records-rights was taken advantage of by the ingenious ex-intermediaries who through various subterfuges succeeded in getting the records prepared in such a manner that only a small portion was available surplus on the basis of the record-of-rights prepared in mid-fifties. Ever since the imposition of ceilings or even before when the coming measures were in the air the big land-holders were preparing to take up their fight with the State to frustrate the provisions of the Act in the battle of wits that ensue, the State unfortunately have been losing in the leading grounds. In this context various measures adopted by owners of surplus land to evade their acquisition may be of some interest:

- (i) By deliberate suppression of ceilings.
- (ii) Transfer of land by to-dated pattas, amalnamas, and rent receipts etc.
- (iii) Transfers between 5.5.1953 and the date of vesting.
- (iv) Benami transfers, change of classification and religious and charitable trust.
- (v) Claims of land guided by Mitakshara system of inheritance.
- (vi) Civil suits and collusive suits.

Sometime in 1967 a special drive was launched to locate such persons who have escaped vesting. The drive was a success and would have been of the nature of a spectacular success but for a large number of civil suits and civil rules which were instituted by these aggrieved parties which stalled progress of work and in many instances reversed the process of vesting. The methods adopted by the officers to discover the threat, the ingenuities created by numerous and various transactions, court decrees etc. to discover

the hidden land and finally restore them to where they belong are, however, the most interesting episodes of a long story.

Notwithstanding these difficulties, up to September 1975, the following quantum of land under the West Bengal Estates Acquisition Act has been vested:

(a) Agricultural lands	9,58,862 acres
(b) Non-agricultural lands	5,26,073 acres
(c) Forest	9,63,647 acres
(d) Others	20,555 acres

Total: 24,69,137 acres

Simultaneously with this work, ran the work of preparation of a huge number of Compensation Assessment Rolls (C.A. Rolls) for the ex-intermediaries who lost the rent-receiving interest or ceiling on surplus *khas* lands. To give effect to the Estate Acquisition Act the State was required to pay compensation to 2.4 million intermediaries. So far Assessment Rolls in respect of 2.38 million intermediaries have been prepared. This means that the authorities concerned have been able to liquidate 99% of the work of preparation of Compensation Assessment Rolls.

The following table shows the position of compensation cases pending, disposed of and paid during a period of five years from 1972-73 to 1976-77:

	1972-73	1973-74	1974-75	1975-76	1976-77
Total nos. of compensation cases pending	3,33,079	3,37,940	3,39,056	3,40,583	1,90,439
Total nos. of cases disposed of and no. of recipients	2,976	1,588	2,403	1,50,144*	454
Total amount disbursed Rs.	62,87,888	3,26,50,042	69,07,553	62,72,328	8,61,01,067

* 1,336 cases were paid and 1,48,808 disposed of as no payment was necessary in these cases.

The ceiling under the West Bengal Land Reforms Act, stated briefly, is as follows:

- (1) Family consisting of an adult unmarried person: 2.50 hectares or 6.18 acres of irrigated lands;
or
3.50 hectares or 8.65 acres of un-irrigated lands.
- (2) Family consisting of not more than 5 members; 5 hectares or 12.36 acres of irrigated lands;
or
7 hectares or 17.30 acres of un-irrigated lands.
- (3) Allowance for every additional member in excess of 5 (up to 4 additional members):
0.50 hectares or 1.24 acres of irrigated lands;
or
0.70 hectares or 1.73 acres of un-irrigated lands.

In accordance with the provisions of the West Bengal Estates Acquisition Act, 1953 the total quantity of land (in acres) vested up to March, 1976 in respect of the district of 24-Parganas is as follows:

Agricultural land	Non-agri-cultural land	Forests	Others	Total
1,09,919.54	94,497.87	—	2,509.39	20,69,226.80

The Sundarbans

The forest region of the Sundarbans is inhabited by a population of two million distributed over 1,060 villages and three towns. The vast tract of forest known at present as the Sundarbans was described by a Muhammadan historian as '*Bhati*' which means 'low lands overflowed by the tides'. The word Sundarban owes its origin probably from the Sundari tree—one of the commonest trees in that deltaic tract and also may have been derived from the Sanskrit word '*Samudraban*' meaning forest near the seas.

The Sundarbans are constituted by 54 islands and part of mainland comprising an area of 9,51,903 square kilometres. The Sundarbans were first of all attached to Hugli district as a salt tract. By the time of the Permanent Settlement in 1793, the Sundarbans had been included in the 24-Parganas administration.

In 1816, a Sundarban Commissioner was appointed whose jurisdiction covered the Sundarbans of the 24-Parganas, Jessore and Bakerganj (the latter two districts are now in Bangladesh). The first

effect to reclaim Sundarbans was made in 1770 by Mr. Claude Russel, Collector General of 24-Parganas.

He granted leases which allowed the lessees initial period free of rent until they should have made some progress in cultivation and fixed an ultimate rate of about Re. 1 and annas 8 (equivalent to Rs. 1.50) per acre on all the lands that might be found reclaimed when survey should be made. The lands were called "Patitabad Taluks". Mr. Tilman Henckell, Magistrate of Jessore, proposed to lease out small plots to raiyats on terms very similar to those by Mr. Claude Russel's leases with a view to establishing a body of independent peasant proprietors, holding directly under the Government. The scheme had the approval of Lord Warren Hastings.

The Revenue Survey of 1846-52 was the earliest survey in the district in the areas permanently settled. The terms of the Decennial Settlement of 1789-1790 were made permanent in 1793. The object of the Revenue Survey may be summarised as follows:

Revenue Survey

- (1) to make accurate maps of the village boundaries;
- (2) to survey the topographical details that occurred within and around villages;
- (3) to compile certain statistical data required for the purpose of general administration;
- (4) in certain cases to make a field by field (Khasra) survey of each village or of portions of each village and to compile the khasra register to which the khasra map would set as an index.

There are two main divisions in the land tenure system in this district, viz., the permanently settled area and the Sundarbans reclaimed area. From the time of Claude Russell, the Collector General in 1771, grants of lands were made from the jungle area and these grants required first reclamation and then cultivation. In most of the Sundarban grants a revenue-free period was given and there was also a stipulation that within a certain period a certain area of land must be reclaimed and cleared of jungle. A great responsibility was thrown upon the lessees and they were anxious to shift some of it off their shoulders. With that end in view, they divided their grant area into several portions and leased them out to persons who would undertake the duty and cost of reclamation and industries of tenants. These persons became tenure holders and were on the land usually before it was cleared and before any tenants had taken settlement. In only a few of the Sundarbans grants it is found that the direct lessee has himself inducted tenants into the

Land Tenure System in 24-Parganas District

grant lands. It is also observed that more often than not, the lessees of such grants have been absentees from the first date of the grant and in many cases they have stipulated with their tenure-holders for a fixed payment year by year over and above whatever revenue may be fixed by Government in future.

The present system of survey, assessment and collection of land revenue

The present system of Survey and preparation of Record of Rights is that when it would be directed that a record of rights be prepared by a Revenue Officer in respect of the lands of any District it shall be done by the following processes:

- (i) Traverse Survey;
- (ii) Cadastral Survey;
- (iii) Preliminary record writing (or *Khanapuri*);
- (iv) Local explanation (or *Bujharat*);
- (v) Attestation including determination of rents of tenancies;
- (vi) Publication of the draft record of rights;
- (vii) Disposals of objections;
- (viii) Preparation and publication of the final record-of-rights.

A scheme for revision of record-of-rights under the provisions of the West Bengal Land Reforms Act, has been taken up. Accordingly, the survey and settlement operations started towards the end of 1972. At first, the scheme was operative in the selected five districts only in which the district of 24-Parganas was not included. In early 1974, however, settlement operations started in nine more districts excluding Puruliya and the Islampur Subdivision of West Dinajpur.

Regarding collection of Land Revenue it may be stated that prior to implementation of the Estates Acquisition Act the zamindars were liable to deposit land revenue direct into Government Treasury on due 'kist' date. The zamindars used to realise rent from their dependent tenure-holders and intermediaries who in their turn used to realise rent from raiyats while raiyats used to collect rent from their under-raiyats-korfa.

Regarding the administrative set-up for revenue collection after the abolition of the zamindari system it may be noted that after the enforcement of the E. A. Act and with the abolition of the zamindari system with all its intermediary right including raiyats, the State has now come into direct contact with the tillers.

Previously, the Khas Mahal Department was entrusted with the management of land revenue before the Estates Acquisition Act came into operation. In the wake of this Act the Estates Acquisition Department (since renamed as Land Reforms Department), with

Management and Compensation as its two wings came into being under the control of Additional Collectors. The Land Reforms Act of 1956 also came into effect in different phases along with other analogous enactments and ancillary rules. With a view to administering properly all these different pieces of legislation the district has been divided into a number of Land Reforms Circles. A Junior Land Reforms Officer is in charge of a Land Reforms Circle. At the Subdivision there is a Subdivisional Land Reforms Officer who supervises the work of the J.L.R.O. under him. He is the subdivisional head of the Land Reforms administration under the overall control of the Subdivisional Officer.

The district of 24-Parganas is divided into 51 Revenue Circles, 15 Circles in the Sadar Subdivision, 13 in Diamond Harbour Subdivision, 7 in Barasat Subdivision, 2 in Barakpur Subdivision, 3 in Bongaon Subdivision and 11 in Basirhat Subdivision.

There are 4 Subdivisional Land Reforms Officers in Sadar Subdivision, 2 in Diamond Harbour, 1 in Bongaon, 1 in Parakpur, 1 in Barasat and 2 in Basirhat Subdivisions. The Urban Land (Ceiling and Regulation) Act 1976, came into force (with effect from 17.2.1976) with the objective 'to provide for the imposition of a ceiling on vacant land in urban agglomerations for the acquisition of such land in excess of the ceiling limit, to regulate the construction of buildings on such land and for matters connected therewith, with a view to preventing the concentration of urban land in the hands of a few persons and speculation and profiteering therein and with a view to bringing about an equitable distribution of land in urban distribution of land in urban agglomerations to subserve the common good. The Act extends to Calcutta Urban Agglomerations and Asansol and Durgapur Urban Agglomerations. Transfers etc. have restricted as per this Act and the ceilings imposed are as follows:

50 sq. metres in Calcutta Urban Agglomerations and 2,000 sq. metres in Asansol and Durgapur Urban Agglomerations. As the Calcutta Urban Agglomerations comprise a considerable part of the 24-Parganas district, the Act applies to certain regions of the 24-Parganas district as well.

Under the West Bengal Land Reforms Act substantial rights were given to the *bargadars*. The *bargadars'* rights to cultivation were made heritable (Section 15A of the West Bengal Land Reforms Act). No *bargadar* can be evicted from the land he cultivates without the order of the 'prescribed' officer who has exclusive jurisdiction in respect of disputes between the landowner and the *bargadar*. This

is provided by an amendment of 1970 to the West Bengal Land Reforms Act.

A scheme for revision of record-of-rights under the provisions of the West Bengal Land Reforms Act, has been taken up in West Bengal. Accordingly, the survey and settlement operation started towards the end of 1972.

At first, the scheme was operative in the selected five districts only. One of the main objects of the present settlement work is to record the possessions of *bargadars*. It is observed that many of the *bargadars* were indifferent to get their names recorded in the last settlement of the midfifties mostly out of fear. During that settlement operation *bargadars* did not have much right or legal protection against the landowners. Radical changes were made in West Bengal Land Reforms Act in 1970. But if their names do not feature in the record-of-rights prepared this time, they will be deprived of the benefits provided for under the amended West Bengal Land Reforms Act.

The total number of persons so far recorded as 'bargadars' in terms of the Amendment to Chapter III of the Land Reforms Act is 4,273 and the quantity of land distributed to them is 1,975.34 acres.

According to the scheme of distribution of home-stead land to the landless labourers, 1,640.71 acres of vested land and 46.51 acres of acquired land have been distributed to 36,555 persons as on 2.10.1975. The following is the table showing the amounts collected in the district of 24-Parganas by way of land revenue:

Income from land revenue	Year	No. of assesseees	Land Revenue demand (Rs.)	Land Revenue collection (Rs.)
	1970-71	29,64,005	3,87,10,466	55,53,250
	1973-74	7,73,513	3,14,26,209	1,53,65,644
	1974-75	7,73,513	3,24,37,556	1,39,20,873

Revenues collected from other sources in the year 1974-75 in the 24-Parganas district are as follows:

(1)	(2)	(3)	(4)	(5)	(6)	
Entertain- ment Tax	Registration Fees	Taxes on Motor Vehicles	Licence fees on Arms	Electricity duty	Judicial	Non-Judicial
(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)	(Rs.)
1,00,85,879	49,60,625	68,37,255	99,804	37,08,921	36,62,426	1,85,56,533

After permanent settlement a number of Regulations were made with the sole object of obtaining more powers for the Zamindars and to secure collection of Land Revenue. The history of Tenancy Laws in Bengal may conveniently be traced from 1859. The Rent Act was passed in 1859 which for the first time attempted to give a definition of the different classes of raiyat and to confer certain statutory rights on them besides providing a procedure for the trial of disputes arising between the landlords and their tenants. This Rent Act provided that every raiyat or dependent talukdar who holds lands at rates of rent which had not been changed since permanent settlement would be entitled to hold forever at those rates.

If the rates of rent had not been changed for 20 years, it was to be presumed that it had not been changed from the time of permanent settlement. Every raiyat who had cultivated or held lands for 12 years was declared to have a right of occupancy in the land. Every raiyat was declared to be entitled to receive a *patta* and every landlord granting *patta* was entitled to receive a counterpart, namely, a *kabuliat* from the raiyat.

Defects in this legislation, however, soon appeared as the raiyat had great difficulty in proving his occupancy right. There was no protection against enhancement of rent. So the Act proved, in some respect, to be unworkable. At last in 1879, the Govt. of India sanctioned the appointment of a Commission with instructions to prepare a digest of the existing status and case laws relating to landlord and tenant and draw up a consolidating Bill. The report of the Commission with a draft Bill was presented in 1880. The Bengal Tenancy Act of 1885 which was based on this draft was the product of the best efforts of the authorities in redeeming their pledge given at the time of permanent settlement for safeguarding the interest of all dependent talukdars, raiyats and other cultivators of the soil. This Act provides for more secure right of the raiyats. The right of a raiyat was also made a protected interest in the event of the estate or tenure of his superior landlord being sold up. He was given the right of mortgaging his holding and of subletting it for not more than nine years. The Bengal Tenancy Act was then amended in 1928 and 1938. After these amendments the right and privileges of the tenants were greatly enlarged while the position of the landlord was reduced to that of a mere rent collector. A settled raiyat who acquired a right of occupancy in all lands held by him as a raiyat in the village practically enjoyed all the elements of proprietary right.

Land Reforms:

(i) Relations
between landlord
and tenant

An under-raiyat also enjoyed very valuable rights. He was not liable to be evicted from his holding if he had acquired occupancy right by local custom, or had been recognised by the landlord to have a permanent or heritable right or was in possession of the land for a period of 12 years. In the case of an under-raiyat holding under a lease for a term of less than 12 years or without lease the landlord might secure his eviction after satisfying the court that he required the land for his homestead or for personal cultivation.

(ii) (a) Agrarian movement of early times

Since 1931 (when England went off the Gold Standard) a depression prevailed and prices went down. This continued more or less till the Second World War. In 1932-33, the prices of crops were low and paddy sold at Re. 1/- per maund and the tenants failed to pay the rents determined as fair and equitable during cadastral survey operations of the district in 1925-29.

There was the 'no-payment' mentality and arrears of rent for four years piled up in 1935. Prices rose Rs. 2/- per maund in that year in Govt. estates, a year's rent was remitted and interest was not realised. If any, tenant paid 1½ years' rent at a time. There position was thoroughly investigated by Messrs. Kindersly and Gurnner (D.L.R.O.S.) and the Board reviewed the position and passed the special orders for collection and management (Circular Order No. 5010-G.E., dated 22.3.35) of Govt. estates.

The rate of rent at Rs. 2/- and 8 annas (equivalent to Rs. 2.50) per bigha was considered too high and it was reduced by 20 p.c. in 1939-40. There was already the movement for it among the Sundarban tenants.

Peasant Organisations etc.

The clash between the bargadars and the owners of lands, originated at this time. The bargadars and other landless people, who work as agricultural labourers form about 40 p.c. of the Sundarbans population are called '*Asthayis*'. They contributed all the factors of production except land. Seeds, plough cattle, manure and labour were contributed by the bargadar and he got half the produce. They took loan in kind called '*Bavdhan*' i.e. paddy and had to pay it up with heavy interest (50 p.c.) at the time of harvest. Besides, *Dhalta*, *Panta*, *Kayali*, *Iswarbritti* etc. had also to be paid and the bargadar was left with very little by the time the next cultivation season arrived in Asharh. Discontent was seething beneath the surface and political parties took advantage of the situation.

The 'Tebhaga' movement, based on the demand for 2/3rds of the produce for the bargadar was launched. The Communists were

the vanguards of the movement. There was peasant unrest and Kakdwip overnight grew famous as Telangana of South India.

Till now the Communists are active in the Sundarbans. Government passed the Bargadars Act in 1950 and the Land Reforms Act in 1955 to safeguard the interests of the bargadars. Chapter III of the Land Reforms Act contains the provisions on bargadars.

The West Bengal Land Reforms Act, 1955 (Act X of 1955 with subsequent amendments including Act No. III of 1971 and W. B. Acts XII and XXVIII of 1972 and W. B. Act XXXIII of 1974 *inter alia* safeguards the interests of the bargadars as well.

Sec 15A makes the bargadar's right of cultivation heritable to some extent. Sec 16 lays down the proportion in which the produce of the land cultivated by a bargadar shall be apportioned between the bargadar and the person whose land he cultivates. The other sections lay the conditions regulating the right of the bargadar, recovery of his share, termination of cultivation by bargadar, jurisdiction to decide certain matters and appeal when disputes arise. In the year 1967-68 there was considerable peasant unrest in Sonarpur area in the 24-Parganas district. The movement was masterminded by the more radical elements of the Communist Party of India (Marxist), latterly known as the Naxalites. They drew their inspiration from the peasant movement of Naxalbari in the Darjiling district. The United Front Government led by different leftist parties was then in power. The movement was purported to extend over an area of 42 square miles, which was at a distance of about 11 km. (5/7 miles) from Calcutta. The movement, among other things, had as its objective:

1. Total ban on eviction of peasants from the land.
2. To bring under cultivation all arable plots of land falsely recorded as tank fisheries by the potdars.
3. Imposition of a ceiling of 75 bighas per family (instead of per head) upon all arable plots of land recorded as tank fisheries.

The movement was not destined to be a success owing mainly to dissensions in the political parties constituting the United Front Government.

The succeeding years also saw much of peasant discontent in the Jaynagar-Majilpur and Kultali areas of the 24-Parganas district. The Socialist Unity Centre mainly sponsored the movements.

In conclusion, it may be stated that most of the protections offered to bargadars under the West Bengal Land Reforms Act, 1955 as amended in 1970 have, so far, remained merely on paper, if not in

some cases added indirectly to the miseries of the bargadars. To illustrate the point we may refer to the case of harassment, humiliation, deprivation and torture of Gopal Molla, a poor peasant of Arjunpur village in Magrahat, South 24-Parganas, lying at a distance of about 56 km. (35 miles) from Calcutta. Gopal's case came to the notice of the Directorate of Land Records and Surveys, Government of West Bengal, when a team of officers had been conducting a survey on the socio-economic condition of the bargadars in the rural areas of 24-Parganas. The grim story of Gopal has been depicted in a brochure entitled "Gopal Molla of Magrahat—A case study on Bargadar in 24-Parganas District" brought out by the Directorate of Land Records and Surveys. It brings out in bold relief how a poor share-cropper like Gopal can easily succumb to the machinations of the landlords who do not hesitate to stoop to the lowliest depths of cunning and cupidity to achieve their ends and thus frustrate the progressive legislations meant for protecting the rights of the poor bargadars.

Other Sources of
Revenue Excise

The following are the collection figures in respect of different items of Excise for a number of years in the district of 24-Parganas, South:

Year	Total Collection Rs.
1972-73	61,28,830
1973-74	58,28,778
1974-75	58,09,744
1975-76	62,09,335

The following are the item-wise collection figures of Excise revenue in respect of the 24-Parganas (North) district for the year 1973-74:

Item	Collection Rs.
(a) Country Spirit	1,56,14,696
(b) <i>Pachwai</i>	538
(c) <i>Tari</i>	2,45,287
(d) Foreign Liquor	4,54,456
(e) Medicated Wine	35
(f) Rectified Spirit	240
(g) De-natured Spirit	410
(h) Medicinal and Toilet Preparations	10

	Rs.
(i) Opium	43,812
(j) <i>Ganja</i>	7,85,122
(k) <i>Bhang</i>	46,362
(l) Medicinal Preparations of <i>Bhang</i>	405
(m) Other sources	3,289

Under the Bengal Agricultural Income-Tax Act of 1944 (which is in force in West Bengal with subsequent modification), the number of assessees and collections in the 24-Parganas District for the years 1965-66, 1970-71, 1973-74 and 1974-75 as follows:

Agricultural
Income-Tax

NO. OF ASSESSEES, DEMANDS AND COLLECTIONS OF AGRICULTURAL INCOME TAX IN 24-PARGANAS DISTRICT

Year	No. of assessees	Demand raised in Rs.	Collection made in Rs.
1965-66	1854	1,06,453	1,03,725
1970-71	2111	4,26,060	2,12,197
1973-74	1959	4,48,445	3,68,288
1974-75	1945	4,79,181	3,90,356

The Bengal Finance (Sales Tax) Act, 1941, envisages a low rate of multi-point tax on industrial outputs and general goods and a general tax on the last point of sale of the goods. It also imposes a tax on the purchase of certain goods under specified circumstances. The W.B. Sales Tax Act, 1954 imposes a tax on the first point of sale of some selected goods.

Commercial
Taxes

NUMBER OF ASSESSEES AND TOTAL COLLECTIONS UNDER DIFFERENT COMMERCIAL TAX ACTS IN 24-PARGANAS DISTRICT

	No. of assessees under the B.F. (S.T.) Act, '41	Total collection under the B.F. (S.T.) Act, '41	No. of assessees under the W.B.S.T. Act, 1954	Total collection under the W.B.S.T. Act, 1954
1960-61	1,577	29,63,393	38	72,854
1970-71	3,359	1,03,85,939	127	7,11,019
1980-81	7,103	3,61,60,560	963	3,89,76,965
1981-82	7,275	4,31,38,043	1,010	6,63,89,568

The Bengal Motor Spirit Sales Taxation Act, 1941, which was repealed 1974 provided for a levy of tax on retail sales of Motor Spirit. The number of assessees and the total collections under this Act for the years 1960-61, 1965-66, 1970-71 and 1973-74 were as below:

NO. OF ASSESSEES AND TOTAL COLLECTIONS UNDER THE
B.M.S.T. ACT, 1941 IN 24-PARGANAS DISTRICT

	No. of assessees	Total collection Rs.
1960-61	104	17,60,961
1970-71	204	53,73,031
1973-74	243	76,48,644

Under the W.B. Motor Spirit Sales Tax Act, 1974, Motor Spirit Tax is levied from the manufacturers or the importers of motor spirit and no such assessee is situated within the district of 24-Parganas.

Central Sales Tax Act, 1956 provides for levy and collection of taxes on the sales of goods in the course of inter-State trade or commerce. The number of assessees and the amounts collected in the district for 1960-61, 1970-71, 1980-81 and 1981-82 are as follows:

NO. OF ASSESSEES AND TOTAL COLLECTIONS UNDER THE
CENTRAL SALES TAX ACT, 1956 IN 24-PARGANAS DISTRICT

	No. of assessees	Total collection Rs.
1960-61	532	8,13,256
1970-71	1,648	35,33,933
1980-81	3,734	2,60,25,885
1981-82	3,972	5,01,51,327

West Bengal Paddy Purchase Tax Act, 1970, provides for levy of a tax on paddy purchased by the owners of rice mills @ 2% on the turnover of purchases. The number of assessees and the total collections made under this Act in the district for the years 1970-71, and 1980-81 are as follows:

NO. OF ASSESSEES AND TOTAL COLLECTIONS UNDER THE
W.B.P.T. ACT, 1970 IN 24-PARGANAS DISTRICT

	No. of assessees	Total collection Rs.
1970-71	25	82,284
1980-81	27	52,659

The number of assessees, total collections of income tax as also collection charges for the district of 24-Parganas for the years 1970-71 and 1973-74 are shown below.

Income-Tax

NO. OF ASSESSEES, TOTAL COLLECTIONS AND EXPENDITURES
IN 24-PARGANAS DISTRICT

Year	No. of assessees	Total Collection Rs.	Total-Ex- penditure Rs.
1970-71	21,239	58,54,000	4,32,000
1973-74	23,135	62,67,000	4,73,000

Total collection of customs duties and Dues (import/export) from the district of 24-Parganas for the years 1960-61, 1965-66, 1970-71 and 1973-74 are as follows:

Customs Duties
& Dues

Year	Total collection Rs.
1960-61	16,191
1965-66	1,78,317
1970-71	57,826
1973-74	2,84,313

Total collections of central excise dues from the district covering different items for the years 1970-71, 1973-74, 1974-75 and 1975-76 are Rs. 36,04,42,120, Rs. 49,59,54,772, Rs. 1,16,76,91,377 and Rs. 63,51,98,165 respectively.

Central Excise
Revenues

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CHAPTER XII

LAW, ORDER AND JUSTICE

Incidence of
Crime in the
district

In 1950, 25,402 criminal cases were instituted of which in 1,963 cases accused persons were convicted or bound over. The following table shows the number of criminal cases reported in recent years:

NO. OF CRIMINAL CASES REPORTED TO POLICE IN
24-PARGANAS DISTRICT: 1975-77

	1975	1976	1977
Dacoity	146	99	153
Robbery	146	90	150
Burglary	1,699	1,384	1,499
Theft	9,897	9,351	10,791
Rioting	1,976	2,026	2,253
Murder	141	125	157
Culpable Homicide	51	64	56
Other Cognizable cases	7,856	8,270	8,250

The following table shows the position of the General Register cases of Calcutta area as handled in the district.

GENERAL REGISTER CASES OF CALCUTTA HANDLED
IN 24-PARGANAS DISTRICT: 1975-77

	1975	1976	1977
Filed	4,108	4,652	4,133
Disposed	3,225	3,391	1,412
Pending	883	1,261	2,721

ORGANIZATION
OF THE
POLICE FORCE

The police administration is headed by Superintendent of Police belonging to the IPS cadre, though over him there is a Deputy Inspector General of Police, Presidency Range, looking after the police administration of Nadiya, Murshidabad and 24-Parganas districts. The Superintendent of Police is assisted by 4 Additional Superintendents of Police belonging to the IPS cadre who look after the crimes of four zones, namely, Barakpur, Barasat, South (Industrial) and South (Rural), the last two sitting at Alipur. There are

also an Additional Superintendent of Police looking after the District Intelligence Branch (Political) at Andul Raj Road, Calcutta-26 and an Additional Superintendent of Police, DIB, No. II, at Dam Dam Air Port who looks after anti-hijacking activities. There are Subdivisional Police Officers, belonging either to IPS or WBPS in each Subdivision excepting Sadar. There is also a DSP, District Enforcement Branch, Calcutta, under the control of Superintendent of Police. At headquarters, there are DSPs (Industrial) and a DSP (Crime) who look after Sadar Subdivision thanas.

There are 57 police stations, investigating centres and 65 outposts and town out-posts in the district. The police stations, are manned by Inspectors or Sub-Inspectors. There are 6 police courts in the 6 Subdivisions each in charge of a Court Inspector. The following table shows the deployment of police personnel in the different branches in the district (in 1978):

	Inspector	Sub-Inspector	Assistant Sub-Inspector	Head constable	Constable
District Intelligence Branch	7	87	58	1	236
District Enforcement Branch	7	24	7	—	36
Cordonning	4	63	143	1	435
Anti-Hijacking	12	67	28	—	46
Police Stations	23	210	221	116	1,602
Court staff	6	26	36	2	46
District Armed Police	3	15	—	240 (including 101 Naiks)	1,272

The district police establishment cost was Rs. 3,90,97,022 in 1975-76 and Rs. 4,13,92,930 in 1976-77, the latter including Rs. 2,81,284 for anti-hijacking establishment at Dam Dam airport.

The District Magistrate is the District Commandant of the National Volunteer Force in the district which help the police in tackling law and order situation and other problems. In this district 715 NVF personnel can be taken for law and order duties. They can stay for 3 months at a stretch. The District Company Commandant looks over the NVF administration. He is assisted by 4 Assistant Company Commandants posted at Bangaon, Basirhat,

West Bengal
National Volun-
teer Force

Diamond Harbour and Sadar. There are 2 Platoon Commandants under whom there are Assistant Company Commandants. The NVF personnel can also be deputed for work by private and other public agencies. Their daily wage has been revised since 19 May 1978; they now get Rs. 8.50 while in outside employment and Rs. 8.00 while in police. While aiding police a NVF personnel has all the powers of police.

Home Guard

The Superintendent of Police is the appointing authority of the Home Guards though there is a District Commandant who gets allowance for attending duties. A senior Adjutant, who is a Police Inspector, looks after the day-to-day administration. Besides, there are the Home Guard Commandant, the Deputy Commandant, Group Commandants, Deputy Group Commandants and the Home Guard personnel—trained, untrained but unlisted, untrained special mobilization personnel. There are also Lady Home Guards who help the administration in telephone exchange, check posts, police stations etc. The Home Guards are trained at Bangaon, Diamond Harbour, Barakpur and Thakurpukur. In urban areas they are trained for 9 weeks while in suburban training centre they are trained for 6 weeks. During the training period they get Rs. 15.11 per day. The total strength of Home Guards in the 24-Parganas District is as follows:

Target Strength

Urban: 4,817

Rural: 4,113

Actual Strength

Urban { Men: 2,361
Ladies: 202Rural { Men: 2,119
Ladies: 68

They get Rs. 15.11 as daily allowance for attending their duties in traffic control, check posts, Govt. railway police, telephone PBX, anti-hijacking activities, etc.

JAILS AND LOCK-UPS

There is a Central Jail at Dam Dam and four sub-jails, one each at Bangaon, Basirhat, Barakpur and Diamond Harbour. There is an Institute of correctional services at Barasat.

For the purpose of transfer of warders and other staff there are two circles, namely, Alipur (Central Jail) circle under which there

are Bangaon, Barakpur, Basirhat sub-jails and the Institute of Correctional Services at Barasat. Diamond Harbour sub-jail comes under the Presidency circle for the aforesaid purpose. Dam Dam (Central Jail) circle, similarly controls Krishnanagar and other sub-jails beyond this district in respect of warder establishment.

There are a Superintendent, a Deputy Superintendent, a Jailor, Deputy Jailors, a Medical Officer, a Disciplining Officer, a Chief Head Warder, Head Warders and Warders at Dam Dam Central Jail. The Subdivisional Officer is the ex-officio Superintendent of each sub-jail and he is assisted by a sub-jailor.

Prisoners serving long-term and life convicts are normally kept in Central Jails. Prisoners having sentences less than six months are kept in a District Jail, and prisoners who are under trial and short-term convicts—who stay there between 15 days and a month—are normally lodged at sub-jails.

The Inspector General of Prisons, West Bengal, has the power to transfer a convict from one jail to another. He can transfer under-trial prisoners subject to court concurrence. The Superintendent accepts a person into the jail custody on production of proper warrant.

Prisoners are to maintain jail discipline according to West Bengal Jail Code Rules, Volume I. They may get ordinary remission of sentence from 4 to 5 days per month from Superintendent for good conduct and excellent work. Special remission may also be given by the I.G. of Prisons for good conduct and excellent work for 60 days per year in the last three years of serving a sentence. The Superintendent can remit 30 days as special remission. Government also remits sentences on Independence day, Republic day and on other occasions.

Provision of parole (temporary release) exists for 30 days granted by I.G. subject to proper authority. A 'lifer' serving 14 years or 20 years gets remission under certain conditions subject to sanction by the Government. Offending prisoners are punished by a court in remission, cell-confinement, imposition of fetters, etc.

Primary education is given in all jails. Prisoners are allowed to appear in University examinations provided such examinations are conducted within the jail premises. There are instructors for moral education and provision for out-door/indoor games. Jails maintain libraries for prisoners who are also allowed to listen to radios and to read newspapers. There are normally two classes of prisoners, casual prisoners (termed 'A' class), and habitual prisoners convicted of heinous offences, the latter being lodged at a Presidency

Prison Discipline

Welfare of Prisoners

Jail. Prisoners who are to perform hard labour and medium or light labour, according to aptitude, are given wages in all Central/District/Special Jails at the rate of 50 p. per day for hard labour and 37 p. for medium and light labour. Diet and prison-kits are given free to all prisoners.

The table in Appendix A sets forth the daily average prison population in the jails of the district in recent years.

Offenders on
Probation

Although probation was introduced in the town of Calcutta, as defined in section 3 of the Calcutta Police Act, 1866 (Bengal Act IV of 1866), the suburbs of the town of Calcutta as defined by notification under Section 1 of the Calcutta Suburban Police Act, 1866 (Bengal Act II of 1866) and in the districts of Haora and Hugli with effect from 13th September, 1956 under the State Act on Probation the West Bengal Offenders (Release on Admonition and Probation) Act, 1954 (West Bengal Act XXXVIII of 1954), probation was enforced in the whole of the District of 24-Parganas under the Probation of Offenders Act, 1958 (Act XX of 1958) on 2 May 1960.

Provision was made for seven Probation Officers for the district with the following five headquarters:

1. Alipur (3 sanctioned posts)
2. Sealdah
3. Barakpur
4. Barasat (Jurisdiction Barasat-Basirhat-Bangaon)
5. Diamond Harbour.

The Act provides for non-institutional treatment for juvenile and adult offenders. Only offenders found guilty in respect of an offence punishable with death or life imprisonment are debarred from the benefit of the Act. Previous conviction is not a bar. Offenders both juvenile and adult may be released on probation. In Section 6 of the Act there are special provisions for offenders under 21 years of age which are as follows:

(1) The court shall call for a report from Probation Officer and consider that report before sentencing any such offenders to imprisonment.

(2) The court shall record its reason for sentencing any such offender to imprisonment instead of releasing him on probation.

The District Magistrate, 24-Parganas, is the local controlling officer of the Probation Officers and accommodations for the Probation Officers have been made available by him in Collectorate Buildings, S.D.O.'s office and other Govt. Buildings near about courts.

The Inspector-General of Prisons, West Bengal, is the head of the department who exercises his control over Probation Officers through the Chief Probation Officer, West Bengal.

No. of offenders dealt with under this Act in this district in 1977 divided into three age-groups are given below:

Up to 18 years	23
18-21 years	10
21 years and above	55

In this connection, it may be stated that the West Bengal Children Act, 1959 has been operating in the following police stations of the district of 24-Parganas:

P.S. Baranagar
P.S. Barakpur
P.S. Titagarh
P.S. Noapara
P.S. Khardah
P.S. Naihati
P.S. Jagaddal

That Act has got jurisdiction over offenders under 18 years of age in the areas mentioned above.

The roots of the present Judiciary in the district lie deep in the past and a series of experiments in judicial administration since 1772 yielded the marbles which make the mosaic of the judicial system of today.

In 1757, Clive saluted Mir Jafar, the new Nawab of Bengal, and secured for East India Company the Zamindari rights over the 24-Parganas, which became its absolute property in 1774. Before that, in 1765, the Company got Diwani of Bengal, Bihar and Orissa involving management of revenue and administration of civil justice. Thus, the flag followed the trade and the traders became the administrators of the district.

In its early phase, the administration of civil justice was the handmaiden of revenue collection, an instrument of filling the exchequer. In the first hundred years, a number of experiments took place involving repeated union and divorce between the fiscal and judicial functions. Thus, civil and revenue jurisdiction was united in 1772, separated in 1780, reunited in 1787, separated again in 1793, united for the third time in 1831 and finally separated in 1869. The progress of separating revenue or the executive from

ORGANIZATION
CIVIL & CRIMINAL
COURTS

criminal justice is under experiment to-day against the historical background of their union for over a century.

When the district became a unit of administration under the British, the native agency for civil justice and collection of revenue was allowed to continue till 1772. In that year, Diwani Adalat was established and placed in charge of the Collector of the district. A Faujdari Adalat was also set up in which a Kazi and a Mufti with the assistance of two Moulavis were to hold trials but the English Collector was directed to oversee its proceedings to ensure impartiality. In 1775, the Collector was recalled and the district civil court was placed in charge of an Indian officer from whose decision appeal lay to the Provincial Council, a revenue authority.

In 1780, the district civil court was made independent of the Provincial Council. Lord Cornwallis reversed the trend in 1787 and placed the civil court of the district under the charge of the Collector who was also given powers of a Magistrate to try less important criminal cases. A separate Mal Adalat or Revenue Court came into existence. The district criminal court was abolished and its place was taken by a Mobile Court of Circuit presided over by two officers of the Company who were assisted by Indian experts. Six years later the Cornwallis Code of 1793 effected a separation of judicial and fiscal systems. The Collector was divested of all judicial including magisterial powers which devolved on the officer called the Judge. Below the District Judge, there were two classes of inferior Judges, namely, the Registrar attached to the district court with pecuniary jurisdiction up to Rs. 200 and the Commissioners comprising the Munsifs headed by Sadar Amin, with pecuniary jurisdiction up to Rs. 50. In the period between 1793 and 1831, the Collector gradually recovered jurisdiction over rent and revenue cases and Act X of 1859 gave such jurisdiction to the Collector and Deputy Collectors at the expense of the civil court. But the position was reversed by Act VIII of 1869 under which all suits triable by the Collector and Deputy Collectors under Act X of 1859 were transferred to the cognizance of the civil court. In the meantime under Regulation V of 1831 the Registrar's Court was abolished, the Munsif's jurisdiction was raised to Rs. 300, the Judge was empowered to refer suits up to Rs. 1,000 to Sadar Ameen and up to Rs. 5,000 to Principal Sadar Ameen and the Judge was given original jurisdiction in all suits exceeding Rs. 5,000. The office of Judge-cum-Magistrate continued up to 1821 when under Regulation IV the Government vested magisterial powers in the Collector. The Court of Circuit was abolished in 1829 for having failed to afford prompt administration of

criminal justice, and its powers were transferred to the Commissioner of Revenue and Circuit of the Division. But two years later it was found that the pressure of work on the Commissioner was too heavy and the Governor-General was given the power to appoint temporarily the Civil Judge to hold sessions or generally invest him with criminal jurisdiction. Thus, out of the exigencies of administration, arose the office of the District and Sessions Judge which got legal footing in the Bengal Sessions Court Act of 1871. In the same year was passed Bengal Civil Courts Act dealing with the law relating to the district and subordinate court which was consolidated by Bengal, Agra and Assam Civil Courts Act (Act XII of 1887). It is under this latter Act that the Munsifs, Subordinate Judges, Additional District Judges and the District Judge exercise their jurisdiction. Small Cause Courts were established in 1860 and reconstituted by Act XI of 1887 under which suits up to value of Rs. 500 or if the local Government so directs to value of Rs. 1,000 became cognizable by those courts. The Criminal Procedure Code of 1872 proceeding on the same principle as Bengal Sessions Courts Act of 1871 established criminal courts and clarified their constitution and powers. Its successor, the Act V of 1898 governs the structure and jurisdiction of the criminal judiciary of the district, comprising the court of sessions, Assistant Sessions Judge and Magistrates of the First, Second and Third Class. Under Bengal Village Self-Government Act of 1919, union benches having jurisdiction concurrent with that of the criminal court for the trial of minor offences, were created in the district. Union courts were also set up with jurisdiction concurrent with the ordinary civil court over simple money suits up to Rs. 200.

Three special courts created under the West Bengal Act XXI of 1949 were functioning in this district in 1961. The object of creating these courts was to make special provision for the speedy trial of cases relating to bribery, fraud, etc. as the ordinary rules of procedure and evidence and the powers of a Magistrate under section 32 of the Criminal Procedure Code 1898 were not found adequate.

In 1961, the institution of title suits was said to increase after disposal of the appeals preferred under Section 44(3) of the Estates Acquisition Act by the Tribunal against the decision of the Settlement Officers. Appeals under Section 44(3) of the Estates Acquisition Act were instituted in large numbers since 1957 and were being filed in 1961. The appeals under Section 44(3) were then dealt with by a Tribunal presided over by an officer of the rank of a District Judge or an Additional District Judge when specially

empowered by Government in this behalf. The District Judge had exclusive jurisdiction over appeals filed under Section 5(A) of the Act.

Appeals under the West Bengal Land Reforms Act 1955 were also being filed in 1961 in large numbers which, under the rules, were to be disposed of by the Munsifs of permanent courts within a month from the date of filing. But the delay in transmission of records by Bhag Chas Boards almost always stood in the way of disposal in time.

Generally, the Munsifs of permanent courts were also appointed Controllers in 1961 under the Calcutta Thika Tenancy Act of 1949. The said Munsifs had also exclusive jurisdiction over the ejectment proceedings provided for in Section 5 of the Act. While ejectment proceedings under the other Acts, namely, West Bengal Premises Tenancy Act, 1959, West Bengal Non-Agricultural Tenancy Act 1949 and several other Acts, no less important than the Thika Tenancy Act, were disposed of by all the Munsifs, the ejectment proceedings under the Thika Tenancy Act had been unnecessarily placed only under the statutory Controllers.

There is no separate court to deal with suits and cases under the Intestate and Testamentary jurisdiction under the Indian Succession Act 1925. All non-contentious cases for granting probates and Letters of Administration are disposed of by the court presided over by the seniormost Subordinate Judge at Alipur and by the seniormost Munsifs of the outlying stations except Sealdah and Baruipur who have been specially empowered by the High Court to deal with these cases. These officers are designated as District Delegates. When cases for granting probates and Letters of Administration become contentious, they are filed in the Court of the District Judge and are registered as suits and then disposed of either by the District Judge or an Additional District Judge or any of the Subordinate Judge at Alipur who have been specially vested with powers to deal with such suits.

Cases for granting succession certificates are dealt with by the seniormost Subordinate Judge at Alipur and by the seniormost Munsifs of the outlying stations including Sealdah.

After promulgation of the Hindu Marriage Act, 1955 and the Special Marriage Act, 1954, the number of the matrimonial suits has been steadily increasing. There is no separate matrimonial court. The delay in disposal of these suits is mainly due to pre-occupation of the judges competent to deal with such cases, with sessions cases.

Some of the special Act cases over which the District Judge has exclusive jurisdiction and which his counterparts in other districts seldom come across are mentioned below :

1. Trade Union Act 1926.
2. Minimum Wages Act 1948.
3. Municipal assessment of Railway area under the Indian Railways Act 1890.
4. Claim cases under the Railways Act 1890.
5. Charitable and Religious Trust Act 1920.
6. Indian Insurance Act 1938.
7. Industrial Employment Standing Order Act XX of 1946.
8. Indian Companies Act 1956.
9. Indian Trade Marks Act 1940.
10. Indian Copy Right Act 1914.
11. Dentist Act 1948.
12. Payment of Wages Act 1936.
13. Public Premises (Eviction of Unauthorised Occupation) Act 1958.

Besides the above cases, a large number of cases under the Guardian and Wards Act 1890, Hindu Minority and Guardianship Act, 1956, Indian Lunacy Act, 1912 and the Provincial Insolvency Act, 1920 involving debts above Rs. 5,000 are field in the District Judge's Court.

A chart of institutions of cases under the Guardian and Wards Act and Hindu Minority and Guardianship Act in the 1960's are submitted below :

1958	—	304
1959	—	283
1960	—	294

Works of the District Judge in this regard are not confined to disposal only and the main burden which relates to the administration of the estates of the minors and the lunatics which generally extends over a number of years until the minors attain majority or the lunatics become sane or die, is borne by the District Judge. The work of the District Judge in regard to insolvency cases stated above also does not end with the disposal of the cases, that is, adjudication of insolvencies. Much is left for being done in connection with realisation and distribution of the assets of the insolvents until they are discharged.

A Subordinate Judge is vested with ex-officio powers by the State Government to deal with insolvency cases involving debts not exceeding Rs. 5,000. All matters relating to realisation and

distribution of assets of the insolvents adjudged by him are dealt with in his court but payments of dividends are made by the District Judge.

References under the Land Acquisition Act 1894 and West Bengal Land (Requisition and Acquisition) Act 1948 enormously increased during the 1960s owing to acquisition of land for the purpose of development work undertaken by Government under the 1st and 2nd five year plans.

There are one District Sessions Judge and five permanent Additional District & Sessions Judges of whom two are Special Land Acquisition Judges. Besides, there are ten temporary Additional District and Sessions Judges of whom two preside over two special courts created under the Criminal Law Amendment Act, 1949. One temporary Additional District & Sessions Judge also functions as Land Acquisition Judge. One Additional District and Sessions Judge presides over a temporary court stationed at Barasat. One Additional District and Sessions Judge presides over Motor Accident Claims Tribunal. One Additional District and Sessions Judge presides over the tribunal under the West Bengal Estates Acquisition Act. Two Additional District & Sessions Judges preside over tribunals created under Tribunal of Criminal Jurisdiction Act, 1952 (West Bengal Act XIV of 1952). One member of the West Bengal Higher Judicial Service functions as the Chief Judicial Magistrate of the district.

There are ten permanent courts of Subordinate Judges at Alipur and one Judge of Small Causes Court at Sealdah. At present, six Subordinate Judges (since designated Asstt. Dist. Judges) are vested with the powers of Assistant Sessions Judges.

Out of 22 permanent courts of Munsifs, 6 are situated at Alipur, 4 at Sealdah, 2 at Barasat, 3 at Basirhat, 1 at Bangaon, 3 at Baruipur and 3 at Diamond Harbour. There are at present 6 temporary courts of Munsifs, 3 being situated at Alipur, 1 at Sealdah and 2 at Diamond Harbour. Civil suits arising out of the jurisdiction of the Barakpur Subdivision, are handled by the Munsifs of Sealdah and Barasat. There is at present a proposal under the active consideration of the Government for opening of 2 courts of Munsifs at Barakpur. A Munsifi *Chauki* is situated at Baruipur within the Sadar Subdivision. One member of the West Bengal Civil Service (Judicial) is posted at Alipur as Registrar, Civil Courts. Generally, 10/12 Munsifs are vested with the powers of Small Causes Courts. The Munsifs of Alipur and Sealdah also exercise powers as Thika Controllers under the Calcutta Thika Tenancy Act.

There are six Subdivisional Judicial Magistrates for the six subdivisions of this district. There are thirty Judicial Magistrates and three Special Magistrates posted in this district. There are eight Judicial Magistrates at Sealdah within Sadar Subdivision but there is no Subdivisional Judicial Magistrate. The seniormost amongst the Judicial Magistrates acts as Senior Judicial Magistrate who performs the duties of the Subdivisional Judicial Magistrate.

The Metropolitan Magistrate-cum-Municipal Magistrates exercising jurisdiction over the Calcutta Suburban Police area commit cases triable by Court of Sessions of this Sessions Division.

Separation of Judiciary from the Executive was given effect to in this district in April 1974 with the coming into operation of the Criminal Procedure Code of 1973. Prior to the separation there were 59 Criminal Courts in this district. At the initial stage courts of Judicial Magistrates were created and the Judicial Magistrates started functioning with 90,790 pending criminal litigations as on 31 March, 1974.

Two recent pieces of legislation relating to marriage namely, the Hindu Marriage Act, 1955 and the Special Marriage Act, 1954, have undoubtedly placed the institution of marriage on a slippery slope. What was once considered as a holy and a religious sacrament is steadily assuming the characteristics of a contract for a tenancy at will. The numerous cases that have been brought to light since the introduction of the Acts are certainly encouraging the aggrieved parties who until now felt shy to come out in the open and proceed against the offending parties. The old idea that the marriage is not a contract but a sacrament has already undergone a perceptible change.

But, for lack of adequate data it is not possible to say if the old idea of marriage is changing with the spread of education amongst the backward classes. No figure is also available about the re-marriage of the divorced spouses.

The following table shows the number of divorce cases instituted under the Hindu Marriage Act, 1955 since 1960:

Year	No. of cases
1960	286
1970	548
1974	541
1975	619
1976	834
1977	903

Separation of
Judiciary from
the Executive

Nature of cases
handled

Divorce

The statement in Appendix B shows the nature and number of cases handled during 1948-60, while the statement in Appendix C shows such figures for 1975-77.

THE LEGAL PROFESSION AND BAR ASSOCIATIONS

Starting with a paltry figure of 15 members only in 1857 the Bar Association of Alipur has now (1978) on its roll 1,359 members. In 1961, there were 701 members. In the wake of partition there was heavy influx of lawyers from the then East Pakistan (now Bangladesh) to the Bar Associations of this district—which were already over crowded.

The Alipur Bar Library (in the civil court compound) consists of 2 (two) one-storied buildings and affords accommodation for 570 members, while its branch in the criminal court compound provides accommodation for 105 members.

The break-up of members of the legal profession in the subdivisions including the courts at Baruipur and Sealdah is as follows:

	Civil	Criminal
Alipur	570	150
Barasat	73	29
Barakpur	—	177
Basirhat	28	33
Bangaon	11	22
Diamond Harbour	45	—
Sealdah	115	85
Baruipur	60	—

Legal Aid Committee

There is one legal-aid committee in this district, of which the District Magistrate is the ex-officio President. This committee gives aid to the indigent litigants whose monthly income does not exceed Rs. 200 per month. One civil panel and another criminal are maintained for the entire district. Between the period from 30 December 1975 and 3 December 1977, the committee has given aid to 142 persons (cases) on their applications. The committee started functioning since November 1975.

APPENDIX A DAILY AVERAGE PRISON POPULATION IN SOME OF THE JAILS OF 24-PARGANAS DISTRICT: 1975-78¹

	Convict		Under-trial		Others		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
1975								
Dam Dam Central Jail	760.9	—	1,451.5	—	1,610.2	—	3,822.6	—
Bangaon Sub-jail	4.5	0.1	149.6	15.3	—	—	154.1	15.4
Basirhat Sub-jail	9.63	—	385.36	—	—	—	394.99	—
Barakpur Sub-jail	4.96	0.39	376.93	25.58	0.02	0.10	381.91	26.07
Diamond Harbour Sub-jail	2.61	—	398.92	11.54	—	—	401.53	11.54
Institute of Correctional Services, Barasat	10.8	—	—	—	23.5	—	34.3	—
1976								
Dam Dam Central Jail	634.92	—	1,154.88	—	1,887.47	—	3,677.29	—
Bangaon Sub-jail	3.9	0.14	133.4	0.08	0.31	0.24	137.65	0.46
Basirhat Sub-jail	7.0	—	307.0	—	—	—	314.0	—
Barakpur Sub-jail	15.0	0.9	433.33	25.5	—	—	499.33	26.4
Diamond Harbour Sub-jail	3.90	—	293.29	10.61	—	—	297.19	10.61
Institute of Correctional Services, Barasat	4.04	—	—	—	26.83	—	30.87	—

¹Source : Prisons Directorate, West Bengal.

APPENDIX A (Contd.)

	Convict		Under-trial		Others		Total	
	1977		1978		1978		1978	
	Male	Female	Male	Female	Male	Female	Male	Female
Dam Dam Central Jail	549.0	—	832.0	—	1,235.0	—	2,606.0	—
Bangaon Sub-jail	6.0	—	127.21	0.02	—	—	133.21	0.02
Basirhat Sub-jail	4.0	—	214.0	—	—	—	218.0	—
Barakpur Sub-jail	9.60	0.21	320.20	15.31	—	—	329.80	15.52
Diamond Harbour Sub-jail	3.0	—	244.0	—	6.0	—	253.0	—
Institute of Correctional Services, Barasat	6.0	—	—	—	39.0	—	45.0	—
Dam Dam Central Jail	417.0	—	478.0	—	621.0	—	1,516.0	—
Bangaon Sub-jail	8.1	—	94.3	1.0	—	—	102.4	1.0
Basirhat Sub-jail	4.10	—	139.31	—	—	—	143.41	—
Barakpur Sub-jail	3.32	—	201.3	14.2	—	—	204.62	14.2
Diamond Harbour Sub-jail	1.8	—	168.2	6.2	—	—	170.0	6.2
Institute of Correctional Services, Barasat	2.8	—	108.2	—	—	—	111.0	—

24-PARGANAS

APPENDIX B

STATEMENT SHOWING THE SUITS AND CASES HANDLED IN THE JUDGESHIP OF 24-PARGANAS FROM 1948-1960

Year	Suits for money & moveables		Title and Other Suits		Suits under Rent Law		Miscellaneous Cases		Title Appeals		Money Appeals		Rent Appeals	
	Institu- tion	Dis- posal	Institu- tion	Dis- posal	Institu- tion	Dis- posal	Institu- tion	Dis- posal	Institu- tion	Dis- posal	Institu- tion	Dis- posal	Institu- tion	Dis- posal
	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal	Dis- posal
1948	8,363	8,170	9,656	8,953	23,067	22,927	9,172	8,449	1,250	808	184	116	163	173
1949	9,128	9,174	12,114	9,306	22,441	23,094	9,297	9,729	1,097	995	190	187	205	167
1950	8,585	8,915	8,358	10,939	21,288	23,145	9,596	9,092	1,304	1,052	174	150	192	131
1951	9,266	8,198	9,635	9,053	22,779	23,148	9,908	9,310	1,159	1,122	136	133	145	205
1952	9,155	9,126	9,226	8,991	23,246	23,690	8,914	8,851	1,232	1,532	166	244	147	193
1953	9,467	9,673	8,802	9,175	27,475	36,615	9,495	9,396	1,271	1,905	217	318	173	213
1954	10,410	10,093	10,315	9,894	31,413	31,207	10,196	10,933	1,132	1,269	164	208	148	171
1955	10,832	11,236	10,271	9,726	30,877	32,013	10,547	10,113	1,198	1,013	160	150	113	123
1956	9,997	9,996	10,656	9,263	20,546	23,322	10,524	10,429	1,161	985	166	113	84	72
1957	9,417	9,426	12,768	10,983	16,036	17,179	10,440	10,239	1,108	1,346	162	191	40	68
1958	8,364	8,770	10,186	10,444	7,320	8,814	11,661	9,684	1,343	1,161	178	461	62	58
1959	8,034	8,337	9,752	9,796	721	1,484	11,604	9,990	1,289	1,143	158	158	36	38
1960	7,728	8,253	10,422	11,085	36	208	9,647	10,196	1,440	1,551	129	166	17	37

LAW, ORDER AND JUSTICE

APPENDIX B (Contd.)

Year	Miscellaneous Appeals		Rent Control Appeals		Estate Acquisition Appeals		Execution Cases		Sessions		Criminal Appeals		Criminal Motions	
	Institution	Disposals	Institution	Disposals	Institution	Disposals	Institution	Disposals	Institution	Disposals	Institution	Disposals	Institution	Disposals
1948	656	317	1,153	1,225	*14	1	21,056	21,316	228	219	667	659	169	167
1949	745	629	999	689	*0	13	20,104	22,410	222	242	598	575	168	162
1950	749	633	881	936	*4	2	19,335	22,422	200	212	520	522	259	222
1951	810	865	1,043	897	*3	1	19,665	22,262	212	215	511	567	200	224
1952	818	869	545	906	*1	5	19,813	19,332	230	243	554	530	275	237
1953	841	1,014	293	551	*5	2	21,726	20,028	216	243	562	606	299	237
1954	958	933	267	305	*4	4	25,217	24,732	210	226	652	629	328	325
1955	1,111	996	166	205	243	8	21,048	23,059	172	185	673	638	403	249
1956	1,181	1,106	185	149	1,468	209	17,333	17,333	207	197	718	684	555	537
1957	1,129	1,233	242	252	1,800	2,185	16,039	14,837	226	223	636	687	457	489
1958	1,139	1,177	183	225	43	1,177	16,397	14,679	283	236	891	819	424	442
1959	1,060	1,048	210	148	1,223	271	15,224	14,620	268	330	741	842	385	400
1960	1,032	1,147	172	210	1,539	1,545	14,841	13,727	263	284	637	660	304	304

*Settlement Appeals

APPENDIX C

CIVIL AND SESSIONS CASES IN 24-PARGANAS DISTRICTS: 1975-77

Nature of Litigation	Courts	1975			1976			1977		
		Pending	Filed	Disposed	Pending	Filed	Disposed	Pending	Filed	Disposed
Matrimonial Hindu Law	District & Addl. District Judge	631	621	595	713	834	654	966	929	851
Matrimonial Mohammedan Law	Sub-Judge	16 (Md.)	15 (Md.)	15 (Md.)	17 (Md.)	13 (Md.)	16 (Md.)	14 (Md.)	10 (Md.)	10 (Md.)
	Munsif	86 (Md.)	71 (Md.)	73 (Md.)	88 (Md.)	89 (Md.)	68 (Md.)	107 (Md.)	90 (Md.)	68 (Md.)
Title and Original Suits	District & Addl. District Judge	108	84	69	203	172	58	238	66	66
	Sub-Judge	3,083	1,276	912	3,672	1,410	967	4,092	1,332	1,183
	Munsif	27,116	11,678	9,416	29,916	12,090	1,759	33,022	11,625	9,355
Miscellaneous Cases	District & Addl. District Judge	2,583	1,304	1,221	2,682	1,340	207	3,186	1,316	1,280
	Sub-Judge	921	615	577	1,139	655	623	1,279	879	735
	Munsif	7,335	4,261	3,869	7,784	4,623	637	8,756	4,059	3,442
Regular	District & Addl. District Judge	1,256	2,564	1,298	1,361	2,520	1,010	1,645	1,479	1,042
Appeals	District Judge	106	86(Trans)	112	51	97(Trans)	69	65	359(Trans)	258
	Sub-Judge	—	—	—	—	—	—	—	—	—
	Munsif	—	—	—	—	—	—	—	—	—
Miscellaneous Appeals	District Judge & Addl. District Judge	425	1,432	771	396	1,629	767	452	770	717
	Sub-Judge	43	85(Trans)	160	28	136	116	43	140	159
	Munsif	—	—	—	—	—	—	—	—	—

APPENDIX C (Contd.)

Nature of Litigation	Courts	1975			1976			1977		
		Pending	Filed	Disposed	Pending	Filed	Disposed	Pending	Filed	Disposed
Execution Cases	District & Addl. District Judge	69	36	39	94	36	54	76	32	22
	Sub-Judge	3,691	1,174	924	3,060	—	—	3,886	1,406	1,975
	Munsif	7,563	2,530	2,092	8,002	2,397	2,025	8,364	2,376	1,672
Sessions Cases	District & Addl. District Judge	280	461	493	248	571	510	309	673	689
	Sub-Judge	—	—	—	—	—	—	—	—	—
Criminal Revision	District Judges & Addl. Dist. Judge	—	254	217	55	368	355	—	242	279
	Sub-Judge	—	—	—	—	—	—	—	—	—
Motor Vehicles Cases	District & Addl. District Judge	1,263	302	217	1,348	361	289	1,420	429	316
Money Suits	Sub-Judge	1,350	438	374	1,584	409	368	1,617	498	527
	Munsif	6,546	1,346	1,738	6,254	1,478	1,542	6,137	1,243	1,453
S.C.C. Suits	Sub-Judge	270	226	196	397	142	223	—	—	—
	S.C.C. Sealdah	5,662	2,915	1,826	6,480	2,168	2,075	689	2,700	3,131
	Munsif	1,457	309	405	1,313	385	352	1,345	327	223
Special Court Cases	Addl. District Judge	17	35	56	21	62	17	75	49	18
Criminal Appeals	District & Addl. District Judge	16	115	119	12	127	128	12	103	91

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24-PARGANAS

CHAPTER XIII

OTHER DEPARTMENTS

The Public Works Directorate administration in the district is headed by the Superintending Engineer, (PWD), Eastern Circle, 45 Ganesh Chandra Avenue, Calcutta-13. There are 5 divisions under him, each headed by an Executive Engineer. They are subdivided into 16 subdivisions, each in the charge of an Assistant Engineer. The divisions and subdivisions are named below :

PUBLIC WORKS

Name of division	Name of subdivisions under it
North Calcutta	(1) Dam Dam (2) Barakpur (3) Haringhata (4) Bidhan Chandra Krishi Viswa Vidyalya construction
Alipur I	(1) Alipur Subdivision I (2) Chetla (3) Baruipur
Alipur II	(1) Diamond Harbour (2) Jaynagar (3) Kakdwip
Barasat	(1) Barasat (2) Bangaon (3) Basirhat
E.S.I. (Hospital) construction	(1) E.S.I. Maintenance (2) E.S.I.-I (construction) (3) E.S.I.-II (construction)

The department constructs Government buildings and maintains them. It also maintains National Highways and State Highways which are handed over to it by the Public Works (Roads) Department after construction.

The Superintending Engineer, State Highway Circle No. I (Construction) looks after the construction and maintenance of bridges and roads schemes from the Second Plan period. Similar works of the First Plan are in the hands of the Superintending

PUBLIC WORKS
(ROADS)

Engineer, Public Works Department. The Superintending Engineer who also looks after other districts like Haora and Medinipur has an Executive Engineer, 24-Parganas Highway Division who looks after the highway matters in the district. He has 7 subdivisions under him headed by an Assistant Engineer in each, namely, (1) Alipur (2) Baruipur (3) Diamond Harbour (4) Barasat (5) Habra (6) Basirhat and (7) Quality control.

The Superintending Engineer, Bridge Planning Circle looks after the planning of bridges. He has the Highway Design Division No. III, headed by an Executive Engineer, which looks after the Bridge Planning Works of this district and a few others.

The Superintending Engineer, State Highway Planning Circle, through his Highway Survey Division No. III, headed by an Executive Engineer, looks after the State Highway Planning in this and other districts.

AGRICULTURE

North Zone

The agriculture administration of the district is divided into two zones, namely, North 24-Parganas and South 24-Parganas.

The Principal Agricultural Officer, North with his headquarters at Barasat is in overall charge of the agricultural administration of Bangaon, Barasat, Barakpur and Basirhat Subdivisions. Under him there are three Subdivisional Agricultural Officers, one for the Bangaon Subdivision, one for the Basirhat Subdivision, and one for the Barasat and Barakpur Subdivisions. At the Block level there are Agricultural Extension Officers who work under the Subdivisional Agricultural Officers.

The Agricultural Extension Officers are assisted by Assistant A.E.Os, Agriculture Demonstrators, Jute Field Assistants, etc. At the block development level there are the village level workers drafted from the former Union Agriculture Assistants. There are also the Gram Sevaks meant for intensive agricultural schemes and Gram Sevaks looking after normal agricultural work.

At the headquarters of the P.A.O. there is one Jute Development Officer, one District Plant Protection Officer, one District Agricultural Information Officer. Besides, there are a Fruit Development Officer, a Fertilizer Promotion Officer, a Technical Officer, a Training Officer (Male), and a Training Officer (Female) the last two imparting training and education to farmers. The officers look after the improvement of agriculture in the northern areas of the district. They took up the following schemes during 1977-78: Cocoanut Development Scheme, Arecanut Development Scheme, Fruit Deve-

lopment Scheme, Plant Protection Schemes, Farmers' Training & Education Centres, Intensive Jute Area Programme, Intensive Jute District Programme, Free distribution of seeds and seedlings for relief works, Crop Cutting Experiment, State Sector Scheme for Development of Cotton, Demonstration on Groundnut etc. Such activities were intensified in subsequent years.

The Principal Agricultural Officer, South, with his headquarters at Bhawani Bhaban, Alipur, Calcutta is in-charge of the Agricultural Administration of the southern areas of the district. At the headquarters he is assisted by a District Plant Protection Officer, a Technical Officer and a Fertilizer Promotion Officer. He has 2 agricultural subdivisions under him, namely, Alipur and Diamond Harbour. The subdivisions are immediately administered by the Subdivisional Agricultural Officer, one in each subdivision who is assisted by Assistant S.A.Os. There are 29 Agricultural Extension Officers, one each in 29 blocks. There are also 50 Assistant A.E.Os. in all in the blocks. There are 7 Block Seed Farms in the district, looked after by a Manager in each. There is a Horticulture Farm attached to Bishnupur Block I and 3 Cocoanut Nursery Farms, one each at Baruipur, Bishnupur I and Sagar Blocks.

South Zone

For the implementation of the schemes of the department the district is divided into two zones, 24-Parganas North with headquarters at Barasat and 24-Parganas South with headquarters at Dam Dam. The north zone looks after the departmental activities of the northern portion of the district, while the south looks after the southern portion of the district. Both the zones have similar administrative set-up. There is a District Veterinary Officer in each zone who controls administration and finance and implements various schemes. He is assisted by a Senior Veterinary Surgeon of the hospitals. He attends out-door for treatment of ailing animals and also treats indoor patients. He looks after artificial insemination and anti-sterility programmes. The Veterinary Surgeon attached to a block veterinary dispensary is in overall charge of the departmental activities in the block area. He treats those who come to the out-door department of the block dispensary. He takes control measures for epidemics and looks after the artificial insemination and other schemes. There is a Veterinary Surgeon attached to a block. He attends Aid Centres, additional Aid Centres and Sub-Centres periodically and supervises mass vaccination and ailing cases which he may come across in course of his tours. There is

VETERINARY

a Veterinary Pathologist attached to the Diagnostic Laboratory in the district who performs pathological examinations for identifying diseases. He also suggests control measures during an epidemic. There is a Veterinary Surgeon attached to the Mobile Laboratory for rendering veterinary aid to various corners. A Veterinary Surgeon of the Vigilance Unit keeps watch on border areas for animal movement and takes measures for the prevention of infectious diseases coming from outside. The Senior Veterinary Surgeon of the Parasitic Control Unit takes measures against parasitic diseases. The Veterinary Field Assistants attached to the dispensaries perform mass vaccination and inoculation and help the Veterinary Surgeon in the treatment of ailing cases.

FOREST

The Divisional Forest Officer having his office at Alipur, Calcutta heads the forest administration in the district. He is assisted by an Assistant Divisional Forest Officer and an Assistant Forest Officer. There are two ranges, namely, the Namkhana Range headed by a Forest Range Officer stationed at Namkhana and the Soil Conservation Range headed by a Forest Range Officer stationed at Bakkhali. There is one Group Officer of the rank of Forest Range Officer stationed at Namkhana. Another Forest Range Officer is stationed at Canning who is in-charge of the Matla station. A Forest Range Officer is stationed in the headquarters. Another Forest Range Officer is in-charge of the Crocodile Project at Bhagabatpur which has been opened since 7 May, 1977. A Crocodile Centre has been opened at Dhanchi under the charge of a Forest Range Officer. It has been started from 7 May, 1977. The Namkhana Range has under it five Revenue Stations each under the charge of a Deputy Ranger/Forester, namely, Namkhana, Sikarpur, Patharpratima, Nalgora and Kultali. There are four Check Stations at Chandanpiri, Saptamukhi, Herobhanga and Dhanchi in this range. There are also three Patrol Offices at Nagora, Kultali and Sikarpur in this range. The Soil Conservation Range has two stations at Patibunia and Bakkhali. The Range Officers look after the sales of forest products, the maintenance of forests, afforestation, fish products, etc. There is also a Honey Filtration Centre in this Division at B. B. Ganguli St., Calcutta which is under the charge of a Deputy Ranger/Forester. The establishment cost (including pay, travelling allowance, contingencies, etc.) of the Division for 1976-77 was Rs. 6,69,730. The Division earned a revenue of Rs. 7,65,057 from different items as stated:

	Rs.
Timber	45,840
Fuel	1,72,850
Honey	4,13,371
Other minor forest produce	37,965
Miscellaneous	95,029

INDUSTRIES

The earlier Commerce and Industries Department had only one directorate, namely, Directorate of Industries. In 1966, the Commerce and Industries Department and the Cottage and Small Scale Industries Department each having a directorate of the same name started functioning. In early 1976, the C & SSI Directorate was further divided into three directorates, namely, C & SSI Directorate, Seri-culture Directorate and Handloom Directorate. Plants and Machineries worth up to Rs. 25 lakhs come within the purview of the small scale industries. The Commerce and Industries Directorate looks after the industries beyond that limit.

There is a Project Officer, Rural Industries Project at Barasat since 1963 who heads the C & SSI Directorate administration in the district. He directly looks after the small industries projects of the district. He directly looks after the small industries projects of the northern subdivisions of Barakpur, Barasat, Basirhat and Bangaon. He is assisted by a Planning-cum-Survey Officer, four Technical Specialists, four Industrial Promotion Officers, three Economic Investigators, an Assistant Extension Officer, and Assistant Inspector (Statistics). There are also Extension Officers (Industries) in the development blocks. This office runs two bee-keeping units at Mirhati and Chhotojagulia.

There is a District Industrial Officer who looks after the Rural Industries Project of the Sadar and Diamond Harbour subdivisions. This post is a heritage from the earlier Commerce and Industries Directorate.

CHAPTER XIV

LOCAL SELF-GOVERNMENT

EARLY HISTORY

In the early 19th century, committees were formed to look after education, ferry, roads, etc., by the executive order of Government and funds were raised by imposing certain taxes for that purpose. In rural areas, self-government and local taxation under British aegis may be dated from Mayo's Resolution of 1870. The Bengal Village Chaukidari Act of 1870 divided the countryside into "Unions" comprising about 10 or 12 sq. miles (26 to 31 sq. kms.). These areas were placed under Panchayats or Committees selected by the Magistrate. These Panchayats had the power of appointing watchmen and assessing all owners and occupiers of houses in order to provide for the payment of their salaries, over whom they were to exercise general control. The District Road Cess Act, 1871 provided for "Local rating for the construction and maintenance of roads and other means of communications within the Lower Provinces of Bengal..."

District Board

The Bengal Local Self-Government Act of 1885 set up three classes of local authorities—The District Board, the Local Board and the Union Committee. The District Board had jurisdiction over the whole district while the Local Board was meant for each subdivision and the Union Committee for selected areas within the subdivision. The powers and duties conferred by the Act on the District Board related to roads and communications, education, hospitals and dispensaries, vaccination and sanitation, veterinary work, rest houses, pounds and ferries, famine relief, census operation, etc. The District Road Committees and the District Committees of Public Instructions were abolished and their places were taken by the Board. In 24-Parganas, the District Board had in its early years 21 members, of whom 5 were ex-officio members, 6 appointed by the Government and 10 elected. The District Magistrate was the ex-officio Chairman. Its incomes during the 1906-07 to 1910-11, were as follows:

Years	Income
1906-07	3,18,528
1907-08	3,31,146
1908-09	3,12,295
1909-10	3,24,756
1910-11	4,16,072

In 1911-12, the income was Rs. 4,12,662 excluding the opening balance and including the sum of Rs. 1,40,000 received from the Government for civil works. The Board then maintained 10 dispensaries and aided 12 others. It also maintained 3 middle schools and gave grants-in-aids to 48 middle, 66 upper primary, 1,032 lower primary and 110 other schools. It maintained 179 miles of metalled roads, 380 miles of unmetalled roads and 1,042½ miles of village roads.

In 1950-51, its expenditure was Rs. 4.02 lakhs, against Rs. 4.27 lakhs in 1913-14. In 1963-64, the last year of existence of the Board, the expenditure rose to Rs. 8.97 lakhs. In 1913-14, the Board spent Rs. 2.17 lakhs for road repairs and Rs. 80,000 for education. In 1963-64, the cost of road repairs went down to Rs. 1.20 lakhs and that towards education to Rs. 37,000. In 1963-64, the cost of medicines supplied through dispensaries amounted to Rs. 43,000. However, the lion's share of its income was utilised to meet the establishment cost. In 1913-14, the establishment cost was Rs. 55,000 which shot up to 3.47 lakhs in 1963-64.

The Local Board set up under the Act had a minimum of 6 members and two-thirds of them were elected on certain property qualifications and the rest nominated by the Government. There were 5 Local Boards in the district, one each in every subdivision except Bangaon, which came over to the district in 1947 following the partition of the country. In 1914, Barasat and Basirhat local boards were presided over by the local Subdivisional Officers, while the other three boards had non-official chairmen elected by the members. These boards looked after unmetalled roads, village roads, pounds and ferries within their respective areas.

Local Board

The Union Committees comprised one or more villages and were administered by 5 to 9 members. They were elected by an electorate having certain property or educational qualifications. There were a Chairman and a Vice-Chairman in each Committee. The Committees looked after village roads, water supply, sanitation, etc. In 1895 three unions were formed in the district, named as follows:

Union Committee

Unions	Subdivision	Area in Sq.miles*	Population
Itinda	Basirhat	10	13,450
Jadurhat	Basirhat	10	11,922
Basudebpur	Barakpur	6	5,400

* 1 sq. mile = 2.59 sq. km.

In 1913-14, Basudebpur Union was divided into two Union Committees, namely, Rahuta and Madral and the total income of the four committees was Rs. 2,675. None of the committees was allowed to raise taxes. In 1921-22, the Madral-Narayanpur Union Committee was permitted to raise taxes and in the first year it raised Rs. 421 as tax. Later, 17 Union Committees were formed and in 1924-25, they had a total income of Rs. 18,379. They had a total number of 139 members of whom 84 were elected and 55 nominated.

The Bengal Village Self-Government Act, 1908 (Amending Act of 1908) extended the scope and activities of the District Board as also the powers of the Union Committees. It further required the District Board to appoint the Education Committee and also the Sanitation Committee. The Union Committees depended on the District Boards for finance, and they failed to create an effective system of rural self-governing institutions. The Bengal Village Self-Government Act V of 1919 amalgamated the functions of Chaukidari Panchayats with those of Union Committees by creating the Union Boards, vested with the powers and duties necessary for catering to the collective needs of the villages and entrusted with powers of self-taxation necessary for the purpose. The number of members of the Union Board should not be less than 6 and not more than 9 with one-third of the total number of members being appointed by the Government. The Bengal Act XXIV of 1932 and the Act III of 1933 further extended the function of the District Board. The Bengal Act XIV of 1936 extended the term of office of the members of the District or Local Board from 4 to 5 years. The West Bengal Act IX of 1947 abolished the nomination system in the District Boards while the Act VII of 1949 and Act XXXII of 1950 defined the qualifications of voters of District Boards where no Local Boards existed and allowed women to vote and stand as candidates.

During 1935-36 the 24-Parganas District Board maintained 23 primary schools and made a grant of Rs. 500 to Sanskrit *tois*. The Union Boards were formed in different areas of the district between 1923-53. There were altogether 281 Union Boards before the establishment of the Panchayati Raj institution. Some of them had courts and benches attached to them.

MUNICIPALITIES

Besides some earlier attempts at establishing municipal government, Act X of 1842 was the first Municipal Act which enabled

the inhabitants under the Presidency of Fort William, not within Calcutta, to make better provision towards public health and convenience. The scheme was a voluntary one and the taxation was direct, so nothing tangible came out of it.

Although some Acts, especially, Act XXVI of 1850 and Act XX of 1856, were passed in the meantime, the next important Act applicable to Bengal was the District Municipal Improvement Act of 1864. After the Mutiny, the Imperial Government which was beset with chronic deficit in its finances, strongly favoured the principle of local taxation for local amenities. A very fatal epidemic ravaged villages after villages in Presidency and Bardhaman divisions. In order to fight out this epidemic as also to remove dirt and nuisances that were piling up in towns adversely affecting the health of the troops stationed therein, a local authority was an urgent necessity. So this Act was passed for appointing municipal commissioners in towns who would look after police, conservancy services, roads, drains and tanks. It could impose a tax not exceeding 7½% on the annual value of holdings. Thereafter and till 1880 at least six Acts were passed relating to improvement and extension of municipal activities, three being amending Acts.

The amending Act of 1868 was intended to apply to small towns and gave a larger measure of self-government. In 24-Parganas a number of municipalities was formed on the basis of these Acts. The earliest municipalities of the district, namely, Naihati, North Barakpur, Baranagar, Barasat, Basirhat, Baduria, Jaynagar-Mazilpur and South Suburban were established in 1869, while North Dam Dam, South Dam Dam and Gobardanga had their municipalities established in the following years.

Lord Ripon, the Governor-General of India, announced his famous resolution of local self-government on 18 May 1882, and on the basis of it the Bengal Municipal Act of 1884 was passed. This Act made provision for elected municipal commissioners and abolished all distinctions between different classes of municipalities. But the progress towards self-government received a set-back owing to distrust and reluctance on the part of the Government to hand over genuine powers to the people.

But, following the prolonged agitation by the nationalist leaders, the Government appointed a Royal Commission in December 1907 which recommended larger powers for the municipalities in 1909. By and large the Government accepted the Commission's recommendations while pointing out certain difficulties impeding free development of local self-government in a resolution made in April

1915. After the war, a fresh policy statement was made by the Government of India headed by Lord Chelmsford on 14 May 1918 to remove deep frustration and discontent amongst the people caused by the August 1917 declaration of the British Parliament and in tune with it the Government of India Act, 1919 was passed which introduced some new reforms and Local Self-Government became a transferred subject under the control of an elected minister. The Act of 1884 also became very much back-dated, so a new comprehensive Act was passed, though very late, which is styled as the Bengal Municipal Act, 1932. The present municipalities are governed by this Act.

The Garden Reach Municipality was amalgamated with the Calcutta Corporation in 1923, but in deference to public opinion it was again constituted into a separate municipality in 1932.

O'Malley noted in 1914 that municipalities proliferated to cope with the increase of population and the growing demand for better sanitation and conservancy, particularly in the suburbs of Calcutta and in the mill towns along the Hugli. He further noted that outside suburban areas, the municipalities were rural in character and included much cultivated land. While much of this observations still hold good, the problem of population explosion has become very acute since Independence following the influx of people from erstwhile East Pakistan (Bangladesh) and also with the growth of industries in the suburbs of Calcutta. Some municipalities like the New Barakpur Municipality, the Habra Municipality, the Asokenagar-Kalyangarh Municipality and the Jadabpur Municipality have come up in areas peopled by immigrants from the erstwhile East Pakistan (Bangladesh).

The district has at present 31 municipalities, the largest in terms of size and population being South Suburban with an area of 30.38 sq. kms. and a population of 3,78,765 according to the Census of 1981. Dam Dam has the smallest size with an area of 0.20 sq. km. while Jaynagar-Mazilpur has the lowest population with only 16,343 heads.

The growth of planned townships in Calcutta suburbs, but within the district, has been a feature of urbanization in the district. The former Salt Lake, a swampy land, has now become a planned township. So is the case with Lake Town which now forms part of the South Dam Dam Municipality. The West Bengal Government Township (Extension of Civic Amenities) Act, 1976 with an amendment (West Bengal Act XXXII of 1976) has been passed to provide for extension of civic amenities to Government Townships

in West Bengal. The municipal activities of the Salt Lake City are governed by this Act. According to this Act, the State Government may apply to Government Townships: (a) any provisions of the Calcutta Municipal Act, 1951, the Bengal Municipal Act, 1932, or the Calcutta Metropolitan Water and Sanitation Authority Act, 1966, (b) any provision of any other Act which applies to the Corporation of Calcutta or to a municipality or (c) any rule or bye-law in force in such Corporation or Municipality.

The table at Appendix A gives relevant facts connected with the area, population, number of rate payers, percentage of rate payers to total population while the tables at Appendix B and C give relevant information regarding income and expenditure of these municipalities during the year 1976-77. The table at Appendix D gives the percentage of some of the principal items of expenditure to total expenditure during the same year.¹

Several new townships came into existence in the suburbs of Calcutta in the wake of influx of people from erstwhile East Pakistan (Bangladesh). Three such townships, namely, Lake Town, Bangur Colony and Krishnapur Co-operative Housing Colony, cropped up within South Dam Dam Municipality. The Lake Town project initiated by the Co-operative Housing Ltd. was ultimately taken over by the Development and Planning Department. It covers an area of 140 acres developed into 816 residential plots in two blocks. These plots and 71 houses for Middle Income Group had been allotted. The sewerage system of this area was completed and individual houses were connected with the system in 1973-74. The receipts under this scheme amounted to Rs. 78,399 in 1971-72, Rs. 1,27,501 in 1972-73, Rs. 1,06,676 in 1973-74 and Rs. 76,632 in 1974-75. A Junior High School for girls sponsored by the Development and Planning Department started functioning since January 1974. Bangur Colony was a purely private venture sponsored by M/s Amalgamated Land Development Corporation Ltd. The Krishnapur Co-operative Colony was sponsored by the co-operative society under the same name.

Another Co-operative Housing Colony named as Senhati Co-operative Colony came into existence under the Behala P.S., and forms part of the South Suburban Municipality.

¹ Source: Bureau of Applied Economics and Statistics, Government of West Bengal.

Non-Municipal
urban area of
the District

The district has quite a good number of non-municipal urban areas, area and population (according to the Census of 1981) of which are given below :

Name of the Subdivision	Name of the Non-Municipal Urban area	Area in sq. km.	Population (1981)
Barasat	Krishnapur	9.12	25,277
	Raghunathpur	—	7,672
	Jyangra	1.96	17,803
	Arjunpur	0.82	12,038
	Madhyamgram	9.71	47,914
	Nebadhai Datta-pukur	3.29	10,882
	Nabapalli	7.85	31,809
	Deulpara	7.20	33,146
	Madral-Fingapara	3.96	9,252
Barakpur	Panpur	3.71	5,900
	Gurdaha	1.64	8,394
	Ichhapur defence estate	2.31	10,452
	Barakpur Cantonment	3.68	19,900
	Kerulia	0.51	4,951
	Patulia	2.03	9,465
	Bandipur	—	7,324
	Garui	1.23	10,278
	Sultanpur	3.05	29,176
	Bandra	0.69	7,678
	Bisarpara	1.92	9,930
	Gopalpur	—	15,160
	Bidhan Nagar Township	—	33,175
	Panchur	7.87	51,223
	Gobindapur	—	6,058
	Jagannathgar	2.91	16,134
	Noapara	—	6,208
	Krishnagar	1.35	7,328
	Mahestala	—	5,031
	Chandannagar	—	4,184
	Batanagar	1.22	15,291
Sadar	Panchur	7.87	51,223
	Gobindapur	—	6,058
	Jagannathgar	2.91	16,134
	Noapara	—	6,208
	Krishnagar	1.35	7,328
	Mahestala	—	5,031
	Chandannagar	—	4,184
	Batanagar	1.22	15,291
	Panchur	7.87	51,223
	Gobindapur	—	6,058

Name of the Subdivision	Name of the Non-Municipal Urban area	Area in sq. km.	Population (1981)
Sadar (Contd.)	Nungi	6.91	54,035
	Chata-Kalikapur	—	11,082
	Uttar Raypur	5.32	13,980
	Birlapur	4.84	20,470
	Sripur-Bagharghal	—	8,699
	Chak Kasipur	—	7,053
	Laskarpur	—	10,359
	Bawali	—	8,737
	Kanyanagar	1.80	7,617
	Sonarpur	—	10,638
Diamond Harbour	Canning	12.98	25,203
	Diamond Harbour	6.47	20,299

The Barakpur Cantonment Board, an autonomous body created in 1862 to provide civic amenities to the residents of the cantonment, consists of fourteen members including the Station Commander who acts as the President of the Board, and thirteen other members of whom seven are elected and the rest nominated. The nominated members are: Garrison Engineer of the Military Engineering Service, Medical Officer, AFQ leader, a representative of the District Magistrate and two representatives of the two wings of the army. One member from amongst the few elected members acts as the Vice-President of the Board. Besides there is the Cantonment Executive Officer who looks after the day to day activities of the Board. The term of the Board is three years. The income of the Board is derived from local taxation, besides grants from the Union Government.

Barakpur
Cantonment
Board

The Housing Department took up four housing projects involving construction of a total of 2,056 flats at (I) Salt Lake (Bidhan Nagar), 700 flats (II) Paikpara (near State Garage), 704 flats (III) Baishnabghata, 272 flats and (IV) Gopal Lal Thakur Road (Baranagar), 380 flats at an estimated cost of Rs. 455.04 lakhs during 1971-72. The entire amount was available from the CMDA as loan.

Housing Project
with Finance
from the CMDA

In 1974-75, a total of 1,488 flats was constructed. In this year, all the four estates were transferred to the West Bengal Housing Board, which offered these completed flats for sale either instantly or on hire-purchase basis to intending purchasers having no houses of their own. The remaining flats were built by the West Bengal Housing Board out of its own resources.

The Housing Directorate took up for execution four subsidized housing projects on agency basis on behalf of the CMDA in 1971-72 involving construction of 1,820 flats for weaker section of the people at (I) Gumar Math (Baj Baj) 396 flats, (II) Kamarhati 520 flats, (III) A. K. Mukherjee Road (Baranagar) 232 flats and (IV) Sampa Mirza Nagar (Baj Baj Road) 672 flats at a total estimated cost of Rs. 190.74 lakhs. The Housing Department recently constructed (1983) 128 flats for the low income group and 64 flats for middle income group people at Silpara, Barisha. Another 352 flats under the Low Income Group Housing Scheme are also under construction at Sampa Mirza Nagar (Baj Baj Road).

Housing Project
Financed by
HUDCO

Another project involving construction of 808 flats and 181 homestead and commercial plots for sale on hire purchase basis at a total estimated cost of Rs. 184.20 lakhs was taken up in 1972-73 at Kalidaha, South Dum Dum. The Housing and Urban Development Corporation (HUDCO) agreed to make an advance of Rs. 174.71 lakhs as loan for execution of the project. The State Government expended the balance out of its own fund for acquisition of the land measuring about 14,666 hectares. In 1974-75 about Rs. 61 lakhs were spent for execution of the project and a total loan of Rs. 64.25 lakhs were drawn from HUDCO.

SALT LAKE*
BIDHAN NAGAR
CITY

Unlike many other cities, the expansion of Calcutta has, on account of its location, always posed a serious problem. Hemmed in by the Hugli on one side and by marshes and brackish lakes on the other, the city's growth has been restricted to its northern and southern suburbs thereby causing a serious problem to its steadily growing population.

The idea of finding an outlet for the increasing population through a new city by reclaiming the marshy and watery wastes which, since recorded time, have ever been a source of nuisance to the people of Calcutta, is not a new one. Various methods of reclaiming these watery areas were suggested from time to time, but none of these proved financially sound. At last the idea of filling these watery areas by sand and silt procured by dredging from the bed of river Hugli was first conceived by the Late Chief Minister, Dr. B. C. Roy.

The work of reclamation, i.e. filling these watery wastes with sand and silt, was allotted to a Yugoslav firm, named M/s. Invest-

* Source: Shri P. D. Roy, Administrator, Bidhan Nagar.

Import after calling global tenders and the project of reclamation and development of about 6 (six) sq. miles of these watery wastes was inaugurated by late Dr. Roy on 16th of April, 1962 for the people of Calcutta. The work of reclamation continued without any break till November, 1970 when, after reclamation of more than 5 (five) sq. miles, the work was suspended for unavoidable reason.

The reclamation of the watery wastes has been done by dredging the bed of the river Hugli and pumping the dredged materials into the area to be reclaimed. The total quantity of fill that has to be dredged and pumped to raise the area of more than 5 sq. miles up to a level (+) 1,200 P.W.D. is about 760 million cft. The cost incurred is about Rs. 17.00 crores.

The constructional plant provided for the reclamation work consists of 11 floating units (2 dredgers, 2 tugpusher boats, 5 barges and 2 survey launches), 3 boosting stations, a 5-mile pipe line and necessary emergency alarm arrangements as well as long distance operation and communication devices.

The site lies just east of Maniktala and it is bounded on three sides by Krishtopur canal and filled-up-portion of New Cut Canal. The whole area was divided into 5 (five) Sectors—Sector I, Sector II and Sector III as residential townships and Sector IV and Sector V as Industrial areas.

The project for development of Salt Lake City contemplates the creation of a new township with modern amenities in the shape of roads, underground drainage, underground sewerage, electricity, water-supply, parks, markets, recreation grounds, etc. With the completion of reclamation work, development works were taken up Sector by Sector and such works were completed in Sector I and habitation has already started. At present about 2,500 flats and individual buildings have been completed and occupied. Development works in Sector II have also been completed and the plots are now ready for sale. Development works such as sewerage, drainage, water lines and roads are already under execution in Sector III.

Land Use Pattern

Residential	50.0%
Roads and car parks	23.0%
Main greenery (Town Park 5.1%)	12.1%
Education & Scientific	2.4%
Government administrative uses	1.3%

Land Use Pattern—*contd.*

Social uses	1.9%
Trade and business uses	1.2%
Industrial uses	3.4%
Hospital	1.5%
Co-operative development	2.3%
For special uses	0.9%

Roads and car-parks : All roads excepting the local roads within the residential blocks will be dual carriage-way roads, with central reservation of varying widths. Each carriage-way again will carry two or more lines of traffic. This system will ensure more orderly and easy flow of traffic with minimum congestion. Adequate provision of car-parks have been made in and around each traffic generation points, namely, trade and business centres, markets, administrative and social centres, etc.

The width of local roads are 30'-0" and 38'-0" and other dual carriage-way roads vary in width from 56'-0" to 159'-0". The approximate total length of roads is about 150 miles.*

The Calcutta Improvement Trust took up the development of Ultadanga, Maniktala, Beliaghata and Narkeldanga areas. Salt Lake City will be connected to Calcutta through four wide roads at the above points.

The Eastern Metropolitan By-pass will pass through Salt Lake along its western boundary. This will originate from the southern suburbs of Calcutta, pass through eastern peripheries of Calcutta and then enter into Salt Lake at Beliaghata and finally, emerge out of it near Ultadanga. The works along the proposed by-pass are under way.

Sewerage & Drainage System : This modern township will have two networks of underground drainage lines, one set carrying the sanitary sewage discharge ultimately into Bagjola Sewage treatment plant, while the other carrying the storm water draining ultimately to Kristopur Canal at several outfall points. This is a modern and scientific system ensuring more efficient drainage than the old combined system of drainage as existing in Calcutta.

The approximate total length of sewer line and drainage line will be 120 miles and 200 miles respectively.

Water supply : The area has been divided into a number of water tower zones, each having a population of 25,000 persons (approx.). Each zone will be fed from overhead water reservoir

* 1 mile = 1.61 km.

(staging Ht. 60'-0") which will draw water from 2 Nos. 8 dia. deep tubewells. Iron Elimination plants are being installed to remove extra percentage of Iron. The length of water line will be about 250 miles.

Electricity : Electricity is supplied by the West Bengal State Electricity Board. Instead of overhead line, the city is having underground cables for better and smooth supply.

Planning : The residential area has been divided into small plots varying in sizes from 2 cottahs to 10 cottahs and larger sized block allotments.

In order to check haphazard growth in the Salt Lake City Government has recently promulgated an Act, known as West Bengal Govt. Township Act (Extension of Civil Amenities) and has brought the Salt Lake City (Bidhan Nagar) under the pervue of this Act. Government has appointed an Administrator who is responsible for rendering all municipal services to the plot-holders and also to assess and realise taxes. The Salt Lake City does not come with any municipality or Calcutta Corporation.

Transport Facilities : Relevant information regarding the transport facilities available in Salt Lake area have been given in Appendix at the end of Chapter VII.

Education facilities : A State Government co-educational school with both Primary and Secondary sections has been inaugurated here on 7 March 1977.

The Central Park of the Salt Lake City is a pride of the City—Central Park a vast open green expanse and a small lake within. The best of the City's amenities will be around this park. The main marketing centre, recreation and social centres, offices, hospitals—will be located all around and near it. The park is hexagonal and has an area of about 153 acres.

The city will also have a unique spot of amusement called Safari Park Safari park, a sanctuary of birds and animals. They will move freely and will provide ample scope for amusement to the children and the adults alike. Safari park is to have a toy train and other attractions.

The city has already got a deer research centre—a kilometer-strip of vegetation along the Krishtopur Canal—with a number of deer of different species for research. Also, aviaries are being constructed at the crossing points in Sector I, and more aviaries are likely to come up in future.

The city will have a stadium complex at its southern end to Stadium meet the long-felt need of a suitable stadium in the State. The

stadium will accommodate more than 1 lakh people and will occupy about 100 acres of land within the Salt Lake City and include the Subhas Sarobar of Calcutta in its fold.

Office Complex The State Government and the CMDA have started construction of a number of office buildings in the office complex of this City to ease the problem of office accommodation in Calcutta. Simultaneously thousands of residential flats are also under construction to meet the housing problem.

Total Cost The total cost of the project is about Rs. 60 crores of which reclamation work alone accounts for about Rs. 17 crores.

SUNDARBAN DEVELOPMENT

For accelerated and integrated development of the backward Sundarban region, a cell has been working in the Development and Planning Department under the name of Sundarban Area Branch. A Board known as Sundarban Development Board has been functioning since 1972-73 to recommend measures of developmental activities to be undertaken in the area within the Annual Plan allocations made to the State. The Board is to co-ordinate the developmental efforts of the substantive departments, the critical gaps being filled up by its own efforts.

In 1972-73, about 59 schemes relating to construction of jetty with approaches, re-excavation of canals and tanks, construction of wooden bridges and feeder roads, etc. were sanctioned at an estimated cost of Rs. 31.34 lakhs. The execution of these was entrusted to the different departments and the Block Development Officers.

During the year 1974-75, the total Plan allocation for the Sundarban Development Programme was Rs. 37.56 lakhs. With this amount such developmental activities as construction of bridges, jetties, brick-paved roads, strengthening of embankments, re-excavation of *khals*, etc. were undertaken. The expenditure incurred on this account was about Rs. 23 lakhs. For the first time in this year, a multidimensional developmental project under the name of 'Development of Growth Centres' was launched at 17 selected locations. Under this project, second crop like *boro* paddy, chillies, pulses, sun-flower, wheat, ground-nut, mustards, etc. were raised in 508 acres of land through farmers' participation with the help of inputs supplied by the Board. Through this project loan assistance to the tune of Rs. 2 lakhs was disbursed to local entrepreneurs, artisans for development of dairy, poultry, piggy-duchery-cum-fishery, pisciculture etc. Besides, a massive techno-economic survey, initially undertaken with the funds from the

Additional Employment Programme, was continued during the year from Sundarban budget. Compilation of the survey, when completed, will indicate the socio-economic status of the local people and resource potential of the area. This will enable the Sundarban Development Board to project the future development programme of the area in a more realistic manner.

The resources under the Plan being limited, the Board attempted to fill up the gap by securing substantial assistance from the CARE, West Bengal, in the shape of 6,000 MT of wheat with which a 'Food-For-Work' programme was executed in the region resulting in re-excavation of quite a good number of tanks, channels, strengthening of embankments, construction of cross-bunds, etc. Minor irrigation from re-excavation work led to increase of production of *boro* paddy to the extent of 31,398 MT. 630 kilometers of village roads were also constructed/improved. Altogether, generation of employment on these accounts was of the order of 19 lakh mandays. All these activities were in addition to the programme carried out by the substantive departments in the Sundarban region with their sectoral plan resources.

During 1976-77, the work of growth centres, construction and repair of feeder pathway, foot bridges and sluices continued in Sundarban areas under Sundarban Development Board. The Khadi & Village Industries Commission is considering a proposal of the Sundarban Development Board for developing hand-made paper, lime stone, cotton-khadi, cottage match and bee-keeping industries in this backward area at the cost of Rs. 5.20 lakhs. Recently, a railway survey team has found the Baj Baj-Diamond Harbour-Kakdwip-Namkhana area as economically viable for a rail link.

Calcutta Metropolitan Development Authority was set up in September 1970 under the Central Act XVII of 1970 to administer the Calcutta Metropolitan Development Fund and to operate the development programme of the entire Calcutta Metropolitan area covering about 1,450 sq. km. and inhabited by a population of 102.02 lakhs. This includes the area of the district right from Halisahar down to Baj Baj. Some of its achievements are narrated below:

The silt clearance work at Palta and a major part of the work at Tala-Palta system have been completed. As a result, the capacity of the Palta water-works has increased from about 80 million gallons (360 million litres) per day to 140 million gallons

Calcutta Metropolitan Development Authority (CMDA)

Water Supply

(630 million litres) per day. It has a plan to augment the capacity of this water-works up to 160 million gallons per day. Other schemes undertaken by the authority for execution are detailed below:

	Revised expenditure (in lakhs of rupees)	Approximate date of completion
Garden Reach Treatment Plant	1,300.00	'82
Baj Baj Water Supply	16.71	'82
Kanchrapara Water Supply	50.10	'83
Dam Dam Water Supply	29.08	'83
North Dam Dam Water Supply	55.10	'83
South Dam Dam Water Supply	63.36	'83
Baranagar Water Supply	112.47	'83
Tala-Palta System	733.00	'84
Rajarhat Fringe Area	102.66	'83
Jagaddal Fringe Area	42.38	'82
Tollyganj "12A" Fringe Area	51.33	'82
Kamarhati-Jatindas Nagar Municipal Water Supply Augmentation	8.85	'82
Garden Reach Primary Grid	787.61	'83
Kamarhati Water Supply	110.13	'83
Tollyganj Emergency Water Supply (EWS)	354.54	
EWS Scheme in Municipal Areas	582.86	'83
EWS Scheme in non-municipal areas	131.08	'82
Garden Reach Secondary Grid (First Phase)	212.00	First phase completed/Second phase started
Golf Green Complex Water Supply	12.20	—

It has also sunk 36 deep tube-wells in different municipalities as stated below: Kamarhati 3, Halisahar 2, Naihati 1, Bhatpara 6, North Barakpur 4, Barakpur 4, Panihati 6, New Barakpur 2, North Dam Dam 1, Dam Dam 2, Rajpur 3 and Baruipur 2.

It has constructed water-works of the Garden Reach and the Baranagar-Kamarhati municipalities at a cost of Rs. 649.37 lakhs and Rs. 59.21 lakhs respectively. It has also constructed water reservoirs in the municipalities named below: North Barakpur 4, Barakpur 4, Panihati 6, Dam Dam 1, Rajpur 3 and Baruipur 1.

The Kasipur-Dam Dam sewerage projects and the Panti Pukur Township sewerage project have been completed. Other schemes taken up for execution are detailed below:

	Revised Expenditure (in lakhs of Rupees)	Approximate date of completion
Baranagar-Kamarhati Drainage	418.00	'84
Improvement of Bagjola Upper Basin	234.00	'82
Additional Pump House at Chowbhaga	45.00	'82
Bagjola Basin Drainage	10.03	'82
Chenice Basin Drainage	39.64	'82
Khardah Basin Drainage	15.37	'82
Manikhali Basin Drainage	14.02	'82
Renovation of Bhatpara Treatment Plant	92.50	completed
Renovation of Titagarh Treatment Plant	23.87	completed

Six factories for production of pre-fabricated latrines have been set up at Dam Dam, Madhyamgram, Baruipur and Garia of this district besides Rishra (Hugli) and Haora with a total output of 900 units per month. CMDA has converted 4,231 service privies into sanitary latrines in 1978.

It has improved the *bustees* of Baranagar and Kamarhati municipal towns, providing amenities like sanitary latrines, tube-wells, water mains, sewerage, drains, roads and street lights in each *bustee*.

The following housing schemes are now under execution by the CMDA.

	Revised expenditure (in lakhs of Rs.)
(1) Baishnabghata-Patuli Area Development	892.00
(2) Unnayan Bhawan (office premises)	181.05
(3) EWS Housing in Salt Lake	3,227.14

Sewerage : Drainage

Environment Hygiene

Slum Improvement

New Town and Area Development

Health facilities: The Baishnabghata-Patuli area development together with the new settlement in East Calcutta will accommodate about 80,000 people mostly belonging to the economically weaker section.

The construction of 250-bedded Pandit Iswarchandra Vidyasagar Hospital at Behala was undertaken during the Fourth Plan period at an estimated cost of Rs. 109.48 lakhs. During the said plan period construction of only six blocks progressed at different levels and an expenditure to the tune of Rs. 23.26 lakhs for the said work was reimbursed by the CMDA. The work could not progress further owing to financial constraints and with the assistance of Rs. 150 lakhs received in instalments from the Royal Netherlands Government since 1976-77, the hospital complex with its 250 beds has been completed in 1983.

Parks and Playgrounds The CMDA has constructed or beautified parks and playgrounds in the following areas:

Dam Dam—Parks and Community Centre

Baj Baj Municipality—Children's Park at Kunja Mahal, Play-ground at A. M. Ghosh Road, Park at R. N. Tagore Road, Lenin Ground

Ramakrishna Mission, Rahara—Development of the playground and the children's park.

PANCHAYATI RAJ Keeping in view the idea of democratic decentralization as envisaged by the Balwantrai Mehta Committee, the West Bengal Panchayat Act, 1957 was passed. Subsequently, the West Bengal Zilla Parishads Act, 1963 was enacted. The West Bengal Panchayat Act provided for Anchal Panchayats and Gram Panchayats, whereas the Zilla Parishad Act made provision for establishment of Zilla Parishads and also Anchalik Parishads.

Gram Sabha Under the West Bengal Panchayat Act, 1957 the Gram Sabha is the foundation on which the entire superstructure of Panchayati Raj rests. It is something like a village assembly consisting of all persons whose names are included in the electoral roll of that area for the West Bengal Legislative Assembly.

Gram Panchayat The Gram Panchayat was the executive of the Gram Sabha. Unlike the former Union Board, it comprised a small area with a small number of population. Unlike the Union Board, it had no power of self-taxation, but apart from the civic functions, development and rural reconstruction work had also been assigned to this body. The Gram Panchayat had to depend on the Anchal Panchayat for finance.

The following table shows their income and expenditure figures for 1968-69.

INCOME AND EXPENDITURE OF THE GRAM PANCHAYATS OF 24-PARGANAS: 1968-69

INCOME	(in rupees)
Opening Balance:	63,074
For Specific Schemes	2,50,792
Untied Funds	
Allotment from Anchal Panchayats:	5,72,788
From Panchayat Department	2,82,900
Own Source	
Receipts from Gifts, Endowments and other sources	66,435
Allotment Received from other sources for Development Works	28,252
Total Income	12,64,241
EXPENDITURE	89,359
Expenditure for Development Works	70,363
Other Expenditure	
Closing Balance:	
For Specific Schemes	57,487
Untied Funds	2,37,023
	2,94,510

The Anchal Panchayat is an innovation in West Bengal, its organization being more or less akin to that of an old Union Board. It looked after rural police, rural finance and rural justice mainly. It roughly covered about 7 to 10 village panchayats, each having a population of 8,000 to 10,000. In the Anchal Panchayat, the system of election is indirect, the Gram Panchayat members elected the members of the Anchal Panchayat from amongst the members of each Gram Sabha within the jurisdiction of the Anchal. Each Anchal had a Pradhan (President) and a Upa-Pradhan (Vice-President).

The Block Development Officer was the Ex-Officio Inspector of Panchayats. He was assisted by the Extension Officer for Panchayat (also designated as the Inspector of Panchayat). There was Secretary in each Anchal Panchayat whose salary was entirely paid by the Government though he is not a government servant. The accounts of the Anchal Panchayat are audited by the Extension Officer for Panchayat.

Anchal Panchayat

The Anchal Panchayat could impose taxes on lands and buildings, as also on professions, trades, callings and employment, other than agriculture. It had the power to raise a water rate, lighting rate and a conservancy rate subject to certain conditions.

According to a Government Order, the Anchal Panchayat could tax Government properties since 1 April, 1967.

The lands and buildings used solely for religious, educational or charitable purposes were, however, exempt from taxes.

In 1976, there were 504 Anchal Panchayats, 1 Union Board and 3,628 Gram Sabhas in the district.

The following tables shows the Assessment and Realization figures of the Anchal Panchayats of the district in 1968-69 and 1975-76.

ASSESSMENT AND REALIZATION IN THE ANCHAL PANCHAYATS
OF 24-PARGANAS DISTRICT: 1968-76

	1968-69	1975-76
	(in thousands of rupees)	
Total arrear claim	1,408	3,884
Total arrear realization	408	1,234
Total current claim	2,451	2,917
Total current realization	1,042	1,194

The Anchalik Parishads were the block level panchayats similar to the present Panchayat Samitis of West Bengal and other States of India. These were established during August 1964 under the provisions of the Zilla Parishads Act, 1963. The Anchalik Parishad was expected to lead and guide the lower Panchayat bodies.

It had five different categories of members, namely, ex-officio, elected, appointed, co-opted and associate. All the Pradhans of the Anchal Panchayats and the Presidents of the Union Boards, if any, as also the members of the Lok Sabha and the State Legislative Assembly elected from any constituency comprising the block and the members of the Rajya Sabha having a place of residence in the block were ex-officio members. One Adhyaksha elected by the Adhyakshas of Anchal Panchayats was the elected member. The State Government appointed four members of whom two were females and the other two were from backward community. Two persons experienced in social and rural development work were co-opted members.

The Block Development Officer was an associate member of the Parishad. There were a President and a Vice-President for the

Parishad. The Parishad organised the development work of the entire block. It had to co-ordinate and supervise the work of the Anchal Panchayats under it.

There were 50 Anchalik Parishads in the district; no such body could function in Mathurapur II Block owing to a High Court injunction.

A report of 1963-69 shows that there were 1,350 members (including 98 females) in the Anchalik Parishads of the district. Of them, 413 belonged to scheduled castes and 15 to scheduled tribes. Relevant information about the income and expenditure of these bodies during 1966-67, 1967-68 and 1968-69 is given below:

	1966-67	1967-68	1968-69*
	Rs.	Rs.	Rs.
Receipts			
State Assistance	8,27,214	3,56,524	3,05,405
Allotment for Development work from Agriculture & Community Development Department	15,61,249	40,737	5,13,642
Allotment from Zilla Parishad	73,85,505	2,21,954	1,06,067
Gifts, endowments, etc.	51,819	1,12,146	81,142†
Expenditure			
Establishment charges	4,83,089	3,44,137	2,94,645‡
Allotment to Anchal or Gram Panchayats for development work	5,88,417	83,498	24,216
Expenditure on development projects done directly	16,35,778	3,74,603	2,95,794
Other expenditure	53,16,046	3,53,669	1,47,257

There was a closing balance consisting of Rs. 6,23,353 for specific schemes and Rs. 4,49,389 for untied funds.

The Zilla Parishad which lies at the apex of the Panchayati Raj system in West Bengal had, under the Act of 1963, four different categories of members, namely, ex-officio, elected, appointed and Zilla Parishad

* In 1968-69, the opening balance included Rs. 4,71,774 for specific schemes and Rs. 3,56,623 untied funds.

† This figure includes Rs. 26,119 received from tolls, rates and fees; Rs. 6,520 on account of receipts from schools, hospitals, etc.; Rs. 3,142 from gifts, endowments; Rs. 205 from fines and penalties and Rs. 45,157 as other receipts.

‡ This figure includes Rs. 2,14,398 as salary and allowances of personnel, Rs. 10,161 as T.A. of personnel; Rs. 41,261 for contingencies and stationeries and Rs. 28,824 as T.A. of members including the President and the Vice-President.

associate. All Presidents of the Anchalik Parishads, members of the Lok Sabha and the State Legislative Assembly elected from any constituency in the district, members of the Rajya Sabha having a place of residence in the district and the President of the District School Board belonged to the ex-officio category. Two Adhyakshas elected by the Gram Panchayat Adhyakshas (of each subdivision) from among themselves were the elected members. A commissioner of a municipality in the district and two women having a place of residence in the district were appointed by the State Government. The Subdivisional Officer and the District Panchayat Officer were associate members of the Parishad. The Parishad had a Chairman and a Vice-Chairman elected by the members (excepting the appointed Municipal Commissioner and the President of the School Board) from among themselves. The term of office of the Parishad is four years.

The powers, functions and duties of the Zilla Parishad covers a wide range of subjects relating to public utility, welfare and development of the district. The Zilla Parishad (as also the Anchalik Parishad) functioned through seven types of standing committees, namely, the finance and establishment committee, public health committee, public works committee, agriculture and irrigation committee, public and social welfare committee, industry and co-operation committee and primary education committee.

The Zilla Parishad is to exercise general powers of supervision over the Anchalik Parishads, Anchal Panchayats and Gram Panchayats in the district which were to carry out the directions of the Zilla Parishad on matters of policy and administration.

The election to the Zilla Parishad was completed by the middle of 1964-65. It had 123 members in this district of whom 3 were females and 25 belonged to scheduled castes. In 1965-66 and 1966-67, the Parishad was entrusted by several government departments to execute their schemes. But, from 1967-68, most of the development schemes of the different departments were withdrawn. The main sources of income of the Parishad are the proceeds of the road cess obtained from government according to the provisions of the Cess Act, 1818 and tolls, rates, fines, penalties, income from institutions, etc. The other sources of income are the funds received from government for execution of development works, for granting relief, and for allowing subvention towards the pay of the employees. The following statement gives relevant information regarding the income and expenditure of the Parishad under different heads during the years 1966-67, 1967-68 and 1968-69.

INCOME AND EXPENDITURE OF 24-PARGANAS
ZILLA PARISHAD: 1966-1969

Income	1966-67 Rs.	1967-68 Rs.	1968-69 Rs.
From Panchayat Deptt., (Untied)	4,81,088	4,37,298	4,49,856
Grants from Relief Deptt., for relief work	84,08,965	2,24,000	34,565
Grants from different Deptts. for development works	5,18,535	1,02,732	40,382
Proceeds of Road Cess	3,79,886	4,09,159	6,72,746
Other sources including Tolls, Rates, Fines, Penalties, Institutions, etc.	2,99,045	6,13,965	3,64,956
Expenditure			
Establishment charges	3,26,955	4,02,839	7,17,380
Allotment to Anchalik Parishads	1,24,136	8,877	52,061
Execution of Development Schemes	7,60,401	4,16,895	3,74,947
Relief works	76,27,273	13,52,535	23,774
Maintenance of Services and Institutions (Schools, Dispensaries)	3,89,635	3,73,275	1,75,406
Miscellaneous	1,31,400	1,66,637	1,44,751

Although the term of office of all the four tiers of Panchayat was four years and fresh elections to the Panchayats fell due, the same could not be arranged for various reasons. On 23 April 1969, the Government superseded the Zilla Parishads and the Anchal Panchayats throughout the State and appointed Administrators over them, following the decision of the Calcutta High Court to the effect "that they can not function until they are reconstituted in accordance with provisions of the said Act", namely, the West Bengal Zilla Parishad Act, 1963.

It became evident that the Panchayat Acts did not fulfil the aspiration of the rural people and therefore needed to be replaced by one comprehensive Act encompassing all the tiers of Panchayats. It was further apparent that the Gram Panchayats as constituted by the Act of 1957, at the village level, can never be economically viable. This led to the enactment of the West Bengal Panchayat Act, 1973.

West Bengal
Panchayat Act,
1973

which received the assent of the President of India on 17 January, 1974. It tries to follow the Panchayati Raj Acts of other States. Instead of the four-tier structure as laid down in the West Bengal Panchayat Act, 1957 and the West Bengal Zilla Parishads Act, 1963, it provides for a three-tier structure, namely, Gram Panchayat at the village level, Panchayat Samiti at the block level and Zilla Parishad at the district level, composed of members who are all elected directly by the people (excepting the ex-officio and the nominated ones) as against the principle of indirect election hitherto in force in choosing the elected representatives to the upper three tiers under the previous acts. The present additional tier of the Anchal Panchayat has been abolished. The new Act also abolishes the provisions regarding the Gram Sabha. The present structure of the Gram Panchayat has also been extended in the new Act so far as area, composition and function are concerned. So long, the Gram Panchayat had no power to impose, assess or collect taxes. The Anchal Panchayats did all this. Now that the Anchals are abolished, the powers regarding imposition, assessment and collection of taxes are entrusted to the Gram Panchayat. The new Act says that the Gram Panchayat will constitute Nyaya Panchayat, though the old Act authorises the Anchal Panchayat to do that. Now the Gram Panchayat will control the dafadars and chowkidars instead of the Anchal Panchayat.

At the block level, the Anchalik Parishads will be replaced by Panchayat Samitis under the new Act.

Gram Panchayat Under the present Act, the operational area of the Gram Panchayat has been considerably enlarged to make it an economically viable unit. It now comprises 8 to 10 contiguous villages having a population of 10 to 15 thousand. Its membership now varies between 7 and 25. The powers, functions and duties of the Panchayats have also been considerably extended. To carry out this vast multitude of functions effectively, it has been provided with resources of its own, that is, the power of self-taxation. Besides contributions, loans and grants from the Central or the State Government, Zilla Parishad or Panchayat Samiti, etc., its fund consists of income from taxes on lands and buildings, profession, trades, callings, employment, transfer of properties, fees on registration of vehicles, complaints and petitions and water rate, lighting rate and conservancy rate, fines and penalties etc. It cannot, however, incur any expenditure unless its budget is approved by the Panchayat Samiti. It exercises disciplinary control over dafadars

and chowkidars and involves itself in the formation of Nyaya Panchayats. There are 549 Gram Panchayats in the district with a total membership of 8,301 in 1978 and 7,910 in 1983.

The Panchayat Samiti, under the present Act, consists of elected Panchayat Samiti as also ex-officio members, namely, the pradhans of the Gram Panchayats and the local M.L.A.s and M.P.s (excluding the ministers). There is no provision for appointed, co-opted and associate members. The Block Development Officer (B.D.O.) acts as the ex-officio Executive Officer of the Panchayat Samiti while the Extension Officer for Panchayats acts as its ex-officio Secretary. The B.D.O. is assisted by the supporting staff of the Development and Planning Department, the Relief and Welfare Department and the Community Development Department (C.D. Branch).

The Executive Officer exercises general control over all officers and employees of the Panchayat Samiti. Like the erstwhile Anchalik Parishad, the Panchayat Samiti has also been entrusted with a multitude of identical functions and necessary funds in the form of contributions and grants from the Central or the State Government (including a part of the land revenue), Zilla Parishad etc, tolls, rates, fees, gifts, fines and penalties, have been placed at its disposal. Its budget, however, has to be approved by the Zilla Parishad. It functions through eight sthayee samitis, namely, the Artha O Sanstha Sthayee Samiti, Janaswasthya Sthayee Samiti, Purta Karya Sthayee Samiti, Krishi Silpa Samabaya Sthayee Samiti, Shiksha Sthayee Samiti, Kshudra Silpa, Tran O Janakalyan Sthayee Samiti, Unnayan, Parikalpana O Bhumi Sanskar Sthayee Samiti and Matsya O Pasu-Palan Sthayee Samiti. Each sthayee samiti is headed by an elected member called karmadhyaksha and has a government official as its secretary.

There are 50 Panchayat Samitis in the district with a total membership of 1,475 elected persons in 1978 and 1,467 in 1983.

The Zilla Parishad is composed of members elected directly (at Zilla Parishad the rate of two members from each block) besides the ex-officio members like the Sabhapati of each Panchayat Samiti and the local M.L.A.s and M.P.s (excluding the ministers). There is no provision, however, for appointed and associate members in the Act. The District Magistrate acts as its Executive Officer. Besides, a member of the West Bengal Civil Service functions as whole-time Secretary. Recently, it has been decided by the Government to place one full-time Additional Executive Officer of the rank of Additional District Magistrate at the disposal of the Zilla Parishad. The powers, functions and duties of the Parishad are almost identical with those

prescribed by the previous Act. Its revenue has, however, been augmented by the statutory grant of public works cess and a part of the land revenue.

In order to ensure growth of financial discipline through a system of running audit in the new three-tier Panchayat bodies, an Accounts and Audit Organisation has been created in the State. The officers posted at the higher tier will oversee the work of the lower tiers.

The 24-Parganas Zilla Parishad had a total of 225 members in 1979-80. During 1978-79, the State Government placed at the disposal of the Zilla Parishad Rs. 16 lakhs and 2,200 metric tonnes of foodgrains, Rs. 25 lakhs and 1,224 metric tonnes of foodgrains and Rs. 93.14 lakhs and 672 metric tonnes of foodgrains for Food For Work Programme, Rural Restoration Programme and towards Housing Subsidy respectively. During the same year the Government allotted Rs. 137.25 lakhs and 8,411 metric tonnes of wheat to the Parishad for the execution of Rural Works Programme in 549 villages in the district. Besides, the Education Department placed at the disposal of the Parishad Rs. 30 lakhs for the construction of 120 schools (State scheme), Rs. 37.50 lakhs for 250 schools (Central assistance), Rs. 15 lakhs for 60 schools (Chief Minister's Relief Fund) and Rs. 4 lakhs for 35 schools (UNICEF's assistance). An idea of the activities of the Zilla Parishad under the new Act may be had from the following figures of income and expenditure for the year 1979-80.

A. INCOME OF THE 24-PARGANAS ZILLA PARISHAD: 1979-80

Contributions from the State	
Government	(in rupees)
(I) For flood relief	77,54,000
(II) For construction of Panchayat buildings	2,00,000
(III) General	11,76,872
Road Cess	4,60,000
Receipts from other departments	44,15,745
Receipts from institutions etc.	21,259
Receipts from tolls, rates, etc.	1,18,734
Rent of lands and buildings	8,227
Sale of stores and materials	1,140
Staging bungalow fees	3,160
Sale of trees, fruits etc.	195
Miscellaneous (excluding opening balance, deposits etc.)	69,284

B. EXPENDITURE OF THE 24-PARGANAS ZILLA PARISHAD: 1979-80

	(in rupees)
Establishment charges	15,39,837
Allotments to Panchayat Samitis	1,40,360
Flood relief	48,49,114
Dispensaries	77,058
Grants to schools, clubs, libraries etc. and for construction of latrines	78,16,440
Miscellaneous	2,67,172

The first election to the three-tier Panchayat bodies under the Panchayat Act, was held in 1978 and the next one in 1983, a year behind Election schedule.

The following table reflects the performance of the different political parties in the said elections.

	Gram Panchayat		Panchayat Samiti		Zilla Parishad	
	Year of election		Year of election		Year of election	
	1978	1983	1978	1983	1978	1983
total seats	8,301	7,910	1,475	1,467	100	104
seats declared	8,291*	7,871**	1,472*	1,458**	100	99**
of seats won by:						
CPI (M)	5,432	4,122	1,054	848	80	68
Cong. (I)	533	2,799	69	452	3	24
Cong. (R)	52	—	8	—	—	—
RSP	294	226	57	42	3	2
I.B.	93	61	17	6	2	1
CPI	50	67	5	7	—	—
Independent	1,437	596	262	103	12	4

*In the by-election held for 47 seats (including 10 seats for which elections were deferred), the Gram Panchayat, the CPI (M) bagged 27 seats, Cong. (I) 11, RSP 1 and Independents 8. CPI (M) got 5 seats, Cong (I) 3 and Independent 1 in the by-election held for 9 seats (including 4 seats for which elections were deferred) of the Panchayat Samiti.

**Results declared till 7.6.1983.

APPENDIX A

MUNICIPALITIES IN 24-PARGANAS DISTRICT

Name of the Municipality	Date of establishment	Area (sq. km.)	Population	No. of rate payers	% of rate payers to total population (1971)
Bangaon Subdivision					
Bangaon	26.1.1954	15.57	50,538 (1971) 69,885 (1981)	8,205	16.23
Barasat Subdivision					
Gobardanga	26.4.1870	10.86	20,184 (1971) 27,033 (1981)	5,538	27.44
Habra	—	—	74,434 (1981)	—	—
Ashokenagar-Kalyangarh	2.2.1968	7.50	41,916 (1971) 55,176 (1981)	8,000	19.08
Barasat	1.4.1869	14.25	42,642 (1971) 66,504 (1981)	10,754	25.22
Barakpur Subdivision					
Kanchrapara	1.10.1917	9.07	78,768 (1971) 88,798 (1981)	5,021	6.37
Halisahar	1.7.1903	14.24	68,906 (1971) 95,579 (1981)	9,900	14.37
Naihati	June, 1869	4.35	82,080 (1971) 1,14,607 (1981)	7,003	8.53
Bhatpara	1.7.1899	11.96	2,04,750 (1971) 2,60,761 (1981)	11,550	5.64
Garulia	1.5.1896	3.88	44,271 (1971) 57,061 (1981)	4,429	10.00
North Barakpur	1.4.1869	8.42	76,335 (1971) 81,758 (1981)	11,000	14.41
Barakpur	1.4.1916	11.65	96,889 (1971) 1,15,516 (1981)	8,450	8.72
Titagarh	1.4.1895	3.24	88,218 (1971) 1,04,534 (1981)	2,716	3.08
Khardah	1.4.1920	3.88	32,302 (1971) 45,251 (1981)	4,400	13.62
Panihati	1.4.1900	10.43	1,48,046 (1971) 2,05,718 (1981)	29,000	19.59

APPENDIX A—Contd.

Name of the Municipality	Date of establishment	Area (sq. km.)	Population	No. of rate payers	% of rate payers to total population (1971)
New Barakpur	16.8.1965	2.90	32,512 (1971) 46,530 (1981)	6,600	20.30
Kamarhati	4.9.1899	10.96	1,69,404 (1971) 2,34,951 (1981)	51,171	30.21
Baranagar	1.4.1869	7.12	1,36,842 (1971) 1,70,343 (1981)	18,409	13.45
North Dam Dam	10.9.1870	15.60	63,873 (1971) 96,418 (1981)	20,000	31.31
South Dam Dam	3.9.1870	15.19	1,74,347 (1971) 2,30,266 (1981)	20,000	11.47
Dam Dam	1.4.1929	0.20	31,363 (1971) 33,604 (1981)	2,009	6.40
Sadar Subdivision					
Garden Reach *	1932	12.95	1,64,913 (1971) 1,91,107 (1981)	73,082	47.18
Baj Baj	1900	7.27	51,039 (1971) 66,424 (1981)	4,800	9.40
South Suburban*	1.4.1869	30.38	2,72,600 (1971) 3,78,765 (1981)	41,000	15.04
Rajpur	1876	20.98	34,393 (1971) 43,985 (1981)	7,332	21.32
Baruipur	1.4.1869	9.07	20,501 (1971) 26,229 (1981)	3,538	17.26
Jaynagar-Mazilpur	1.4.1869	5.18	15,218 (1971) 16,343 (1981)	5,267	34.61
Jadabpur*	28.5.1980	—	2,51,968 (1981)	—	—
Basirhat Subdivision					
Baduria	1.4.1869	22.43	27,647 (1971) 32,519 (1981)	3,968	14.35
Basirhat	1.4.1869	22.01	63,816 (1971) 81,040 (1981)	8,815	13.81
Taki	1.4.1869	15.54	20,931 (1971) 24,673 (1981)	4,513	21.56

* These municipalities were amalgamated with the Corporation of Calcutta on 4.1.1984.

APPENDIX B

INCOME OF THE MUNICIPALITIES IN 24-PARGANAS DISTRICT: 1976-77

Name of the Municipality	Municipal rate & taxes		Realisation under spl. Acts		Revn. derived from Municipal properties etc.		Grant recd. from Govt. & other sources		Miscellaneous		Extraordinary and debt		Total recd. except opening balance		Incidence of taxation p.h. population		Incidence of income p.h. population	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	%	%	%	%
Bangaon Subdivision																		
Bangaon	2,25,233	9,294	66,710	4,63,137	2,885	7,839	7,75,098	4.46 %	15.18 %									
Barasat Subdivision																		
Gobardanga	1,76,263	—	5,404	1,21,160	—	453	3,03,280	8.73 %	15.00 %									
Ashokenagar-Kalyangarh	72,666	—	—	1,69,489	—	—	2,42,155	1.73 %	5.78 %									
Barasat	5,71,221	3,632	31,809	1,07,136	17,207	72,412	8,03,417	13.39 %	17.14 %									
Barakpur Subdivision																		
Kanchrapara	3,46,668	513	7,270	8,04,928	24,187	47,633	12,31,199	4.40 %	15.02 %									
Halisahar	7,30,214	75,496	52,825	1,81,371	10,308	1,81,864	12,32,078	10.60 %	15.24 %									
Naihati	16,97,084	—	28,903	5,46,131	4,11,762	1,27,880	28,11,760	20.67 %	32.70 %									
Bhatpara	28,11,129	1,496	68,337	7,70,477	29,144	4,14,415	40,94,998	13.73 %	17.97 %									
Garulia	7,95,913	340	16,457	2,72,046	33,497	1,74,740	12,92,993	17.98 %	25.26 %									
North Barakpur	5,15,006	1,978	3,488	8,20,113	4,717	33,799	13,79,101	6.75 %	17.62 %									
Barakpur	13,54,338	46,855	61,731	2,62,824	—	14,356	17,40,104	13.98 %	17.31 %									
Titagarh	12,90,511	806	1,95,123	4,72,771	—	73,185	20,32,396	14.63 %	22.21 %									
Khardah	8,10,024	2,019	26,383	4,39,394	32,983	70,654	13,81,457	25.07 %	40.58 %									
Panihati	23,63,128	—	18,928	5,46,059	27,708	6,98,803	36,54,629	15.96 %	19.96 %									

New Barakpur	3,52,710	7,292	20,762	4,47,499	—	16,293	8,44,556	10.85 %	25.47 %								
Kamarhati	35,92,994	—	38,765	8,57,916	12,35,205	3,64,569	60,89,449	21.21 %	33.79 %								
Baranagar	29,88,327	—	22,016	8,44,823	1,27,370	4,19,556	44,02,092	21.84 %	29.10 %								
North Dam Dam	10,23,182	4,610	1,20,352	3,30,118	10,623	7,64,510	2,25,395	16.02 %	23.31 %								
South Dam Dam	28,83,236	—	35,783	8,26,631	76,426	4,25,601	42,47,677	16.53 %	21.94 %								
Dam Dam	11,22,913	11,777	1,27,629	3,52,421	18,864	63,962	16,87,566	35.80 %	51.77 %								
Sadar Subdivision																	
Garden Reach	25,71,926	11,462	10,320	8,11,248	58,625	2,90,854	37,54,435	16.60 %	22.36 %								
Baj Baj	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.								
South Suburban	49,16,900	—	2,78,466	10,46,476	3,70,894	1,18,805	67,31,541	18.04 %	24.26 %								
Rajpur	4,15,619	4,395	22,548	1,80,901	17,155	65,826	6,96,444	12.08 %	18.33 %								
Baruipur	1,60,492	5,810	9,017	3,11,732	441	7,074	4,94,566	7.83 %	23.78 %								
Jaynagar-Mazilpur	1,85,171	4,173	8,633	1,44,007	7,354	79,800	4,29,138	12.17 %	22.95 %								
Basirhat Subdivision																	
Baduria	1,68,608	3,995	7,974	77,123	777	5,319	2,83,796	6.10 %	9.35 %								
Basirhat	5,00,967	4,397	16,860	2,17,668	4,785	23,920	7,68,597	7.85 %	11.67 %								
Taki	1,90,956	1,630	5,790	3,03,687	160	1,02,501	6,04,722	9.12 %	23.99 %								

APPENDIX C

EXPENDITURE OF THE MUNICIPALITIES IN 24-PARGANAS DISTRICT: 1976-77

Name of the Municipality	General Administration and Collection charge	Public safety	Public Health and Convenience	Public Instruction	Miscellaneous	Extraordinary and debt	Total Disbursement
Bangaon Subdivision							
Bangaon	1,18,694	70,242	1,87,344	1,67,579	70,927	15,416	6,30,202
Barasat Subdivision							
Gobardanga	32,291	23,165	85,383	400	25,353	18,964	2,27,229*
Ashokenagar-Kalyangarh	64,653	19,150	18,546	—	1,964	36,016	1,40,329
Barasat	1,32,463	37,964	4,55,220	1,020	33,371	60,650	7,29,688
Barakpur Subdivision							
Kanchrapara	1,66,128	1,05,084	8,83,662	3,643	51,123	98,633	13,08,273
Halisahar	1,45,143	51,106	8,25,084	—	2,85,845	21,208	13,28,386
Naihati	2,25,959	38,877	14,36,092	1,33,607	8,55,596	1,18,174	28,08,305
Bhatpara	4,54,148	1,05,376	30,02,733	13,663	1,52,851	2,80,428	40,09,199
Garulia	87,269	24,702	7,21,300	1,01,733	89,073	1,42,730	11,66,807
North Barakpur	2,10,158	58,175	8,82,236	100	31,899	68,011	12,50,579
Barakpur	2,14,056	1,28,595	8,17,525	—	1,14,333	71,176	13,45,685
Titagarh	1,70,092	32,647	11,09,285	1,45,912	1,13,634	4,25,593	19,97,163
Khardah	1,10,830	91,755	3,96,986	3,69,551	2,64,957	50,108	12,84,187
Panithati	4,79,423	2,36,986	18,09,336	7,410	72,004	5,70,275	31,75,434

24-PARGANAS

LOCAL SELF-GOVERNMENT

New Barakpur	87,234	5,139	3,18,028	4,33,846	51,519	41,129	9,38,895
Kamarhati	6,21,581	99,659	30,70,980	71,822	13,92,067	3,78,368	56,34,477
Baranagar	6,07,198	1,25,178	29,45,582	2,17,645	90,023	5,83,309	45,68,935
North Dam Dam	2,90,393	74,105	9,50,730	—	51,201	9,35,001	23,01,430
South Dam Dam	7,21,943	1,28,729	24,80,484	2,51,054	2,13,311	1,80,527	39,76,048
Dam Dam	1,38,250	27,347	8,99,485	93,541	57,012	76,578	12,92,213
Sadar Subdivision							
Garden Reach	6,63,951	1,10,425	24,71,654	3,64,705	89,635	1,55,979	38,56,349
Baj Baj	2,53,688	57,117	11,66,645	2,33,964	2,56,511	19,904	19,87,829
South Suburban	9,36,937	1,62,063	44,24,501	4,67,120	3,34,368	2,90,860	66,15,849
Rajpur	1,01,428	63,790	4,15,981	150	12,994	67,202	6,61,545
Baruipur	33,242	11,920	4,96,469	—	15,046	30,094	5,86,771
Jaynagar-Mazilpur	41,439	21,007	1,52,711	550	5,393	90,748	3,11,848
Basirhat Subdivision							
Baduria	46,478	19,495	1,00,817	—	11,003	49,837	2,27,630
Basirhat	1,02,718	46,755	3,87,563	11,865	13,851	32,691	6,87,489*
Taki	30,149	20,089	1,78,032	2,32,902	12,716	1,07,982	6,07,167*

* These figures include the contribution of Rs. 41,673, Rs. 92,046 and Rs. 25,297 made by the municipalities of Gobardanga, Basirhat and Taki respectively.

APPENDIX D

PERCENTAGE OF SOME OF THE PRINCIPAL ITEMS OF EXPENDITURE TO TOTAL EXPENDITURE: 1976-77

Municipalities	General estab- lish- ment	Lighting	Water supply	Drainage	Conser- vancy	Medical	Vaccina- tion	Public works	Education	
Bangaon Subdivision										442
Bangaon	19.30	11.42	0.47	—	14.83	2.82	—	10.52	27.26	
Barasat Subdivision										
Gobardanga	15.50	11.12	2.89	—	2.16	0.12	1.45	34.37	0.19	
Ashokenagar-Kalyangarh	61.98	18.36	6.06	3.88	—	—	—	7.84	—	
Barasat	20.07	5.75	7.38	9.31	15.92	2.83	1.14	29.37	0.15	
Barakpur Subdivision										24-PARGANAS
Kanchrapara	13.73	8.69	18.44	8.34	32.48	1.44	1.24	10.97	0.30	
Halisahar	11.10	3.91	6.18	1.71	19.21	7.56	0.19	28.13	—	
Naihati	8.40	1.44	7.02	5.50	23.40	5.83	0.70	10.72	4.97	
Bhatpara	12.18	2.82	15.03	18.85	36.38	5.50	0.81	3.71	0.37	
Garulia	8.52	2.41	12.44	3.91	19.27	2.85	0.34	31.62	9.90	
North Barakpur	17.77	4.92	4.83	13.26	38.22	3.17	0.87	14.03	0.01	
Barakpur	16.79	10.00	5.96	14.72	30.03	0.63	0.99	11.68	—	
Titagarh	10.82	2.08	14.46	11.88	34.50	6.35	0.26	3.13	9.28	
Khardah	8.98	7.43	6.54	0.50	13.24	1.85	0.68	9.34	29.94	
Panihati	18.40	9.10	3.93	14.41	17.80	3.47	—	26.27	0.28	
New Barakpur	9.60	0.57	1.17	2.25	—	—	0.54	29.58	48.32	
Kamarhati	11.82	1.90	9.98	8.72	25.75	2.23	0.60	10.49	1.37	
Baranagar	15.23	3.14	10.91	3.19	38.26	9.15	1.02	7.62	5.46	
North Dam Dam	21.25	5.42	9.40	6.11	3.46	26.64	1.28	22.69	—	
South Dam Dam	19.02	3.39	17.64	14.63	11.14	6.98	1.50	10.80	6.61	
Dam Dam	11.36	2.25	10.31	9.68	17.26	14.26	0.51	10.17	7.69	
Sadar Subdivision										LOCAL SELF-GOVERNMENT
Garden Reach	17.94	2.98	10.88	5.93	35.54	1.85	0.73	6.82	9.86	
Baj Baj	12.89	2.90	10.72	2.29	14.45	14.02	0.35	14.52	11.89	
South Suburban	14.81	2.56	11.26	0.74	25.77	7.83	1.55	19.04	7.36	
Rajpur	17.06	10.73	3.20	14.84	13.97	0.78	0.58	33.78	0.02	
Baruipur	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	
Jaynagar-Mazilpur	18.74	9.50	0.65	2.66	30.11	6.64	1.56	13.15	0.25	
Basirhat Subdivision										443
Baduria	26.14	10.93	18.43	0.27	7.25	3.94	4.10	22.62	—	
Basirhat	15.69	7.14	11.01	1.75	8.07	0.81	1.17	34.02	1.81	
Taki	6.04	4.02	1.63	0.98	1.33	0.00	0.44	31.22	46.66	

CHAPTER XV

EDUCATION AND CULTURE

HISTORICAL
BACKGROUNDPre-Gupta &
Gupta Periods

Terracotta specimens, ruins of temples, pilasters and images that have been unearthed, reveal a high level of culture and civilization, even in the very ancient times.¹

The recent excavations at Chandraketurgarh at Berachampa (P.S. Deganga) and also at Harinarayanpur (P.S. Diamond Harbour) yielded a rich treasure of terracottas that have been reasonably ascribed to the period between the second century B.C. and the sixth century A.D.; some of these exhibits have a high degree of artistic merit. The head and bust of *Bodhisattva* in mottled red sand-stone, assigned to be of the Pre-Gupta time, was discovered. The ruins of a big temple identified with the Gupta period were also exposed at Chandraketurgarh. A Surya image, assigned to the Gupta style, was found at Kasipur (P.S. Mandirbazar). Some interesting terracotta plaques were discovered at Chak Deulpota (P.S. Diamond Harbour) and Harinarayanpur. Of these two particular types are specially noteworthy. The first type depicts both male and female busts and head with peculiar styles of hair-dressing. The second depicts a woman with a baby in arms—perhaps representing female nurses in charge of babies of royal and aristocratic families referred to in the *Divyavadana* (4th century A.D.). Similar types were found in the remains of many ancient sites in North India and ascribed to the Gupta period.² All this shows the high level of Culture prevailing in this district.

The famous pilgrimage to Ganga Sagar (confluence of the Ganga and the Bay of Bengal) began to be considered holy even before the 4th century A.D. According to the *Tirthayatra* section of the *Vanaparva* of the *Mahabharata* which is said to have been composed before the 4th century A.D., the Pandavas bathed at the sacred confluence and went to Kalinganagara along the seashore. Besides, the discovery of a bronze image of Siva of the 7th century A.D. at Manirtat (P.S. Jaynagar) points to the existence in the area of Saivism, besides other schools of religious belief.

¹ A terracotta piece "having the shape of the forepart of a bull with a fan shaped hump and perforated mouth, found at Harinarayanpur (P.S. Diamond Harbour) has been claimed to be proto-historic" vide, R. C. Majumdar—*History of Ancient Bengal*, Calcutta, 1971, p. 644.

² R. C. Majumdar—*History of Ancient Bengal*, Calcutta, 1971, pp. 648-49.

The niche-pilasters that have been discovered from the Sundarbans appear to belong to the Paharpur group of the Pala Period; 'the bold draughtsmanship and elegant execution of the decorative motifs speak eloquently of the skill of the artists and for the richness of the buildings.'¹ The ruins of the temple of Jatar Deul of the 10th century A.D., found in the Sundarbans, have considerable architectural merits, specially in its tall brick spire with decorative miniatures and other geometrical mouldings.²

In Boral, near Calcutta, there is a big tank called Sendighi. Some artifacts found from here are said to belong to the Sena Period. Vedic learning made a great headway in the 11th and 12th centuries under the patronage of Sena kings. The copper-plate grant of Vijaysena (A.D. 1095-1158) discovered at Barakpur recorded the grant of a piece of land at a certain village in the Khadi Vishaya to the Brahmin Udayakaradevasarman who was a student of the Asvatayana *Sakha* of the *Rigveda*.³ The Sundarban copper-plate of Lakshmanasena (A.D. 1179-1207) mentions that a plot of land in the Khadi mandala (Vishaya) was granted to a Brahmin, also a student of the Asvatayana branch of the *Rigveda*.⁴ The copper-plate grant of Dommanapala, an independent king of the Khadi-mandala during the closing years of the 12th century, found in the islet of Rakshaskhali of the Sundarban region refers to the 'friendly gift' of the village of Vamahitha situated in Khadi to the 'good friend' Sri Vasudevasarman who was studying the Kanva branch of the *Yajurveda*.⁵

The Jaina image of Parsvanatha at Katabunia (P.S. Kulpi) assigned to the 11th century A.D., and the mention of the Buddhist monument (*ratnatraya*) at Vamahitha in the Khadi mandala in the copper-plate of Dommanapala (A.D. 1196) point to the existence in the region of Buddhism and Jainism as well.

Besides, the copper-plate of Dommanapala contains, on the reverse, the only engraved drawing of any importance as yet found, and represents the only Brahminical composition so far discovered. Its iconographic and aesthetic significance is of great interest. The

¹ R. C. Majumdar—*History of Ancient Bengal*, Calcutta, 1971, p. 623.

² S. K. Saraswati—'Temples of Bengal' in the *Journal of the Indian Society of Oriental Art*, Vol II, No. 2, December 1934.

³ Nani Gopal Majumdar—*Inscriptions of Bengal*, Vol. III, Rajshahi, 1929, p. 57.

⁴ *Ibid*, p. 169.

⁵ Benoy Chandra Sen and Devaprasad Ghose—'A Dated Copper-Plate Grant from Sundarbans' in the *Indian Historical Quarterly*, Vol. X, Calcutta, 1934, p. 321.

engraving, representing Vishnu and Garuda, offers valuable clues to the development of Nepalese and Burmese painting. There is an indication of a remote connection with the Wayang pictures of Java and Bali.¹

Development of
Sanskrit Literature

These epigraphic records are sometimes written in a highflown *kavya* style which leaves no doubt that Sanskrit literature was considerably developed in the district.

Medieval Period

The first century and a half of Muslim conquest and expansion of Islamic power all over Bengal did not allow any literature to flourish. It is only after the return of peaceful conditions and establishment of a more or less stable government, that is, during the fourteenth and fifteenth centuries, that a sort of renaissance of Sanskrit studies and Brahminical lore appears to have started in the province. Sanskrit scholars became active during the fifteenth century, and an all-round cultural development started from the end of the century. 'Colleges of Sanskrit learning sprang up everywhere, particularly at Navadwip, Vishnupur, Maldah and in many a Brahman village along the Bhagirathi or Hooghly river; in fact, almost wherever there were Brahmans and Hindus.'² The important seats of Sanskrit learning in the district, viz. Bhatpara, Naihati, Mulajore, Halisahar, etc. which prospered during the seventeenth and eighteenth centuries, had probably begun to grow up from this time.

During the fourteenth and fifteenth centuries, the throne of Gaur was adorned by a number of Muslim rulers who were enlightened administrators, learned scholars and patrons of Bengali literature. The present district then formed a part of Sarkar Satgaon and was fortunate to be included within the dominions of some of them. Among the rulers of the Ilyas Shahi and the Husain Shahi dynasties under whose enlightened rule 'the vernacular found its due recognition as the literary medium through which the repressed intellect of Bengal was to find its release', mention may be made of Allauddin Husain Shah (1493-1519). A learned man himself, 'his literary appreciation was not confined to Arabic and Persian only, but was extended in an increasing degree to the vernacular literature'.³ In

¹ Benoy Chandra Sen and Devaprasad Ghose—'A Dated Copper-Plate Grant from Sundarbans' in the *Indian Historical Quarterly*, Vol. X, Calcutta, 1934, p. 321.

² R. C. Majumdar (ed.)—*The History and Culture of the Indian People*, Vol. VI: *The Delhi Sultanate*, p. 514.

³ Jadu Nath Sarkar—*The History of Bengal*, Vol. II, Second Impression, Dacca, 1972, pp. 143, 151 & 152.

his reign poet Bipradas Pipilai composed in A.D. 1495 the narrative poem *Manasavijaya*, one of the earliest compositions in the language and the first work in Bengali in the district. Bipradas happens to be the first poet on the theme of religious fables around the Hindu folk-goddess of snakes, Manasa. The *Manasavijaya* is a complete "homogeneous narrative poem; the style is simple and direct, and the story interest never flags". All the manuscripts of the poem were copied by persons residing in the contiguous villages of Dattapukur and Chhota Jagulia (both in P.S. Barasat). According to his own account Bipradas belonged to a Brahmin family of Pipilai sub-clan of the Vatsya clan belonging to the school of Samaveda. The family had been living for a long time in the village of Badudya-Batagram,¹ i.e., Baduria in the police station of the same name under Basirhat Subdivision.²

The rule of the Husain Shahi dynasty also witnessed an efflorescence of the Bengali mind symbolised by Sri Chaitanyadev's message of love and forgiveness which left an abiding impression on the whole of Eastern India.

With the advent of Sri Chaitanya (A.D. 1486-1533) Vaishnavism and Vaishnava culture spread all over the district. In the first half of the 16th century Sri Chaitanya on his way from Santipur to Nilachala (Orissa), South India, and back, stopped at the places on the Ganges like Kumarhatta (Halisahar), Khardaha, Panihati, Baranagar, Atisara (Baruipur) and Chhatrabhog (P. S. Mathurapur). Since then, these places became important centres of Vaishnavite culture. Of the noted scholars of these centres, special mention may be made of Sri Chaitanya's preceptor Isvar Puri, Sri Chaitanya's disciple Sribas Pandit of Kumarhatta, and the Bhagavat scholar Acharya Raghunath of Baranagar; Acharya Raghunath composed the descriptive Sanskrit *kavya*, *Krishna-tarangini*. At Baranagar still exists the *Patbari* of Acharya Raghunath. Sri Chaitanya left for Puri from Chhatrabhog which had already been famous as a Saiva *tirtha*. Khardaha became famous and earned fame as a *Sripat* with the advent of Sri Chaitanya's close associate Nityananda who gave up at his advice his asceticism, married and settled down here to preach Vaishnavism. The new creed was preached and spread far and wide in Bengal by Nityananda who afterwards came to be regarded as a god, co-ordinate with Sri Chaitanya. The permanences of Vaishnavism is mainly due to the organisation of the sect by Nityananda which came to be known as 'the sect of Khardaha'.

¹ Sukumar Sen—*Vipradas's Manasa Vijaya*, Asiatic Society, Calcutta, 1953.

² R. C. Majumdar (ed.)—*Bangla Deser Itihas* (in Bengali), Vol. II, p. 422.

Bipradas Pipilai

Vaishnavite
Learning

Mention may also be made of Sri Chaitanya's disciples, poet Sivananda Sen of Kanchanpalli (Kanchrapara), and his more well-known son Kavikarnapur Paramananda Sen, author of a drama on the life of Chaitanya (*Chaitanya Chandrodaya*, 1538) and an epic poem (*Chaitanya Charitamrita*, 1542) in Sanskrit.

The creed of this Neo-Vaishnavism that Sri Chaitanya preached gave impetus to a widespread study of Sanskrit among all classes of people, which had hitherto been confined to, and cultivated by, the privileged classes of society, viz., the Brahmin and Vaidya castes only. Although formal higher education continued to be limited, the new creed nevertheless opened up new horizons of knowledge and spirituality to the lowly castes as well, and greatly broadened the basis of our culture, the root of which, throughout the country, had of course been Sanskrit literature. Higher education was, in this period, confined to Sanskrit and imparted in *tols* and *chatuspathis*, a large number of which continued to flourish in the district even during the seventeenth and eighteenth centuries. The Brahmin pandits, well-versed in *Sastras* and *kavyas* ran these medieval institutions of learning and imparted free teaching to students who mainly came from the higher castes of society. Besides offering free tuition, it was as well the customary duty of the teachers to lodge and feed the students free of cost. Hence these institutions had to depend on the munificence and benevolence of wealthy landlords and benefactors, who liberally endowed the principals of these *chatuspathis* and *tols* with land or supported them with regular stipends or periodic gifts; of these benefactors particularly noteworthy were the Savarna Chaudhuris of 24-Parganas (17th century), Raja Krishnachandra Roy of Nadia (A.D. 1710-83) and Rani Bhavani of Natore (A.D. 1724-1803). Students entered these colleges between the age of seven to fifteen and stayed on till thirty to thirty-five. The subjects taught in these institutions were grammar, rhetoric, law, literature, logic, philosophy, astrology and Hindu scriptures.¹

Renowned centres of Sanskrit learning and studies of the *Nyaya* grew up at different places, mainly on the Hugli river in the district, during the medieval and late medieval periods. These centres were run by well-known Brahmin pandits of the time, and produced a number of scholars who became famous all over the province and beyond it, in their respective fields. Of these centres

and scholars teaching there we may take special note of Haladhar Tarkachudamani (1197-1258 B.S.), Jaduram Sarvabhauma and Mahamahopadhyaya Rakhaldas Nyayaratna (1236-1321 B.S.) of the Thakur family and Banerwar Nyayapanchanan of the Bhattacharya family of Kamalpur (Nadia), all from Bhattpalli (Bhatpara). The Mahamahopadhyaya was a celebrated author of many treatises and annotator of the *Nyaya* philosophy. It was the Thakur family of Bhatpara to which goes the credit of upholding the study of the Hindu *sastras* even when it was declining during the British administration.¹ A large number of students and successors of the family not only studied and taught *Nyaya*, *Smriti* and *Kavyas* but also wrote, edited and translated many Sanskrit books and treatises. The brother and student of Rakhaldas Nyayaratna, Taracharan Tarkaratna (1242-1288 B.S.) who was a poet and author, was a court-scholar of the King of Benaras. Mahamahopadhyaya Sivachandra Sarvabhauma (1254-1326 B.S.), also a student of Rakhaldas, was a teacher of great repute at the Sanskrit College at Mulajore. Panchanan Tarkaratna, the well-known translator of Sanskrit books, composed a Sanskrit drama *Amaramangala*, wrote a commentary on *Samkhya*, and translated all the Puranas, the *Manusmriti*, the *Ramayana* about a hundred in all. Another scholar Kamalkrishna Smrititirtha edited twelve rare *Smriti* books, and translated Somadeva's *Kathasaritsagara* in Bengali.

Naihati also had been famous as a seat of Sanskrit learning for many centuries. Manikya Chandra Tarkabhushana was one of the greatest *Nyaya* philosophers of the age. Manikya Chandra opened his *Chatuspathi* at Naihati in 1164 B.S. or shortly before that. He was one of the famous annotators of *Navyanyaya*, and many talented students came to him to learn about his novel commentary on the subject. His younger son Nilmani Nyayapanchanan became renowned for his deep erudition. It is said that fifty per cent of the famous pandits of the then Bengal were the students of the Bhattacharyyas of Naihati. Among them the names of Kalidas Tarkasiddhanta of Khanakul-Krishnanagar, Gaurisankar Tarkabagis, commonly known as Gurgure Bhattacharyya, also the famous journalist of the time, and Ramkamal Nyayaratna, the last famous *Nyaya* philosopher of Naihati and the grandson of Manikya Chandra, may be mentioned.

As mentioned earlier, Halisahar, another noted seat of pandits, was formerly called Kumarhatta, it was famous since the days of

¹ J. N. Sarkar—*History of Bengal*, Vol. II, N. K. Sinha—*History of Bengal*, Vol. III and M. A. Laird—*Missionaries & Education in Bengal*.

¹ Dinesh Chandra Bhattacharyya—*Bangalir Saraswata Avodana*, 1st Part, *Bange Navyanyaya Charcha*, Calcutta, 1358 B.S., pp. 304-05.

Chaitanya who came here to see his spiritual preceptor, Isvar Puri. William Ward mentioned Halisahar next only to Navadwip and Tribeni as a centre of Sanskrit learning; Halisahar had earned a reputation equal to Navadwip in the study of *Navyanyaya*. Many a *chatuspathi* was established by Raja Krishnachandra Roy of Nadiya and the local landlords, Savarna Chaudhuris, who assigned to them large endowments of land. There are stories about the spread of Sanskrit learning even among the lowly people at Halisahar. Many local pandits and those who assembled here from other parts of Bengal, greatly enhanced the reputation of the village Halisahar in the whole of Bengal. Of the famous Bhattacharyas of Kamalpur (Nadiya), Kamadev Vidyavachaspati, Balaran Tarkabhusana and Sisuram Tarkapanchanan established their *chatuspathis* at Kumarhatta and adorned the court of Raja Navakrishna (A.D. 1733-97) of Calcutta.

Mulajore The remains of the *chatuspathi* of the celebrated *Nyaya* philosopher Rambhadra Sarvabhauma are still found at Mulajore. The Chattos of Mulajore were also famous for cultivation of the *sastras* and many of their successors were renowned teachers of *Nyaya* philosophy. Among them may be mentioned Ramtanu Nyayalankar, Vinodram Nyayalankar, commonly known as *Buno* Nyayalankar, and Rupnarayan Nyayavachaspati, to name only a few. Ramkisore Tarkavagis, elder brother of the famous Sankar Vachaspati, also lived in Mulajore and his sons and successors were engaged in teaching *Nyaya* there. (The Sanskrit College, later established in 1872 and still existing was a famous institution for the cultivation of *Navyanyaya* in Bengal.) Ramnath Tarkapanchanan, a scion of the family was the last great scholar of Mulajore and among his students there were many Maithilis.

Kaugachhi Sankar Vachaspati of Kaugachhi was a famous *Nyaya* philosopher of the eighteenth century. Pandit Janardan Vidyabachaspati of Bhatpara was a student of Sankar Vachaspati. The last scholar of Kaugachhi was Patitpavan Nyayaratna.

Majilpur Majilpur was called the 'second Navadwip' for its profound studies and culture of the Hindu *sastras*. In the eighteenth century, it is said, there were not as many *tols* and *chatuspathis* south of Navadwip and Bhatpara as at Majilpur.

Pura Among the great *Nyaya* philosophers of Pura (Basirhat) were Kamalakanta Vidyalkar and Krishnajiban Nyayalankar.

Thus we find that very high levels of philosophical scholarship and research were attained, though it must be admitted that it was confined to just a few.

The middle of the seventeenth century witnessed an efflorescence of Bengali literature, in which a poet of the district took the lead. He elevated the outlandish folk cults of Shashthi, Sitala, Dakshin Ray etc. to the quality of popular religious literature of the *Mangal Kavyas* that had already pervaded the Bengali literary field during the whole of the medieval period. Poet Krishnaram Das, born in about A.D. 1656 at the village of Nimta (P.S. Belgharia) composed five *mangal kavyas*, viz. *Kalikamangal*, *Shashthimangal*, *Raymangal*, *Sitalamangal* and *Lakshminangal*. The *Kalikamangal* of Krishnaram is his first and longest composition and he wrote it at the age of twenty only. The poem *Shashthimangal*, as usual, tells a story of some interest, with occasional passages of poetic beauty, and ends in establishing the glory of Shashthi Devi, the presiding deity of progenition by bringing to a happy termination all adverse happenings by her grace. The poet also wrote *Sitalamangal* and *Lakshminangal* in honour of the presiding deities of small-pox and wealth respectively. But he shows originality in the choice of the theme of the poem *Raymangal*, which is about Dakshin Ray, the presiding god of tigers in the Sundarbans and also contains the incidental fables of his rival the Pir Bara Khan Ghazi, and of Kalu Ray, the local crocodile-god. "The main story is about the rivalry that sprang up between Dakshin Ray, a Hindu deity and Bara Khan Ghazi, a Muslim Pir, because merchants going out on sea-voyages used to worship Dakshin Ray, but not Bara Khan. An armed conflict followed, in which the tiger armies belonging to the rivals were engaged, and which nearly brought the world to an end. To save the world God came down in a form that was half Krishna and half Muhammad, and reconciled the rivals. Primitive and simple though the *Raymangal* is, it nevertheless is interesting for its sociological implication. The synthesis it forges between Hinduism and Islam was characteristic of the seventeenth century and moulded many social customs and religious observances of the two communities. The synthesis was most conspicuous in the cultural sphere, and it gave birth to such popular cults as those of Satya Pir and Manik Pir in the period."¹

It was this district again which gave Bengal the great devotional poet and singer Ramprasad whose songs remain interwoven into the religio-philosophical beliefs of the common people of the State to this day. Ramprasad, a Vaidya by caste, was born in A.D. 1718 at Halisahar. "He received some education, knew some

Bengali poetry in the seventeenth century

Krishnaram Das

18th Century

Ramprasad

¹ J. C. Ghosh—*Bengali Literature*, Oxford, 1948.

Sanskrit, Persian and Hindi, and, when a very young man, obtained a post of copyist in Calcutta, worked for some time, then got a liberal stipend and was introduced to the Krishnanagar court. There Ramprasad rose in favour, and won the title of Kaviranjana or 'Entertainer of Poets'."

Ramprasad died in A.D. 1775. His works, other than Sakta songs, are the *Vidysundar*, *Kalikirtan*, *Sivasamkirtan* and *Krishnakirtan*: the last three are very short, just a few pages. The theme of the *Vidyasundar* is an old Bengali story and well-known to the Bengali readers. But his Sakta poems are a different matter. They have gone to the heart of a people as few poets' work has done. 'The peasants and the Pandits enjoy his songs equally. They draw solace from them in the hour of despair and even at the moment of death. His lyrics at their simplest often have the quality of a snatch of nursery babble, and sing themselves into memory of an illiterate by a riot of punning sound and alliteration, a musical toss and play of similar syllables. Much of the imagery is fanciful and conceited, and of anything but universal validity; yet even this has a charm, examined with patience and sympathy. His range of ideas and illustrations is narrow; but within that range he is a master. His illustration is racy, from the soil, and of the soil; it comes from the life of an agricultural people. He speaks directly to the heart. Truly, a poet who is known both by work and name to boys between fourteen and eighteen, is a national poet. In the sense Ramprasad may be regarded as a national poet.'¹

One Munshi Boynuddin composed some stories in praise of Banbibī, a folk-goddess of the Sundarbans in which the life of the honey-collectors (*Mauleys*) was also depicted.

Towards the end of the eighteenth century Svarupcharan Goswami, a distant scion of the Nityananda family who lived in Khardaha, translated in poetical form a sixteenth century Sanskrit drama *Lalitamadhava* written by Rup Goswami.

The eighteenth century also witnessed compositions, recast in the Hindu mould, on the traditional legends of the local Muslim saints, Pirs prevalent in the Barasat-Basirhat areas.

Elementary learning of the 3 'R's was given in *pathsalas*, in Bengali. These *pathsalas* were found in most of the larger villages. As to the method of instruction, according to Adam the scholars began with tracing the vowels and consonants with the

finger on a sand-board and afterwards on the floor with a pencil of steatite or white cryon; and this exercise was continued for eight or ten days. They were instructed to write on the palm-leaf with a reed-pen held in the first knot with the fingers, and with ink made of charcoal, which rubbed out, joining vowels to the consonants, forming compound letters, syllables, and words, and learning tables of numeration, money, weight, measure, and the correct mode of writing the distinctive names of persons, castes, and places. This was continued about a year. The iron stylus the letters which the scholar were required to trade with ink. They were next advanced to the study of arithmetic and the use of the plantain-leaf in writing with ink made of lamp black, which was continued about six months, during which they were taught addition, subtraction, multiplication, and division, and the simplest cases of the mensuration of land and commercial and agricultural accounts, together with the modes of address proper in writing letters to different persons. The last stage of this limited course of instruction was that in which the scholars were taught to write with lamp-black ink on paper, and were further instructed in agricultural and commercial accounts and in the composition of letters.¹

According to Adam no moral education was imparted to such students.²

The history of education of the district in the nineteenth century is, for the most part, the story of English education in its origin and diffusion. The pioneers of English education were of course the English and the Scottish missionaries who began to pour into the province since the closing years of the eighteenth century. They came in individual groups, and at intervals, and, assisted with the zeal and efforts of some public-spirited Bengalees they established new schools, introduced the elements of Western science into the curriculum, and pioneered in starting girls' schools. They introduced text books into schools and used Bengali as the medium of instruction. The missionaries also pioneered the teaching of English. The motives for starting this work were a characteristic mixture of the humanitarian and the evangelistic, of which the latter was, no doubt, given more stress to begin with.

The Church Missionary Society of the Anglican group had a greater sense of missionary urgency and they started an elementary

Method of Instruction

19th Century: Beginnings of Western Education

The Christian Missionaries

The Church Missionary Society

¹ Edward J. Thompson and Arthur Marshman Spencer (selected & translated) — *Bengali Religious Lyrics, Sakta* in the Heritage of India Series, Calcutta, 1923.

¹ William Adam—*Reports on the State of Education in Bengal (1835 & 1838)*, Edited by A. Bose, Calcutta University, Calcutta, 1941, p. 8.

² *Ibid.*, p. 9.

Munshi Boynuddin

Svarupcharan Goswami

Elementary Education

Kali Sankar Ghosal

school at Khidirpur on the southern outskirts of Calcutta as early as in A.D. 1816. The land was donated by one Kali Sankar Ghosal, a local inhabitant and friend of Raja Rammohan Roy. Although this was a vernacular school, it was at the wish of Kali Sankar that English was taught to the senior boys of the Khidirpur School from its start.¹ Inspired by the Khidirpur School which was 'a success', the C.M.S. established other schools,—two at Baj Baj and four around Dam Dam and Barasat. The last four were started by Macpherson, the Anglican Chaplain at Dam Dam who had agreed to the popular request for an English class in each.² In connection with this Association but not under its immediate directions, there was also a school at Behala, containing about 100 children.³

The London Missionary Society

The London Missionary Society started Bengali elementary schools, and by 1823 there were five such schools in and around Calcutta in which religious instruction was given.⁴ Later on, they expanded their operations and by 1831 they were found running eight boys schools around Khidirpur and 'two others still further south at Gangri'.⁵ According to Adam in 1835 there were only five such schools around Khidirpur, containing 260 boys.⁶

The Calcutta Diocesan Committee

The Calcutta Diocesan Committee of the Society for Promoting Christian Knowledge began its educational work in 1818 and they were able to establish by 1823 elementary schools among other places, at Janjara (Jhanjhra at Bishnupur P.S.), Rajapur (Tollygunge P.S.), Andharmanik (Mathurapur P.S.) and Baruipur. The books prescribed included Watt's *Catechism*, Ellerton's *Dialogues on Scripture*, History, *The History of Joseph*, the Gospels, etc. They also adopted the indigenous mode of writing on sand and palm plantain leaves.⁷ The Calcutta District Committee of the S.P.C.K. took over in 1820 the superintendence of the elementary schools that had been established in 1815 by Lady Loudon, the wife of the Governor General Marquess Hastings, of her own, at their country residence at Barakpur. Lady Loudon had made a collec-

¹ M. A. Laird—*Missionaries and Education in Bengal*, 1793-1837, Oxford, 1972, pp. 75-6 and 96.

² *Ibid.*, p. 160.

³ William Adam—*Reports on the State of Education in Bengal* (1835 & 1838), ed. A. Bose, Calcutta University, Calcutta, 1941, p. 15.

⁴ M. A. Laird—*Missionaries and Education in Bengal*, 1793-1837, Oxford, 1972, pp. 76-7.

⁵ *Ibid.*, p. 161.

⁶ William Adam—*op. cit.*, p. 16.

⁷ *Ibid.*, p. 14.

tion of studies, apologies and maxims, all illustrating and recommending principles of morality, without reference to any particular religion. 'The school was popular, and Hastings thought it' may be urged in proof what is practicable in this country.¹ However, this together with other elementary schools (some of which were at Tollygunge) under the auspices of the S.P.C.K., were handed over to the Society for the Propagation of the Gospel in 1825-26.²

The Baptist Missionary Society of Serampore (Srirampur) also established schools at Debipur, Balarampur (both in Bishnupur P.S.), Baruipur, Lakshmikantapur and Anandapur in the Sundarbans, as found by the end of 1835.³

The Baptist Missionary Society of Srirampur

The course of instruction generally pursued in these schools, consisted of reading, writing, arithmetic, geography, grammar and also English, particularly for those boys "who showed particular attention" as in the case of Lady Loudon's school at Barakpur. Besides, religious instruction was also given to the boys. The textbooks on various subjects published by the Calcutta School Book Society by 1821, and induced by the Calcutta School Society to be accepted by teachers, catered to the need of the schools founded by the different missionaries.

The curriculum

The first individual attempt to teach women-folk was noticed as early as 1820s when Kali Sankar Ghosal invited Mrs. Trawin, the wife of a member of the L.M.S., to teach the ladies of his Khidirpur house; but he had to stop it owing to ridicule brought upon him as Mrs. Trawin had offended by teaching the ladies christianity.⁴ The first organised effort towards female education in the district was made by the Calcutta Female Juvenile Society, founded in 1819, which started by 1823 'as many as eight schools in Calcutta and its vicinity'.⁵ The curriculum was similar to that of the boys' schools, except needle work which was, at first, introduced into these girls' schools, but later discontinued as such work was normally done by Mahomedan tailors and was, therefore, not popular with Hindu school girls.⁶

Girls' Schools

The Calcutta Female Juvenile Society

¹ M. A. Laird—*Missionaries and Education in Bengal*, 1798-1837, Oxford, 1972, p. 125.

² *Ibid.*, pp. 160-61.

³ William Adam—*op. cit.*, p. 15.

⁴ M. A. Laird—*Missionaries and Education in Bengal*, 1793-1837, Oxford, 1972, p. 136.

⁵ Jogesh Chandra Bagal—*Women's Education in Eastern India*, The First Phase, Calcutta, 1956, p. 12.

⁶ M. A. Laird—*op. cit.*, pp. 135-36.

ENGLISH
SCHOOLS

The Church of
Scottish Mission
—Alexander Duff

After his arrival in Bengal in May 1830, Alexander Duff of the Church of Scotland's Mission made a thorough investigation of the existing missionary education and was disappointed to see that the missionary efforts were mainly confined to elementary Bengali schools used mainly by boys of low caste, and to moderate proficiency in reading, writing Bengali and a little smattering of arithmetic in which, he thought, the highest attainment was not possible. The students were not qualified to enter into a higher collegiate institution. Therefore, he decided to make a new experiment and started immediately a preparatory English Seminer at Calcutta 'to train a select number of students for higher education'.¹ Inspired with the success of his new English Institute, Duff opened his second school on similar pattern at Taki in June 1832. The famous and 'reformist' Ray Choudhury family of the locality, a member of which was a student of Duff's school in Calcutta, took the lead in establishing the school and bore the expenses of the school building, its furniture and salaries of the teachers. "The Taki school made good start, but fell into difficulties in 1833, a year of violent storms and fever which decimated the area:... By August 1836 however it was flourishing, with 130 pupils in its English Department in addition to some who read Bengali and a few who read Persian only, totalling over 160."²

The example of Duff's school led to the development of the education policy of the other Missionary societies, particularly in confirming the tendency to give more emphasis to the establishment of English schools. The Church Missionary Society, which had, of course, pioneered in teaching English at their Khidirpur school from its start in 1816, established two more English schools at Alipur and Barasat. The London Missionary Society started an English school at Khidirpur in 1831 which, after two years of temporary relinquishment, was restarted in 1834; in the following year it was amalgamated with their boarding school at Alipur which was started by them in 1833 for the children of Christian converts to teach them, first in their own language and then English, in order to prepare them as ministers who would be qualified to "preach the Gospel among the heathens"³. However, this combined establish-

¹ K. P. Sengupta—*The Christian Missionaries in Bengal, 1793-1833*, Calcutta, 1971, pp. 115-16.

² M. A. Laird—*Missionaries and Education in Bengal, 1793-1837*. Oxford, 1972, pp. 217-18.

³ M. A. Laird—*The Christian Missionaries and Education in Bengal, 1793-1837*, Oxford, 1972, pp. 217-18.

ment was moved to Bhawanipur in 1837 and assumed its final form as the Bhawanipur Institution.¹ There were by 1837 three missionary English schools in the district, each at Alipur, Barasat of the C.M.S. and at Taki of Scottish Missionary.²

The new enthusiasm for English education had repercussions on the vernacular schools of the missionaries. They had to close some of them. In 1836-37 the C.M.S. continued ten such schools in and around Calcutta and the L.M.S. had by 1837 six in the suburbs and villages to the south of the City of Calcutta.³

A Hindu school imparting *inter alia* English education after the model of Tattvabodhini School of Bansberia in Hugli district started by Devendranath Tagore was opened at Panihati as a parallel to the Missionaries' institutions.

As seen above, some beginnings had been made with girls' education. In the meantime a movement for spread of education among girls gathered momentum owing to the efforts of Rammohun Roy, Isvar Chandra Vidyasagar and David Hare; Macaulay, Cecil Beadon and Mr. J.E.D. Bethune also made great efforts for the cause. Peary Churn Sircar with the help of some local public-spirited men like Dr. Nabin Krishna Mitra and his brother Kali Krishna Mitra, of Barasat took prominent part in setting up a free school for girls at Barasat in 1847. But "charges of assault, suits of arrears of rent and complaints of all kinds and character were brought against the parents of those who sent their daughters to the school." In spite of that the school survived and the Kalikrishna Girls' School, as it was named, was recognized by the Barasat Municipality in 1885 and through gradual development this century-old school is now a High School for girls. This school was followed by the Nebadhai Girls' School was visited by Isvar Barasat in 1848. The Nebadhai Girls' School was visited by Isvar Chandra Vidyasagar, Maharshi Devendra Nath and Mr. Bethune. In 1863, a female school was established at Taki in Basirhat by late Rai Bhupendranath Chaudhuri in collaboration with other local people, and the institution is now a High School and goes by the name of Taki Sasthibar Girls' High School.⁴

A comprehensive picture of education in the district around 1870 may be had from the Annual Report on the Public Instruction for

Further progress
about Girls'
Schools

Peary Churn
Sircar

Continuous
advance

¹ *Ibid.*, p. 243.

² *Ibid.*, p. 246.

³ *Ibid.*, pp. 242-43.

⁴ Source: District Inspector of Schools, 24-Parganas.

1871-72 by Mr. Woodrow, Inspector of Schools which is quoted in W. W. Hunter's Statistical Account of Bengal, and reproduced here in brief.

1871-72

"Nine-tenths of the education given in this district are found on the banks of the old Ganges. The country thus favoured with schools extends from Halisahar down to Rajpur, Baruiipur, Boral, Govindapur, Bahru. and Jaynagar, all populous villages have flourishing English schools under Hindu management. At Baruiipur is an excellent female orphanage, under the care of Mrs. Drew, wife of the Rev. W. Drew, of the Society for the Propagation of the Gospel.

"In the Suburbs of Calcutta, between the Salt Water Lake and the River Hugli, are numerous schools. Among these may be mentioned the English School at Varahanagar (Baranagar). These schools derive a great part of their support from fees, but are assisted by Babu Dwarkanath Rai Chaudhuri and Pandit Sib Chandra Basu. To south of Calcutta are the English schools at Garden Reach, under the Church Missionary Society; at Behala, under the London Missionary Society; at Tollygunj, lately under the Society for the Propagation of the Gospel, but now managed and partly supported by a Muhammadan gentleman. The Society for the Propagation of the Gospel and the London Missionary Society have several schools, which are almost all in an unsatisfactory state both as to numbers and progress. These schools are attended by fishermen and cultivators. The vernacular schools under the Rev. J. Long, and in the neighbourhood of Thakurpukur, are some of the best village schools in the 24-Parganas. The Subdivision of Diamond Harbour has few schools, and these few are in anything but a flourishing state.

"The Barrackpore Subdivision is well supplied with schools. In the Governor-General's Park is the Government School, which receives an assignment of only £ 8 a month, but yet produces satisfactory results. Besides, there are also the large number of aided English Schools of Agarpara, Sayyidpur (Sodepur), and Ichhapur. The Agarpara school has 251 boys, and receives a grant of £ 12 a month. It is under the Church Missionary Society, which has also a female orphanage at Agarpara. Several girls' schools have been established near Barrackpore, which are superintended by ladies connected with the Indian Instruction Society. The aided vernacular schools near Barrackpore are at Manirampur, Palta, Khardah, Natagarh, Sayyidpur (Sodepur), Dakhineswar, Panihati, Barrackpore, Rahra, Belgharia, Ichhapur and Ariadaha; besides which,

there are several small unaided village schools. There are the flourishing English schools at Syamnagar, Naihati and Halisahar, the last of which is the best. In the Barrackpore Subdivision there are fourteen aided vernacular schools. The Dam Dam Subdivision (now merged in Barakpur Subdivision) is not well supplied with schools. English schools exist at Dam Dam, Kadihati, and Bishnupur; there are seven aided vernacular schools in this Subdivision.

"Barasat enjoys the advantage of a good Government school. Around Barasat are the flourishing English schools of Nibodhay, Chhota Jagulia, Nalqura and the good vernacular schools of Barasat, Badu, and Chhota Jagulia, besides several others of second and third rate merit. About ten miles east of Barasat the salt streams of the Sundarbans flow up quite into Nadia. This part of the District is poor in schools. In the Subdivision of Basirhat are several schools, among which may be mentioned with commendation the aided English School at Taki, and the Government vernacular school at Pura. There is an excellent English School at Gobardanga."¹

Hunter sums up Government and aided schools in 1871-72 in the district thus: '15 Higher Class Schools attended by 2151 pupils, 37 Middle English Schools attended by 2106, 106 Middle Vernacular Schools attended by 6212, 157 Primary Schools attended by 6077 and 29 Girls' Schools attended by 887 pupils'. 'Of the pupils', Hunter also observes, 'on less than 539 out of every 1000 came from working classes, while only 2 in 1000 came from the upper ranks of society. The 106 middle vernacular schools were attended in almost equal proportions by the middle and lower classes. In the Primary Schools the lower classes outnumber the middle classes more than five-fold. In higher English schools, the lower group of professional men, such as clerks, etc. had a vast preponderance over all other classes of society. They furnished more than a quarter of the students of such schools, while as regards all schools generally they formed only thirteen per cent of the total'.

The standard of instruction given in primary schools differed from that given in the lower classes of High and Middle schools, and the schools were classified as Upper Primary and Lower Primary Schools, according to the standard of instruction. In 1900-01 about four thousand boys and a few girls (48) were reading in

¹ W. W. Hunter—*A Statistical Account of Bengal*, Vol. I, London, 1875 (Indian Reprint, 1973), pp. 204-07.

Upper Primary and about fifty-nine thousand boys and five thousand girls in Lower Primary Schools.¹

1910-11

O'Mally mentioned 131 Upper Primary Schools attended by 8,490 pupils and 1,556 Lower Primary Schools attended by 74,736 pupils in 1910-11.² The Society for the Improvement of the Backward classes, Bengal and Assam started and maintained in 24-Parganas along with other districts of Bengal, 54 Primary and 8 Middle English Schools. Besides, a scheme providing improved facilities for primary education in the colonisation areas of Sundarbans in the districts of Bakerganj (now in Bangladesh) and 24-Parganas was formulated.³ There were in the district established three elementary schools for the children of the factory-employees, two at Ichhapur and one at Titagarh. Near the Titagarh Mills there was a Telugu Primary School for the Telugu children employed in the factory. The *maktabs* and primary schools in the mill areas were mostly attended by the children of the millhands and the children employed in the mills.⁴

1920-21

However, during the next ten years from 1910-11, the overall number of Upper Primary schools increased by 41 and that of Lower Primary by 217 in 1920-21; during the period the number of pupils increased by 1,677 in Upper Primary and 1,633 in Lower Primary schools. But in comparison with the previous year (1919-20) the number of Lower Primary schools for girls decreased by four and that of the pupils in Lower Primary schools (both boys and girls) by 3,257, although five more Lower Primary schools for boys were founded during the year. This decrease in number of pupils was due to the 'non-cooperation movement' which affected educational work in all grades of schools.⁵ During this period, notwithstanding the adverse circumstances of 'high prices and economic distress among the people' the zeal of lower classes, specially among the Pods and Namasudras to raise their status in civilized society continued unabated. 'In 24-Parganas, more than 60 per cent of pupils of the backward classes came from the Pod Community and, out of 38 Lower Primary scholarships, as many as 12 were won by

The Non-
Co-operation
Movement

¹ *General Report on Public Instruction in Bengal, for 1900-1901*, Calcutta, 1901, Appedix IX.

² L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914.

³ Government of Bengal—*Progress of Education in Bengal, Fifth Quinquennial Review (1912-13 to 1916-17)*, Calcutta, 1918.

⁴ Government of Bengal—*Progress of Education in Bengal, Sixth Quinquennial Review (1917-18 to 1921-22)*.

⁵ *Annual Report on the Progress of Education, Presidency Division, 1920-21*, Calcutta, 1921, p. 1.

Pod boys'. In the district concerned three primary schools—two for boys and one for girls were originally started by the Depressed classes Society and later maintained from the 'Sussex Trust' Fund.¹

The Bengal Primary Education Act of 1919 empowered the municipalities to introduce compulsory education within their areas. In 1921, education became a transferred subject and the Provincial Government assumed full charges of the Department.²

The Eighth Quinquennial Review reports that there were six primary schools in 1931-32 as against three in 1926-27 for millhands and factory children in the mills area and in the cantonment area of Barakpur there were 9 schools (one High school for boys, one Middle school for girls, 3 Primary schools for boys and 4 Primary schools for girls) with 875 scholars in 1931-32 as against 8 schools with about five hundred boys in 1926-27.³

The Bengal (Rural) Primary Education Act was passed in 1930. The forties It led, *inter alia*, to the establishment of District School Boards as statutory bodies and made them responsible for primary education in rural areas. Accordingly, the District School Board, 24-Parganas was created in 1940 being separated from its predecessor body, the District Board and became the controlling authority of primary education in the rural areas only of the district. Since 1940 the two categories of Upper and Lower Primary schools were merged. From the forties Primary education came into prominence 'when Gokhale tried to force the Government into greater efforts and King George V, in course of his visit, spoke of the possibility of a network of schools spreading all over the country.'⁴ Despite the difficulties caused by the out-break of the Second World War in 1939 and the famine of 1943, a number of important schemes and reforms were carried out during this time. These included, among others, institution of scholarships and stipends for backward classes and appointment of a special officer to promote their interests,

¹ *Ibid.*, p. 12.

² National Council of Educational Research and Training, Ministry of Education, *Review of Education in India (1947-1961)—West Bengal*, Nasik, 1962.

³ Govt. of Bengal—*Progress of Education in Bengal, Eighth Quinquennial Review (1927-28 to 1931-32)*, Calcutta, 1932.

⁴ Government of West Bengal—*Quinquennial Review on the Progress of Education in West Bengal, for 1942-43 to 1946-47*, Calcutta, 1951.

making Primary education free in large areas, and appointment of district officers for physical education.¹ Accordingly, the post of District Organiser of Physical Education, 24-Parganas was created with the functions to administer, organise and supervise physical education activities in the educational institutions, youth clubs and associations, followed by formation of a Youth Welfare Council.

Just on the eve of Independence, i.e., in 1946-47 the position of Primary schools as compared with 1920-21 was as follows:

	Total No. of Primary schools	Boys	Pupils Girls
1920-21	1,945	76,479	10,057
1946-47 ²	2,086*	1,89,394	32,163

Secondary
education

Beginning with the present century the Secondary schools were of two classes, High and Middle, the latter being subdivided into (a) English and (b) Vernacular. High schools taught up to the Matriculation standard of the University, while Middle schools of both categories prepared their pupils for the Middle Scholarship examination, with or without the English language as an extra subject. Under the new Vernacular Education Scheme, English was the medium of instruction from Class IV upwards in High Schools, while in all the lower classes from Class V, the medium of instruction (except in the subject of English) was the vernacular.³

In the forties, the Secondary schools were re-organized and consisted of two sections only—Middle English schools and High English schools.

The following table shows the situation of Secondary education during 1911-47:

¹ National Council of Educational Research and Training, Ministry of Education, *Review of Education in India (1947-1961)—West Bengal*, Nasik, 1962.

² Government of West Bengal—*Quinquennial Review on the Progress of Education in West Bengal, for 1942-43 to 1946-47*, Calcutta, 1951.

³ *General Report on Public Instruction in Bengal for 1900-01*, Calcutta, 1901, p. 16.

* Including 12 managed by Government, 1,507 by District School Board and 49 by Municipal Board, 421 aided and 97 unaided.

Year		1911 ¹	1921 ²	1947
High English schools	No. of institutions	37	48	105
	No. of students	7,500	11,000 ³	30,000
Middle English schools	No. of institutions	62	76	179
	No. of students	5,559	—	24,342 (22,784 boys and 1,558 girls)
Middle Vernacular schools	No. of institutions	34	21	—
	No. of students	2,367	—	—

Of the 37 High schools in 1911 stated above, three, one each at Barasat, Barakpur and Taki, were managed by Government, 26 were aided and 8, including 1 Girls' High school, at Barakpur were unaided.

Of the 105 High schools, in 1947, three were Government's, 52 aided by it and 50 unaided. Of the 179 Middle English schools, 2 were managed by Municipal Board, 157 aided by Government and 20 unaided.

According to Hunter's Account, by 1871-72 there were 29 girls' schools attended by 887 pupils. In the following years of the last century more girls' schools were established to cater Primary education to girls of the district but attendance was deplorable for want of public enthusiasm. Also, inadequacy of female

Girls' Schools

¹ L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914.

² T. O. D. Dunn., Inspector of Schools, Presidency Division—*List of Schools in the Presidency Division (corrected up to 31st March 1921)*, Calcutta, 1921. But the *Annual Report on the Progress of Education, Presidency Division, 1920-21*, Calcutta, 1921, puts the number of High Schools in the District as 54.

³ *Annual Report on the Progress of Education, Presidency Division, 1920-21*, Calcutta, 1921.

teachers, social objection to women's employment in public, the system of early marriage and the superstition of widowhood for educated girls accounted for the hindrance to the advancement of female education in the last century.

In 1910 Government opened five Peasants' Girls' Schools in backward areas and remote places of the district for those people who were usually averse to female education.

The beginnings of adult education

The history of adult education in the district goes back to the early days of the present century when some night schools (in the name of continuation schools) were established mainly to provide instruction in elementary subjects to day-labourers and artisans who could not otherwise attend day schools.¹ Adult education in pre-independence days was carried on mainly through private efforts and voluntary organizations.

Professional and technical education: The early phase

Traditionally training in crafts used to be imparted by father to son in craftsmen's families. Gradually the need for supplementing this system with organised professional courses, particularly in crafts not traditionally practised in the region, and later in technical trades, was felt. At the end of the nineteenth century, one crafts school for practical training in carpentry and carpet and *dari* weaving (the Kaurapukur Industrial School) was attached to the Middle English School, Kaurapukur, Tollygunj, run by the London Missionary Society.² The school spread in later times into three different institutions, viz., the Kaurapukur Boys' Industrial School, the Kaurapukur Boys' Industrial Night School, and the Kaurapukur Girls' Industrial School, all under the management of the same Missionary Society. The Night School was started for the benefit of those boys who worked in the workshop during day time and the girls' one was meant for providing means of livelihood for poor Christian girls and women and used to render instruction in pillow and lace-making.³ From 1901 to 1906 the Church of England established at Baranagar a Widows' Industrial Home for training destitute widows in washing and dying of wool, embroidery, yarn-making, *chutney*-making, besides literary classes, and an Orphan Boys' Industrial School for imparting training in brass moulding, turning, fitting, engineering and lock-work, and also a Girls' Industrial School for providing livelihood for destitute Indian Christian girls. According to O'Malley, by 1910-11 the district

¹ *The Annual Report on Education, 1902-1903*, p. 23.

² *Technical and Industrial Institution, 1888-1908*, Calcutta, 1908.

³ Government of Bengal (Department of Industries), *Technical and Industrial Instructions in Bengal, 1921*, Calcutta, 1921.

possessed three technical schools attended by 90 pupils and ten training schools attended by 114 pupils.¹ The centre started by the then Eastern Bengal Railways in the first quarter of the present century to train Railway apprentices in applied mechanics, mechanical drawing and steam, flowered by 1921 into the Kanchrapara Technical School which flourishes today as a Diploma level Training Institution. In 1924, the Ordnance Department started a technical school which also continues its useful work to this day.

In the wake of the national movement an association, namely, the National Council of Education was established in 1906 to impart education, literary and scientific, as well as professional, on national lines. Along with this there was founded another body known as the Society for the Promotion of Technical Education in Bengal under the presidentship of the late Rashbehari Ghose with the object of imparting scientific and technical education to the people of the country. Under the auspices of the Society the Bengal Technical Institution (later known as the College of Engineering and Technology of Bengal) was started. In 1910, the Society for the Promotion of Technical Education in Bengal was amalgamated with the National Council of Education. Later on with the donation of thirteen lakhs of rupees under the will of the late Rashbehari Ghose and the donation of about ten lakhs of rupees from other sources extensive buildings and workshops were erected at the present site of the Jadabpur University in 1924. This was how the College of Engineering and Technology started. Since 1924 the College had been virtually functioning as a University through conferment of degrees under the National Council of Education. According to the *Report of the Technical and Industrial Education Committee 1945*, Government of Bengal, the College "established such a reputation that its students are now receiving increasing support from industrial concerns both in the Province and outside including the Tata Iron and Steel Works".² But the institution and its degrees were not still officially recognised.

Nationalist aspirations in the field of education: The College of Engineering and Technology of Bengal, Jadabpur

Physical education as a cultural movement was revived in the district as early as 1932, long before the Government took up development of physical education as a sphere of their activities. In that year the famous civilian Gurusaday Dutta (1882-1941) founded the *Bratachari* movement with headquarters at Thakur-

The *Bratachari* movement

¹ L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914.

² *Report of the Technical and Industrial Education Committee—Govt. of Bengal, 1945*.

pukur, near Behala. The movement aimed at infusing a sense of values as well as a sense of patriotism through observance of certain vows (*Bratas*) and principles and practice of physical culture and folk-dances. The five vows adopted by the Participants in the movement were the vow of wisdom (*jnanabrata*), the vow of labour (*sramabrata*), the vow of truth (*satyabrata*), the vow of unity (*aikyabrata*) and the vow of cheer (*anandabrata*). The values of united labour, humility and equality had to be cherished and physical culture practised through drills in unison with patriotic songs. Traditional folk-dances like *Raibense*, and *dhali* were recovered from oblivion and emphasis was placed on efforts at improving villages. The movement gained popularity, and spread out quite a bit in villages and also in other provinces of India and even abroad.¹

LITERACY

The 1971 Census found that in spite of portions of the district being part of the Calcutta Metropolitan area, only 38 per cent² of the population of the district were literate. This figure, though poor, compares favourably with the West Bengal figure of 33 per cent and the all India figure of 29 per cent.

The growth of literacy in the district since 1901 is given in the table below:

Year	Percentage of literates	Year	Percentage of literates
1901	11	1941	16
1911	12	1951	24
1921	13	1961	32
1931	11	1971	38

Literacy has thus grown from 11 per cent to 38 per cent in the last seventy years, a painfully slow growth. Literacy is much more prevalent among urban population than in the rural. In 1971, 56 per cent of the people living in the urban areas were literate as against 29 per cent of those living in rural area. This appears almost at par with the corresponding ratios for the State which were 56 per cent of the urban population and 26 per cent of the rural population. There appears to have been slight growth both in urban and

¹ *Bharatkosh*, published by the Bangiya Sahitya Parishad.

² All figures in this section have been rounded off.

rural sectors since 1961 when 52 per cent of the urban people and 24 per cent of rural people were literate. Area-wise, the Barakpur Subdivision has the highest literacy within the district (55 per cent).

Within the Barakpur Subdivision literacy is most concentrated in the Dam Dam police station where the literacy figure reaches about 64 per cent. The other subdivisions are far behind, particularly the literacy figures for Basirhat and Diamond Harbour fall to 27 per cent and 31 per cent respectively.

The police station Minakhan, having the lowest literacy figures (18 per cent) among the police stations in the district, falls within the Basirhat Subdivision.

Literacy among the females in the district is even lower than among the population as a whole. According to 1971 Census, only 27 per cent were literate as against the corresponding State figure of 22 per cent.

The growth of female literacy in the district since 1901 has been as follows:

Year	Percentage of female literates	Year	Percentage of female literates
1901	1	1941	7
1911	2	1951	11
1921	2	1961	19
1931	3	1971	27

Literacy among the females has thus grown from one per cent in 1901 to 27 per cent in 1971, a grave state of affairs, to say the least.

The literacy rate among the females living in the rural areas is even more alarming. In 1971 only 16 per cent of the rural female population of the district were literate.

Among the subdivisions female literacy is the lowest in Diamond Harbour (less than 16 per cent).

The data given above point to the need for much more sustained efforts towards literacy, especially in the rural areas.

Only 34 per cent of the literates had primary education according to the 1971 Census, 15 per cent passed Matriculation/H.S. examination, 0.20 per cent held non-technical or technical certificates/diplomas and 3 per cent (1,12,680) were graduates and above. Educational levels

Of the undergraduate diploma holders, less than five thousand held technical certificates or diplomas.

In urban areas of the district 8,851 men and 2,331 women were found holding non-technical post-graduate degrees, 2,942 men and 76 women degrees in Engineering and Technology, 2,184 men and 186 women degrees in Medical Science and only a few men (40) and fewer (5) women degrees in Agriculture, Veterinary and Dairying. There were also 1,393 men and 1,627 women teachers.

In assessing these data one has to remember that a large part of the district is included in the metropolitan urban conglomeration of Calcutta, and largely do not reflect the progress of the district; for instance, most of the engineering graduates may not belong to the district but are merely residing in this part of the Calcutta metropolis.

Spread of education among women since Independence

The spread of education among women prior to Independence has been discussed previously. Since Independence the Government gradually made primary education compulsory for all children in rural areas and remitted tuition fees up to Class VIII in girls' high and junior high schools in rural areas, and where there were no such schools for want of requisite number of girls, the system of co-education was introduced for the girls in local boys' school* (education up to the higher secondary stage has since been made free).

1950-61

The 4-class junior girls' schools increased from 15 in 1950 to 75 in 1961 and 2-class junior girls' high schools from 22 in 1950 to 38 in 1961.¹ In rural areas girls' primary schools were merged with boys' primary schools under management of the District School Board whereas in the municipal areas girls' primary schools remained under the direct supervision of the District Inspectress of Schools, and the number of such schools was 112 in 1961.² Under the first Five-Year Plan some junior basic schools were set up, and in 1961 there were in the district 3 junior basic, 5 senior basic and one urban basic girls' schools. In the same year the district had 67 high schools, 14 higher secondary schools (11-year), 16 multipurpose schools and 6 special type of schools, the total being 103—all exclusively for girls.³

1970-71

In 1970-71, 261,507 and 16,768 girls were receiving education in primary and junior basic schools respectively. In the secondary education, 164 junior high, 143 high and 129 higher secondary schools were teaching twenty-eight, sixty-four and eighty-one

thousand girls respectively in that year. The number of girls reading in secondary schools also included the girls enrolled in boys' schools (co-educational). 14,573 girls were receiving collegiate education in 45 colleges (including four women's colleges but excluding Post-Graduate Training College for Physical Education at Banipur).¹

During the next five years the number of girl students increased by twenty-six thousand in primary, two thousand in junior high and eighty-two thousand in high schools; the number of college-girls increased by about three thousand only during this time.

After 1970 junior basic schools were merged with primary schools, and from 1974 higher secondary schools have been converted into high schools.

According to the Census of 1971, 23,387 women of the district were graduates and higher degree holders and 510 were undergraduates, non-technical and technical diploma or certificate holders. 171 with Honours, 410 in Science including 55 with Honours and only 29 in Commerce.

Since Independence Government have been taking various measures to improve the educational position of the Scheduled Castes and Scheduled Tribes and other educationally backward communities living in the district. These people enjoy special educational facilities, viz. stipends, book grants, remission of tuition fees, examination fees, hostel charges, etc. at all stages of education. Grants for setting up primary schools and new hostel buildings are also made on the part of the State Government. The Central Government award scholarships to Scheduled Castes and Scheduled Tribes students reading in post-secondary stage and grants for construction of hostels for accommodation of Scheduled Castes and Scheduled Tribes girls students.

Some non-official voluntary organizations like the Ramakrishna Mission Asrama, Narendrapur; Sri Ramakrishna Asrama, Nimpith; etc. are engaged in welfare work, particularly in the field of education, for these backward communities. The Ramakrishna Mission at Narendrapur is engaged in welfare-work for the Harijans and other socially backward classes while the Asrama at Nimpith runs an Asrama Library and Asrama Mahila Samity.

Up to 1976-77 Government offered grants for construction of 18 hostels for boys and 16 for girls, and sanctioned a quota of setting up of about 30 primary schools for 1978-79. During the year 1976-

Spread of education among backward classes and tribes

* Free tuition up to Class X was introduced in the State for all students on and from 1.1.80 and it was extended up to Class XII on and from 1.1.81.
¹⁻³ Source: District Inspector of Schools, 24-Parganas.

¹ Source: Director of Public Instruction, West Bengal.

77 about 12,500 Scheduled Caste students received book grants and examination fees, about 18,200 received tuition fees and about 1,700 received hostel charges worth Rs. 19,82,000. During the same year, about 2,700 Scheduled Tribe students received book grants and examination fees, 2,600 tuition fees and 350 hostel charges worth Rs. 2,23,000 (approx.). In the same year about 12,000 Scheduled Caste students and about 100 Scheduled Tribe students enjoyed Government of India post-matric scholarships worth about Rs. 85,73,000 and about Rs. 78,000 respectively.

The Government have also made arrangement for giving technical training to some boys and girls of those backward communities, and for this purpose have established in the district four Training-cum-Production centres, 1 each at Champahati (for brush and broom), at Baduria (for mat), at Kakdwip (for tailoring) and at Kulpi (also for mat). The intake capacity is 15 to 20 at each of (also for mat). The intake capacity is 15 to 20 at each of these centres and the period of training covers a whole year. The trainees receive a monthly stipend of Rs. 40 each during the training period.

The literacy rate among these backward people rose from 18 per cent in 1961 to 25 per cent in 1971.¹

GENERAL EDUCATION

Primary Schools

During the five years from 1946-47, 198 primary schools were established, and pupils increased by eighty-four thousand, giving a total of 2,284 primary schools and three lakh and six thousand pupils in 1951-52.

Government accepted the recommendation of the School Education Committee, appointed in 1948, that primary education (already free) for the children of the 6-11 age-group should not only be free but also universal and compulsory, and launched a ten-year plan for the introduction of compulsory primary education from 1950 onwards. According to the recommendation, primary education was also separated from the secondary stage. 24-Parganas had 85 primary schools under State management. The district also came to have a large concentration of displaced persons from the then East Pakistan, and Government had to make special arrangements for education of their children.²

During the next twenty years the number of primary schools in the district swelled to nearly two and a half times than that of 1951-

¹ Source: Government of West Bengal (Scheduled Castes and Tribes Welfare Department)—*Annual Administration Report, for different years, Calcutta, and respective Departments.*
² Government of West Bengal—*Quinquennial Review on the Progress of Education in West Bengal for 1947-48 to 1951-52.* Calcutta, 1959.

52, giving a total of 5,499 in 1970-71; in all 6,60,324 pupils were enrolled in them that year. There were about sixteen hundred schools and about two lakh sixty-eight thousand pupils more than those of 1959-60.

During the last five years from 1970-71, only 571 schools were added to them, totalling 6,070 in 1975-76, and about forty-one thousand boys and twenty-six thousand girls to the number of pupils, giving a total of 4,40,311 boys and 2,87,901 girls only. Of this large number of schools, 232 were managed by Government, 810 aided by it, and 5,028 managed by local self-governing bodies. The District School Board, 24-Parganas controlled about 5,622 schools in the district.

The Government expenditure over primary education rose from Rs. 3,40,000 in 1970-71 to Rs. 3,83,000 in 1975-76.

Basic education, first conceived by Mahatma Gandhi, was adopted by all State Governments of India in 1949. According to the Mahatma, this type of education would be national in spirit, practical in aim and socially purposive and would be within the means of all, instead of being confined to a few. It was decided that basic education would be imparted in two stages—(1) Junior Basic Schools from Class I to Class V and (2) Senior Basic Schools from Class VI to Class VIII.

The number of such junior basic schools in the district increased from 22 in 1952-53 to 236 in 1959-60 while the pupils increased from about three-thousand in 1952-53 to about twenty-eight thousand in 1959-60. In 1970-71, there were in the district 369 Junior Basic schools of which 90 were aided by Government and 279 managed by local self-governing bodies. 31,240 boys and 16,768 girls were enrolled in them that year.

Government expenditure over the basic schools was Rs. 12,63,498 only during 1970-71.

The number of such schools for 1975-76 is included in the number of primary schools in 1975-76 which we have given above.

The following school-student and teacher-student ratio in primary and junior basic schools in 1973-74 reveals a rather satisfactory situation in this respect.

Type of School	School-Student ratio	Teacher-Student ratio
Primary	1:118	1:34
Junior Basic	1:164	1:32

Basic Schools

Junior Basic Schools

Secondary
Schools

Since independence the most important step taken in the field of secondary education in the State was the replacement of the schools section of Calcutta University by the newly established Board of Secondary Education in 1951 as the affiliating and examining body for secondary education; the Matriculation Examination at the end of the secondary stage was renamed as the School Final Examination.

According to the Central Government's scheme of upgrading high schools to higher secondary ones with unilateral or multilateral streams, pursuant to Mudaliar Commission's Report, X-class High Schools were gradually upgraded to XI-class Higher Secondary Schools with diversified courses on Humanities, Science, Technology, Commerce, Agriculture, Fine Arts and Home Science from the School session of 1957 during the Second Five-Year Plan period.

Since 1970-71 the system of secondary education has again been reorganized. In pursuance of the National Policy of Education based on the recommendation of the Indian Education Commission 1964-66, the new pattern of education, 10+2 classes is being introduced in the State for Secondary and Higher Secondary stages. A new 10-year course at the Secondary level with a terminal examination conducted by the West Bengal Board of Secondary Education came into force from January 1974, followed by a 2-year Higher Secondary course with a terminal examination conducted by the newly set-up West Bengal Council of Higher Secondary Education from July 1976. The latter Council is the affiliating and examining body for Higher Secondary Education. The system of studies at the Higher Secondary stage has been envisaged for two streams, namely (a) General Stream and (b) Vocational Stream. The General Stream courses have been conceived to be mostly academic in nature, and they would be something like preparatory study for admission to different degree courses at the University level. On the contrary, the Vocational Stream courses are meant to be vocation-oriented, mostly as a terminal study for a large number of pupils, with the idea that after successful completion of them, they can enter into various vocations to earn their livelihood either through employment or self-employment opportunities.

Free tuition for girls has been introduced up to Class X in urban areas, in addition to rural areas where such tuition was already free. This benefit has also been extended to the boys in all areas on and from 1.1.80 and extended up to Class XII on and from 1.1.81.

Secondary education was also being imparted through Senior Basic, Middle (Junior High) Schools. The number of Senior Basic schools was 45 (29 for boys and 16 for girls) in 1966-67 with an enrolment of 4,600 scholars of which 2,000 were girls. Of these schools only one was a Government school while the others were aided by the Government. In 1969-70 these Senior Basic Schools were merged into Junior High Schools (Middle Schools). The number of such middle schools rose from 179 in 1946-47 to 220 in 1951-52 and to almost double (433) in 1959-60; but the number of scholars reading in them decreased from 24,352 in 1946-47 to 20,592 in 1951-52, and then showed an increase and rose to 35,756 in 1959-60. The temporary decrease was perhaps due to the gradual conversion of existing 4-class primary schools into 5-class junior basic schools, the class V of the secondary schools being integrated with the primary stage. In 1970-71 there were 714 Junior High or Middle schools (550 for boys and 164 for girls) with 81,312 pupils (about fifty-three thousand boys and twenty-eight thousand girls). During the next five years only 19 more such schools were added, giving a total of 733 with five thousand scholars more in 1975-76. Only one such school at Narendrapur Ramakrishna Mission is sponsored by Government, the rest being aided by it.

The total number of High schools rose from 105 in 1946-47 to 211 in 1951-52, to 274 in 1959-60 and 545 (402 for boys and 143 for girls) in 1970-71; and the number of scholars increased from thirty thousand in 1946-47 to more than double (seventy thousand) in 1951-52, to 85,855 in 1959-60, and to 1,54,270 in 1970-71. In 1970-71, 3 of these were Government schools, one managed by the Kanchrapara Municipality, and the rest aided by the Government. The total Government expenditure on this account was Rs. 55,80,166 only in 1970-71.

Beginning with 1957, only 92 High schools were upgraded into Higher Secondary (XI) ones by 1959-60 with an enrolment of forty-eight thousand scholars. In 1970-71, the number of such upgraded schools rose to 411 with 2,39,865 scholars. Among these schools five were under Government management, while 406 were aided by them. The Government grants on them amounted to Rs. 1,46,68,178 only in 1970-71.

The Higher Secondary Schools (XI) have been converted into class X High Schools (some have been upgraded to class XII schools). As a result, in 1975-76 the number of High Schools in the district stood as 990 with an enrolment of 4,01,033 scholars. Of these schools 8 were under Government management, one under

Senior Basic
SchoolsJunior High
SchoolsHigh Schools
(School Final)Higher Secondary
SchoolsHigh Schools
(10-Class in
1975-76)

management of local self-governing body, while 947 were aided by Government. Only 34 such schools were under private management, and did not enjoy any aid from the Government.

+ 2 Higher
Secondary
Institutions

The new two-year Higher Secondary courses are now taught in colleges, schools or some newly started *ad hoc* institutions. Up to July 1977, there were in the district 220 such institutions for General Stream courses and 12 for Vocational Stream courses.

The following analysis giving school-student ratio and teacher-student ratio at the secondary stage in 1973-74 help us to appreciate the fairly satisfactory situation in this regard.

Type of School	School-student ratio	Teacher-student ratio
Junior High	1:168	1:25
High	1:282	1:30
Higher Secondary (XI)	1:582	1:31

Central School

The Central Government has just opened a Kendriya Vidyalaya (Central School) at Salt Lake, meant primarily for children of the Central Government employees. Such schools are affiliated to the Central Board of Secondary Education, New Delhi.

Anglo-Indian
Schools

The so-called 'Anglo-Indian Schools' in the district are run by missionaries though they have also teachers from outside. These institutions are affiliated either to the Council for the Indian School Certificate Examination, New Delhi, or to the West Bengal Board of Secondary Education, and are generally believed to offer a better standard of teaching with particular emphasis on English which is also their medium of instruction. The oldest Anglo-Indian school in the district is St. Mary's Orphanage at Ghugudanga, Dam Dam, originally established at Murgihata, Calcutta in 1848 and formerly known as the Catholic Male Orphanage. The Orphanage was shifted to its present location in 1946 and is now a secondary school, having a roll strength of 850 day scholars, and 200 resident orphans in 1978. Affiliated to the West Bengal Board of Secondary Education the institution receives a Government grant of around Rs. 40,000 per year. Auxilium Convent, another secondary school for girls was founded in 1960 (recognised by Government in 1968) at Dam Dam and is affiliated to the Council for the Indian School Certificate Examination, New Delhi, and St. Mary's Convent, a primary school was founded at Naktala and recognised by Government in 1976

only. These two schools have on their roll 1,133 and 350 pupils respectively in 1978 and do not enjoy any Government grant.¹

The District School Sports Association under the Secretarship of the District Officer for Physical Education and Youth Welfare organises competitions in various games, sports and athletics throughout the year. There are seven Subdivisional School Sports Associations, one each in every subdivision except the Sadar which has two. They conduct games and sports at the schools affiliated to respective subdivision.

Physical Educa-
tion and Sports
in Schools

Schools have now introduced physical education as a compulsory subject to be taught to the pupils.

Apart from the College of Engineering and Technology, Jadabpur under the National Council of Education, the district did not possess any college before Independence. In 1947 three colleges were established in the district, viz. Basirhat College at Basirhat. Dinabandhu Mahavidyalaya at Bangaon and Gobardanga Hindu College at Habra, Barasat. By 1950-51 six more colleges were established, one each at Diamond Harbour, Thakurpukur, Dam Dam, Naihati, Barasat and Taki, totalling nine only. During the next ten years, that is, by 1960-61, the same number of colleges were opened, of which five were in the Barakpur, three in the Sadar and one in the Barasat Sub-divisions. Twentyfour colleges were founded between 1961-62 and 1970-71 covering the whole district. Only four were added to them after this period, giving a total of fortysix of which thirteen are in the Sadar, nineteen in the Barakpur, seven including the Post-Graduate Training College for Physical Education at Banipur in the Barasat, three each in the Diamond Harbour and Basirhat and only one in the Bangaon Subdivisions. All these colleges are affiliated to the University of Calcutta.

Collegiate
Education

Number of
Colleges

Of these fortysix colleges, fortytwo teach the usual popular degree courses in Arts, Science and/or Commerce; three, viz. the Gandhi Centenary B.T. College, Habra, Gopal Chandra Memorial College of Education, New Barakpur and Nandalal Ghose B.T. College, Naihati teach exclusively for the B.T. (B.Ed.) Degree; besides the Fakirchand College at Diamond Harbour which also has along with other courses the B.T. (B.Ed.) Course. The Post-Graduate Training College for Physical Education at Banipur imparts instruction for the Post-Graduate Diploma in Physical Education. The Dam Dam Matijheel College runs a Pre-Medical

Courses

¹ Source: Deputy Director of Public Instruction (Anglo-Indian Schools), West Bengal.

The biggest College Course along with the usual courses. Of these fortysix colleges, six teach commerce courses up to the degree standard.

The biggest college of the district is the Rishi Bankim Chandra College at Naihati, the roll-strength of which was 12,090 in 1975-76. Of this huge number of students 2,354 boys and 3,828 girls were studying in Arts, 1,884 boys and 555 girls in Science and 3,447 boys and only 22 girls in Commerce. The college runs three shifts, Morning (for girls), Day co-education) and Evening (for boys only).

The smallest As a contrast to the biggest college, as such, the smallest one in the district is the Morning Star College at Barakpur, the total roll-strength of which was 35, all boys only, in 1975-76. It is an institution mainly to train Ministers of the Catholic Church of Bengal Region and run by the Morning Star Regional Seminary, started in 1968 originally with its two Departments, of Philosophy and Theology only; however the college also offers teaching for B.A. (pass) courses.

Women's Colleges There are four women's colleges, namely, Sarojini Naidu College for Women at Dam Dam, Hiralal Memorial College for Women at Dakshineswar, Ramakrishna Sarada Mission Vivekananda Vidyabhavan, P.S. Dam Dam at Bangur and Vivekananda College for Women at Barisha.

Government Colleges The district possesses two Government Colleges, viz. the Barasat Government College at Barasat and the Taki Government College at Taki. Another Government college is going to be established at Salt Lake City.

Ramakrishna Mission Colleges The Ramakrishna Mission runs two colleges, at Rahara and Narendrapur. Special care is taken to impart general instruction in these colleges on a religious background in the light of the teachings of Sri Ramakrishna and Swami Vivekananda. These colleges are meant for boys only, and the Narendrapur College is purely residential.

Bankim Sardar College, Tangrakhali The Bankim Sardar College at Tangrakhali, founded in 1955, is the first college in the State to have been established at the initiative of Scheduled Caste inhabitants of the locality. The college had on its roll 865 male and 99 female students in 1975-76, more than 80% of whom came from Scheduled Caste families.

Physical Education Colleges offer choice of alternatives between physical education or National Cadet Corps or National Service Scheme. Many colleges have gymnasias.

Some colleges provide hostel facilities; to the girls also.

These 46 colleges had a total roll-strength of 65,000 students in 1975-76 which meant that, on the average, each college had more than 1,400 students. The average teacher-student ratio in the colleges came to 1:34. In the same year, 17,000 appeared in the final university examinations and 6,000 passed. Presuming that approximately one-third of the students were due to appear for the final examination of the three-year degree course of the University, this means that of every 100 students who should have appeared, less than 80 actually appeared in the final university examination, and 29 passed. About 6,400 graduates are turned out in a year. The large number of dropouts and failures indicate, among other things, that these boys might have more profitably taken to different technical, trade and lower-level business and professional courses, but the number of such institutions are inadequate and the courses limited to a small range of subjects. The figures also point to the need for more effective teaching. Even for the few who ultimately graduate (in Arts, Science or Commerce), there is no demand in the employment market and the vast majority remain unemployed for long. In the educational field there is, therefore, a colossal waste of human, organisational and financial resources.

The district has a University at Jadabpur described in brief previously. With Independence it was felt that the College of Engineering and Technology of Bengal should receive statutory recognition, and accordingly, necessary legislation was enacted for establishment of a University under the name of Jadabpur University which came into being on the 24th December, 1955, amalgamating in it the College of Engineering and Technology.

The University is a large one having three faculties, viz. the Faculty of Engineering & Technology, the Faculty of Arts and the Faculty of Science. In the Faculty of Engineering & Technology it teaches both under-graduate and post-graduate courses in Chemical, Civil, Electrical, Metallurgical and Mechanical Engineering, Electronics, Food Technology and Biochemical Engineering and Pharmacy. Besides, the University also runs post-graduate Diploma and part-time (evening) Degree courses in some engineering subjects. The Faculty of Arts teaches both under-graduate Honours and Post-graduate courses in main Arts subjects including Comparative Literature and a one-year course in Library Science. The Faculty has also evening post-graduate courses in some popular arts subjects alike, specially for school teachers. In the evening Certificate and Diploma courses some languages are taught. The Faculty of Science imparts teaching in Physics, Chemistry, Mathematics in

Some data and conclusions

University Education

Jadabpur University

Faculties and Courses

Number of Teachers & Students: their ratio	under-graduate, post-graduate and evening post-graduate courses; under-graduate and post-graduate courses in Geology are however offered only during the day.
Results	The number of students in the Faculty of Engineering & Technology stood as 3,192 on 1 March, 1978 while the number of teachers in this Faculty was at the time 284. The Faculty of Arts had a roll strength of 2,120 on the same date, being taught by 142 teachers. There were at the time 137 teachers for 710 students in the Faculty of Science. On the average, there was one teacher for every 11 students in the University. In 1976, the University turned out 543 graduates in Arts and Science courses including 41 in Library Science and 46 in Physical Education, while 400 students came out successful as graduates in Engineering, Technology and Pharmacy in that year. In the same year 285 students obtained post-graduate degrees in Arts, 112 in Science, Engineering, Technology and Pharmacy. There was only one M.Lit. whereas 42 were honoured with D.Phil. and only one with D.Lit.
Affiliated Colleges	The Jadabpur University is mainly a unitary teaching University, but has two affiliated colleges under it, namely, the Jawhari Devi Birla Institute of Home Science at 11 Lower Rawdon Street, Calcutta and the Jadabpur Vidyapith College of Education at the University campus.
University Campus & its Departments	The University stands in a large campus of an area of 58 acres of land on the southern fringe of Calcutta having a number of buildings housing different departments, the library, administrative offices, Press, Guest House, Gandhian Study Centre, Men's and Women's Hostel blocks, Recreation Centre (Indoor Stadium), Hobby Centre, Central Store, N.C.C. Office, Residential Quarters for the University staff, etc. The Library building in which the University's Central Library is housed is a three-storied building having three large reading rooms accommodating 500 readers. Dr. Tarak Nath Das Research Centre in International Relations is housed in an extended block of the building. The Library possessed 2,04,501 books, 34,143 journals and 29,958 pamphlets, calendars, specifications, reports, etc. on 31 March, 1976. Average annual additions of books are approximately 4,000. Besides the Central Library, there are departmental libraries and also a Students' Union library.
Central Library	The University is not a strictly Residential University but has facilities for hostels for out-station students and staff quarters for teaching and non-teaching staff. The University hostels accommodate 80 girls and 652 boys.
Hostel Facilities	

There is on the campus a spacious play-ground offering facilities for sports, games and athletics. Though already having a well-equipped gymnasium, yet another modern one on the campus is nearing completion. The University holds every year a technical and scientific exhibition which is the most attractive and educative of all the events of the University. Apart from other various extra-curricular activities, social service camps and educational tours are organised throughout the year.

Recreation Facilities

The National Service Scheme has been introduced in this University since the academic session 1968-69. At one time covered 600 students grouped into six batches. Various programmes including running a literacy centre are undertaken under the scheme, and the cadets are trained in First Aid, Adult Literacy, Fire Fighting, etc. One senior teacher supervises the activities of different groups as the National Service Scheme Co-ordinator.

National Service Scheme

Long before the N.C.C. Scheme was thought of, the institution realized the importance of military training as a co-curricular activity of students, and organised an intensive training programme of two months for 500 boys under the auspices of the West Bengal National Volunteer Force. The institution was one of the first to adopt the N.C.C. scheme and at present the students of all Faculties may avail themselves of the opportunity to receive military training in the various units of N.C.C., viz. the Engineering, E.M.E. Signals, Infantry, Naval Unit, Air Squadron (Flying), Technical Air Squadron for the boys and a unit for girls.

National Cadet Corps

The University runs an Employment Information and Guidance Bureau established in 1965 whose functions are to effect placements, offer career guidance and disseminate occupational and training information to registrants and others. The Bureau, in regard to the placements, sponsors suitable candidates for selection by employers. In 1977 the Bureau sponsored 3,384 graduate and post-graduate degree holders of whom 118 only were employed.

Scope of Placements

There are eight technical schools in the district where certificate course training is given in such trades as Trade Apprenticeship, Skilled Craftsmanship, Blacksmithy, Carpentry, Moulding, Welding, Draftsmanship, Motor Mechanism, Machinist, Radio and T.V. Mechanism, Engineering, etc. A pass in class VIII of ten-class school is the qualification for eligibility. The period of training extends from one year to two, three, four years or above according to trades. Of these schools, the Industrial Training Institute, Tolly-

TECHNICAL AND PROFESSIONAL EDUCATION

Technical Schools

ganj, P.S. Jadabpur is managed by the State Government, the Ordnance Factories Training Institute, Ichhapur by the Central Government, and the Kanchrapara Training School is under the control of the Eastern Railways and is aided by the State Government, while the others are private bodies, aided by the State Government. Among these institutions the Kanchrapara Technical School, established in 1921, is a senior technical school and offers various Certificate and Diploma courses for Mechanics, TXRs, etc., to those who have passed the School Final Examination or have Higher qualifications. Those who pass from this School are absorbed by the Railways in their different workshops as Supervisors and skilled artisans. The Non-Technical Supervisors' Training is offered in the Ordnance Factories Training Institute which was founded in 1924 at Ichhapur.

Polytechnics

There are three polytechnics at Jadabpur, Belgharia and Deganga offering L.C.E., L.M.E. and L.E.E. diploma. Only Matriculates are eligible for admission. These three Polytechnics were giving training to 1,429 boys in 1977. All these institutions are private bodies but aided by the Government.

The Industrial Research Laboratory

The Industrial Research Laboratory (founded in 1921) of the Directorate of Industries is the only institute in Eastern India running courses in Chemo-Technology besides industrial research and techno-analytical activities. It offers six-month courses in small-scale soap-manufacturing and small-scale ink and adhesive and disinfectant manufacturing, eighteen-month operatives' course in paint and varnish-manufacturing to boys who have passed S.F. examination, and eighteen-month Technologist's course in Paint and Varnish Technology to Science graduates. This institute annually turns out 44 candidates from all these courses.

The Regional Institute of Printing Technology

The Regional Institute of Printing Technology (founded in 1956) at Jadabpur offers 3-year full time day-course and 5-year part time evening-course for Licentiate Diploma in Printing and Graphic Art (in Letterpress/Lithography) and also a 3-year full time day course in Commercial Photography. This is the only institution of its kind in Eastern India. It has a capacity of turning out 90 diploma holders every year. This institution is a private body but was aided by both the Central and State Governments; but since 1974 the whole financial liability has been taken over by the State Government.

The College of Leather Technology

The Government College of Leather Technology (formerly known as the Bengal Tanning Institute) at Canal South Road, P.S. Tiljala was founded in 1919 and offers, *inter alia*, a course for

Calcutta University's B.Sc. (Tech.) degree in Leather Technology to School Final or Higher Secondary pass students. It also offers certificate course in Boot, Shoe and Leather goods making.

The Central Glass and Ceramic Research Institute (formerly known as the Bengal Ceramic Institute), founded in 1950 at Jadabpur, is a National Laboratory under the Council of Scientific and Industrial Research, New Delhi. The Institute aims at industrial/applied research of national importance in the fields of glass, ceramic, refractories, vitreous enamels and mica. It has done important work in development of processes and products of strategic importance and defence use, in import substitution, in new processes of products of special use, etc.

The Central Glass and Ceramic Research Institute

The Institute offers the B.Sc. (Tech.) course in Ceramic Technology. This is the only institute of its type in West Bengal. The Institute also imparts short-term specialized training in glass, ceramic, refractories and vitreous enamel making to personnel sponsored by industries, Universities and Government organizations. The Institute publishes a quarterly Bulletin.

The Air Technical Training Institute, a non-affiliated and unaided private institution at the Mall, Dam Dam, established in 1948, offers Diploma courses in Aircraft Maintenance Engineering, Automobile Service Engineering, A.M.E.-cum-A.M.Ac. S.I., and also a certificate course in Master of Aero-Mechanic. A Matriculation or its equivalent is the qualification for eligibility.*

Air Technical Training Institute

The Indian Institute of Management, Calcutta, at Joka, offers post-graduate studies and research in management. It was found in 1961 under the auspices of the Government of India in their efforts to promote professional management in Indian industry. The Government of West Bengal, and Ford Foundation also contributed towards its establishment. The Institution has the benefit of co-operation with Alfred P. Sloan School of Management of the Massachusetts Institute of Technology of the USA.

The Indian Institute of Management, Calcutta

The Institute offers a two-year post-graduate Diploma Course in Management, equivalent to M.B.A. It is a residential programme and aims at acquainting the students with the principles and techniques of analysis and decision-making. It also offers a three-year Doctorate Fellowship in Management, a series of Executive Development Programmes in various functional areas to practising managers, and part time Extension Programmes to young executives.

* *Vide*—Bengal Flying Club, Behala, Chapter XIX.

The Institute conducts a wide range of consultancy services and research, and brings out various publications on management.

Its present intake capacity for the Diploma Course is about 115 students per year. The Institution's library known as the B. C. Roy Memorial Library, is well equipped to meet the needs of the Institute's programmes of study and research. It houses over 54,000 vols. of books, 15,000 bound vols. of periodicals, about 5,000 micro-documents and subscribes to over 800 periodicals.

The Institute brings out a quarterly journal entitled *Decision* aimed at fostering management through research and practice.

The Indian Statistical Institute at Baranagar is run under the Indian Statistical Institute Act 1960 which declared the Institute to be an Institution of National Importance and empowered it to award degrees and diplomas.

Researches in the theory and application of the new discipline of statistics began in India in the twenties of the present century at the pioneering initiative of the late Prasanta Chandra Mahalanabis who was at that time teaching at Presidency College, Calcutta. The small groups of young scientists who collected around him and came to be known as the 'Statistical Laboratory' developed into the Indian Statistical Institute in 1932 in the form of a learned society under the Societies Registration Act.

Over the years the Institute has had the distinction of having on its rolls and as collaborators of the late Prof. Mahalanabis, eminent scientists like Prof. J. B. S. Haldane.

The principal objectives of the Institute are "to promote the study and dissemination of knowledge of and research in statistics and other subjects relating to planning for national development and social welfare; to provide for, and undertake the collection of information, investigations, projects and operational research for purposes of planning and the improvement of the efficiency of management and production".

The Institute has a glorious record of activities. The Late Prof. Mahalanabis developed statistical analysis, and studies conducted by the institute that led to adoption of vital projects like the D.V.C. and the Hirakud Hydel Project. Under the late Professor the Institute did significant research on the design of experiments, and systematic studies on the design and organization of large scale sample surveys have led to the continuing National Sample Survey, the most comprehensive and continuing socio-economic survey in the world, which provides the Government with information necessary for planning and administrative decisions. Special men-

tion must be made of the Institute's efforts at introducing statistical quality control techniques in India. Last but not the least, the Institute was pioneer in the formative years of Indian economic planning, the late Professor formulating the model (Mahalanabis Model) for the Second Five-Year Plan. In short, the Institute had developed into what has come to be known as the Indian School of Statistics.

The Institute offers the following courses:

	Course	Duration	Venue
Degree Courses	B. Stat. (Hons). Degree	4 Years	Calcutta
	M. Stat. Degree	1-3 Years	Calcutta and Delhi
	Ph-D.	—	Calcutta and Delhi
Post-graduate Diploma Courses	Diploma in Computing Science	1 Year	Calcutta
	S.Q.C. & O.R. (also open to sponsored candidates)	1 Year	Calcutta
	Econometrics & Planning	1 Year	Calcutta
	Statistical Officers' Training Course	6 months	Calcutta & Delhi
Full time Courses in Statistics for persons in employment	Specialisation Course for Statistical Officers	3 months	"
	Indian Statistical Service Probationers' Course	6 months	"
	Special Course for Officers on deputation	—	Calcutta
	Short-term courses in special subjects	—	"
	International Statistical Education Centre (ISEC) Regular Course	10 months	Calcutta
	Intensive Course on Computer Programming and Applications	3 months	"
	Operation of Punched Card Machines	1 Year	"
Other full time Courses	Statistical Craftsmanship Course	1 Year	"
	Documentation Training Course	2 Years	Bangalore
	One Year Evening Course in Statistical Method & Applications	1 Year	Calcutta
	Diploma in S.Q.C. or O.R.	3 Years	Bombay & Madras
Evening Courses	Certificate Course S.Q.C. & O.R.	6 months	Bangalore

The following diplomas and certificates also are awarded on the basis of All India Examinations conducted by the Institute and are open to external candidates as well: Statistical Field Survey Junior Certificate, Statistical Field Survey Senior Certificate, Statistical Field Survey Diploma, Punched Card Machine Operator's Certificate, Computer's Certificate, Punched Card Data Processing Diploma and Statistician's Diploma.

The Institute offers the following Research Awards and Degrees: Associateship of the Indian Statistical Institute (AIS), Associate Fellowship of the Indian Statistical Institute (AFISI), Doctor of Philosophy (Ph.D.) and Doctor of Science (D.Sc.).

The Institute has over the years trained a large body of statisticians at all levels from field investigators and computing clerks to researchers.

The Institute has a large research and teaching staff for mathematics, statistical theory, and applied statistics. Advanced studies and research are taken up from time to time or are being done at present on a wide variety of subjects, such as anthropometry and human genetics, biochemistry, biometry, botany, chemistry, crop science, embryology, geology, leaf protein, physics, regional surveys, etc. in natural sciences; linguistic research, psychometry, demography, economics and econometrics, sociology etc. in social science; and documentation and library science, operational research, computer science, theoretical physics and electronics in various applied fields.

The Institute's Library has a rich collection, numbering over 1,20,000 volumes (of which about 30,000 are in the areas of mathematics and statistics), 30,000 reprints and 2,50,000 maps. It receives approximately 2,500 periodicals, and has a well-equipped reprography unit.

The Institute brings out *Sankhya: The Indian Journal of Statistics*.

There are six Primary Teachers Training Schools engaged in imparting training to students for teaching in Primary Schools. A pass in Class VIII is the qualification for undergoing training in these schools.

There are also six Junior Basic Training Colleges (formerly known as Basic Training Schools) two each at Banipur and Sarisha (Ramakrishna Mission) and one each at Vishnupur and Rahara (Ramakrishna Mission), imparting training to about five hundred

TEACHERS'
TRAINING
INSTITUTIONS

Primary
Training
Schools

Junior Basic
Training
Colleges

candidates. The training course, open to Matriculates or candidates with equivalent qualification, is of one academic year, and students enjoy a monthly stipend.

In the B.T./B.Ed. Colleges, mentioned before, Government award stipends to a large number of trainees. A large number of seats in these courses are utilised by untrained but experienced teachers, deputed by different secondary schools. Government meet by enhanced grant-in-aid the amount of deficit of a secondary school caused by the payment of the full amount of the salary to a teacher, deputed by it to receive training. There is a great demand for such training among women. The percentage of trained teachers is higher among women than among men.

The two Post-Graduate Basic Training Colleges at Banipur and Rahara (Ramakrishna Mission) offer training to degree holders for one academic year; and the curriculum includes productive work including crafts, community living, theory and practice of basic education and other creative subjects like Fine Arts, Music, Dramatics, etc. in addition to the usual professional subjects offered in the B.T. Course. These two colleges are however, not affiliated with any university.

The Post-Graduate Training College for Physical Education at Banipur trains graduate teachers for the post-graduate Diploma in Physical Education and under-graduate teachers in the certificate course. The College is co-educational and managed by Government. The annual intake capacity is 120 (100 males and 20 females). The college of Physical Education under Jadavpore University offers training to 50 deputed male teachers only.

The Government-run Janata College at Banipur, established in 1954, provides training in constructive leadership, mostly for teachers or prospective teachers of secondary schools. The course includes social education and work education, social studies, rural economics, hygiene and sanitation, folk literature, music, rural games, etc. The College holds three sessions in a year. It was designed on the pattern of the Folk Colleges of Denmark, and is a residential co-educational institution which offers 30 seats per session, the male and female ratio being 2:1. A certificate is issued to the student at the end of training.

The Regional Teachers' Training Centre (established at the Blind Boys' Academy at Narendrapur in 1965), managed by the Ramakrishna Mission Asrama and aided by the Government of India, gives specialised training to teachers of the institutions for the blind, situated in the eastern region of the country, this being the only

B.T./B.Ed.
Colleges

P.G.B.T.
Colleges

Training College
for Physical
Education

Training in
Leadership

Training Centre
for Teachers of
the Institutions
for the Blind

institution of its kind in this region. Since its inception, nearly one hundred teachers from different schools and organisations for the blind in the eastern region and also from South India have been trained. The intake capacity of the Centre is 12 for a session of one academic year, only male teachers being admitted.

Library Training Centre

The Ramakhishna Mission Boys' Home at Rahara conducts the Government-sponsored Librarianship Training Centre located at their campus. Students in a batch of 25 receive training here in a six-month certificate course in Librarianship.

Gramsevak Training Centre

There is a Training Centre at the Ramakhishna Mission Asrama at Narendrapur for training of Gramsevak.

Schools for Fine Arts

The Blind Boys' Academy at Narendrapur has made elementary music compulsory for every blind boy of the Academy. But for those boys who show special talent in music, it runs a 2-year Junior Diploma Course in Vocal, Instrumental and Percussion Music in order that they may later serve as music teachers. The courses they follow are prescribed by the Rabindra Bharati University. At present ten boys are taking lessons in music in the Academy. The Government gives financial aid to the Academy.

ORIENTAL EDUCATION

Tols & Chatushpathis

In July 1976 there were in the district 104 *tols* and *chatushpathis* of which two were exclusively meant for girls, the rest being co-educational. Of these *tols* and *chatushpathis*, the largest number is found in the Barakpur Subdivision, the number being 56, while the Sadar has 30, Diamond Harbour 10, Barasat 6 and Basirhat and Bangaon one each. They were all private institutions, but 88 of them were aided by Government. Of these *tols*, and one of the two *tols* meant for girls, the Dakshineswar Balika Asrama Mahavidyalaya, Adyapith, founded in 1924, is a centre for advanced learning in Sanskrit. It teaches *Adya*, *Madhya* and *Upadhi* courses, conducted by the Bangiya Samskrita Siksha Parishad, situated in Calcutta. This is a free institution and among its students numbering 136, are also the 42 resident orphan girls of the Asrama. The Mahavidyalaya has its own two-storied building and a library. The Balaka Asrama founded in about 1952 by Dakshineswar Ramakrishna Sangha which controls the Mahavidyalaya, also teaches its orphan boys Sanskrit up to *Upadhi* standard in *Vyakarana*.

Madrasah & Maktabas

In July 1976 there were altogether 67 *madrasahs* of which 20 were recognised senior *madrasahs* (imparting classical education dealing with the *Quoran* and *Hadith* and Islamic theology, Philosophy, Arabic literature etc., with a little emphasis on English and

Bengali), 19 High, 27 Junior High and one Junior *madrasah* (teaching subjects of modern secondary education with some emphasis on Arabic). They are all recognised by the West Bengal Madrasah Education Board. All these *madrasahs* except the Senior ones were co-educational. *Maktabas* imparting rudimentary religious knowledge are found in large number in almost every locality of Muslim habitation, but they are not recognised by the West Bengal Madrasah Education Board, and are managed privately.

There are two schools for the blind, one for deaf and dumb, and one for the mentally retarded, in the district. The Calcutta Blind School, established in 1894 and registered in 1897 was started with only one blind boy, in a small cottage situated in what is now known as Park Circus, Calcutta. It was shifted to its present campus of 32 bighas at Behala in 1925. The school was handed over to a Board of Trustees, which, later on converted into a Board of Governors, looked after its management till September 1968 when the School became an institution sponsored by the Government of West Bengal and its management handed over to a Governing Body. The School prepares students for the Madhyamik Examination conducted by the West Bengal Board of Secondary Education. In addition to this academic education, the school provides training in music and in crafts like cane-work, coir-work, knitting, weaving, etc. The institution is co-educational, the ratio of male and female students being nearly 50:50. The school is mainly residential but a few day-scholars are also admitted. At present the School has 150 students on its roll, 130 as resident-students and 20 as day-scholars. There are separate hostels for male and female students, each accommodating 65 students. The school has a large workshop for teaching crafts and a small library of Braille and Ink-Print books. The average annual income and expenditure (less development expenditure) for the five years from 1971-72 to 1975-76 were of the order of about two lakh rupees, the State Government contribution to it being one lakh and thirty thousand rupees on an average.

The Blind Boys' Academy at Narendrapur established in 1957 and run by the Ramakhishna Mission Asrama, is at present engaged in imparting general education, teaching music and training in light engineering trade and scientific farming to blind boys. Accordingly, about 150 boys are now receiving education and training in the Academy's General Education, Music, Light Engineering, Teachers' Training and Agricultural Training sections of

EDUCATION FOR THE HANDICAPPED

Calcutta Blind School at Behala

Blind Boys' Academy at Narendrapur

the Academy. It later merged itself into the Secondary School when the latter started functioning at Narendrapur. In 1981 the Blind Boys' Academy was again separated from the main Secondary School and given a separate status as a special school. The Academy has in its Braille Library about 14,000 books including 103 brailled volumes for improving the general knowledge of the blind students, and has a sub-contract workshop to help financially the ex-trainees of the Light Engineering Unit yet to be employed or out of employment, who are given piece-work in the workshop. The Braille Press is engaged in producing braille books to meet the need of the blind students of the eastern region of the country. The Academy accommodates 125 students in its two hostels. The State Government gave Rs. 2,78,000 in 1975-76 towards the expenditure of the Academy's three Units. As mentioned above, the Regional Teachers' Training Centre at the Blind Boys' Academy gives specialised training to teachers of the institution for the blind.

The Braille Corner at Dam Dam is a braille library for blind girls.¹

The Muk Badhir Vidyamandir, established in 1939 at Shyam-bazar in Calcutta was shifted to Baranagar in 1959. It has 66 deaf and dumb students on its roll, 55 boys and 11 girls.

The Kalidas Mallick Trust founded by the Late Kalidas Mallick, a great philanthrope, established in 1982 the Kalidas Mallick Institute of Rural-Urban Interface Polytechnology at Jagaddal in Sonarpur P.S. in collaboration with the Bratachari Kendriya Nayak Mandali. The institute with financial assistance from the Trust imparts training in agriculture, horticulture, food-preservation, weaving, bee-keeping, handicraft etc. to deserving young people to enable them to become self-employed. The trainees get stipends from the Institute.

SOCIAL EDUCATION Adult education programmes were initiated with the attainment of Independence. The aims of the present social education are (1) to make illiterates literate, (2) to provide the neo-literates with opportunities for further education and (3) to encourage and develop cultural and recreational activities. This new approach to social regeneration has been responsible for setting up in the district of a number of Social Education Centres, Adult Literacy Centres, Folk Entertainment Units, Libraries, etc. With the launching of the

¹ *The Basumati*, 10 August, 1976.

National Extension Service Programme by the Government in 1952, the district concerned was given a sanctioned quota of 58 Social Education Centres and 57 Adult Literacy Centres. Accordingly, 115 Social Education and Adult Literacy Centres have seen running from the inception of the scheme in 1953. Besides, during the year 1970-71 a sanctioned quota of 90 one-teacher *pathsalas* was allotted to the district. All these centres and *pathsalas* as also 50 Night Schools, run by voluntary organizations receiving Government grant of Rs. 60 annually, were run in the district up to 31 January 1974. All such institutions were abolished in order to introduce a consolidated Pilot-Project Scheme with effect from 1 February 1974.

Consolidated
Pilot-Project
Scheme

According to the new scheme, social education centres under the name of Adult Education Centres have been established in place of the existing various types of centres. Now each centre is provided with 2 teachers, one male and the other female, having the minimum qualification of a pass in the School Final Examination or its equivalent. 20 male and 20 female students from among the adult illiterates are selected by the teachers, and they are taught in two separate shifts—one in the afternoon for women and the other in the evening for men. A session for each group covers a period of six months and there are two sessions for females and two for males in a year. Each centre covers the entire village or area in about two years time after which it is shifted to a new village or area. Initially the Pilot scheme started functioning in two selected villages or areas in most of the Development Blocks as also in some municipal areas. The first centre which was given sanction under this new scheme from 1 February 1974 is the Sanpukur Adult Education Centre in Bhangar Development Block II in the Sadar Subdivision. There were 793 centres functioning in the district on 30.6.1984, which had 22,856 learners, 18,627 male and 4,229 female, on the roll. In addition, there are altogether 494 centres with a total of 15,285 learners under (i) Consolidated Pilot Project, (ii) Farmers' Functional Literacy Project and (iii) Non-formal Education Project. The number of centres under the Post-Literacy Project stands at 162, having 4,050 learners.

Adult Education
Centres

For ensuring that neo-literates do not relapse into illiteracy, adult education centres are provided with literature for the literates who get scribble books also from library centres to which grants are sanctioned for purchase of books and equipments. All libraries set up and aided under the scheme of Social (Adult) Education are

Post-literacy
education &
Adult High
School

required to provide reading materials for the neo-literates. There is also a provision for establishment of Adult High Schools. There are at present six such schools in the district of which two are in the Sadar, three in the Barakpur and one in the Barasat Subdivisions. These Adult High Schools prepare through a 4-year course neo-literates and literate adults for the Madhyamik Examination of the Board of Secondary Education.

Cultural & recreational activities

For cultural and recreational activities a bulk yearly allotment is placed at the disposal of the district to assist financially private folk entertainment units performing *yatras*, dramas, *kathakata*, *kirtan*, etc. These units receive annual grants for *yatra* and drama and also for the units performing *kathakata*, *kirtan*, etc. There were 540 private folk entertainment units in the district. The number has since gone up.

Farmers' Functional Literacy Project

The Farmers' Functional Literacy Project or the *Krishak Saksharata Yojana*, a Central Government scheme is an integral part of the Farmers' Training and Functional Literacy Project jointly undertaken by the Ministries of Agriculture, Information and Broadcasting, and Education and Social Welfare. There are in the district over 100 centres, each with 30 adult students, imparting training in two stages of six months each.

Community Centres & Audio-Visual Units

The district now possesses six Community Centres of which four are located at Habra Development Block in the Barasat and one each at the Gaighata Block in the Bangaon and at Diamond Harbour Block II in the Diamond Harbour Subdivisions. Of the six Audio-Visual Mobile and non-Mobile Units, five are in possession of the Ramakrishna Mission in their different centres at Sarisha, Baranagar, Rahara and Narendrapur. The rest is possessed by an organization, Sangathan at Dakhin Chatra in the Basirhat Subdivision.

Cinema halls and public auditoria

There were 12 cinema halls in the district up to December 1950. In 1960-61 the number increased to 53 permanent and 15 temporary cinema houses, which again rose to 81 and 45 respectively in 1971. In January 1977 there were 94 permanent and 46 temporary cinema halls in the district. In 1971-72 the amusement tax collected amounted to Rs. 81,58,037. In 1975-76 it rose to Rs. 1,50,20,500. In January 1977, there were ten public auditoria in the Barakpur Subdivision alone whereas the Bangaon, Basirhat, Barasat and Sadar Subdivisions had one each. The capacity of accommodation of all these auditoria together is 8,000.

Physical education and youth welfare

The present office of the District Officer for Physical Education and Youth Welfare and two posts of District Organisers of Physical

Education were created by abolishing the former office of the District Organiser of Physical Education and the Council of Youth Welfare in 1957. The new organisation is now engaged in promoting physical culture by providing financial grants to voluntary clubs and sports associations affiliated with different Subdivisional Sports Associations which are, in turn, affiliated with the District Sports Association.

The District Sports Association, located at Sodpur, was established in 1938 and organises all major and minor games, athletics and aquatic sports meets in the district. Affiliated with the District Sports Association, there are eight Subdivisional Sports Associations, viz., Barakpur, Barasat, Bangaon, Bangaon West, Barasat (North), Basirhat (Central), South 24-Parganas, and Diamond Harbour Sports Association.

The District sports Association

The District Youth Welfare Council under the *ex-officio* Secretaryship of the District Officer for Physical Education and Youth Welfare supervises the clubs and associations of the district and disburses Government grants to Youth Clubs and co-ordinates the activities of the different agencies, such as Scouts, Bratachari, District Sports Association, Inter-School Sports Association, etc.

The District Youth Welfare Council

The District Officer of Physical Education and Youth Welfare disbursed about forty thousand rupees in 1977-78 as financial assistance to clubs and associations engaged in promoting physical culture. The amount has substantially increased now.

There are two Nehru Yuva Kendras in the district, one at Diamond Harbour and the other at Barasat.

Nehru Yuva Kendras

Physical Efficiency Drive Test was commenced in the district from 1960. 1,143 men and 532 women received certificates in 1977-78.

Physical Efficiency Drive Test

The Indian Association for the Cultivation of Science at Jadabpur is one of the leading research institutions of the country in physics and chemistry. It was established in 1876 at the initiative of Mahendralal Sarkar with "the object of enabling the natives of India to cultivate science in all its departments by original research and to its varied applications to the arts and comforts of life". It was built up mainly with public munificence and some Government assistance. For a long time, till after the independence, the Association was housed at Bowbazar Street in Central Calcutta. Many of the stalwarts of scientific studies in India have carried out research at the Association; among its researchers, the Association

CULTURAL LITERARY & SCIENTIFIC SOCIETIES

The Indian Association for the Cultivation of Science

counts Sir Jagadish Chandra Bose, Acharya Prafulla Chandra Ray, Sir C. V. Raman, the Noble Laureate and K. S. Krishnan. Eminent men who supported the Institute in its struggle for creation of facilities for research, include Kalikissen Tagore, the then Maharaja of Vizianagram, Father Lafont, Sri Asutosh Mukhopadhyaya, Amritlal Sarkar, Dr. Nilratan Sircar and Dr. Meghnad Saha. The institution has been doing significant work in the field of physical researches. The Association publishes the *Indian Journal of Physics* which has maintained an international standard.

The Indian
Institute of
Experimental
Medicine

The Indian Institute of Experimental Medicine was established in 1935 as the Indian Institute of Medical Research. It was housed at Princep Street in Central Calcutta till 1964 when it was shifted to its premises at Jadabpur. The Institute came under the Council of Scientific and Industrial Research in April 1956, and has developed as a laboratory for bio-chemical research. It has been carrying on fundamental research in the relevant sciences to seek solution of practical problems of medicine. The Institute has been doing important work regarding cholera, natural steroids and terpenoids, chemistry and pharmacology of medicinal plants, fermentation technology, neurobiology, neuropharmacology, oxidation of biogenic amines, biochemical toxicology, cold injury, biophysics etc. A systematic and scientific survey of Indian food-stuff and dietaries was carried out. Other studies related to malaria, antigen-antibody reaction, snake-venom, etc. The Institute publishes the well-known *Indian Journal of Biochemistry and Biophysics*.

Cultural
Periodicals

In an appropriate section later the names of several journals have been given. The scientific organisations named before have also their respective journals.

LIBRARIES

An important programme of Social Education is the library services. There are at present three District Libraries, including a Government run one, viz. the Government District Library at Taki in the Basirhat Subdivision. The Twenty-four Parganas District Library at Vidyanagar in the Sadar and the District Library at Rahara Ramakrishna Mission Boys' Home in the Barakpur Subdivisions, are the two other.

The Government
District Library
at Taki

The Government District Library at Taki, established in 1918 and originally known as Taki Sadharan Pustakalaya O Pathagar and subsequently as Hirendra Smriti Pathagar (in memory of the deceased son of the late Rai Hirendra Nath Chaudhury, a former Education Minister of the State who donated the building to the

Library in 1934) was recognized as a Rural Library in 1958. It was then taken over by Government and vested in the Treasurer of Charitable Endowments in 1960. With a view to spreading social education activities in the southern region of the district the Government developed the Library as a Government Central Library from the same year. Finally, the Government made it into a District Library in early 1964 with a view to co-ordinating the library services in the eastern and south-eastern parts of the district which were not properly served by the existing District Libraries at Rahara and Vidyanagar.

The Taki Government District Library is sponsored by the Management Education Department of the Government of West Bengal and managed by a Working Committee which is nominated by Government.

The District Library at Taki contains about 21,000 volumes Functions of which over 17,000 are issued in a year. The number of members exceeds 1,200. The scheduled area of operation of this District Library is limited to the Subdivisions of Basirhat, Bangaon and Barasat (partly). Beside serving its clientele of which a major portion consists of students and youths, it runs a Mobile Book Service for the constituent libraries and organises exhibitions of books and journals, drawings and paintings, healthy competitions of different nature, audio-visual shows and meetings for discussion of subjects of library and scientific interests.

The district library at Taki is a part of the library set up in West Bengal with the State Central Library at 56-A, B. T. Road, Calcutta-700 050, as the apex body.

Government expenditure in 1975-76 on its establishment was Rs. 3,427 and on purchase of books, journals, etc. Rs. 3,000 only. The expenditure on both counts has increased subscriptions since then.

The Twenty-four Parganas District Library (South) at Vidyanagar, founded in 1956, is sponsored by the Government of West Bengal and managed by a committee of officials and non-officials of which the District Magistrate and the District Social Education Officer are the President and the Secretary respectively. The Library has 755 members including 151 women. About 100 non-member readers are attending the Library daily. Its institutional members are 60. Besides common services, it runs a Mobile Library Service to rural areas of the southern portion of 24-Parganas district. The Library contains about 22,000 volumes and has in its subscription list 4 dailies and 15 periodicals. It provides reading facilities to

The District
Library at
Vidyanagar

general people and special study rooms for women, children and research scholars. The scheduled areas of this District Library comprise the Sadar and Diamond Harbour Subdivisions. It is financed mainly through State Government grants and partly through subscriptions of members.

The District
Library at
Rahara

The District Library for the northern part of the district was founded early in 1956 at the Ramakrishna Mission Boys' Home at Rahara. The Library is sponsored by the Government, and its management has been entrusted to Rahara Ramakrishna Mission Asram. It covers the areas of the Barakpur and part of the Barasat Subdivisions. The Library is well-equipped and contains 24,512 volumes. It operates on the open access system. The Mobile Section of the Library caters to the needs of 100 Service Units.

Subdivisional &
Central
Libraries

Below the District Libraries are the six Subdivisional or Town Libraries of which two are situated in the Barakpur and one each in the Bangaon, Barasat, Sadar and Diamond Harbour Subdivisions. Next to Subdivisional Libraries, there are two Central Libraries, located at Banipur in the Barasat and at Narendrapur in the Sadar Subdivisions. The Library at Banipur is a Government library, whereas the other is sponsored by Government.

Area Libraries

Next in rank come the Area Libraries of which four are in the Barasat and one each in the Bangaon, Basirhat, Barakpur and Diamond Harbour Subdivisions.

Rural
Libraries

Below the Area Libraries are placed the Rural Libraries numbering 71, of which 23 are in the Sadar, 14 in the Diamond Harbour, 8 in the Barasat, 7 in the Barakpur, 15 in the Basirhat and 4 in the Bangaon Subdivisions.

Non-Govern-
ment Public
Libraries

Besides, the district possesses a large number of Public Libraries run by voluntary organizations. Of these 215 are in the Sadar Sub-division, 90 in Diamond Harbour, 97 in Barasat, 170 in Barakpur, 90 in Basirhat and 96 in Bangaon.

MUSEUMS

The Gurusaday
Museum,
Thakurpukur

The Gurusaday Museum of Folk Arts and Crafts of Bengal is situated at Bratacharigram, Thakurpukur, and contains a collection, among others, of potteries *Kanthas*, stone sculptures, *pat* paintings, terracotta dolls and toys, painted wooden book-covers, weapons, folk musical instruments and clay, wood and paper-pulp musks, collected since 1933 by personal efforts of Gurusaday Dutt. The Museum came up in its present site in 1961, and its exhibition galleries were opened to the public in 1963 only. The Museum regularly arranges lectures and classes for post-

graduate students of Museology of Calcutta University, and for school and college students to create interest in traditional arts, crafts and paintings.

The Rishi Bankim Library and Museum at Kanthalpara, P.O. Naihati, named after and situated in a section of the ancestral house of Bankim Chandra Chattopadhyaya, the great litterateur, was established in 1952, and has a collection of original manuscripts, a large number of letters written by Bankim Chandra, photographs and documents related to the author, many personal effects of his, and a large number of books. The Museum is run by an Executive Committee of which the S.D.O. of Barakpur and the District Social Education Officer are the *ex-officio* President and the Secretary respectively. Although all the expenditure on the Museum is borne by the Education Department, it is not yet a full-fledged Government organisation.

The Rishi
Bankim Library
& Museum,
Naihati

The Gandhi Smarak Sangrahalaya founded in 1966 at 14, Riverside Road, Barakpur, is the only centre as such in the eastern zone and the fifth of its kind in the country, the others being in Delhi, Sabarmati, Bombay and Madurai. Established with a view to bringing the present generation in close contact with Gandhian philosophy. The Institute has in its collection some personal effects of Gandhiji, a large number of photographs relating to his important activities, a life size painting of Gandhiji, frescoes depicting his life and activities, records of his voice, and a large number of letters written by him. It also possesses an auditorium and a library used by the people from all walks of life.

The Gandhi
Smarak
Sangrahalaya,
Barakpur

The Gouranga Grantha Mandir at the Patbari of Acharya Raghunath at Malipara, Baranagar, retains the handwritings of Sri-chaitanya and Vidyapati, many articles used by Vaishnava teachers including the *Japamala* of Jayadeva, a large number of manuscripts of Vaishnava literature and many religious books.

The Gouranga
Grantha Mandir
at Baranagar

APPENDIX

THE 19TH CENTURY LITERARY AND CULTURAL
EFFLORESCENCE—THE PATH-FINDERS

One the higher planes of literature and culture the district has a remarkable history. Sons of the district have been breaking new paths in different directions.¹

Ramkamal Sen Ramkamal Sen (Garifa, Naihati, 1783-1844), grandfather of Keshab Chandra Sen, was a man of letters. Dewan to the Bank of Bengal and Secretary of the Asiatic Society for some time and a Member of the Calcutta School Book Society, Council of Education and Medical Education Committee, he compiled and published an English-Bengali Dictionary (1834, Bengali Translation of Johnson's English Dictionary, Todd's edition), participated along with Tarini Charan Mitra and Raja Radhakanta Deb in the preparation of *Nitikatha* (Moral Tales, 1818), translated some of Aesop's Fables (*Hitopodesa*, 1820), wrote a book on the annals of ancient Bengal (*Bangadeser Puravritta*), and brought out a medical treatise based on the British Pharmacopoeia (*Aushadha Sarasangraha*). In spite of his scholarship, Ramkamal was a hide-bound conservative and, as a member of the Managing Committee of Hindu College, Calcutta, he took a lead in dismissing from the teaching staff of the College, the great teacher Derozio, as at his instance his redoubtable pupils had started making rational enquiries into the claims of religion.

Iswar Chandra Gupta Iswar Chandra Gupta (Kanchrapara, 1812-59) was the most important poet of his age, but his importance is historical rather than intrinsic. He has been said to be the bridge between the old school of poets represented by Bharatchandra and the new school pioneered by Madhusudan. Sarcasm and wit came naturally to him and achieved for him great popularity at that time. An assiduous journalist by profession, he edited several magazines with his distinctive individuality, the most important of which was the weekly *Sambad Prabhakar* (started in 1831) which was converted into the first daily in Bengali in 1839; through his *Sambad Prabhakar* he was the central figure of a literary society which included Rangalal Banerjee, Madhusudan Datta and Bankim Chandra

Chatterjee. One of his major works is (*Bodhendu Bikas*, 1863) an adaptation in prose and verse of Krishna Misra's highly philosophical Sanskrit drama *Probodhchandrodaya*. In the *Hitoprabhakar* (1861) he expands and embellishes the story of *Hitopodesa*, in verse as well as in prose. He supported Iswar Chandra Vidyasagar in his movement against kulinism and polygamy, yet was too conservative to approve of Vidyasagar's move for marriage of Hindu widows. Perhaps the most redeeming feature of Iswar Gupta's prolific verses was his patriotism, his love of his country and its literature and culture. The patriotic note was something new in Bengali literature, and inspired many a young writer.

Dwarakanath Vidyabhushana (Changripota, now Subhasgram, 1819-86), was a Professor of Sanskrit College and maternal uncle of Shibnath Shastri, translated Bacon's *Advancement of Learning*, but is better known for his political weekly *Som Prakash*, planned by Iswar Chandra Vidyasagar. The journal discussed literature, philosophy, science, politics and social matters in simple and chaste Bengali. The *Som Prakash* also upheld the cause of the poor ryots and expressed itself boldly against the zamindars, indigo-planters and tea-planters. The *Som Prakash* began to be published from Vidyabhushan's home at Changripota from April 1858.

Ramnarayan Tarkaratna (Harinavi, 1822-86) is well-known for his social farce, *Kulinakulasarvasva* on Kulin polygamy. *Kulinakulasarvasva* (1854) may not have much literary merit, but reflects a social consciousness against the barbarous practices that had crept into a decadent society. Ramnarayan was thus a true comrade of Iswar Chandra Vidyasagar in his social reform movement. Ramnarayan's *Naba Natak* (New Drama, 1866), a maturer work, is also aimed at polygamy. Ramnarayan's other dramatic works include adaptation of the Sanskrit play *Ratnabali*. *Kulinakulasarvasva* inspired many a playwright, and the staging of *Ratnabali* enthused Michael Madhusudan Datta to try his hand in drama.

Rajnarayan Basu (Boral, 1826-99), was a classmate of Michael Madhusudan Datta. He tried to promote national feelings among the educated Bengalees. In one of his writings he proposed to set up a society for the promotion of national feeling among the Bengalees, and called upon the Bengalees 'to give up foreign habits, and adopt Bengali dress and food, indigenous medicine and gymnastic exercise, to promote indigenous industry and the study of Sanskrit, to use Bengali language free from the admixture of English in private conversation and correspondence, and to publish in Bengali the researches of European scholars on Indian antiquities'.¹ At the same

¹ Many of the personalities mentioned of course worked in Calcutta and elsewhere but it would not have been proper to create an artificial dichotomy and to exclude a treatment of them from the present volume, all the more so because the district can hardly be distinguished from Calcutta, at least in matters of culture.

time he asserted the superiority of Hinduism as the keynote of his movement. He was one of the founders of the *Hindu Mela* in Calcutta which for several years (1867-80) was an event of great activity; 'The special features of the annual gathering were patriotic songs, poems and lectures, a detailed review of the political, social, economic and religious condition of India, an exhibition of indigenous arts and crafts, and performance of different forms of physical exercises and feats of physical strength. It had an all India outlook and specimens of arts and crafts were collected from Benaras, Kashmir, Jaipur, Lakhnau and Patna. Rewards were also offered for good books written in Bengali and Sanskrit which were calculated to promote the welfare of the country.'² In spite of his Hindu parochialism, he was the forerunner of the *Swadesi* movement of later days; in his attack on the Salt Tax, we may discern the seeds of Mahatma Gandhi's Dandi March more than forty years later. He also became the President of Sanjivani Sabha. Rajnarayan composed some religious treatises and miscellaneous monographs, but his importance to us lies in his being one of the pioneers of national consciousness that was to sweep the country at a much later date. Though talking of constitutional agitation, Rajnarayan formed a secret society on the Italian Carbonari model, but nothing much came out of it till his grandsons Arabinda and Barin (Ghosh) and nephew Satyen (Bose) appeared on the scene.

Manomohan Basu (Chhota-Jagulia, 1831-1912), a playwright dealing mainly with puranic themes, also exposed British exploitation in his novel (*Bangadhipa-Parajay*), and composed patriotic songs. He was one of the first to try his hand at poetical drama (*Gitabhinay*, opera). He was one of the major organisers of the *Hindu Mela* and a supporter of the National Theatre concept.

Bankim Chandra Chattopadhyay (Kanthalpara, 1838-94) was one of the great Bengali novelists and founder of the modern fiction in India. He was one of the first graduates of the newly founded Calcutta University (B.A. 1858). His first mature writing was the novel *Durgeshnandini* published in 1865. 'It was the first Bengali novel in the modern European style, and the first work of creative imagination in Bengali prose.'³ A judgement today

¹ R. C. Majumdar—*Glimpes of Bengal in the Nineteenth Century*, Calcutta, 1960, pp. 74-75.

² R. C. Majumdar—*Glimpes of Bengal in the Nineteenth Century*, Calcutta, 1960, p. 75.

³ J. C. Ghosh—*Bengali Literature*, first published in London 1948, Reprint in London in 1976, p. 152.

would bring out many a short-coming in *Durgeshnandini*, but as Tagore himself pointed out, its appearance in our literature was 'like advent of dawn after night'. He wrote, in all, fourteen novels.

He brought out from April, 1872 the Bengali monthly *Bangadarshan* ('Bengal Review'). He edited it for four years. After sometime, he began to print and publish it from his ancestral home in Kanthalpara. The *Bangadarshan* was the first great literary and cultural periodical in Bengali, and became the forum for the better writers of the day. It contained articles on science, philosophy, literature, drama, social science, religion, history, archaeology, economics, music, and linguistics. It was in this magazine that almost all his writings came out.

His humorous sketches were also outstanding creations, *Kamalakantar Daftar* (The 'Scribblings of Kamalakanta', 1875) contains serio-comic sketches like De Quincy's 'Confessions of an English Opium Eater.' It shows the style at its best. Another humorous sketch was *Muchiram Gurer Jibancharit* (the Life story of Muchiram Gur).

The topics of his serious essays ranged from Mill's Utilitarianism and Comte's Positivism to literary criticism, and from history to popular science. Some of his important essays are *Bangadeshiya Krishak*, *Bangalir Bahubal*, *Banglar Itihas*, *Bangalir Utpatti* and *Banglar Itihaser Bhagnamsha*. He wrote a few papers in English like the *Origin of Hindu Festivals* and *Bengali Literature*. He wrote a number of Books on Hindu religion, *Dharmatattva* (Essence of Religion) and *Krishnacharita* (life and character of Krishna).

Bankimchandra was the creator of the Bengali novel, the pioneer of the novel as a new genre of art, and the father of the modern Indian novel. Although today we may have to deny some of the values bequeathed in his novels, we have to remember that 'he had to create his own standard', and that his defects were largely the birth pangs of the Bengali novel.

Bankimchandra has also come to be regarded as the father of modern Indian nationalism. He composed the famous song *Bande Mataram* which became the rallying cry of the nationalist movement, particularly in Bengal. 'It is doubtful if there is any patriotic poem in any literature comparable with Bankimchandra's *Bande Mataram*'.¹

In his economic writings, we find his analysis of the economic

¹ S. C. Sengupta-Bankimchandra Chatterjee (1838-1894) in the *Studies in the Bengal Renaissance*, edited by Atulchandra Gupta, Jadavpur, 1958, p. 76.

condition of agrarian Bengal to be acute. In his *Samya* (Equality) essays 'he showed his sympathy for the common people and the peasantry, leaned towards egalitarianism and betrayed traces of the influence of utopian socialism'.¹ It is, however, paradoxical that, being almost a contemporary of Iswarchandra Vidyasagar, he was opposed to widow re-marriage.

All said and done, Bankimchandra was a great pathfinder in the field of Bengali literature. During his time he was the undisputed monarch of Bengali literature, and since then he has been permanently enthroned as a builder of modern Indian literature.

Sanjib Chandra
Chattopadhyay

Sanjibchandra Chattopadhyay (Kanthalpara, 1834-89), Bankim Chandra's elder brother, was a gifted writer. He wrote a charming little travelogue called *Palamau* which form an enduring classic in Bengali, and a few novels and stories, *Kanthamala* (Necklace), *Mudhivilata* (the Entwining Creeper) and *Jal Pratapchand* (the imposter Pratapchand). Sanjibchandra's stories have been described as the nearest to Rabindranath's short stories proper of a later date. He edited his 'illustrious Brother's' monthly *Bangadarshan* for some time and started one himself (*Bhramar*). During his editorship both the magazines were printed at and published from their village home at Kanthalpara, Naihati. Sanjib Chandra's monographs on *Bengal Ryots—their Rights and Liabilities* (1864) was one of the first attempts at systematic writing on economic matters and preceded Rameshchandra Datta's famous work, *Peasantry of Bengal* (1874).

Sambhu Chandra
Mukherjee

a Sambhu Chandra Mukherjee (Baranagar, 1839-94), a senior official serving with some leading landholders and princes of the country, was a noted journalist. As a student he brought out the *Calcutta Monthly Magazine* with the help of his friend, Krishnadas Pal. He was associated with the *Morning Chronicle* and the *Hindu Intelligencer*, was assistant editor, later editor of the *Hindu Patriot*, was editor of his own *Mookerjee's Magazine* and was also editor of the weekly *Rois and Rayyet*. At the age of eighteen he wrote a pamphlet on the Sepoy Mutiny (*The Mutinies and the People*). Mukherjee was President of the India League and was profoundly respected by W. C. Bonerjee and Allan Octavius Hume. He declined the Provincial Governor's offer of a Government title. He has several other miscellaneous writings to his credit.

Sasipada
Bandyopadhyay

Sasipada Bandyopadhyaya (Baranagar, 1840-1928), one of the young enthusiasts of Keshabchandra Sen's Brahmo Samaj, started

¹ Amit Sen—*Notes on the Bengal Renaissance*, Calcutta (Second edition), 1957, p. 42.

in 1874 the *Bharat Sramajibi* (Indian Labourer), the first labour journal in India. In 1871, at the invitation of Mary Carpenter he had visited England along with his wife Rajkumari Banerjee (the first Brahmin lady to do so). While in England he campaigned against drinking; he also tried to get a Labour Act for India passed, but failed. He started a women's school at Baranagar in 1865, and in 1886 a hostel and a training centre were added to it; this was the first vocational training centre for woman in India. Sasipada started a night school at Baranagar for millhands, a workingmen's club and an Anna Bank for them, a social reform society, a general library, a women's library, a school for Muslim children and a kindergarten. He worked against untouchability, and tried to persuade employers to introduce compulsory education for labourers' children. In 1873 he published a women's journal, *Antahpur*. He actively participated in the widow remarriage movement, and gave shelter or financial aid to numerous widows despite his sparse means. In 1873 he organised *Sadharan Dharma Sabha*, a conference of religions and in 1908 he established *Devalaya*, a centre for men of different religions for wide dissemination of religious education and national welfare.

Trailokyanath
Mukhopadhyay

Trailokyanath Mukhopadhyay (Rahuta, P.S. Jagatdal, 1847-1919), was for sometime a clerk in the Bengal Gazetteer under Sir William Hunter, and later on Assistant Curator at the Indian Museum. He wrote 'A Descriptive Catalogue of Products', 'A Handbook of Indian Products', 'A List of Indian Economic Products' and school text books on science in Bengali, he also assisted in editing the Bengali encyclopaedia *Viswakosh* and the English monthly journal *Wealth of India*. He is however much more known for his entertaining tales like *Kankavati* and *Damarucharit*. '*Kankavati* is a most delicious blend of folklore and social satire, fantasy and realism, and laughter and tears that we have in our language.' *Damarucharit* is a literary caricature that has been compared with Don Quixote and Kai Long.

Sibnath Sastri (Majilpur, 1847-1919) at an early age joined the social reform movements of the time and advocated for widow-marriage and against child-marriage. He formally joined Keshabchandra Sen's Brahmo Samaj in 1869 and was involved in Sen's Indian Reforms Association. Shibnath brought out a monthly journal '*Mad Naa Garal*' (Wine or Poison) for campaigning against drinking habits. He was also with his leader Keshabchandra in

Sibnath Sastri

¹ J. C. Ghosh—*Bengali Literature*, London, 1976, p. 133.

agitating for women's liberation, and it is as a result of the efforts of Kesabchandra and his followers that the Act of 1872 prescribing the minimum age of consent for marriage, for both boys and girls, was enacted. Sibnath differed with Kesabchandra on the issue of higher education for women, and defying his old mentor, participated in establishment of the Banga Mahila Vidyalaya (Bengali Women's School). For some time, he edited his maternal uncle Dwarakanath Vidyabhusan's well-known literary journal *Somprakash* published at that time from Harinavi (P.S. Sonarpur). In 1877 he founded a secret revolutionary society for education in nationalism and social reforms and for efforts for political liberation. He finally parted ways from Kesabchandra in protest against the latter's intention to marry off his child daughter, and established the Sadharan Brahmo Samaj. Apart from the preaching and advocating of social reforms he lectured all over India for social and political unity and equality, and had the courage, even in those days of unchallenged conservatism to openly speak in Madras against casteism and untouchability. He was one of the promoters of the City School (Calcutta) and the Students' Society, the latter being a democratic students organisation. As the contemporary mouthpiece of public opinion, the British Indian Association, was controlled by the zamindars. Sibnath was one of those who started the Indian Association for democratic political movement, on behalf of his Sadharan Brahmo Samaj. He published *Sakha* (Friend) the first journal for teenagers in the country. In 1891 he founded the Brahmo Girls' School in Calcutta. In 1892 Sibnath established *Sadhanasrama* under his Samaj for spiritual endeavour and social welfare service. His three books *Ramtanu Lahiri O Tatkalin Banga-samaj* (Ramtanu Lahiri and Contemporary Bengali Society) (1904), *History of the Brahmo Samaj* (1911-12) and *Atmcharit* (Autobiography) (1918) are indispensable for study of the social and cultural history of Bengal in the nineteenth century. Especially the first of these three books, on Ramtanu Lahiri, a Derozian scholar of distinction, is remarkable for its delightful prose style as well as its excellent social documentation. At the time the book attracted so much attention that Lethbridge brought out an English translation in three years (Ramtanu Lahiri—*A history of the Renaissance in Bengal*—(1907). Sibnath's novel *Mejo Bou* (The Second Daughter-in-law) was also popular in its day.

The famous scholar Mahamahopadhyay Haraprasad Sastri (Naihati, 1853-1936) discovered in Nepal the oldest available manuscripts of Bengali language, commonly called *Charyapadas*,

dated around the 10th to 12th century A.D., and edited these manuscripts under the title *Bouddha Gan O Doha* ('Buddhist Songs and Dohas') He was associated with Rejendralal Mitra, the famous Indologist, in translating the Upanishad *Gopal Tapani* in English. With his books on the history of India, readings of copper plates discovered in archaeological excavations, and a discovery and annotation of old manuscripts, he greatly advanced Indological research. On behalf of the Asiatic Society he collected numerous manuscripts and catalogued them. The great credit of discovering and editing the only extant manuscript of Sandhyakaranandi's *Ramacharitam*, a unique historical composition relating to the Pala period, written in *Kavya* style, and one of the few original source books on Bengal History, goes to him. Of his numerous treatises and essays in English and Bengali on history and antiquarian studies, literature, etc. special mention must also be made of *Prachin Banglar Gaurab* (Glory of Ancient Bengal), *Bouddha dharma*, Magadhan Literature, Discovery of Living Buddhism in Bengal, etc. He wrote two historical tales, *Kanchanmala* and *Bener Meye*. The last is quite an interesting reconstruction of Bengali life in the 11th century, and is considered one of the best historical fictions in Bengali literature. The Mahamahopadhyay was one of the best prose writers in Bengal.

Jogindranath Basu (Nitara, 1857-1927) wrote several books on the lives of great men and several biographies including the biography of Michael Madhusudan Datta in Bengali that is recognised even today as a reliable research work on the subject. He edited the Bengali monthly journal *Suravi*.

Jogindranath
Basu

Saratchandra Deb (Harinavi, born 1858) brought out the magazine *Bharat Kosh* and wrote on various subjects, including a novel (*Kanaklata*) and a history of Calcutta (*Kalikatar Itihas*).

Saratchandra
Deb

The famous playwright Kshirodprasad Vidyabinod's (Khardaha, 1863-1927) adaptation from the Arabian Nights, *Alibaba* is 'the evergreen operatic play of the Bengali public stage'. His historical plays *Raghubir*, *Bange Pratapaditya*, *Alamgir* and *Nanda Kumar* helped in kindling patriotic feelings. Among his puranic plays may be mentioned *Bhisma* and *Naranarayana*. Kshirodprasad judiciously imitated the sweet and imaginative poetry of Rabindranath and the descriptive prose of Bankimchandra. All his plays were resounding success, equally in urban and rural areas of Bengal. He translated the *Gita* into Bengali. He edited a monthly mystery journal *Aloukikrahasya*.

Kshirodprasad
Vidyabinod

Kedarnath Bandyopadhyay (Dakshineswar, 1863-1949) published a compilation of the poems and songs of a large number of poets

Kedarnath
Bandyopadhyay

of bygone days (*Guptaaratnoddhar*, 1894). His humorous poem on life at Kasi or Benares, *Kasir Kinchit* (a Wee Bit of Kasi, 1915) created a sensation in the literary field at the time. He wrote an excellent travelogue *Chin Jatri* (1903-04). His light hearted novels *Kosthir Phalaphal* (Result of Horoscope Reading, 1929), *Bhaduri Masai* (Mr. Bhaduri, 1931), *Ai Has* (I Has, 1935) were all popular. His stories *Amra Ki O Ke* (What and Who We are, 1927), *Duksher Deoyali* (Floodlight of Misery, 1932) are however of much abiding value. He was one of the founders of the Prabasi Banga Sahitya Sammelan (The Bengali Literary Conference of India), presided over the literature section of the conference at Delhi (1926), Meerut (1927) and Nagpur (1934).

Nikhilnath Roy Nikhilnath Roy (Pura in Basirhat Subdivision, 1865-1932), notable for his local histories, *Mursidabad Kahini* (The Story of Murshidabad, 1898) and *History of Murshidabad* (1904), was a son of the district, although he spent most of his life at Baharampur (Mursidabad).

Panchkari Bandyopadhyay (Halisahar, 1866-1923) made valuable efforts in historical writings e.g., *Ain-i-Akbari O Akbarer Jibani* (Ain-i-Akbari and Akbar's Life), *Sepahi Yuddher Itihas* (The History of Sepoy War) and *Samrat Aurangzeb* (Emperor Aurangzeb), but he is more known for his editorship of the contemporary newspaper *Nayak*, co-editorship along with Brahma Bandhab Upadhyay of the evening daily *Sandhya*, and even more for his humorous as well as serious articles in various magazines.

Jogindranath Sarkar (Nyatra, 1273-1344 B.S. corresponding 1867-1938) was the pioneer in the field of children's literature. His Bengali primer *Hasikhusi* (Laughter and Gladness, 1897) with its illustrations and fanciful rhymes was most popular with Bengali children for a long time. He wrote numerous books for children and *Hasi O Khela* (Laughter and Play) compiled by him in 1891 was the first non-text book in Bengali for children.

Haricharan Bandyopadhyay (Ramnarayanpur, 1867-1959), belonged to the district, although he worked at Santiniketan, took up at the instance of Rabindranath, the task of compiling a full-scale Bengali dictionary, single-handed, and after forty years of dedicated labour compiled it in five volumes (*Bangiya Sabdakosh*, 1945).

Pramila Nag (Taki, died 1896) was a noted poetess, and contributed to various literary magazines. *Pramila* and *Tatini* are her two books of poems.

Harinath De (Ariadaha, 1877-1911), the first Indian member of the Imperial Education Service, and the first Indian Librarian of

the Imperial Library (now National Library), heralded linguistic studies in the country. Master of twenty European and fourteen oriental languages, he translated into English the Chinese version of Nagarjuna's *Madhyamik Darshan*, a Tibetan book of Logic (Doang), etc. He also translated Upanishad into three languages, edited several important books of Buddhist philosophy, and annotated well-known English works.

Banalata Devi (Baranagar, 1860-1900) daughter of Sasipada Bandyopadhyay looked after her father's magazine (*Antahpur*), and brought it out with contributions from women only. She wrote a book of poems (*Bansi*), participated in her husband, the *Jivani-kosh* editor, Sasibhusan Vidyalankar's efforts at spread of education among women and social reforms.

Charuchandra Bhattacharyya (Harinavi, 1883-1961) compiled Tagore's writings into collected works (*Rabindra Rachanavali*, Visva Bharati edition, 1939), and edited a series of books of knowledge for the young (*Visva Vidyasamgraha Granthamala*). He wrote a large number of books on scientific subjects for the layman, and took a lead in the efforts of the Bangiya Bijnan Parishad in this regard. His reminiscences of Rabindranath (*Kavi Smaran*) and account of Bengali theatre (*Atha Nataghatita*) are also noteworthy.

Mohammad Sahidullah, (Peyara, 1885-1969) who worked for most part of his life in East Bengal (now Bangladesh) originally belonged to this district. He did significant research on the *Charyya-padas* (Les Chants Mystique de Kanha et de Saraha) (1927) and their religious cult. He settled the problems of identification of Badu Chandidasa, author of *Sri Krishnakirtan*.

Mohitlal Majumdar (Kanchrapara, 1888-1952) was a poet of note who tried to be free from Rabindranath's all pervasive presence in his *Swapan Pasari* (1922), *Vismarani* (1929), *Swaraagaral* (1936), *Hemanta Godhuli* (1941) and *Chhanda Chaturdasi* (1944). He wrote a number of critical essays remarkable for their originality, *Adhunik Bangla Sahitya* (1936), *Sahitya Katha* (1928) and *Sahitya Bitan* (1942).

Bibhuti Bhusan Bandyopadhyay (Banagram, 1894-1950) is one of the stalwarts of Bengali novel. He writes "with a rare sincerity and fullness of heart that never fail to strike a note of nostalgic sympathy in the emotional reader.... He was romantic and lyrical by temperament."¹ The poverty and sufferings, the aspirations and dreams of the Bengali villages are all delineated in

¹ Sukumar Sen, *History of Bengali Literature*, New Delhi 1960, p. 329.

Banalata Devi

Charuchandra
Bhattacharyya

Sahidullah
Mohammad

Mohitlal
Majumdar

Bibhuti Bhusan
Bandyopadhyay

his works with a rare sympathy. But the most remarkable feature of his writings was his most deeply sensuous appreciation of nature. His most famous novels are *Pather Panchali* (Ballad of the Pathway, 1929) and its sequel *Aparajita* (Undeclared, 1932), *Dristipradip* (The Look-A Lamp, 1935), *Aranyak* (The wild, 1938), *Adarsha Hindu Hotel* (1940), *Bipiner Sansar* (Bipin's Home, 1941), *Ichhamati* (1949), etc. He also wrote numerous short stories collected in more than a dozen volumes, the more notable of which are *Meghamallar* (1931), *Mauriphul* (1932) and *Jatrabadal* (1943) *Bane Pahare* (In Forests and Hills), *Maraner Danka Baje* (Sounds the Death Knell), *Chander Pahar* (Hills in the Moon) were written for young people. His *Pather Panchali* was translated into English and French, and film version of this and its sequel, made by Satyajit Ray, won recognition at home and abroad.

Benoytosh
Bhattacharyya

Benoytosh Bhattacharyya worked at Baroda but his ancestral home was in this district (Naihati, 1897-1964). Son of Haraprasad Shastri, he wrote a number of books on Buddhism and as editor of the Gaikwad Oriental Series, edited and published numerous rare Sanskrit texts.

CHAPTER XVI

MEDICAL AND PUBLIC HEALTH SERVICES

As far back as 1862, the position of public health and medical facilities in the district was not satisfactory. "The prevailing epidemic diseases of the 24-Parganas are cholera, intermittent and remittent fevers, diarrhoea, and dysentery.... Epidemic fever, similar to that raging in Burdwan and Hugli, broke out in the Barasat Subdivision in 1862, and for some years it continued committing great havoc.... No statistics are available showing the proportion of the population affected by these epidemics, or the rate of mortality."¹ An account of the fevers in the district was contributed by Lieut. Colonel Harold Brown, I.M.S., the Civil Surgeon of the 24-Parganas. The fevers of the district were divided into two classes, viz., the malarial and the non-malarial. Malarial fevers were again divided into three classes, each having its own special form of parasites those were the benign tertian, the benign quartan and the malignat infection. Non-malarial fevers were cachectic fever, dengue, typhoid fever, cerebro-spinal meningitis, etc. The benign tertian and the benign quartan fevers occurred from July till March, being commonest in the cold months. It was to malignant infection that the great mortality from 'fevers' was due. In 1901, when investigating an epidemic in the Emigration Depots at Garden Reach, Harold Brown found that cerebro-spinal meningitis was epidemic in Calcutta and the suburbs, and was often mistaken for plague. It was one of the most fatal fevers the mortality varying, according to the type, from 30 to 100 per cent. The average mortality being over 60 per cent.² In submitting his report on detailed local enquiry in the district made in 1900. Captain Rogers expressed: "... when urban spleen rates of 55 (Gobardanga), 52 (Basirhat), 56 (South Barrackpur) and 80 (North Dum Dum) were taken, among others, all pointing to the prevalence of malaria."³

In 1907, when the Bengal Drainage Committee enquired into the relative healthiness of different thanas of the district on the basis of the Bengal Census Report of 1901 and the detailed local enquiry in 1900 by Captain Rogers the following conclusions were arrived

SURVEY OF
PUBLIC HEALTH
& MEDICAL
FACILITIES IN
EARLY TIMES

¹ W. W. Hunter—*A Statistical Account of Bengal, Vol. I, Districts of the 24-Parganas and Sundarbans*, London, 1875. p. 239.

² L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914; p. 87.

³ *Ibid.* p. 87.

at: "Upon the basis of the district fever rate (18.3 per mille), we may, perhaps, class rates of 25 and over as unhealthy, and 15 and under as the reverse. If so, the specially unhealthy thanas in the 24-Parganas are Dum Dum, Khardah, Barrackpur, Naihati and Nawabganj, on the east bank of the Hooghly north of Calcutta, and Deganga and Habra, adjoining them further inland to the east. The healthy thanas are Bhangar, Matla, Diamond Harbour and Budge Budge, all, as might be expected, to the south towards the sea."¹ These conclusions were corroborated, to a large extent, by Major A. B. Fry, I.M.S., the Special Deputy Sanitary Commissioner, Malaria Research, Bengal, in his *First Report on Malaria in Bengal* (1912) and has been incorporated in the Gazetteer of O'Malley. He classed the thanas in five blocks in order of intensity of malaria, as evidenced by mortality returns: (1) Naihati and Dam Dam, (2) Barakpur and Khardah, (3) Baduria and Habra, (4) Barasat, Basirhat, Baj Baj, Noapara, Tollyganj and Vishnupur and (5) Debi-pur, Diamond Harbour, Magra, Jaynagar, Baruipur, Sonarpur, Bhangar, Deganga, Haroa, Hasnabad, Alipur and Behala.²

"Epidemic small-pox made its appearance in some parts of the 24-Parganas in 1866, the only occasion on which this disease has appeared in a seriously epidemic form within recent times. It occurs on a small scale every succeeding spring . . . No statistics are available showing the proportion of the population affected by these epidemics, or the rate of mortality."³ According to O'Malley: ". . . the highest mortality due to it of late years was returned in 1909, when the total number of deaths was only 2,000."⁴

About the epidemic tendency of cholera Hunter had observed: "Cholera has a tendency to become epidemic twice a year, namely, at the beginning of the hot weather and at the end of the rains."⁵ "The worst epidemic in recent years occurred in 1907, causing 14,500 deaths, or 7 per mille of the population."⁶

Other diseases like "Dysentery and diarrhoea", O'Malley wrote, "account for a considerable number of deaths every year; they are

most prevalent in May, June and July, and are least in evidence during November, December and January. Tubercule of the lungs is very common: in fact, it is one of the commonest effections for which patients seek relief at the hospitals. The cause of its prevalence are, briefly, poverty and consequent inability to procure adequate and suitable food, filthy and insanitary environments, insanitary occupations, neglect to appreciate the gravity of early symptoms, and, lastly, poor physique and diminished power of resistance to disease. Asthma is frequently seen, and is very rebellious to treatment. Glycosuria is common; . . . Veneral diseases are rife. Syphilis, gonorrhoea and soft chancre are seen daily and contribute a large proportion of the out-door patients at the hospitals and dispensaries."¹

The medical facilities available in the second half of the nineteenth century were as follows: "there are eleven hospitals and charitable dispensaries in the 24-Parganas*, and the following brief account of each is condensed from the *Report on the Charitable Dispensaries under the Government of Bengal for 1871*. I shall compile a table showing the total statistics of the relief given, at the end of the list."² It is observed from this table that in 1871 the charitable dispensaries in the district treated a total of 1,112 in-door patients (of which 217 or 18.52% died) and 33,224 out-door patients. Of these dispensaries the Barasat dispensary seems to be the earliest one in the present district of 24-Parganas. It was opened in 1854 and maintained chiefly from private subscriptions and donations and partly by the local Municipality. In 1871 (since August only), it treated 52 in-door patients (died 5 or 9.61 per cent) and 5,365 out-door patients, the average daily attendance being 49.69. "In the returns published by the Inspector-General of Civil Hospitals in the annual report on charitable dispensaries in Bengal, 38 charitable dispensaries and hospitals are shown as in existence in the 24-Parganas."³ It is observed from the table, furnished by O'Malley, that in 1911, the daily average of indoor

¹ *Ibid.* p. 88.

² *Ibid.* p. 88.

³ W. W. Hunter—*A Statistical Account of Bengal, Vol. I, Districts of the 24-Parganas and Sundarbans*, London, 1875; p. 244.

⁴ L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta 1914; p. 89.

⁵ W. W. Hunter—*A Statistical Account of Bengal, Vol. I, Districts of the 24-Parganas and Sundarbans*, London, 1875. p. 249.

⁶ L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914, p. 89.

¹ L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914, p. 89.

* It is to be noted that the area and boundary of the then 24-Parganas has now been changed.

² W. W. Hunter—*A Statistical Account of Bengal, Vol. I, Districts of the 24-Parganas and Sundarbans*, London, 1875. p. 239.

³ L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914, p. 93.

patients and out-door patients treated in those hospitals and dispensaries in the district was 141 and 2,061 respectively and the total number of beds was 226. In that year the largest number of out-patients was treated at the Baduria dispensary, the daily average of patients being 126. The daily average of out-patients treated at the dispensaries at Baruipur, Barakpur (Bhola Nath Bose's) and Taki (Tara Sankar Choudhuri's) was 97, 96 and 94 respectively. The dispensaries at Barakpur (Bhola Nath Bose's) and Diamond Harbour contained 20 and 18 beds respectively for in patients. O'Malley also gave some account of dispensaries which had at one time or another been under Government supervision, but which, owing to transfer or closure, were so no longer. Of these, the dispensaries at (a) Agarpara (removed in 1889 to Khardah), (b) Deganga (closed in 1869), (c) Garden Reach (Arratoon Apar's: established in 1871; closed in 1880), (d) Gobardanga (founded in December, 1860 and Government supervision was withdrawn in 1889), (e) Kulpi (established in 1880; closed in 1899), (f) Rajarhat (closed in 1869) and (g) Vishnupur (opened in 1869) were within the jurisdiction of the present district of 24-Parganas.

Ayurvedic
medicine

In course of time the 'kaviraji' became the latest version of Ayurveda. In the past, the influence of the Natha sect, the Natha Yogis and the Natha Pandits appears to have flourished in the southern part of the district of 24-Parganas. Many of the Nathas practised Kaviraji along with the Tantric practices, another wing of Ayurveda.¹

Hunter in his Statistical Account of Bengal (1875 Edition) gave the following list² of seventy principal indigenous drugs (vegetable drugs) in use in the 24-Parganas with their scientific names as reported to him by the then Civil Surgeon:

"*Chireta* [agathotes (ophelia) chireta] a tonic and febrifuge. (2) *Masina* (linum usitatissimum), a demulcent. (3) *Nim* (azadirachta Indica), a tonic and febrifuge. (4) *Bel* (aeglemarmelos), a laxative and febrifuge. (5) *Guggul* (balsamodendron mukul), a pectoral. (6) *Jaipal* (corton tiglium), a cathartic. (7) *Khetpapra* (oldenlandia biflora), a tonic and febrifuge. (8) *Amrul* (oxalis corniculata), a cooling medicine. (9) *Jainti* (Sesbania Aegyptiaca), the leaves used as a poultice to promote suppuration. (10) *Babla* (acacia Arabica), as astringent. (11) *Ganja* (cannabis sativa). The resinous juice which

exudes from the leaves and stem produces *charas*; the dried plant, which has flowered, and from which resin is not extracted, produces *ganja*; and the large leaves and capsules make *bhang* or *siddhi*; nervine stimulant, anti-spasmodic, and anodyne. (12) *Gol marich* (piper nigrum), a stimulant and febrifuge. (13) *Pan* (piper betel), an anti-scorbutic, and stimulant to the salivary glands. (14) *Pipul* (piper longum), a stimulant. (15) *Kabab-chini* (piper cubeba), stimulant to the urinary organs. (16) *Khayer* (acacia catechu), an astringent. (17) *Ghrita-kumari* (aloe perfoliata), a purgative. (18) *Elachi* (elettaria cardamomum), a carminative and stimulant. (19) *Supari* (areca catechu), used as a masticatory with betel. (20) *Katkaranja* (caesalpinia bonducella), a tonic and febrifuge. (21) *Golancha* (tinospora cordifolia), a tonic and febrifuge. (22) *Sialkanta* (argemone Mexicana), a laxative. (23) *Gandhabirasa* (Boswellia thurifera), a diaphoretic. (24) *Ishanmul* (aristolochia Indica), an antidote for snake-bite. (25) *Palas* or *Kinsuk* (butea frondosa), externally as an astringent, and internally as an anthelmintic. (26) *Lanka* (capsicum anpuum), a stimulant. (27) *Jira* (carum carui), a carminative. (28) *Akanda* (calotropis gigantea), a purgative, emetic, and diaphoretic. (29) *Labanga* (caryophyllus aromaticus), a carminative and stimulant. (30) *Dal-chini* (cinna-monum Zeylanicum), a carminative and stimulant. (31) *Pati-Nebu* (citrus limonum), an anti-scorbutic. (32) *Somraj* (vernonia anthelmintica), an anthelmintic. (33) *Dhaniya* (coriandrum sativum), an aromatic stimulant. (34) *Bichidana* (cydonia vulgaris), a demulcent. (35) *Nagarmutia* (cyperus pertenus), a diaphoretic and tonic. (36) *Dhutura sada* (datura alba), and (37) *Dhutura kala* (datura fastuosa), an anti spasmodic, narcotic, and anodyne. (38) *Garjan tel* (dipterocarpus laevis), a diuretic. (39) *Babui tulsi* (ocimum basilicum), an emollient and demulcent. (40) *Amlaki* (emblica officinalis), an astringent. (41) *Biranga* (embelia ribes), an astringent and anthelmintic. (42) *Yasti-madhu* (glycyrrhiza glabra), a pectoral. (43) *Chalmugra* (gynocardia odorata), an emollient, used chiefly, in cutaneous diseases, and supposed to be a cure for leprosy; it is given internally as well as applied externally. (44) *Anantamul* (hemidismus Indicus), an alternative, diaphoretic, and diuretic used as a substitute for sarsaparilla. (45) *Joan* (ptychotis ajowan), a carminative. (46) *Tobacco* (nicotiana tabacum, used as an emetic as well as a sedative narcotic. (47) *Aphin* or opium (papaver somniferum), a narcotic and anodyne. (48) *Kaladana* (pharbitis nil), a purgative. (49) *Debdaru* (pinus deodara), a diuretic. (50) *Isabgul* (plantago ispaghula), a demulcent and emollient.

¹ Benoy Ghose—*Paschim Banger Samskriti* (in Bengali), Calcutta, 1957. pp. 680-685.

² W. W. Hunter—*A Statistical Account of Bengal, Vol. I, Districts of the 24-Parganas and Sundarbans*, London, 1875. pp. 237-249.

(51) *Dalim* (*Punica granatum*), a root anthelmintic. (52) *Lal-chita* (*plumbago rosea*), a rubefacient. (53) *Kuchila* (*strychnos nux vomica*); an anti-periodic, tonic and laxative. (54) *Tetul* (*tamarindus Indica*), a laxative. (55) *Teori* (*impomoca turpethum*), a purgative. (56) *Pudina* (*mentha sativa*), used in dyspepsia. (57) *Nagkisor* or *Nageswar* (*mesua ferrea*), used in fever, and as an astringent in hemorrhoidal discharges. (58) *Sagina* (*moringa perygosperma*), a rubefacient. (59) *Alkusi* (*mucuna pruriens*); the hairs covering the pods of the plant are mixed with sugar and honey, and used as an anthelmintic. (60) *Jatamansi* (*nardostachys Jatamansi*), a nervous stimulant and anti-spasmodic, used as a substitute for valerian. (61) *Swet karabi* (*nerium odorum*), a root antidote for snake bite, and used for procuring abortion. (62) *Til* (*sesamum orientale*), a demulcent and emollient. (63) *Rita* (*sapindus emarginatus*), an expectorant. (64) *Sarisha sada* (*sinapis alba*); and (65) *Sarisha kala* (*sinapis nigra*); the seed, ground into powder, is used externally as a rubefacient, and internally as an emetic. (66) *Chagalandi* (*sphaeranthus hirtus*), an anthelmintic, diuretic, and stomachic, used in the form of liniment in cutaneous diseases. (67) *Babra* (*terminalia bellerica*), a tonic and astringent. (68) *Haritaki* (*terminalia chebula*), a purgative. (69) *Paniphal* (*trapa bispinosa*), chiefly used as a light diet by sick natives. (70) *Patal* (*trichosanthes dioica*), a cathartic.

Kavirajas are reported to have more practice in the northern part of the district. Kaviraj Ramakrishna Shastri*, the author of two Ayurveda works, *Chikitsak Prova* (1940) and *Charaka Samasya* (1948), started practising at Sukchar in 1928. Among other eminent Ayurvedic practitioners in the district, Kaviraj Indu Bhusan Sen (started practice in 1930) and Kaviraj Nagendra Nath Sen (started in 1930) of Natagarh, Kaviraj Debaki Dulal Dutta (started in 1932) of Bangaon and Kaviraj Pannalal Mukhopadhyaya (started in 1935) of Naihati deserve mention. There is one Ayurvedic Medical Association, registered with Paschim Banga Ayurved Parishad (Calcutta) in the district, namely, the *Chabbis Pargana Jela*

* He was also the publisher-editor of two Ayurvedic Journals *Ayurvijnan Patrika* (1929-1957) and *Ayurveda* (1946-1964), published from Sukchar, which exist no more. Besides these two journals, he also edited *Shree* of Barakpur Subdivision which lasted only for a few years (1940-1946). After him, Kaviraj Sachindra Nath Chatterjee became the editor of that journal. Late Kaviraj Debabrata Mukherjee was the editor of another Ayurvedic journal, namely, *Chabbis Pargana Ayurved Sabha* which lasted for a short period (1932-1934) only.

*Ayurved Parishad*** with its headquarters at Panihati. The following two charitable dispensaries were founded in the second decade of the present century, but they no longer exist: (a) Annapurna Databya Chikitsalaya, Titagarh—founded in 1920 by Kaviraj Subha Mohan Patra and Kaviraj Jagannath Upadhyaya but not functioning since 1934. The average daily attendance was 100, and (b) Barahanagar Ayurved Databya Chikitsalaya—founded in 1924 by Kaviraj Jyotish Chandra Chattopadhyaya and Kaviraj Nirendra Prasad Sen which was maintained by the Baranagar Municipality and public donation, but not functioning since 1941. The average daily attendance was 50 to 60. Five dispensaries functioning in the northern part of the district are: (a) Subsidised Ayurvedic Dispensary at Rajarhat, (b) Subsidised Ayurvedic Dispensary (sponsored by Taruntirtha) at Belgharia, (c) Charitable Ayurvedic Dispensary (sponsored by Ramakrishna Sevayatan) at Baranagar, and (e) Subsidised Ayurvedic Dispensary at Pippali; and two functioning in the southern part of the district are: (a) Subsidised Ayurvedic Dispensary at Kashi-nagar (Mathurapur) and (b) Subsidised Ayurvedic Dispensary at Kusthia (Sonarpur). The only State Ayurvedic Dispensary functioning in the district since April 1975 is located at Mitrapara Road, Barasat. Besides these dispensaries, one Government Tuberculosis Hospital (Ayurvedic) at Patipukur with 94 beds is functioning since 1934 and two *Unmad Asramas* (mental hospitals), one at Duttanagar (Dam Dam) with 100 beds and the other at Khardah with 40 beds are functioning since 1935 and 1954 respectively as specialised Ayurvedic treatment centres, details of which can be found elsewhere in this chapter.¹

The Unani system depends mainly on vegetables, minerals and animal kingdom for its medicine. We do not have any record of the past which could throw light on the practitioners of the district except for one Hakim Maulana Md. Ibrahim who practised from 1920 to 1943 at Jafarpur (Ichapur).²

Unani System

**Convention of Ayurvedic practitioners was held by the *Chabbis Pargana Jela Ayurved Parishad* (a) in the year 1932 at Barakpur Hindi High School, (b) in the year 1936 at Barakpur Debiprosad High School, (c) in the year 1937 at Anandapuri, Barakpur, (d) in the year 1946 at Sukchar in the house of Kaviraj Ramkrishan Sastri, and (e) in the year 1942 the *Chabbis Pargana Ayurved Chikitsak Mahasammelan* was held at Basirhat conducted by Bangiya Chikitsak Mahasamsad, Calcutta.

¹ Source: A resume prepared by Shri R. M. Goswami, Special Officer Ayurved, which was based on information supplied by Kaviraj Ramkrishna Shastri, Professor, Shyamadas Vaidyashasthapith, Calcutta.

² Source: Hakim Md. Yunus, General Secretary, All India Unani Tibbi Conference, (West Bengal).

Vital statistics:
Compilation

The statutory registration of births and deaths was so long governed by the Bengal Births and Deaths Registration Act, 1873. But the provisions of the Act not being strictly enforced had led to under-registration. A new Act, namely, the Registration of Births and Deaths Act, 1969 came into force from April 1970 to improve the civil registration machinery and to make available reliable vital statistics. In 1969 in rural and urban areas of this State, there were eight categories of Registrars under the statutory registration system, namely, the Chairman/Health Officer of Municipality, Sanitary Inspector of Rural Public Health Circles, Medical Officer of Health Centre, Officer-in-Charge of Police Station, Inspector/Investigator of Ideal Registration and Model Health Unit, Anchal Pradhan, Railway Station Masters and others.

Ideal Registration and Model Health Unit

There is an Ideal Registration and Model Health Unit (I.R. and M.H.U.) at Mathurapur in the police station of the same name. The project is operating since 1959 with the following objectives: (a) to obtain more reliable data on vital events of the State as the official registration system defective and defecient, (b) to evaluate its findings in the backdrop of similar data obtained from other sources like Official Registration, Sample Registration and Model Registration, and (c) to appraise the planners and administrators of the health needs of the community in the light of the changing population characteristics.

The reports on the working of the Ideal Registration and Model Health Unit situated in Mathurapur are shown in the following tables.¹

ESTIMATED MID-YEAR POPULATION OF MATHURAPUR
IDEAL REGISTRATION AND MODEL HEALTH UNIT
AREA: 1970 & 1971

	1970	1971
Population	20,710	21,059
Percentage to total	25.31	26.14

¹ Directorate of Health Services, Government of West Bengal—Report of Ideal Registration and Model Health Units, West Bengal, 1970 & 1971.

BIRTHS AND DEATHS AND THEIR RATES PER 1,000
POPULATION ALONG WITH COMPLETENESS IN
OFFICIAL REGISTRATION BY MATHURAPUR UNIT
FOR IDEAL REGISTRATION AND MODEL HEALTH
AREAS: 1970 & 1971

	Types of events			
	Birth 1970	1971	Death 1970	1971
Ideal Registration				
Total	1,161	1,137	340	385
Home	598	471	185	169
Hospital:				
Resident	158	274	13	22
Non-resident	405	392	142	194
Rate per mille per annum (Ex. N.R.)	36.5	35.4	9.6	9.1
% of non-resident to total	34.9	34.5	41.8	50.4
Official Registration				
Total	835	901	302	339
Home	272	235	147	123
Hospital:	—			
Resident	158	274	13	22
Non-resident	405	392	142	194
Rate per mille per annum (Ex. N.R.)	20.8	24.2	7.7	6.9
% of omission to total detected at home	54.5	50.1	20.5	27.2

The following table shows the birth and death-rates in recent years.

BIRTH AND
DEATH RATES

BIRTH AND DEATH RATES IN 24-PARGANAS DISTRICT: 1965-73

Year	Births		Rate per thousand of popula- tion	Deaths		Rate per thousand of popula- tion
	Urban	Rural		Urban	Rural	
1965a	13,493	50,217	9.4	6,757	21,104	4.1
1966a	20,315	59,249	11.4	9,395	21,586	4.4
1967a	18,648	53,923	10.1	7,884	19,433	3.8
1968a	22,401	51,383	9.9	8,169	22,888	4.2
1969a	22,524	54,365	10.7	8,530	19,240	3.9
1970b	21,372	40,079	8.8	9,482	17,034	3.8
1971b	21,147	33,627	9.9	9,813	15,685	4.6
1972b	23,416	26,396	10.7	10,492	14,637	5.4
1973b	18,370	16,385	9.1	5,775	6,728	3.5

^a Government of West Bengal, Directorate of Health Services—*Annual Reports on Vital Statistics, West Bengal, 1965-1966, 1961-1968 and 1969.*

^b Source: Director, State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

The growth of births over deaths during recent years is apparent from the above table.

Kamarhati E.S.I. Hospital The fertility behaviour of a mother depends, to a considerable extent, on her age as her fecundity attains its peak at a particular age bracket during the long course of her reproductive age (15-49). The table¹ below shows the percentage of births by age of mother in selected areas in 1970.

AGE OF MOTHER AND ORDER OF BIRTHS IN SELECTED AREAS OF THE 24-PARGANAS DISTRICT: 1970

Municipality	Percentage of birth by age of mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45+
Garden Reach	6.5	30.2	26.1	25.4	9.6	1.9	0.3
South Subarban	17.6	36.8	23.9	14.5	6.1	1.0	0.1
South Dam Dam	11.3	39.5	26.0	13.3	7.7	1.0	0.2
Bhatpara	11.0	32.5	28.6	16.8	8.8	1.9	0.4
Baranagar	16.4	35.7	26.3	13.8	5.9	1.7	0.2
Kamarhati	19.0	34.1	25.2	14.8	5.9	0.7	0.3

It is observed from the foregoing table that the fertility curve reaches its summit somewhere in the age group 20-24.

Population by age-group The following table based on figures for 1971 describes the population according to age-group.²

POPULATION ACCORDING TO AGE-GROUP IN 24-PARGANAS DISTRICT: 1971

Age-group	Persons
Total	84,49,482
0-14	35,93,472
15-19	7,75,336
20-24	6,87,547
25-29	6,76,803
30-39	10,53,794
40-49	7,46,057
50-59	4,45,683
60	4,68,096
Age not stated	694

¹ Source: Director, State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

² B. Ghose—*Census of India 1971, West Bengal, Series 22, Part II-B(i). General Economic Tables, Calcutta, p. 22.*

The above table shows that children constitute the largest single component of the total population here as elsewhere.

Because of physical immaturity and large numbers, the mortality of children is much greater than those of people in higher age-groups. The following table reveals the relative proportions between total deaths and infant mortality in the district since 1951.¹

INFANT MORTALITY IN 24-PARGANAS DISTRICT: 1951-73

Year	Total deaths	Infant deaths	Infant death-rate per thousand live-birth
1951	40,439	5,841	86.4
1952	36,507	5,616	77.2
1953	34,640	5,374	73.2
1954	30,192	5,309	71.4
1955	30,312	5,654	70.9
1956	29,477	5,395	66.3
1957	37,748	5,848	78.0
1958	33,908	5,155	64.7
1959	28,112	4,825	58.1
1960	33,021	5,152	67.4
1961	32,165	4,595	56.1
1962	31,466	4,446	57.5
1963	34,939	4,607	60.2
1964	31,437	4,015	59.1
1965	27,861	3,479	54.6
1966	30,081	4,323	54.2
1967	27,317	3,405	46.9
1968	31,057	3,137	42.5
1969	27,770	3,404	44.4
1970	26,516	3,405	55.4
1971	25,498	2,808	51.3
1972	25,129	2,897	58.2
1973	13,398	1,497	43.1

Knowledge of the causes of death may help in defining the mortality and the public health problems in general. The distribution of deaths as also the corresponding rates from various diseases in the district during 1967-71 is shown below.

¹ Source: State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

Deaths from selected causes

DEATHS FROM SELECTED CAUSES IN 24-PARGANAS DISTRICT: 1967-71

	1967a		1968a		1969a		1970b		1971b	
	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
Accidents	812	.11	806	.11	812	.11	734	.10	840	.15
Anaemias	230	.03	376	.05	334	.05	317	.05	282	.05
Bronchitis	233	.03	197	.03	271	.04	260	.04	250	.05
Child-birth	175	2.39	180	.02	153	.02	110	.02	114	.02
Cholera	88	.01	50	.01	58	.01	109	.02	86	.02
Diabetes	31	*	26	*	41	.01	39	.01	30	.01
Dysentery	1,624	.23	1,919	.26	1,476	.21	N.A.	N.A.	N.A.	N.A.
Early Infancy Diseases	1,917	.27	1,780	.24	1,757	.24	N.A.	N.A.	N.A.	N.A.
Gastritis etc.	441	.06	477	.06	478	.07	N.A.	N.A.	N.A.	N.A.
Influenza	16	*	12	*	169	.02	20	*	16	
Kala-azar	3	*	3	*	2	*	3	*	—	—
Leprosy	24	*	25	*	14	*	31	*	26	*
Malaria	4	*	13	*	8	*	16	*	5	*
Malignant Neoplasms	243	.03	315	.04	319	.04	360	.05	369	.05
Metabolic & Nutritional Diseases	801	.11	896	.12	1,053	.15	339	.05	356	.06
Pneumonia	478	.07	579	.08	517	.07	804	.11	792	.14
Pulmonary T. B.	150	.02	175	.02	234	.08	702	.01	654	.12
Respiratory T. B.	487	.07	659	.09	534	.07	5	*	4	*
Small-Pox	44	.01	53	.01	158	.02	21	*	19	*
Snake-bite etc.	156	.02	223	.03	200	.03	177	.03	97	.02
Suicide	197	.03	246	.03	211	.03	227	.03	113	.02
T. B. of Meninges	3	*	3	*	40	.01	4	*	6	*
Tetanus	275	.04	282	.04	291	.04	321	.05	221	.04
Typhoid fever	311	.04	288	.04	284	.04	259	.04	254	.05

* Indicates negligible rates.

N.A. = Not Available.

Source: Directorate of Health Services, Government of West Bengal—*Annual Reports on Vital Statistics, West Bengal: 1967, 1968 and 1969.*

Source: Director, State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

The foregoing table reveals that the major factors in the mortality rate are dysentery and early infancy diseases. Of the traditional causes of death, reduction is spectacular in case of small-pox and malaria and pronounced for tuberculosis of different descriptions caused by maladjusted urbanization in the industrial belt of the northern and western parts of the district. Deaths from suicide and accidents, having an urban background, continue to enjoy their death-toll side by side with such rural afflictions as snake-bite, etc.

The following quinquennial table establishes that the incidence of malaria is negligible in the district at present. Malaria

QUINQUENNIAL TABLE OF DEATHS FROM MALARIA IN 24-PARGANAS DISTRICT: 1955-70

Year	Total deaths	Rate of death (per thousand of population)
1955 ^a	1,562	.34
1960 ^a	325	.05
1965 ^a	13	*
1970 ^b	Nil	*
1975 ^b	Nil	*

That the incidence of malaria is controlled both in urban and rural areas of the district will be evident further from the table below:

DEATHS FROM MALARIA IN RURAL AND URBAN AREAS OF 24-PARGANAS DISTRICT: 1965-75

Year	Deaths	
	Rural	Urban
1965 ^a	6	7
1966 ^a	4	5
1967 ^a	1	3
1968 ^a	6	7
1969 ^a	6	2
1970 ^b	Nil	Nil
1971 ^b	"	"
1972 ^b	"	"
1973 ^b	"	"
1974 ^b	"	"
1975 ^b	"	"

*Indicates negligible rate

Source: Director, State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

Source: Assistant Director, Insect Borne Diseases, Directorate of Health Services, Government of West Bengal, Calcutta.

The National Malaria Control Programme¹ in the district was first set up in 1953 for control of malaria by spraying of insecticides. The N.M.C.P. was replaced by the National Malaria Eradication Programme in 1958 with four Malaria Eradication Units: (1) 24-Parganas (Sadar), (2) Barasat, (3) Basirhat and (4) Diamond Harbour. One more hypo-endemic unit was established in 1950-60 with headquarters at Barakpur. Thus the total number of Malaria Eradication Units functioning in the district rose to five covering the entire district.

(1) NMEP Unit—24-Parganas (Sadar) comprises the entire civil jurisdiction of Alipur Subdivision excluding the urban areas of Behala and Metiabruz covering an area of 1,483.23 sq. miles inhabited by 20,82,625 people. During the period from 1958 to 1962, indoor residual spraying of all roofed structures with insecticides was carried out to interrupt transmission of the disease. In the beginning of 1962 active surveillance through fortnightly domiciliary visits was commenced to find out the residual foci of malaria and to liquidate them by radically treating with special group of anti-malarial drug. Progress of NMEP activities was assessed from time to time by the Independent Appraisal Team constituted by the Government of India and transition one phase to another was entirely dependent on their recommendations. The progress since 1958 is shown hereunder:

Unit areas under

Year	Attack phase	Consolidation phase	Maintenance phase	Total
1958-62	1.00	—	—	1.00
1963	—	1.00	—	1.00
1966	—	0.04	0.06	1.00
1972	—	—	1.00	1.00

Surveillance Data—Data in respect of fever cases detection and Examination of fever blood smear are given below:

¹ Source: Government of West Bengal, Directorate of Health Services, Insect Borne Diseases, Calcutta.

Year	No. of blood smears collected and examined	No. of malaria cases detected
1966	1,01,709	0
1967	51,529	65
1968	46,191	181
1969	24,216	2
1970	14,781	0
1971	17,494	7
1972	17,685	2
1973	25,464	0
1974	32,129	48
1975	44,057	133

(2) NMEP Unit—Barasat comprises the civil jurisdiction of Barasat and Bangaon Subdivisions and a small part of Dam Dam thana of the Barakpur Subdivision covering an area of 703.8 sq. miles and inhabited by 13,95,753 people. During the period from 1958 to 1962, indoor spraying of all roofed structures was carried out to cut down transmission of malaria. In the beginning of 1962, surveillance operation was implemented to detect residual cases of malaria through regular fortnightly domiciliary house visits and to liquidate those foci by radical treatment with anti-malarial drugs. Spraying operation was continued in the thanas bordering Bangladesh till 1965. Progress of the NMEP activities was similarly assessed by the Independent Appraisal Team and transition of the unit areas from one phase to another was made on their recommendations. The progress since 1958 is shown hereunder:

Unit areas under

Year	Attack phase	Consolidation phase	Maintenance phase	Total
1958-62	1.00	—	—	1.00
1963	0.29	0.71	—	1.00
1966	—	0.37	0.63	1.00
1972	—	—	1.00	1.00

Surveillance Data—Data in respect of fever cases detection and examination of fever blood smear are given below:

Year	No. of blood smears collected and examined	No. of malaria cases detected
1966	51,557	0
1967	48,814	3
1968	34,630	83
1969	38,126	23
1970	42,378	2
1971	19,973	7
1972	33,489	3
1973	41,112	5
1974	48,106	19
1975	64,247	38

(3) NMEP Unit—Basirhat comprises the Basirhat Subdivision covering an area of 1,414.9 sq. miles and inhabited by 12,02,278 people. During the period from 1958 to 1962, spraying operation with residual insecticides was carried out throughout the entire unit areas. In 1962, active case detection through fortnightly house visits commenced in only Haroa P.S. Spraying operation was, however, continued in the thanas on the international border with Bangladesh till 1965. Active surveillance started in these in 1965. Progress of NMEP activities was from time to time assessed by the Independent Appraisal Team. The progress, since 1958, is shown hereunder:

Unit areas under

Year	Attack phase	Consolidation phase	Maintenance phase	Total
1958-62	1.00	—	—	1.00
1963	0.86	0.14	—	1.00
1964	—	0.86	0.14	1.00
1972	—	—	1.00	1.00

Surveillance Data—Data in respect of fever cases detection and examination of fever blood smear are given below:

Year	No. of blood smears collected and examined	No. of malaria cases detected
1966	1,30,358	232
1967	1,20,944	191
1968	1,01,963	89
1969	85,810	1
1970	81,417	2
1971	91,118	1
1972	69,921	9
1973	72,517	4
1974	24,191	8
1975	52,937	21

(4) NMEP Unit—Diamond Harbour comprises the civil jurisdiction of Diamond Harbour Subdivision covering an area of 1,792.4 sq. miles and inhabited by 15,05,286 people. During the period from 1958 to 1962, indoor spraying of residual insecticides was carried out in the dosage of 1 gm/m² during the transmission period of malaria to interrupt transmission of the disease. Active surveillance operation was instituted in the year 1962 to find out the residual cases of malaria and to liquidate those foci by radical treatment with anti-malarial drugs. Transition from one phase to another was done on recommendation of the Independent Appraisal Team constituted by the Government of India for the purpose. The progress of NMEP activities, since 1958, is shown hereunder:

Unit areas under

Year	Attack phase	Consolidation phase	Maintenance phase	Total
1958-62	1.00	—	—	1.00
1963	—	1.00	—	1.00
1965	—	—	1.00	1.00

Surveillance Data—Data in respect of fever cases detection and examination of fever blood smear are given below:

Year	No. of blood smears collected and examined	No. of malaria cases detected
1966	52,126	0
1967	44,483	1
1968	46,134	1
1969	45,487	0
1970	42,316	29
1971	45,778	406
1972	77,950	546
1973	41,644	141
1974	69,767	163
1975	41,772	336

(5) NMEP Unit—Barakpur comprises of the entire Barakpur Subdivision except a small portion of Dam Dam P.S. which is under Barasat Unit and covering an area of 113.7 sq.miles and inhabited by 9,09,003 people. Indoor spraying with residual insecticide in dosage of 1 gm./m² (one round only) was carried out since inception of the unit in the year 1959-60 till 1963. Active surveillance was instituted in the year 1962. Progress of NMEP activities which was from time to time assessed by the Independent Appraisal Team is given hereunder:

Unit areas under				
Year	Attack phase	Consolidation phase	Maintenance phase	Total
1960-62	1.00	—	—	1.00
1963	—	1.00	—	1.00
1965	—	—	1.00	1.00

Surveillance Data—Data in respect of fever cases detection and examination of fever blood smear are given below:

Year	No. of blood smears collected and examined	No. of malaria cases detected
1966	35,247	3
1967	33,997	1
1968	39,652	8
1969	29,634	4
1970	19,768	5
1971	20,000	0
1972	23,322	10
1973	17,388	7
1974	25,201	7
1975	34,229	48

According to Hunter, Cholera was the prevailing endemic Cholera disease of the district and it was an annual feature of the district in the early years of this century. In 1907, 14,500 deaths were caused by the disease, leading to a death rate of 7 per mille of population.¹ The following figures would reveal the decreasing rate of deaths from the disease over a 20-year period from 1955 to 1975 owing to greater number of inoculations and use of disinfectants as a public health measure throughout the district.

QUINQUENNIAL TABLE OF DEATHS FROM CHOLERA
IN 24-PARGANAS DISTRICT: 1955-75

Year	Total deaths	Rate of death (per 1,000 of population)
1955 ²	847	.18
1960 ²	586	.09
1965 ²	89	.01
1970 ²	109	.02
1975 ²	139	.02

The rural character of the disease will be clear from the table³ below.

¹ L.S.S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914, p. 89.

² Source: Director, State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

³ Source: District Health Officer, 24-Parganas.

DEATHS FROM CHOLERA IN RURAL AND URBAN
AREAS OF 24-PARGANAS DISTRICT: 1971-75

Year	Deaths	
	Rural	Urban
1971	1,720	103
1972	41	—
1973	279	79
1974	198	36
1975	99	40

During Hunter's time, small-pox occurred on a small scale in every succeeding spring having touched a peak in 1866 of which no statistics were available. "The highest mortality rate" as per O'Malley, "due to it of late years was returned in 1909, when the total number of deaths was only 2,000".¹ Small-pox, a virus-borne disease, prevailed all over the district visiting it sometimes in an epidemic form. The disease remained endemic during 1966 to 1969. In 1971 approximately 75 lakhs people crossed into the State from East Pakistan (now Bangladesh) and small-pox cases began to increase in and around Calcutta, C.M.I.O. Area, 24-Parganas, Haora, Hugli, Bardhaman and Medinipur. The incidence rapidly declined to 111 and 2 in 1974 and 1975 respectively having touched a peak of 2,257 deaths in 1973. From 13 May 1975 the district was declared free from small-pox. It is evident from the following quinquennial table that the incidence rapidly declined owing to greater number of vaccinations, etc. throughout the district.

QUINQUENNIAL TABLE OF DEATHS FROM SMALL-POX
IN 24-PARGANAS DISTRICT: 1955-75

Year	Rate of death	
	Total deaths	(per 1,000 of population)
1955 ²	104	.02
1960 ²	395	.06
1965 ²	37	*
1970 ²	21	*
1975 ²	2	*

¹ L.S.S. O'Malley—*Loc. cit.*

² Source: Director, State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

* Indicates negligible rates.

The rural-urban break-up of the death figure¹ for the period from 1972 to 1975 is as below:

Year	Deaths	
	Rural	Urban
1972	945	25
1973	2,052	205
1974	103	8
1975	2	—

Tuberculosis continues to be a major public health problem in West Bengal and the district of 24-Parganas has been quite susceptible to it. For the prevention and control of tuberculosis various measures have been adopted by both the private and the public sectors of the district. In 1969 there were 842 beds in 13 T.B. clinics of the district. Of these 13 clinics 6 were managed by Government and 7 by voluntary organizations. At the end of 1975 the number of Government clinics has been raised to 9. Besides these clinics, the Government T.B. Hospital (Ayurvedic) at Patipukur, K. S. Roy T.B. Hospital at Jadabpur and the Boral T.B. Hospital run with a bed strength of 94, 745 and 200 respectively. One mobile unit for the treatment of the disease is also functioning.

The urban and rural distribution of tuberculosis of different types is shown in the table below:

DEATHS FROM TUBERCULOSIS IN RURAL AND URBAN AREAS OF
24-PARGANAS DISTRICT: 1965-71

		1965 ^a	1966 ^a	1967 ^a	1968 ^a	1969 ^a	1970 ^b	1971 ^b
		Rural	Urban	Rural	Urban	Rural	Urban	Rural
Pulmonary T.B. without mention of occupational diseases of lung		112	107	76	88	107	375	357
		68	57	74	87	127	327	297
T.B. of respiratory system other than pulmonary without mention of occupational diseases of lung		323	355	309	469	344	—	—
		123	207	178	190	190	5	4
T.B. of meninges and central nervous system		—	—	1	1	1	—	1
		3	3	2	2	39	4	5
T.B. of bones and joints, active or unspecified		1	—	—	—	—	—	—
		—	2	—	—	2	—	4
Tuberculosis, other forms		—	—	2	1	2	—	—
		2	1	2	5	7	5	1

¹ Source: District Health Officer, 24-Parganas.

^a Source: Directorate of Health Services, Government of West Bengal—*Annual Report on Vital Statistics, West Bengal, 1965, 1966, 1967, 1968 and 1969.*

^b Source: Director, State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

The B.C.G. vaccination team work directly under the Assistant C.M.O.H. of the district headquarters, who is helped by a Medical Officer. During the period 1965-74, the activities the B.C.G. team were as follows.¹

B.C.G. VACCINATION IN 24-PARGANAS DISTRICT: 1965-74

Year	Tuberculin tests done	B.C.G. Vaccination done
1965	72,332	24,652
1966	92,913	30,781
1967	1,02,848	35,331
1968	60,847	23,806
		D.V. 9,769
1969	400	60
		D.V. 53,995
1970	452	104
		D.V. 55,746
1971		D.V. 59,852
1972		D.V. 70,171
1973		D.V. 76,421
1974		D.V. 52,412

(DV=Direct Vaccination)

Leprosy Control Programme was started in the district in November 1964. There are three supervisory units in Khardah police station, Naihati police station and Metiabruz police station and under each supervisory unit there are five subsidiary units. The working of the scheme for a few years is shown in the table² on page 529.

¹ Source: Assistant Director of Health Services (Tuberculosis), Government of West Bengal, Calcutta.

² Government of West Bengal, Office of the Chief Medical Officer of Health, 24-Parganas—*Health in Progress. 24-Parganas, 1975.*

PROGRESS OF LEPROSY CONTROL PROGRAMME DURING 1970-1975 (SEPTEMBER)

Year	Project population surveyed	No. of persons examined	Cases detected				Cases registered for treatment			
			L	N	N & L	Total	L	N	N & L	Total
1970	16,608	12,921	35	391	1	427	202	2,271	24	2,497
1971	2,021*	1,680	27	327	1	355	227	2,521	22	2,770
1972	5,053*	4,801	36	304	2	342	251	1,742	27	2,520
1973	6,741*	7,983	40	277	4	321	231	2,578	26	2,835
1974	3,130*	9,020	29	310	0	339	260	2,765	23	3,048
1975 (Sept.)	1,337	3,317	16	229	1	246	273	2,985	24	3,282

In 1947 there were 40 Government hospitals in the district including the hospitals in the subdivisional towns, Auxiliary Government hospitals, State Special (excluding jail hospitals) and railway hospitals.

In December 1975, there were 137 Government institutions with 2,958 beds. Of these 137 Government institutions, the number of Primary Health Centres were 40 with 803 beds and those of Subsidiary Health Centres 75 with 251 beds and the remaining 22 hospitals included 3 State hospitals with 158 beds, 1 District hospital with 600 beds, 5 subdivisional hospitals with 618 beds, 7 State Special hospitals with 484 beds, 5 Auxiliary Government hospitals with 40 beds and 1 Relief Camp hospital with 4 beds. Besides these institutions, 66 State-managed clinics and 3 State-managed dispensaries are also functioning in the district. The urban sector is enjoying more medical facilities than its rural counterpart. The number of hospital beds available for the rural and urban areas is 1,098 and 1,860 respectively, and each hospital bed serves for 4,989 persons in the rural and 1,596 persons in the urban sector.

Since Independence, there has been more or less a steady increase in the number of hospital beds as would appear from the following table.¹

(*Population for 1971 to 1974 includes "Survey & Absentees Survey").

¹ Source: Director, State Bureau of Health Intelligence, Directorate of Health Services, Government of West Bengal, Calcutta.

TOTAL NO. OF HOSPITAL BEDS IN 24-PARGANAS DISTRICT:
1955-75

Year	No. of beds
1955	1,794
1960	2,007
1965	2,556
1970	2,671
1975	4,727 (P)

(P)=Provisional

Subdivision-wise distribution of Health Centres with beds in 1975 is shown below.¹

HEALTH CENTRES

Subdivision	Primary		Subsidiary		Total	
	Number	Beds	Number	Beds	Number	Beds
Sadar	10	190	19	44	29	234
Diamond Harbour	12	233	12	31	24	264
Barakpur	1	10	2	8	3	18
Barasat	7	140	15	74	22	214
Basirhat	8	250	18	64	26	269
Bangaon	2	25	9	30	11	55
Total	40	803	75	251	115	1,054

The number of Family Welfare Planning Centres, C.M.D.A. OPD clinics, Maternity and Child Welfare Centres and Mobile Medical Units functioning in the district (December 1975) was 59, 20, 68 and 14 respectively.

The following table shows the quantum of medical services rendered to patients during 1972-74.

¹ Government of West Bengal, Office of the Chief Medical Officer of Health, *Health in Progress, 24-Parganas, 1975.*

NO. OF PATIENTS TREATED IN MEDICAL INSTITUTIONS
IN 24-PARGANAS DISTRICT DURING : 1972-74*

Year	Indoor	New	Out-door	Percentage of
			New & Old	Units submitt- ing returns
1972	56,823	9,53,047	19,24,928	27.6
1973	1,29,455	23,47,494	51,17,231	71.9
1974	1,51,959	24,54,989	53,82,389	77.5

The Health Survey and Development Committee (Sir Joseph Bhore Committee) in their report (1946) recommended that there should be a Primary Health Centre with 75 beds for every 20,000 people; but that in view of the insufficiency of funds and trained personnel, during the first ten years, a Primary Health Centre should cover 40,000 people and should have only 2 beds for maternity and 2 for emergency cases. The Government of West Bengal in modifying these recommendations in 1948 started setting up rural hospitals known as Health Centres. The idea was to have at least one Health Centre in every Union Board (now roughly an Anchal Panchayat) having 10 in-door beds. The Union Health Centres within each police station were to be affiliated to the Thana Health Centre having at least a minimum of 20 beds and a maximum of 50 beds. All the Health Centres in a subdivision were to be affiliated to the subdivisional hospital having 68 in-door beds.

The conditions for opening a Union Health Centre were that the local people should donate 6 bighas of land together with some amount of cash contribution. For the establishment of a Thana Health Centre 20 bighas of land and some cash were required to be donated. The scheme continued till 1955 when, at the instance of the Government of India, it was decided to open a Primary Health Centre with 10 beds at the headquarters of every Community Development Block, with 2 or 3 Subsidiary Health Centres at suitable places in each block area. These Subsidiary Health Centres were to be in the nature of dispensaries only, as there was to be no provision for in-door beds except for 2 emergency beds. The

*Note: Figures are inexhaustive—based on returns received. It is evident that number of returns received from the peripheral units is very poor for the year 1972. In the year 1974, maximum number of returns were received. But a gradual increase in percentage of returns is encouraging.—Government of West Bengal, Office of the Chief Medical Officer of Health—*Health in Progress, 24-Parganas, 1975.*

district, therefore, contains both the types of Health Centres. A list of the Primary Health Centres and the Subsidiary Health Centres appears in the Appendix.

M. R. Bangur
District Hospital

Originally it was a dispensary which was opened in 1875 and supported entirely by an endowment (Prince Ghulam Muhammad's Fund), in the hands of the Collector of the 24-Parganas. The original gift amounted to Rs. 1,50,000, out of which Rs. 25,000 was paid for the house and grounds. It was then managed by a committee, consisting of the Judge, Magistrate, Civil Surgeon, District Engineer and Treasury Officer of the 24-Parganas, *ex-officio*, a representative of the original donor's family and two members of the Calcutta Corporation, appointed on account of their grant to the Chetla dispensary, which was managed by the same committee.¹

The present District Hospital² was opened at its site under the name of Mugneeram Ramcoowar Bangur Hospital as per G.O. No. Medl/4579/CF/HR/1T-14-52 dated 1-8-1953. It has a bed-strength of 600, of which 520 are free beds, 64 are paying beds and 16 are cabins. It is provided with in-door and outdoor departments, separate surgical departments for male and female, separate medical departments for male and female, Obstetrics & Gynaecology department, and departments for E.N.T., Eye, Chest, Skin, Dental. Pathology, X-Ray, Bio-chemistry, Family Planning and E.C.G. The hospital is manned by 1 Superintendent, 1 Secretary, 26 Medical Officers (Specialists) including Honorary Visiting Surgeons and Gynaecologists, 2 M.Os. with special training, 8 General Duty M.Os., 1 Family Planning M.O., 4 other than M.B.B.S. qualification, 1 Dental Surgeon, 106 fully qualified Nurses, 3 Assistant Midwives, 2 untrained Nurses, 1 Public Health Nurse, 2 Home visitors (T.H.V.), 14 Pharmacists, 7 Laboratory Assistants, 5 X-Ray Technicians, 2 Physiotherapists, 1 Accounts Officer, 1 Registrar and 366 non-medical staff. A Nursing Training School for ANM-course has been started with hostel accommodation since 1975. The hospital is maintained by the State Government. The total recurring and non-recurring expenditure for 1973-74, 1974-75 and 1975-76 were Rs. 68,09,459, Rs. 32,47,612 and Rs. 90,67,318 respectively. The total number of patients treated in and admitted to the hospital in outdoor and indoor departments from 1966 to 1975 is given below with the number of deaths.

¹ L. S. S. O'Malley—*Bengal District Gazetteers, 24-Parganas*, Calcutta, 1914. p. 104.

² Source: Superintendent, M. R. Bangur Hospital, Tollygunge, Calcutta-33.

Year	Out-door	Indoor	Death
1966	3,01,621	16,014	1,382
1967	4,01,001	16,979	1,203
1968	4,11,197	17,717	1,289
1969	3,89,303	18,111	1,261
1970	3,74,608	17,910	1,403
1971	3,58,863	16,406	1,126
1972	4,32,558	18,663	1,487
1973	4,16,725	20,039	1,673
1974	3,94,419	18,662	1,851
1975	4,95,725	20,184	1,686

At first, it was a charitable dispensary named after Dr. Bhola Nath Bose, late Civil Medical Officer of Faridpur, who died in 1883. His property was put in trust with Government after the death of his widow in 1888 for founding the dispensary which was opened in 1895. In 1895, the management of the hospital was placed under a committee composed of the Chairman of the District Board (as President), the Cantonment Magistrate, the Civil Surgeon of Barakpur, and the Chairman of North and South Barakpur Municipalities. The Chairman of the Titagarh Municipality was subsequently appointed a member of the committee. The buildings were erected by Government in 1894-95 at an estimated cost of Rs. 24,358 and were taken over by the District Board in 1895. The hospital was taken over by the Government of West Bengal on 14 July 1955. At present, there are 136 free beds in the hospital. The total number of patients treated in and admitted to the hospital in out-door and indoor departments, and number of deaths from 1966 to 1975 is shown below.

B. N. Bose
Subdivisional
Hospital,
Barakpur

Year	O.P.D.	Indoor	Death
1966	2,05,190	14,404	210
1967	1,17,975	15,446	92
1968	1,29,838	14,072	126
1969	1,42,366	4,309	285
1970	2,05,987	18,505	211
1971	1,60,886	5,183	277
1972	1,60,886	19,286	102
1973	1,95,386	5,538	99
1974	2,15,202	10,220	232
1975	2,27,705	11,562	425

The hospital has different departments, namely, Eye, E.N.T., Dental, Chest, Gynaecology, X-Ray, Family Planning, Venereal Disease, Medical, Emergency and O.P.D. and manned by medical officers, nursing staff and other non-medical staff. The total recurring and non-recurring expenditures in 1973-74, 1974-75, and 1975-76 were Rs. 4,41,304, Rs. 7,52,062 and Rs. 8,75,645 respectively.¹

Subdivisional
Hospital,
Basirhat

The Subdivisional Hospital, Basirhat was opened in 1867 and maintained by the Basirhat Municipality with a subvention of Rs. 10 per month from the District Board.² The old buildings of the hospital were later donated by the Basirhat Municipality, Dalals and Ballavas—zamindars of Basirhat and Dhanyakuria, 24-Parganas, respectively. For want of sufficient space the 68-bed indoor department of the hospital was shifted to its new buildings at Dhalhita in 1965. The old buildings are running with outdoor only. Both the old and new buildings are situated on the southern side of the Ichamati river and on the Barasat-Itinda road, and at a distance of 2 kilometres from each other. It was upgraded with 100 beds and 200 beds in the year 1970 and 1975 respectively. The hospital is provided with 156 free beds and 44 paying beds only. The institution is running with different departments as (A) Chest Clinic, V. D. Clinic, F. P. Clinic, Dental Clinic; (B) Surgical O.P.D., Medical O.P.D., Maternity, Anti-Natal, Gynaecology O.P.D.; (C) Emergency, Radiology, Pathology. It is manned by 12 medical officers, 41 nursing staff and 138 non-medical staff. The expenditure is borne entirely by the State Government.

Subdivisional
Hospital,
Barasat

As a dispensary it was opened in 1854. It was formerly maintained by the Barasat Municipality and was named as Barasat Cottage Hospital opened by E. W. Collin, the then Commissioner of Presidency Division, on 17 December 1908, located at the heart of the town close to the Police Station and Sub-Jail with no accommodation for indoor patients. Beds were opened on the 1st February 1930. It was shifted to the new Hospital building at Banamalipur village off Champadali crossing by the side of the Barasat-Bangaon Highway in 1961. At present, the hospital has 188 free beds (86 for male and 102 for female patients) and 18 paying beds (11 for male and 7 for female patients) only. Different

¹ Source: Subdivisional Medical Officer & Superintendent, B. N. Bose Subdivisional Hospital, Barakpur.

² Source: Subdivisional Medical Officer & Superintendent, Bashirhat Subdivisional Hospital, Bashirhat.

departments of the hospital are Surgical, Medical, Gynaecological, Eye, E.N.T., Dental, Pathology, Family Planning, V. D. Clinic, Chest Clinic, Radiology and Emergency. The out-door patient and V. D. departments are running in the old hospital building in the centre of the town. Emergency department is maintained in the new hospital building. There are 23 doctors including the Subdivisional Medical Officer working in this institution. The hospital is maintained by the State Government. The total number of patients treated in and admitted to the hospital in out-door and indoor departments from 1966 to 1975 is given below year-wise with corresponding number of deaths.

Year	Out-door*	Indoor	Death
1966	1,15,310	3,733	126
1967	1,20,720	3,842	324
1968	1,18,912	3,895	291
1969	1,22,402	3,975	331
1970	1,30,512	4,042	391
1971	1,45,302	6,005	742
1972	1,23,697	5,625	447
1973	1,17,469	5,701	335
1974	1,26,911	9,115	570
1975	1,32,057	9,274	692

Bangaon Subdivisional Hospital was formed after independence with only 12 beds and A. G. Hospital consisting of 58 beds was also established during the said period. Subsequently it was developed with 58 beds and shifted to the newly constructed building on a land of 9 acres named Nizam Bag by the side of Chakdah-Bangaon Road, and was opened on 28 February 1957. At present, it has 250 beds, of which 200 are free beds, 42 are paying beds and 8 are cabins. The institution is provided with indoor hospital, O.P.D. hospital consisting of Medical and Surgical O.P.D., Obstetrics and Gynaecological Department, Eye O.P.D., E.N.T. O.P.D., Dental O.P.D., Chest Clinic, V.D.T.C., F.P. Department, X-Ray Department and Laboratory Department. The number of patients treated in and admitted to the hospital in out-door and indoor departments from 1966 to 1975 is shown overleaf.

Dr. Jiban Ratan
Dhar Subdivi-
sional Hospital,
Bangaon

* Out-door patients include the patients of O.P.D. Hatkhola old hospital.

	1966-67	1967-68	1968-69	1969-70	1970-71	1971-72	1972-73	1973-74	1974-75
Out-door	84,240	86,986	90,860	98,856	1,01,300	1,02,704	1,37,640	1,39,869	1,44,521
Indoor	49,870	51,702	58,260	62,563	65,640	68,320	70,980	75,360	82,429

The number of deaths in hospital is 699, 780, 812, 847, 1,912, 914, 846, 936 and 1,018 in 1967, 1968, 1969, 1970, 1971, 1972, 1973 1974 and 1975 respectively. The S.D.M.O.-cum-Superintendent has a number of medical officers under him.¹

Subdivisional
Hospital, Dia-
mond Harbour

The Diamond Harbour Subdivisional Hospital started functioning from May 1972. The hospital has 125 beds, of which 100 are free beds, 21 are paying beds and 4 are cabins. It is provided with different departments like Surgical, Ophthalmology, Dental, E.N.T., Chest Clinic, Pathology, Radiology and Family Planning. The number of patients treated in the out-door and indoor departments and the corresponding number of deaths since its inception is as below:

Year	Out-door	Indoor	Death
1972	47,554	6,264	173
1973	61,897	7,414	213
1974	68,252	9,568	286
1975	71,476	8,425	273

The institution is manned by 13 medical officers (including 7 specialists), 30 nursing staff and 118 other staff.²

Sagar Dutta
Hospital,
Kamarhati (State
Hospital)

Sagar Dutta Hospital was opened in 1899 and maintained by endowments left by Babu Sagar Dutta, who left by will the following: (1) a garden with an area of 110 bighas; (2) one lakh of Rupees for building; and (3) property producing about Rs. 25,000 a year for the maintenance of a hospital and school, the former having the prior claim.

There are 106 free beds in this State Hospital at present. Total number of patients treated in and admitted to the hospital in

¹ Source: Subdivisional Medical Officer, Dr. Jiban Ratan Dhar Sub-divisional Hospital, Bangoan.

² Source: Subdivisional Medical Officer & Superintendent, Diamond Harbour Subdivisional Hospital, Diamond Harbour.

out-door and indoor departments, and the number of deaths during recent years is shown below.

Year	O.P.D.	Indoor	Death
1966	N.S.	6,145	Not known
1967	19,053	4,163	—
1968	19,985	5,262	—
1969	18,679	4,273	—
1970	14,017	4,987	—
1971	10,213	4,871	—
1972	10,569	5,791	—
1973	10,896	5,333	253
1974	10,753	5,095	291
1975	10,698	5,716	257

Its departments of Medicine, Surgery, Gynaecology and Obstetrics are manned by 10 doctors, 19 nursing staff and 88 other staff. For diet of patients the State Government expended Rs. 45,665, Rs. 54,586 and Rs. 68,706 in 1973, 1974 and 1975 respectively.¹

Panihati State General Hospital was opened on 10 August 1975, with 100 indoor beds and arrangement for out-door service at an estimated cost of Rs. 22,78,222 only on a piece of land measuring 3.75 acres within Panihati Municipality donated by Sri J. C. Majumder, Director of M/S Power Equipments Pvt. Ltd. Shri Majumder donated a further piece of 0.77 acre of contiguous land. The State R. R. Department also donated adjacent piece of land. At present, the hospital is provided with 75 free beds only, though there is a provision for 20 paying beds and 5 cabins. The institution consists of various departments, namely, Maternity and Gynaecology, Surgical, Medical, Operation Theatre, Family Planning, Emergency, etc. The Superintendent is in charge of the hospital, who has 9 medical officers, 1 lady M.O. (F.P.), 1 part-time M.O., 18 nursing staff, 3 pharmacists, 1 X-Ray assistant, 1 laboratory assistant and 66 other staff under him. The expenditure is borne entirely by the State Government. At present, some of the patients pay for X-Ray of different parts of the body. Only one ambulance is provided. Recently, chest out-door-cum-domiciliary centre is sanctioned for this hospital. One family planning centre is also functioning here and taking active part in sterilisation.²

Panihati State
General Hospital

¹ Source: Superintendent, Sagar Dutta Hospital, Kamarhati, Calcutta-58.

² Source: Superintendent, Panihati State General Hospital, Sodepur.

Bhatpara State General Hospital

The Bhatpara State General Hospital has been started by the Government of West Bengal on 10 October 1975 on a land measuring 19.16 acres within Mouza Sudia and in between Shyamnagar and Kankinara Railway stations. The present bed strength is 68, of which 53 are free beds, 11 are paying beds and 4 are cabins. The hospital O.P.D. has been started on 10 February 1976. The institution has different departments like O.P.D., Surgical, Medical and Gynaecology. Other functioning departments are Family Planning, V.D. Clinic, Leprosy and Chest Clinic. At present, the hospital runs with 4 medical officers, 8 nurses, 1 X-Ray assistant, 1 laboratory assistant and 43 other staff, the superintendent being the head of the institution.¹

Sibani Arogya Niketan, Kanchrapara

Sibani Arogya Niketan, a State Hospital, was established in the year 1952 by the Kanchrapara Municipality near Kanchrapara Railway station and just by the side of the Municipal Office. It stands on a piece of land measuring about 1 acre. It has 8 free beds only. The indoor consists of maternity beds only and the out-door consists of departments like General, Obstetrics and Gynaecology, Vaccination Clinic, etc. 1 medical officer, 1 pharmacist, 1 lady health visitor, 3 nurses, 1 midwife, 1 trained dai and 8 non-medical staff are working in this hospital. The number of patients treated from 1966 to 1975 and the number of deaths were as given in the following table.

Year	Indoor	Out-door	Death
1966	1,535	69,400	
1967	1,261	76,626	
1968	1,165	86,249	
1969	1,347	1,20,804	3
1970	1,297	1,03,405	
1971	1,547	1,06,963	
1972	1,456	1,01,930	
1973	1,300	99,155	
1974	1,131	85,560	
1975	1,160	77,356	

Kamarhati E.S.I. Hospital

With the introduction of E.S.I.* Medical Benefit Scheme, E.S.I. Corporation and the Labour Department of the Government of West Bengal felt the urgency of establishing this hospital on Graham

¹ Source: Superintendent, Bhatpara State General Hospital, Jagaddal.
* E.S.I.=Employees' State Insurance.

Road, Kamarhati with a view to rendering medical help to the workers of the neighbouring industrial belt in the year 1964.

This hospital has 176 free beds only. The total number of patients treated and admitted in the hospital from 1966 to 1975 is given below year-wise with corresponding number of deaths.

Year	Patients admitted and treated in indoor	No. of deaths
1966	2,948	81
1967	2,972	107
1968	4,083	84
1969	4,376	111
1970	—	—
1971	3,633	85
1972	4,166	97
1973	4,655	120
1974	3,866	144
1975	4,096	116

This hospital has the following departments at present: Emergency, Surgical indoor, Medical indoor, Female ward including Obstetrics and Gynaecological beds, Pathology, Radiology, Family Welfare Planning Centre, different Specialist clinic including Medical, Surgical, Chest, Eye, E.N.T., Dermatology and Gynae. The Superintendent is in overall charge of the hospital and is helped by 14 medical officers, 41 nurses and matron, 2 X-Ray assistants, 4 pharmacists, 6 laboratory assistants.¹

A list of charitable dispensaries in the district appears in the Appendix. They were formerly maintained by the District or the Union Boards and now by the Zilla Parishad.

Charitable Dispensaries

¹ Source: Superintendent, E.S.I. Hospital, Kamarhati, Calcutta-58.

**Medical
Administration**

The Chief Medical Officer of Health heads the medical administration of the district. On the medical and curative side he is assisted by the District Medical Officer and on the preventive side by the District Health Officer, a Subdivisional Medical Officer looking after each of the Subdivisional hospitals in curative side, and a Subdivisional Health Officer looking after preventive side within the area of his subdivision. There are medical officers in charge of auxiliary government and relief camp hospitals as also health centres. Two Assistant C.M.O.Hs. supervise issue of drug licences and other supervisory work assigned by C.M.O.H. and three staff officers. There are also the medical officers for school health, the assistant district health officer for the national malaria eradication programme, the district family planning officers (two) for family planning, the district T.B. officer for B.C.G. campaign and to look after the work of T.B. in consultation with the C.M.O.H. and others. The subdivisions are divided into 39 public health circles supervised by sanitary inspectors, while the mobile medical units are looked after by medical officers.

**PRIVATE
HOSPITALS AND
NURSING HOMES**

A list of private hospitals, dispensaries, clinics and nursing homes of the district appears in the Appendix.

**Sarkarpool
Institute of
Mental Health
(Hospital for
Neurotics &
Borderline cases)**

The Sarkarpool Institute of Mental Health was established in 1960. The founder, Dr. Aich Sarkar, donated the present site of the hospital building at Sarkarpool in 1963 and started the 50-bed mental hospital in 1965, when his wife Mrs. Prabha Sarkar donated Rs. 22,000. The out patient department of the hospital was opened in 1966. In 1967, the indoor hospital was started with 20 beds and the Government of West Bengal gave a construction grant of Rs. 20,000. At present the hospital has an area of six bighas of land, 150 beds with all modern treatment facilities and well equipped O.P.D. The total contribution of the Government towards the construction came to Rs. 50,000.

In therapeutic side 8 whole time psychiatrists and psychotherapists (including 5 residentials) and 12 trained nurses and medical attendants along with 26 warders are managing the indoor section, apart from adequate kitchen, and security and office staff.

Out of 150 beds, 30 beds are reserved by the Government of West Bengal, 20 are free beds managed by the Society with the aid of donors or otherwise, 90 are ordinary and concessional beds and 10 beds are accommodated in cabins, as special cases. Number of

patients treated during between 1966-67 and 1975-76, both indoor and out-door, are given below.

Year	Indoor	Out-door
1966-67	137	2,071
1967-68	206	3,185
1968-69	305	4,013
1969-70	461	4,968
1970-71	576	6,021
1971-72	631	7,209
1972-73	718	7,197
1973-74	726	7,421
1974-75	738	7,621
1975-76	798	7,762

The sources of income are the treatment charges received from the paying beds, donation from the public and Government grants both State and Central. The following figures are the cost of establishment of the institution for the five years between 1971-72 and 1975-76:

Year	Expenditure	
	Recurring Rs.	Non-Recurring Rs.
1971-72	2,99,928	1,89,835
1972-73	3,42,735	1,57,733
1973-74	4,06,473	87,636
1974-75	4,38,757	54,805
1975-76	4,95,533	53,841

Research work is also conducted here.

In 1914, Sri Paresh Chandra Ghose, son of Dr. Chandra Mohan Ghose, contracted tuberculosis while studying medicine in England. Returning home he came under the treatment of late Dr. Bidhan Chandra Roy, but in spite of Dr. Roy's best efforts and administration of the best medicine available at the time, his life could not be saved and he died in 1918. During this period Dr. Kumud Sankar Ray, then a young promising doctor, had already initiated intensive studies on the incidence and cure of tuberculosis and got his educative and thought-provoking article titled 'Tuberculosis in Calcutta' published in the May, 1917 issue of the then illustrious magazine

Kumud Sankar
Ray Tuberculosis
Hospital,
Jadabpur (Under
Calcutta Medical
Aid & Research
Society)

Modern Review. This article was the main inspiration to young Paresh and he bequeathed by a will before his death all his property in cash and lands to a Board of Trustees for the purpose of founding a tuberculosis hospital for systematic treatment and cure of the victims of this disease which brought about his end. In 1922, the trustees formed a society under the name and style of Calcutta Medical Aid and Research Society with Dr. Sir Nilratan Sarkar as the first President, Dr. Bidhan Chandra Roy, Acharya Prafulla Chandra Roy and late B. K. Ghose as Trustees and Dr. Kumud Sankar Ray as the Honorary Secretary and organiser and Superintendent. After considering various schemes and suggestions, the Trustees set up in 1923 the nucleus of a hospital with 4 beds on a small piece of marshy land at Jadabpur, which form part of the existing Kumud Sankar Ray Tuberculosis Hospital campus. This modest beginning with 4 beds was more an experimental unit than a full-fledged tuberculosis hospital. Due to the prevalent belief of those days that tuberculosis could not be fought and cured except in the climatic conditions of hills, the number of beds were not increased initially for the first few years. The results of the experiment, however, proved that tuberculosis could be treated and cured in the plains and that the old belief was only a myth. In this respect this institution is a pioneer and its activities and performance helped a great deal in rousing public awareness of the findings and paved the way for the establishment of tuberculosis hospitals in plains and in other parts of the country as well. From a small beginning as a 4 bed experimental unit on a small piece of land it has grown to a magnificent hospital complex with an authorised strength of 745 indoor patients apart from an out-door clinic which treats daily a large number of tubercular patients. It is equipped with a modern and efficient surgical department, X-Ray plant outfit, pathological and a research laboratory. It has its own steam-laundry arrangements and a Government of West Bengal Blood Bank unit is also located inside the hospital campus. The hospital covers 62.3 acres of land, housing 35 wards, 15 cottages, Doctors' residential quarters and staff quarters for a large number of Class III and Class IV staff and various administrative and ancillary buildings, within the hospital campus. The hospital has its own water-supply system and a sewerage plant with purification outfit. There is still plenty of open land which allows fresh air and light to all inmates inside the campus. This hospital which was originally named 'Chandra Mohan Ghose Memorial Sanatorium' in 1923 and subsequently, changed to the name of 'Jadabpur Tuberculosis Hospital' was

finally renamed 'Kumud Sankar Ray Tuberculosis Hospital' after the sudden death of Dr. Kumud Sankar Ray on 11 November 1950, who, at the time he breathed his last, was out in Vellore on a mission to study a new method of operation for tuberculous cases. The hospital is a private institution governed and administered by the Calcutta Medical Aid and Research Society along with two other units, namely, Dr. B. C. Roy Institute, Jadabpur and S. B. Dey Sanatorium, Kurseong. In the medical side, 1 Superintendent, 2 Assistant Superintendents, 1 Director of Research Institute, 24 R.M.Os., M.Os. and Pathologist, Biochemist including part-time visiting doctors, 1 matron, 23 staff nurses, 123 T.B. nurses, 19 trainee nurses, 6 laboratory assistants and technicians, 1 X-Ray assistant and radiographer, and 6 pharmacists are managing the hospital, apart from adequate non-medical officers, office staff, general duty attendants, and staff in other trades and in mechanical and electrical department. Out of 745 beds, 620 beds are sponsored by different departments of Government (290 by Health Department, 230 by E.S.I.* and 100 by Relief and Rehabilitation Department), 75 by other organisations like Calcutta Improvement Trust, State Transport and others, 25 paying beds and 25 free-beds. Statistical information of indoor and out-door patients is given below:

The recurring expenditure of the institution was Rs. 31,06,157, Rs. 33,31,390 and Rs. 32,13,312 in 1973, 1974 and 1975 respectively.¹

Year	Indoor			Out-Patients' Departments		
	Admission	Discharge	Treated	Death	New cases	New & old cases combined
1966	736	723	1,433	131	492	5,869
1967	767	780	1,433	91	670	6,772
1968	807	831	1,377	123	659	8,881
1969	882	915	1,528	117	400	9,945
1970	814	807	1,427	99	481	8,202
1971	708	708	1,427	111	509	7,647
1972	814	772	1,469	130	858	8,584
1973	892	908	1,589	129	645	6,079
1974	955	954	1,636	140	645	5,994
1975	1,106	1,788	1,788	186	741	6,686

* E.S.I. = Employees' State Insurance.

¹ Source: Honorary Secretary & Superintendent, Kumud Sankar Ray Tuberculosis Hospital, Calcutta-32.

Kumar P. N. Roy Group of Hospitals and Rehabilitation Centre, Ban-Hugli

The Society of Experimental Medical Sciences, India, under whose auspices the Rehabilitation Centre and Kumar P. N. Roy Group of Hospitals, Calcutta-35, were functioning, embarked upon the project of organising a rehabilitation centre for the crippled/handicapped in 1956. The main objective of this Society for establishing a Hospital for Crippled Children and Rehabilitation Homes for the disableds started taking shape in March 1961 when the Union Ministry of Rehabilitation sanctioned a grant of Rs. 5 lakhs and allotted 2.7 acres of land in Block No. 3 under Ban-Hugli Tenement Scheme (6 miles north of Calcutta). The said hospital and rehabilitation homes of the Society were declared open on 7 February 1963.

A general out-patients' department also started functioning in the same year. D. N. Mukherjee School of Rehabilitation, the educational wing of this centre, started functioning in 1964 and an Ayurvedic Drug Research Unit was also established in 1965.

With the growth of the Institution, the authorities changed its name at first to Ban-Hugli Group of Hospitals and Rehabilitation Centre in 1965 and finally to Kumar P. N. Roy Group of Hospitals and Rehabilitation Centre in 1966. Thus established, the organisation concentrated its activities mainly on restoration programme for crippled/disabled patient. Government of West Bengal (Department of Health) took over the administrative and financial responsibilities of this Institution in 1970. In order to hand over this Institution to the Union Ministry of Social Welfare and Education for establishing a National Centre for rehabilitation of the orthopaedically handicapped, the State Department of Health took over its full control on 16 September 1975. Number of patients treated in and admitted to the hospital in out-door and indoor departments from 1966 to 1975, and the corresponding number of deaths is shown below:

Year	Indoor			Out-door Cases		
	Admission	Discharge	Death	New	Old	Total
1966	1,585	1,551	20	8,961	11,255	20,216
1967	1,343	1,334	26	9,755	13,735	23,490
1968	1,381	1,407	14	11,935	18,129	30,064
1969	1,613	1,575	21	8,910	13,568	22,478
1970	1,794	1,755	26	9,700	12,804	22,504
1971	1,390	1,317	31	8,825	11,460	20,285
1972	1,677	1,634	38	14,653	16,527	31,180
1973	1,453	1,471	21	12,005	12,281	24,286
1974	1,355	1,350	16	9,082	8,779	17,861
1975	1,262	1,320	14	7,662	7,256	14,918

Total number of staff attached to the hospital is 322 which includes 18 medical officers (10 full time, 8 visitnig), 14 paramedical staff, 98 nursing staff, 5 family planning staff (including 1 assistant surgeon-I), 6 supervisory staff, 8 maintenance staff, 27 of administration and Accounts section, 27 of vocational rehabilitation units, 9 of school of rehabilitation and 110 other staff.¹

The institution is located at Mahatma Gandhi Road, Thakurpukur, Calcutta-63 over an area of 19 bighas 11 kathas 2 chattacks and 4 sq. ft. of land, received free of cost from the widow of late Chintaharan Das and her family. It provides (i) shelter of cancer patients for treatment in city hospitals through personnel and transport; Diagnostic Unit for detection and diagnosis. (ii) X-Ray, Cobalt, Chemotherapy, 'advanced patients' unit. (iii) Fully equipped hospital, Research, Rehabilitation and Convalescent Units. It was inaugurated on 14.3.1976. 1 medical officer, 2 visiting medical officers, 8 attached specialists, 2 administrative staff and 11 nursing and class IV staff are working here at present. All the medical and administrative staff are honorary. The Society has plan to make the people conscious about dangers of the disease and to adopt remedial measures, and has already produced a documentary film on cancer.²

Bangiya Unmad Asrama, the first private mental hospital in India, which is run without taking any aid from outside, was established in 1935. It was founded by the renowned Ayurvedic psychiatrist, late Kaviraj Atul Behari Dutta, who was Superintendent of this institution till his death in 1968. The institution is located near Dam Dam Junction railway station. It has 100 beds for both male and female patients in separate buildings. The hospital is recognised by the Government of India for treatment of psychiatric patients under Central Services (Medical Attendance) Rules. Originally established to treat patients according to Indian system of medicine, treatment at this institution is now followed according to both Indian and western systems of medicine which include drug therapy, modified Ect., individual and group psychotherapy, behaviour therapy, occupational therapy and recreational therapy.

1,367 patients were admitted to this hospital from 1966 to 1975 and the average rate of recovery was 75%. The average death-rate

Cancer Centre & Welfare Homes, Thakurpukur

Bangiya Unmad Asrama, Dam Dam

¹ Source: Administrator, Kumar P. N. Roy Group of Hospitals and Rehabilitation Centre, Ban-Hugli, Calcutta-35.
² Source: Founder-Secretary, Cancer Centre & Welfare Home, Mahatma Gandhi Road, Thakurpukur, Calcutta-63.

during this period was 0.37%. The cost of establishment was Rs. 2,78,624 in 1974-75.

Vaidyanath
Unmad Asrama,
Khardah

Vaidyanath Unmad Asrama located at Khardah was started with only 3 beds by late Kaviraj Annadacharan Chakraborty in 1954 on a piece of land measuring about 10 kathas. It is provided with 40 beds at present. As a private institution it treats patients according to Indian system of medicine or Ayurved. The following table shows its recent performances.

Year	Number of patients treated		
	Indoor	Out-door	Death
1966	25	72	3
1967	15	63	—
1968	8	51	—
1969	13	38	—
1970	7	45	1
1971	18	54	—
1972	17	62	1
1973	12	41	—
1974	9	30	1
1975	5	28	—

Boral T.B.
Hospital

The present hospital was constructed with the provision of 100 beds and was opened on 23 September 1965 as a Mayor's T.B. Hospital and Research Centre.

The hospital was built on a plot of 17 bighas of land at Boral at an estimated expenditure of Rs. 8,75,000, contributed by the Corporation of Calcutta to the 'Mayor's Fund' for the purpose. Subsequently, in November 1965, this hospital was handed over to the Corporation of Calcutta as the Corporation T.B. Hospital and Research Centre at Boral, now commonly known as Boral T.B. Hospital.

In the year 1971, an additional 100-bed annexe was started in this hospital with the help of State Government's Grants.

Out of the total 200 beds, at present facilities of 100 Corporation beds and 50 Government beds are available in this hospital. All these 150 beds are free beds.

There is no O.P.D. in this hospital as yet. The year-wise details

for the treatment of the patients in the indoor and deaths are as follows.

Year	Patients admitted	Deaths
1965 (from September)	90	15
1966	165	21
1967	180	25
1968	186	35
1969	150	22
1970	186	30
1971	229	29
1972	278	27
1973	217	16
1974	254	15
1975	296	28
1976 (up to September)	110	3

There is no separate source of income, but annual budget provision of the Corporation of Calcutta to the tune of Rs. 12,44,000 (approx.), being the recurring cost per year.¹

As a centrally sponsored programme, the National Family Planning Programme was implemented in West Bengal from the First Five-Year Plan (1951-56). It was then a clinic-oriented programme. Only conventional contraceptive methods were advocated during that plan period.

PUBLIC HEALTH
WELFARE
ORGANISATIONS
Family Planning

During the Second Five-Year Plan (1956-61), the programme was still clinic-based. Mainly contraceptive methods were advocated.

The programme took a new turn in the middle of the Third Five-Year Plan (1961-66) when the 'clinic approach' was replaced by 'Extension approach'. Achievement of Family Welfare Planning

¹ Source: Superintendent, Boral T.B. Hospital.

Programme¹ in the district of 24-Parganas during the period 1965-66 to 1975-76 is shown below.

Year	Vasectomy	Tubectomy	Total	I.U.D.	C.C. Users
1965-66	—	—	—	20,136	—
1966-67	2,354	644	2,998	10,670	—
1967-68	34,303	1,563	36,294	3,511	—
1968-69	21,157	1,310	22,467	10,094	3,646
1969-70	14,993	1,819	16,812	1,982	7,190
1970-71	10,865	1,369	12,234	1,615	6,519
1971-72	11,945	1,345	13,290	1,636	6,659
1972-73	25,702	1,586	27,288	1,085	9,964
1973-74	1,607	1,666	3,273	1,024	7,598
1974-75	1,642	3,367	5,009	1,365	8,830
1975-76	11,484	5,632	17,116	2,457	23,565

The work of the Family Planning Organization in the district is co-ordinated by a District Family Planning Officer in the headquarters, who is under direct control of the C.M.O.H. The D.F.P.O. is assisted by a number of Extension Educators and other staff under him. The list² of Family Planning Centres in the urban and rural areas of the district appears in the Appendix.

School Health Services

School Health Services Programme has been taken up in this State in 1958, which is catered through the Health Centres in their respective Public Health jurisdiction. Organization and supervision of the School Health Services were mainly done by the Medical Officer, District School Health and Health Education (formerly District School Health Unit) under the direct control of the C.M.O.H. In the rural areas medical officers of health centres work as school medical officers, visit the schools under their respective public health jurisdiction. In the urban areas the work is generally done by the health officers of the Municipalities. The medical officer examines the health of students and detects the number of defective students. Defective students are treated in health centre clinics or are referred to and treated by specialists in the district or subdivisional hospitals. Follow-up of the defective cases at home are undertaken by the public health centres

¹ Source: Demographic & Evaluation Cell, State Family Welfare Planning Bureau, Government of West Bengal, Calcutta.

² Source: C.M.O.H., 24-Parganas, and District Family Planning Officer, 24-Parganas.

during their routine tour. Vaccination and inoculation are also administered by the sanitary inspectors in schools. The following table¹ establishes high incidence of defective health of the students of 24-Parganas during recent years.

SCHOOL HEALTH ACTIVITIES IN THE DISTRICT OF 24-PARGANAS DURING 1970-1975

Year	Total No. of Schools in the area under School Health Programme	Total No. of students in the area under School Health Programme	No. of schools visited	No. of students examined	No. of defective students detected
1970	1,532	2,21,153	614	50,721	11,397
1971	1,816	2,45,337	522	44,411	12,428
1972	1,800	2,59,413	713	55,482	14,495
1973	1,703	2,34,720	555	33,537	9,121
1974	1,904	2,70,523	733	44,801	15,488
1975	1,916	2,71,904	1,179	46,498	12,598

As an adjunct to the public health measures on the preventive side, the Government of West Bengal formulated the Milk Feeding Programme in 1953-54 in collaboration with UNICEF* through which supplemental nutrients was made available for pre-school and non-school children within the age group 0-11 years, pregnant and nursing mothers and school students attending primary schools. In the year of commencement of the programme, the total number of beneficiaries in the district was 1,706 heads only.

In 1963-64, a major structural change in the administration of the programme and composition of beneficiaries was introduced following recommendations of the UNICEF. A separate office with an officer deputed by the General Administration Branch of the Home Department of the Government of West Bengal was created for the purpose of administering the scheme and responsibility of feeding the primary school children under the Education Directorate. In 1962, the number of beneficiaries of all categories including the school children was 1,09,000 heads in the district. Towards the beginning of 1970, the UNICEF decided to withdraw from the programme and withhold further food aids as a matter of policy. The UNICEF skim Milk Feeding Programme was executed both through Government channel (primary health centres and other public maternity and child health centres) and private voluntary organisations.

¹ Source: Government of West Bengal, Directorate of Health Services, School Health and Health Education, West Bengal, Calcutta.

* UNICEF=United Nations International Children's Emergency Fund.

After withdrawal of the UNICEF the Government of West Bengal approached CARE*, a Voluntary Aid Agency of the U.S.A. for necessary assistance to keep the programme going on. After a joint feasibility study by CARE (W.B.) and the Government of West Bengal, a scheme was formulated aiming at pre-school children and pregnant/lactating mothers. The scheme was approved by the Ministry of Education and Social Welfare, Government of India and came to be implemented in 1973-74 in West Bengal. Under the programme, pre-cooked blended cereal food rich in natural vegetable protein and calories is distributed to the beneficiaries through primary/subsidiary health centres, district/subdivisional hospitals and voluntary organizations engaged in social welfare work. In this scheme also the C.M.O.H. is in overall charge and makes arrangements for storage, transport and supervision through his officers. He is assisted by the District Family Planning Officer in supervising the feeding centres. The voluntary organizations run their feeding centres under their own supervision. In the State headquarters there is a Special Officer and six inspectors who supervise all the feeding centres in the State.

The progress and performance of the Milk Feeding Programme in the district since 1964-65 is summarised in the table¹ below.

MILK FEEDING PROGRAMME IN 24-PARGANAS DISTRICT:
1964-76

Year	Collaborator	No. of feeding centres		No. of beneficiaries of		Food stuff distributed
		Government	Voluntary	Government centres	Voluntary centres	
1964-65	UNICEF	37	56	3,700	6,600	Skim-Milk Powder
1965-66	-do-	30	50	3,000	5,900	-do-
1966-67	-do-	35	54	3,500	6,400	-do-
1967-68	-do-	35	54	3,500	6,400	-do-
1968-69	-do-	33	56	3,300	6,600	-do-
1969-70	-do-	33	56	3,300	6,600	-do-
Programme suspended since 1970						
1973-74	CARE	34	119	21,093	28,300	Bulgar wheat, Balahar and Salad Oil
1974-75	-do-	36	120	46,720	29,150	Bulgar wheat, Corn. Soya Blend, Salad Oil and Oat
1975-76	-do-	36	141	1,21,546	33,100	Bulgar wheat, Corn. Soya Blend and Salad Oil

* CARE=Co-operative for American Relief Everywhere.
¹ Source: Special Officer, Milk Feeding Programme.

The Chief Engineer-I, Public Health Engineering Directorate is the administrative head of the State Public Health Engineering Directorate responsible for the execution and maintenance of Urban and Rural areas of the State outside the C.M.D.A. zone. The jurisdiction of the District of 24-Parganas is vested with the Superintending Engineer, Central Circle (184, Brabourne Road, Calcutta-1), Executive Engineer, Alipur Division (45, Ganesh Ch. Avenue) for Alipur, Diamond Harbour and Barakpur Subdivisions and Executive Engineer, Barasat Division (Kalyani, Nadia) for Barasat, Basirhat and Bangaon Subdivisions.¹

The C.M.D.A. has taken up the following schemes:²

(a) *Garbage Disposal*—Municipalities were given conservancy plants and equipments for quick disposal of solid wastes. Each of them was given 2 trucks, 2 trailers and 2 tankers. Larger municipalities have been given extra Trucks.

(b) *Environmental Hygiene*—The purpose of the scheme is to construct/convert service privies into sanitary latrines in the CMD area. A large number of service latrines have been converted into sanitary latrines.

(c) *Environmental Sanitation in Bustee area*—The Bustee Improvement programme was taken up for creating better environmental conditions in the Bustee by way of supply of potable water, provision of sanitary latrines, roads and path-ways, drains and underground sewers and street lighting. A large number of Bustees in Baranagar-Kamarhati have been developed.

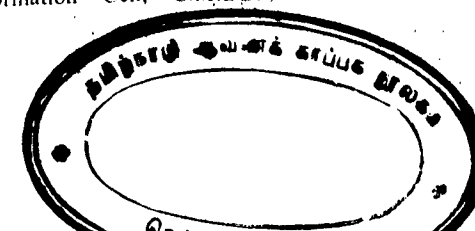
The schemes are broadly classified as urban and rural water supply schemes. Normally, the Urban Municipal Water-supply schemes, after completion, are handed over to the municipal authority for operation and maintenance and those in the non-municipal and rural areas are executed and operated by the Public Health Engineering Directorate.

The schemes in the Calcutta Metropolitan Area falling within the district of 24-Parganas were prepared by the Calcutta Metropolitan Planning Organization and the schemes have been executed in phases. These schemes are further classified as (A) Urban Piped Water-supply Schemes executed under special advances and (B) Emergency Water-supply Schemes sanctioned by Development and Planning Department. The water-supply schemes for the East

Water-supply:
Urban

¹ Source: Chief Engineer-I, Public Health Engineering Directorate, Government of West Bengal, Calcutta.

² Source: Special Officer, Management Information Cell, C.M.D.A., Calcutta.



Bank of the Calcutta Metropolitan Area will serve a total population of 21.22 lakhs.

Under the Special Advance Programme, the following Schemes were sanctioned during the different Plan periods.

1st Five-Year Plan

- | | |
|----------------------------------|-------|
| | Value |
| (1) Naihati Water-supply Scheme* | |
| (2) Baj Baj Water-supply Scheme* | |

2nd Five-Year Plan

- | | |
|--|-----------------|
| (1) Garulia Water-supply Scheme | Rs. 95.69 lakhs |
| (2) Baranagar-Kamarhati Water-supply Scheme | |
| (3) Bhatpara Water-supply Scheme | |
| (4) Halisahar Water-supply Scheme | |
| (5) South Suburban Water-supply Scheme | |
| (6) Garden Reach Water-supply Remodelling Scheme | |

3rd Five-Year Plan

- | | |
|----------------------------------|-----------------|
| (1) Basirhat Water-supply Scheme | Rs. 16.19 lakhs |
|----------------------------------|-----------------|

Execution of major portion of the schemes were completed within the respective plan period and after spillover have finally been completed within the next plan period.

The Emergency Water-supply Schemes were sanctioned in two phases. Phase-I of the scheme was sanctioned during 1964 and the list included the water-supply schemes for—

- (1) Kanchrapara, (2) Barasat, (3) Naihati, (4) Khardah, (5) Titagarh, (6) Baj Baj, (7) Deulpara, (8) New Barakpur, (9) Barakpur, (10) North Barakpur, (11) Panihati and (12) Haltu-Garfa.

The total estimated cost of these Schemes were Rs. 122.15 lakhs.

Under Phase-II, schemes were sanctioned for the following places—

- (1) Rajpur, (2) Madhyamgram, (3) Nabapally, (4) Panchur, (5) Baruipur, (6) Jadabpur-Santoshpur, (7) Bansdrone-Purbaputary and (8) Nungi.

These schemes were sanctioned during 1970 at an estimated cost of Rs. 41.50 lakhs.

Execution of most of the schemes are now complete and the schemes within the Calcutta Metropolitan District Area have already been handed over to the C.M.D.A. for operation and maintenance.¹

* The value of these two schemes including Bansberia Water-supply Scheme of Hugli was Rs. 23.81 lakhs.

¹ Source: Chief Engineer-I, Public Health Engineering Directorate, Government of West Bengal, Calcutta.

The C.M.D.A. is executing capital projects in the Calcutta Metropolitan District to be taken over and maintained by local bodies, as C.M.D.A. has no maintenance set up of its own. The present position is that projects executed in different municipal areas will be taken over and maintained by the respective Municipalities.

For areas other than municipalities, i.e. fringe areas, the schemes will be taken over by Calcutta Metropolitan Water and Sanitation Authority so far as it relates to water-supply schemes only.

(1) *Tala-Palta Complex*: At Palta, work on 30 major sub-projects were identified for renovation of the Water Works. Some of the items have since been completed, others are in progress. Work is likely to be completed in 1978 excepting one or two continuing items. Though the work is being carried out partly within the district the actual users will be citizens of Calcutta.

(2) *Emergency Water-supply Schemes in Municipalities, Phase-I*: 15 municipal areas were taken up for providing water at the rate of 20 gpcd. Seven schemes at (a) Kanchrapara, (b) Barasat, (c) Naihati, (d) Barakpur, (e) New Barakpur, (f) Titagarh, (g) Khardah have been completed. Other schemes like (a) North Barakpur, (b) Bansdrone-Purbaputary, (c) Nungi, (d) Panihati, (e) Baruipur, (f) Rajpur, (g) Jadabpur-Santoshpur and (h) Haltu-Garfa are in various stages of progress.

(3) *Emergency Water-supply Schemes in Non-Municipal Areas, Phase-II*: The object of the scheme is to supply water at the rate of 20 gpcd. to non-municipal areas in CMD. The following schemes are now under execution: (a) Madhyamgram and (b) Rajpur.

(4) *Fringe Area Water-supply Schemes*: These schemes have been taken up to provide a minimum supply of water of 20 gpcd. in areas styled as non-municipal urban areas. The scheme now under execution in Behala-A.

The following schemes are also going to be taken up soon (a) Jagaddal, (b) Rajarhat and (c) Behala-B.

(5) *The Augmentation of Municipal Water-supply Schemes*: In some of the municipalities the existing water-supply went down below 20 gpcd. In order to augment the supply the following schemes were taken up (a) Behala-South Suburban, (b) Kanchrapara, (c) Baranagar, (d) Bhatpara, (e) North Dam Dam, (f) Dam Dam, (g) Naihati and (h) Halisahar. The schemes at South Suburban, North Dam Dam and Baranagar have been completed while the scheme at Kanchrapara has been partially completed and commissioned.

Further, the following schemes will be taken up for execution

Various Water-Supply Projects of the C.M.D.A.

soon (a) Kamarhati-I, (b) Kamarhati-II, (c) Garulia, (d) Baj Baj and (e) Kanchrapara.

(6) *Water-supply Schemes in different Municipalities*: The following schemes have been completed and are giving benefit to the people—(a) Water-supply schemes at Garden Reach, Halisahar, Bhatpara, South Suburban Municipalities. (b) The scheme at South Dam Dam Municipality. (c) Installation of a big dia. tube-well at East Belgharia under Kamarhati Municipality.

(7) Water-supply schemes at Jadabpur, Kasba, Dhakuria, etc. were taken up for supplying drinking water in these areas where previously there was no piped water-supply. The scheme is almost completed and is giving benefit to the people.

(8) *Re-modelling of 60" dia. Tala-Palta Main*: A new 60" diameter steel main is being laid from Palta to Tala for carrying water from Palta to this city. Though the major part of the work is being carried out in the district of 24-Parganas, benefit will flow only to the people living in Calcutta.

(9) *Water Works at Garden Reach*: A giant water works of 60 mgd. capacity is now coming up at Garden Reach. Major portion of the water treated here will be used in Garden Reach, South Suburban, Baj Baj and other southern portions of the CMD areas.

(10) *Baranagar-Kamarhati Water Works*: 30 mgd. water treatment plant will come up here. Preliminary works have been taken up.

(11) *Primary and secondary grids for various service districts*: Works of laying distribution mains have been taken up in Garden Reach. This will carry the water from the treatment plant to the consumers. Works in other parts like Baranagar, Kamarhati, Baj Baj etc. will be taken up in due course.¹

Water-supply: Rural
In the rural areas there was no piped water-supply scheme before Independence. Only hand-operated tube-wells were the source of potable water supply. After Independence a large number of tube-wells have been sunk as an interim arrangement for water-supply. Only during Fourth Five-Year Plan period 3 piped water-supply schemes were sanctioned for the rural areas at (1) Diamond Harbour, (2) Magrahat and (3) Canning at an estimated cost of Rs. 31.76 lakhs. These schemes have been commissioned during the current plan period. Another 10 rural piped water-supply schemes have been sanctioned for (1) Haroa, (2) Bhabanipur Union, (3) Baharu, (4) Uttar Sultanpur, (5) Nimpith and adjoining areas, (6) Bagda,

¹ Source: Special Officer, Management Information Cell, C.M.D.A., Calcutta.

(7) Kakdwip, (8) Helencha, (9) Ganrapota and (10) Raidighi at an estimated cost of Rs. 174.27 lakhs. Execution of all these schemes are in progress.¹

The municipalities² spent for drainage and conservancy respectively Rs. 3,27,386 and Rs. 17,98,841 in 1950-51. Rs. 2,73,163 and Rs. 14,13,428 in 1953-54*, and Rs. 5,60,499 and Rs. 21,44,062 in 1957-58.

The details of drainage and sewerage facilities available over several years in some of the municipalities under the supervision of the Directorate of Health Services, West Bengal are shown in the table in the next page.

The drainage and sewerage schemes³ of the Public Health Engineering Directorate are as follows:

(i) *Kasipur-Dam Dam Drainage Scheme* amounting to Rs. 95 lakhs (revised) was taken up in 1964 and completed.

(ii) *Bhatpara Sewerage Scheme* which had been existing from pre-Independence period was renovated during 1972.

Various sewerage and drainage schemes⁴ have been taken up by the C.M.D.A. for better drainage and constructing underground sewer lines as below:

(i) *Baranagar-Kamarhati Storm Drainage Project*: The object of the scheme is to provide comprehensive drainage facilities in Baranagar area. Portion of the scheme has been completed.

(ii) *Renovation of Sewerage Treatment Plant at Titagarh*: The existing old sewerage treatment plant is being renovated as also extension of sewerage to uncovered areas of the Titagarh Municipality has been taken up. While the renovation work is almost complete, the sewer laying work is in progress.

(iii) *Plant Renovation at Bhatpara*: The object of the scheme is to renovate the existing sewerage treatment plant as also extension of sewers to uncovered pockets. The work is in progress.

(iv) *Dam Dam Zone Sewerage*: The project aims to provide sewerage facilities to Dam Dam, part of Kasipur-Chitpur and Baranagar-Kamarhati areas.

(v) *Tollyganj-Panchanangram Drainage Project*: The scheme

¹ Source: Chief Engineer, Public Health Engineering Directorate, Government of West Bengal, Calcutta.

² Government of West Bengal, State Statistical Bureau—*Statistical Abstracts: West Bengal*, 1951 (p. 299), 1956 (p. 361), 1961 (p. 373).

* Figures of Barakpur, Panihati, Kamarhati and South Suburban Municipalities are not included.

³ Source: Chief Engineer, Public Health Engineering Directorate, Government of West Bengal, Calcutta.

⁴ Source: Special Officer, Management Information Cell, Calcutta Metropolitan Development Authority, Calcutta.

Drainage and
Sewerage

DRAINAGE AND SEWERAGE IN 24-PARGANAS DISTRICT: 1947-55

Name of municipality	Year	Area served (sq. miles)	Approx. Population served	Total capital cost upto 31st December (Rs. a. p.)	Annual cost of maintenance (Rs. a. p.)
Baranagar	1947 <i>a</i>	2.12	65,000	1,03,341	14,935
	1951 <i>b</i>	2.12	65,000	1,03,341	14,935
	1955 <i>c</i>	1.60	44,900	47,167	2,450
Barasat	1947 <i>a</i>	3.50	11,230	24,809	551
	1951 <i>b</i>	3.60	11,230	24,809	331-5-0
	1955 <i>c</i>	5.50	16,000	24,809	4,419
Baruipur	1947 <i>a</i>	3.50	7,130	17,368	794
	1951 <i>b</i>	3.50	8,500	17,368	467
	1955 <i>c</i>	3.52	8,500	17,368	467
Basirhat	1947 <i>a</i>	8.50	26,348	28,317	525
	1951 <i>b</i>	5.50	26,348	29,728	664
	1955 <i>c</i>	N.A.	N.A.	N.A.	N.A.
Bhatpara	1947 <i>a</i>	5.00	1,50,000	17,51,825	85,357
	1951 <i>b</i>	5.00	1,34,000	17,51,825	73,960
	1955 <i>c</i>	5.00	1,34,000	17,54,568	51,694
Baj Baj	1947 <i>a</i>	2.00	5,612	1,02,956	3,257
	1951 <i>b</i>	2.00	5,612	1,02,956	3,851
	1955 <i>c</i>	2.00	5,612	1,02,956	4,758
Garulia	1947 <i>a</i>	1.50	20,000	60,244	3,463
	1951 <i>b</i>	1.50	30,000	1,36,990-10-0	3,658
	1955 <i>c</i>	1.50	24,000	1,16,503	3,084
Titagarh	1947 <i>a</i>	1.50	57,416	13,05,236	52,603
	1951 <i>b</i>	1.50	57,416	13,04,901- 2-0	72,128
	1955 <i>c</i>	1.50	70,555	13,05,236	93,223
Kanchrapara	1947 <i>a</i>				
	1951 <i>b</i>				
	1955 <i>c</i>	1.50	30,000	6,693	10,116

N.A.=Not Available

aims to facilitate drainage of Tollyganj-Panchanangram area by construction of open channels, storm drains, etc. by discharging into Calcutta outfall system at Chowbhaga pumping station for ultimate disposal to river Kulti.

(vi) *Manikhali, Khardah, Keorapukur, Boinchitala Drainage*

- a* Government of West Bengal, Directorate of Health Services—*Annual Report on the Health of the Population of West Bengal*; Calcutta, 1948; p. 372.
b Government of West Bengal, Directorate of Health Services—*Annual Report on the Health of the Population of West Bengal*; Calcutta, 1953; p. 414.
c Government of West Bengal, Directorate of Health Services—*Annual Report on the state of Health of West Bengal, 1955*, Calcutta, 1960; p. 474.

Project: This is a cluster project consisting of Manikhali, Keorapukur, Khardah and Boinchitala areas and comprises of resectioning of channels and renovation of existing sluice gates. At Manikhali, progress achieved is 95%, at Keorapukur 64%, at Khardah 98% and at Boinchitala 78%. Overall progress is about 70% and the works are likely to be completed by 1977.

(vii) *Drainage outfall, Calcutta-II*: The project comprises construction of additional sluices at the outfall, extension of Pantala regulator, reconstruction and remodelling of drainage regulators, etc. Overall progress achieved is about 74%. Arrangement for purchasing a dredger through World Bank loan is being made for resectioning the channel.

(viii) *Remodelling of Krishtopur, Bhangar Katakhal, Phase-I and II*: The following works have been done: Construction of supplementary sewers on river Kulti; construction of R.C.C. road bridge at VIP Road on the link canal to Krishtopur canal; excavation of link canal from Bhangar Khal to supplementary Bagjola sluice, etc. Overall progress is about 82%.

(ix) *Restoration of navigational route from Kultiganj to river Hugli via Bhangar Katakhal and Krishtopur Khal*: The object of the scheme is to restore existing navigational system for inland water transport route between Calcutta and Eastern part of West Bengal to Sundarbans. Overall progress is 91%. The navigational route has almost been restored.

(x) *Khardah Basin Drainage*: The object of the scheme is to provide relief to Khardah, Panihati, Titagarh Municipal areas from water logging by excavation of canal and construction of minor structures. The overall progress is about 66%.

(xi) *Churial Basin Drainage*: The scheme provides for a new channel connecting low pockets of Purba Barisha with existing Churial Khal, resectioning of the Churial Khal and other allied works. Resectioning of the main channel is mostly completed. Excavation of the new channel is partly done. Overall progress is 66%.

(xii) *Bagkhal Basin Drainage Scheme*: The scheme envisages relieving the drainage congestion of Kanchrapara and adjoining areas by resectioning the existing Bagkhal. The work has been mostly completed, and drainage relief has been provided.

(xiii) *Installation of additional pumps at Chowbhaga*: The scheme aims at installation of pumps for quicker removal of water-logging. The overall progress achieved is about 60%. This will cater to the drainage needs of Behala, Garden Reach and other areas.

(xiv) *Manikhali Basin Drainage Scheme (Feeder Channel)*: The scheme has been completed by about 51%. Drainage congestion in South Suburban Municipalities and adjoining areas have been partially removed. Remodelling work of Jinjira bridge is complete.

(xv) *Installation of additional pumps at Uttarbhadra*: The object of the scheme is to remove drainage congestion of Uttarbhadra and other areas by installation of additional pumps. The overall progress is about 10%.

(xvi) *Ichhapur Basin Drainage Scheme*: Resectioning of the Ichhapur Khal and lining of the bank has been completed. Construction of outfall sluice has also been completed. Drainage relief in the Ichhapur basin has been substantially achieved.

(xvii) *Re-excavation of Adiganga including feeder channel and provision of underground conduits*: The scheme is of re-excavation of Adiganga for providing relief to Baraipur-Sonarapur area. Overall progress is about 71%. Partial excavation of the main canal was complete and construction of good number of bridges were done by which better communication facilities have been achieved.

(xviii) *Re-excavation of Bagjola main canal and improvement of Bagjola upper basin*: The execution of the schemes will augment the capacity of the Bagjola Canal giving benefit to Baranagar, Panihati, Kamarhati, and Dam Dam (North and South) etc. areas. Overall progress is about 63%. Further works are going to be taken up soon.

The CMWSA will take over some of the sewerage and drainage schemes for maintenance, where municipalities are not in a position to maintain them.

Vaccination To eradicate small-pox, the number of vaccination administered before Independence is given in the following table.¹

Year	No. of successful vaccinations	Death-rate from small-pox per mille
1938-39	2,03,192	0.24
1939-40	2,09,625	0.54
1940-41	1,72,139	0.52
1941-42	1,97,620	0.6
1942-43	1,80,987	0.07
1943-44	1,63,560	0.1
1944-45	6,22,578	0.1
1945-46	5,41,362	1.2
1946-47	3,09,740	0.09

¹ Government of West Bengal, Directorate of Health Services—*Annual Report on the Health of the Population of West Bengal, 1947*. Calcutta. pp. 356-57.

The following table shows the performance since Independence.

Year	No. of successful vaccinations	Death-rate from small-pox per mille
1947 ^a	2,85,886	0.02
1948 ^a	3,40,633	0.2
1949 ^a	2,84,757	0.1
1950 ^a	2,63,859	0.2
1951 ^a	3,75,532	0.6
1952 ^a	2,75,443	0.2
1953 ^a	2,82,470	0.04
1954 ^a	3,17,354	0.09
1955 ^a	3,93,924	0.02
1956 ^b	3,12,078	0.01
1957 ^b	5,04,500	0.4
1958 ^b	5,29,842	0.6
1959 ^b	4,58,028	0.1
1960 ^b	2,60,661	0.06
1961 ^b	3,63,091	0.025
1962 ^c	5,57,410	0.031
1963 ^c	10,43,567	0.019
1964 ^c	14,09,520	0.018

The work of vaccination and inoculation continues in good earnest as will be evident from the following table.¹

^aGovernment of West Bengal, Directorate of Health Services—*Annual Report on the state of Health of West Bengal, 1955*. Calcutta. pp. 444-45.
^bGovernment of West Bengal, Directorate of Health Services—*Annual Report on the state of Health of West Bengal (Vital & Health Statistics) 1960*. Calcutta. p. 809.
^cSource: District Health Officer, 24-Parganas.
 Source: District Health Officer, 24-Parganas.

NO. OF VACCINATION AND INOCULATION DONE IN RURAL-URBAN
AREAS IN THE DISTRICT OF 24-PARGANAS: 1965-75

Year	Area	Vaccination		Inoculation	
		Primary	Re-Vaccination	A.C.*	T.A.B.C.†
1965	Rural	5,67,204	10,21,556	3,29,402	1,01,392
	Urban	89,103	3,92,881	2,13,301	96,040
1966	Rural	2,06,398	3,96,290	2,82,729	99,371
	Urban	40,882	1,70,872	1,43,419	77,987
1967	Rural	1,43,698	3,97,921	4,98,593	1,81,491
	Urban	25,932	3,47,813	1,95,497	1,39,175
1968	Rural	1,61,407	6,04,106	4,89,878	2,16,431
	Urban	30,752	4,79,121	1,66,259	1,68,566
1969	Rural	1,44,830	7,12,571	3,92,135	1,87,294
	Urban	40,022	3,08,013	1,56,177	1,18,489
1970	Rural	1,00,198	6,14,016	8,96,876	3,89,332
	Urban	61,300	5,80,543	2,80,665	1,45,283
1971	Rural	2,81,159	13,87,498	21,86,209	2,97,431
	Urban	49,071	5,11,653	7,30,694	1,30,859
1972	Rural	1,98,873	11,72,482	7,79,971	1,82,771
	Urban	51,016	4,21,516	2,14,698	1,68,516
1973	Rural	2,27,498	19,21,391	6,92,370	1,91,985
	Urban	95,965	6,10,114	3,81,815	1,81,267
1974	Rural	1,05,871	15,29,791	4,97,983	2,25,209
	Urban	78,586	5,05,146	2,45,684	1,64,610
1975	Rural	98,971	11,98,431	4,89,307	1,82,506
	Urban	63,014	5,79,616	1,89,036	1,26,473

* Anti-Cholera.

† Typhoid A & B and Cholera.

APPENDIX A

PRIMARY HEALTH CENTRES¹ IN 24-PARGANAS DISTRICT

Name	No. of beds	Block/ Municipality	Post Office
Habra P.H.C.	60	Habra I	Tababaria
Kakdwip P.H.C.	60	Kakdwip I	Kakdwip
Mathurapur P.H.C.	60	Mathurapur I	Mathurapur
Rudrapur (Baduria) P.H.C.	60	Baduria	Rudrapur
Taki P.H.C.	50	Hasnabad I	Taki
Canning P.H.C.	30	Canning I	Canning
Sri Ram Krishna P.H.C.	30	Jaynagar II	Nimpith Asram
Baruipur P.H.C.	25	Baruipur	Baruipur
Jaynagar P.H.C.	25	Kultali	Kultali
Minakhan P.H.C.	25	Haroa II	Minakhan
Sonarpur P.H.C.	25	Sonarpur	Kodalia
Sagar P.H.C.	25	Sagar	Rudranagar
Sandeskhali P.H.C.	25	Sandeskhali II	Khulna (W.B.)
Amdanga P.H.C.	15	Amdanga	Amdanga
Bagda	15	Bagda	Bagda
Biswanathpur P.H.C.	15	Deganga	Deganga
Chhotojagulia P.H.C.	15	Barasat I	Chhotojagulia
Magrahat P.H.C.	15	Magrahat II	Magrahat
M. R. Chowdhury (Sarisha) P.H.C.	15	Diamond Harbour II	Sarisha
Padmarhat P.H.C.	15	Jaynagar I	Dakshin Barasat
Rekjoani P.H.C.	15	Rajarhat	Rajarhat
Sarapul P.H.C.	15	Swarupnagar	Sarapul
Amgachia P.H.C.	10	Bishnupur I	Nepalganj
Brajaballavpur P.H.C.	10	Patharpratima	Brajaballavpur
Chandpara P.H.C.	10	Gaighata	Thakurnagar
Chhotomollakhali	10	Gosaba	Chhotomollakhali

¹ Sources: C.M.O.H., 24-Parganas.

APPENDIX A (Contd.)

Name	No. of beds	Block/ Municipality	Post Office
Dwariknagar P.H.C.	10	Namkhana	Dwariknagar
Dhanyakuria P.H.C.	10	Basirhat II	Dhanyakuria
Kulpi P.H.C.	10	Kulpi	Kulpi
Madhyamgram P.H.C.	10	Barasat II	Madhyamgram
Netra (Panchagram) P.H.C.	10	Diamond Harbour I	Panchagram-Singberia
Samali P.H.C.	10	Bishnupur II	Nahajari
Sarsuna P.H.C.	10	Tollyganj-Behala	Sarsuna, Calcutta-61
Sibhati P.H.C.	10	Basirhat I	Sibhati
Sabdelpur P.H.C.	10	Habra	Sabdelpur via Kalyangarh
Lakshmibala Dutta (Muchisha) P.H.C.	10	Baj Baj	Bakrahat
Bandipur P.H.C.	10	Titagarh	Bandipur via Titagarh
Bilkanda P.H.C.	6	Barakpur	Jugberia
Phalta P.H.C.	6	Phalta	Phalta
Purandarpur P.H.C.	6	Mathurapur II	Pakurhat
Ramkisorepur P.H.C.	6	Mandirbazar	Radhanagar

APPENDIX B

SUBSIDIARY HEALTH CENTRES¹ IN 24-PARGANAS DISTRICT

Name	No. of beds	Block/ Municipality	Post Office
Bajitpur S.H.C.	10	Baduria	Model Belgharia
Bhabanipur S.H.C.	10	Hasnabad	Bhurkunda
Bankra S.H.C.	10	Swarupnagar	Bara Bankra
Chandpur S.H.C.	10	Rajarhat	Bagu
Dhudurdah S.H.C.	10	Haroa II	Dhudurdah
Gobardanga S.H.C.	10	Habra I	Gobardanga
Gadamathura S.H.C.	10	Patharpratima	Gurudaspur
Hariharpur S.H.C.	10	Baruipur	Mallikpur
Kadambagachi S.H.C.	10	Barasat I	Kadambagachi
Kolsur S.H.C.	10	Deganga	Kolsur
Maricha S.H.C.	10	Amdanga	Masunda
Sindrani S.H.C.	10	Bagda	Sindrani
Birajlakshmi S.H.C.	6	Baj Baj I	Pujali
Bhatipota S.H.C.	6	Bhangar I	Beenta
Gazapeali S.H.C.	6	Baj Baj II	Peali
Pukurkona S.H.C.	6	Habra II	Biraballavpur
Tona S.H.C.	6	Bhangar II	Machibhanga via Rajarhat
Bilkanda S.H.C.	6	Barakpur	Jugberia
Akaipur S.H.C.	4	Bangaon	Garibpur
Hadipur-Jhikra S.H.C.	4	Deganga	Aziznagar
Langalberia S.H.C.	4	Sonarpur	Dakshingobindapur
Palla S.H.C.	4	Bangaon	Palla
Patharghata S.H.C.	4	Rajarhat	Patharghata
Fraserganj S.H.C.	3	Namkhana	Fraserganj
Adahata-Jaypur S.H.C.	2 (non-dieted)	Amdanga	Adahata

¹ Sources: C.M.O.H., 24-Parganas.

APPENDIX B (Contd.)

Name	No. of beds	Block/Municipality	Post Office
Bhubaneswari S.H.C.	2 (non-dieted)	Kultali	Bhubaneswari Bazar
Belpukur S.H.C.	2 „	Kulpi	Belpukur
Charghat S.H.C.	2 „	Swarupnagar	Charghat
Chowberia S.H.C.	2 „	Bangaon	Chowberia
Dharampur S.H.C.	2 „	Gaighata	Dharampur
Dattapukur S.H.C.	2 „	Barasat I	Dattapukur
Ghola S.H.C.	2 „	Hasnabad	Bhebia via Bhabla
Gopalpur S.H.C.	2 „	Haroa I	Gopalpur
Gaighata S.H.C.	2 „	Gaighata	Gaighata
Gilarchat S.H.C.	2 „	Mathurapur II	Gilarchat
Gokarni S.H.C.	2 „	Magrahat II	Jugdha
Ghutiarisarif S.H.C.	2 „	Canning I	Bansra
Herobhanga-Jharkhali S.H.C.	2 „	Basanti	Jharkhali Bazar
Harendranagar S.H.C.	2 „	Kakdwip	Harendranagar
Haroa S.H.C.	2 „	Haroa I	Haroa
Hatgachi S.H.C.	2 „	Sandeskhali	Agrahati
Indrapala S.H.C.	2 „	Baruipur	Kudrali
Jadurhati S.H.C.	2 „	Baduria	Jadurhati
Kalikapur S.H.C.	2 „	Sonarapur	Kalikapur
Kamarghanti S.H.C.	2 „	Haroa I	Kamarghanti
Koniara S.H.C.	2 „	Bagda	Biara
Katamari S.H.C.	2 „	Kultali	Deulberi
Korakati S.H.C.	2 „	Sandeskhali II	Korakati
Maslandpur S.H.C.	2 „	Habra I	Simulpur
Moukhali S.H.C.	2 „	Bishnupur II	Charshyamdas
Mitpukuria S.H.C.	2 „	Barasat II	Sashna
Nanna S.H.C.	2 „	Barakpur	Malancha
Nataberia S.H.C.	2 „	Bagda	Mongalganj

APPENDIX B (Contd.)

Name	No. of beds	Block/Municipality	Post Office
Purbagabberia S.H.C.	2 (non-dieted)	Jaynagar I	Chattabheria
Raipur-Chakla S.H.C.	2 „	Deganga	Chakla
Rajendrapur S.H.C.	2 „	Basirhat II	Rajendrapur
Rautara S.H.C.	2 „	Habra I	Rautara
Sahebkhali S.H.C.	2 „	Hingalganj	Sahebkhali
Sikrakulingram S.H.C.	2 „	Basirhat II	Sikrakulingram
Sundarpur S.H.C.	2 „	Bangaon	Patsimulia
Kuchitalahat S.H.C.	2 „	Canning	Mallikati
Bardrone S.H.C.	2 „	Diamond Harbour	Hatuganj
Mayahauri S.H.C.	2 „	Jaynagar	Mayahauri
Nalgora S.H.C.	2 „	Jaynagar	Sonatikuri
Dakshinchatra S.H.C.	Nil	Baduria	Dakshinchatra
Fartabad S.H.C.	„	Sonarapur	Garia
Maharajganj S.H.C.	„	Namkhana	Haripur
Panchgachia S.H.C.	„	Baruipur	Gocharan
Sandelerbil S.H.C.	„	Hingalganj	Sandelerbil
Narayanpur S.H.C.	„	Namkhana	Narayanpur via Namkhana
Dakshin Jagadispur S.H.C.	„	Kulpi	Dholahat
Nimichi S.H.C.	„	Minakhan	Nimichi via Basirhat
Baribhanga Abad S.H.C.	„	Namkhana	Baribhanga Abad
Kemia Kamarpara S.H.C.	„	Barasat	Kirtipur
Baneswarpur S.H.C.	„	Magrahat	Baneswarpur

APPENDIX C

GOVERNMENT DISPENSARIES¹ IN 24-PARGANAS DISTRICT

Name	Post Office	Maintained by
Halisahar Railway Dispensary	Halisahar	Railway
Kanchrapara C & W „	Kanchrapara	„
Kanchrapara Lees „	„	„
Jamainaskarhat FRE „	Bhajana Beniapara	State
Titagarh Women's Home Dispensary No. 1	Titagarh	„
Titagarh Women's Home Dispensary No. 2	„	„
Jharkhali Homoeopathic Dispensary	Jharkhali Bazar	„
Kamarghanti „ „	Kamarghanti	„
Nalgara „ „	Sonatikuri	„
Gobindanagar „ „	Taldi	„
Dam Dam State „ „	Dam Dam	„

APPENDIX D

GOVERNMENT CLINICS² IN 24-PARGANAS DISTRICT

Name	Post Office/Address	Maintained by
Chest Clinic attached to:		
M. R. Bangur Hospital	Tollyganj, Calcutta-33	State
Diamond Harbour Subdivisional Hospital	Diamond Harbour	„
Barasat Subdivisional Hospital	Barasat	„
Basirhat Subdivisional Hospital	Basirhat	„
Bangaon Subdivisional Hospital	Bangaon	„
Dr. B. N. Bose Subdivisional Hospital	Barakpur	„
Behala Chest Clinic-cum-Domicilliary Unit	Banamali Naskar Road, Behala, Calcutta-60	„
Habra Chest Clinic	Habra	„
Kanchrapara Railway Chest Clinic	Kanchrapara	Railway

1 & 2 Sources: C.M.O.H., 24-Parganas.

APPENDIX D (Contd.)

Name	Post Office/Address	Maintained by
Dental Clinic attached to:		
M. R. Bangur Hospital	Tollyganj, Calcutta-33	State
Barasat Subdivisional Hospital	Barasat	„
Basirhat Subdivisional Hospital	Basirhat	„
Bangaon Subdivisional Hospital	Bangaon	„
Dr. B. N. Bose Subdivisional Hospital	Barakpur	„
Khardah Leprosy Control Unit	Khardah	„
V. D. Clinic attached to:		
M. R. Bangur Hospital	Tollyganj, Calcutta-33	„
Barasat Subdivisional Hospital	Barasat	„
Basirhat Subdivisional Hospital	Basirhat	„
Bangaon Subdivisional Hospital	Bangaon	„
Dr. B. N. Bose Subdivisional Hospital	Barakpur	„
Maternity & Child Welfare Centres (Clinics) attached to:		
M. R. Bangur Hospital	Tollyganj, Calcutta-33	„
Diamond Harbour Subdivisional Hospital	Diamond Harbour	„
Barasat Subdivisional Hospital	Barasat	„
Basirhat Subdivisional Hospital	Basirhat	„
Bangaon Subdivisional Hospital	Bangaon	„
Dr. B. N. Bose Subdivisional Hospital	Barakpur	„
Sagar Dutta Hospital	Kamarhati	„
Mangal Samity, Kanchrapara	Kanchrapara	„
Sibani Arogya Niketan	„	Railway
Kanchrapara Railway Hospital	„	„
Agarpara Out-door Clinic	House of Sri D. N. Mukherjee, P. B. Ghat Road, Agarpara	C.M.D.A.*
Barisha „ „	H/o. Dr. N. L. Das, 149/4, Biren Roy Road, (West) Calcutta-61	„
Dam Dam „ „	Green Park, Dam Dam	„

*CMDA=Calcutta Metropolitan Development Authority.

APPENDIX D (Contd.)

Name	Post Office/Address	Maintained by
Dam Dam Out-door Clinic	H/o. K. C. Das Gupta, 6, Jessore Road	C.M.D.A.
Garia	H/o. Sm. Durga Rani Banerjee, Garia Main Road	"
Halisahar	H/o. Sm. Annapurna Devi C/O. Sri A. K. Sinha, P.O. Halisahar	"
Haltu	H/o. Samir Kumar Safui, Safuipara, Haltu, Garia	"
Ichapur	H/o. Sibdhan Mukherjee, Chairman, North Barakpur Municipality, Ichapur	"
Jadabpur	H/o. P. C. Banerjee, 60A, Raja S. Mallick Rd., Calcutta-32	"
Jadabpur	H/o. Bhupesh Ch. Dutta, 68/A/129, Raja S. Mallick Rd. Calcutta-32	"
Khardah	H/o. Amarendra N. Ghose, 151, Surya Sen Nagar, Khardah	"
Naihati	H/o. Sm. Priti Prova Sen, 6/1, Frier Road, Naihati	"
Panihati	Panihati Municipal Dispensary	"
Patipukur	H/o. Sm. Kamala Sen, P-901, Lake Town, Calcutta-28	"
Putiary	H/o. Trilochan Chakraborty, P. M. Ch. Dispensary, Purba Putiary, Calcutta-33	"
Santoshpur	H/o. Sm. Renu Sen Gupta, Santoshpur, Jadabpur, Calcutta-32	"
Sodpur	141/A, H. B. Town, Road No. 5, Sodpur	"
Barakpur	49, Central Road, Barakpur	"

*CMDA=Calcutta Metropolitan Development Authority.

APPENDIX E

CHARITABLE DISPENSARIES¹ UNDER 24-PARGANAS ZILLA PARISHAD

Location	Police Station	Year of establish- ment	Number of Patients Treated			
			1969	1970	1974	1975
Sadar Subdivision:						
Bakrahat	Bishnupur	1920	23,259	18,249	20,613	15,959
Bhangar	Bishnupur	1937	16,170	10,810	13,426	8,416
Bishnupur	Bishnupur	1906	14,814	30,048	24,616	17,123
Chatta	Mahestala	1943	42,031	29,584	12,269	22,028
Dadpur	Baruipur	N.A.	6,089	15,007	9,168	5,048
Dakshin Barasat	Jaynagar	1916	22,450	19,830	11,929	7,503
Davisabad	Canning	1941	10,925	10,809	7,000	6,714
Dhapdhapi	Baruipur	1918	14,212	12,630	8,220	5,093
Futigoda	Jaynagar	N.A.	8,911	13,572	10,012	5,979
Naorah	Bhangr	N.A.	2,615	2,002	3,368	1,770
South Garia	Baruipur	N.A.	7,491	6,891	9,283	6,290
Basirhat Subdivision:						
Barghoria	Swarupnagar	1965	7,928	6,225	4,665	2,801
Bhabla	Basirhat	1938	16,170	10,810	4,574	3,199
Bithari	Swarupnagar	N.A.	6,678	6,906	5,175	5,788
Debalaya	Deganga	N.A.	5,610	5,610	7,403	4,815
Dholtukari	Hasnabad	N.A.	5,068	5,678	7,240	5,541
Hakimpur	Swarupnagar	N.A.	2,299	2,150	2,846	2,858
Hingalganj	Hingulganj	Vested under section 76 of LSG Act 1885	11,392	16,100	8,131	5,301
Jogesganj	Hasnabad	-do-	8,356	10,793	2,785	5,492
Kotra	Barasat	N.A.	8,010	5,826	5,145	4,986
Malangapara	Swarupnagar	1935	24,592	21,478	9,742	15,601
Nawapara	Habra	1915	3,998	5,517	18,736	15,874
Pearah	Baduria	1918	4,036	4,739	6,628	4,157
Rameswarpur	Hasnabad	N.A.	7,230	6,737	10,613	8,780
Saguna	Swarupnagar	N.A.	6,621	9,573	9,663	7,445
Sambhunagar	Gosaba	N.A.	4,539	4,367	3,740	3,149
Sandeskhali	Sandeskhali	1935	2,635	1,956	3,614	1,334
Sarfarajpur	Baduria	1921	6,461	6,196	7,272	4,516
Tentulia	Swarupnagar	Vested under LSG Act	13,033	14,786	12,188	9,015
Diamond Harbour Subdivision:						
Chaberia	Phalta	1947	16,829	19,789	23,949	14,973
Ghateswara	Mandirbazar	1938	21,987	19,433	15,640	12,403
G. Plot	Patharpratima	1967	3,989	3,339	5,202	3,851
Magrahat	Magrahat	1919	31,427	21,461	34,966	17,910
Mousini	Kakdwip	N.A.	5,889	4,645	3,168	1,998
Sagar	Sagar	1949	4,559	4,493	3,922	1,535
Sitarampur	Kakdwip	1918	13,067	12,824	12,976	11,081
Udaypur	Magrahat	N.A.	13,427	14,532	12,435	6,882

N.A.=Not Available.

¹Source: Executive Officer, 24-Parganas Zilla Parishad Office, Alipur, Calcutta.

APPENDIX E (Contd.)

Location	Police Station	Year of establish- ment	Number of Patients Treated			
			1969	1970	1974	1975
Barakpur Subdivision:						
Majhipara	Bijpur	Vested under Sec 76 of LSG Act 1927	18,467	19,590	16,959	14,229
Narayanpur	Jagaddal		17,202	16,965	18,736	15,874
Bangaon Subdivision:						
Ganrapota	Bangaon	Vested from Jessore District Board 1924	7,350	10,424	11,301	8,303
Gopalnagar	Bangaon		16,202	18,600	32,022	17,024

APPENDIX F

NON-GOVERNMENT HOSPITALS¹ IN 24-PARGANAS DISTRICT

Name	No. of beds	Block/Municipality	Post Office
Private Aided Hospitals:			
Balananda Brahmachari Maternity Home	30	South Suburban Municipality	Behala, Calcutta-34
Birajmohini Matri Sadan	12	Barakpur Municipality	Barakpur
Dr. B. C. Roy Sisu Sadan	40	Kamarhati Municipality	Ariadaha, Calcutta-57
Duttabad Maternity Home	5	South Dam Dam Municipality	Calcutta-48
Kumar P. N. Roy Group of Hospitals and Rehabilitation Centre	300	Ban-Hugli	Calcutta-35
K. S. Roy T.B. Hospital	745	Jadabpur-Behala	Calcutta-32
Nehru Chest Clinic & Hospital	60	Barakpur Municipality	Barakpur
Netaji Subhas Maternity & General Hospital	30	Mahestala	Akra
North Suburban Hospital	111	Calcutta	82, Kasipur Road Calcutta-2
Sarkarpool Mental Hospital	150	Mahestala	Gobindapur via Batanagar
Sri Balaram Seva Mandir	103	Khardah	Khardah
Sri Ramkrishna Matri Mangal Pratishthan	36	Kamarhati Municipality	Ariadaha, Calcutta-57
Vijaygarh Prasuti Sadan	16	Jadabpur-Behala	Calcutta-32
Private Non-aided Hospitals:			
Bangiya Unmad Asram	110	South Dam Dam Municipality	Calcutta-50
Diamond Harbour Maternity Home	20	Diamond Harbour I	Diamond Harbour
New Barakpur Co-Operative Hospital	15	New Barakpur Municipality	New Barakpur

¹ Source: C.M.O.H., 24-Parganas.

APPENDIX G

NON-GOVERNMENT DISPENSARIES¹ IN 24-PARGANAS DISTRICT

Name	Post Office/Address	Maintained by
Bhatpara Charitable Dispensary	Bhatpara	Bhatpara Municipality
Dam Dam Charitable Dispensary	Dam Dam, Calcutta-28	Dam Dam Municipality
Dr. Bidhan Ch. Roy Charitable Dispensary	Birati	North Dam Dam Municipality
Garden Reach Charitable Dispensary	B-3, Prince Dilwarjah Lane, Calcutta-24	Garden Reach Municipality
Garulia Charitable Dispensary	Garulia	Garulia Municipality
Halisahar (K. P. Guha) Charitable Dispensary	Halisahar	Halisahar Municipality
Khardah Charitable Dispensary	Khardah	Khardah Municipality
Manirampur Charitable Dispensary	Barakpur	Barakpur Municipality
Naihati Charitable Dispensary	Naihati	Naihati Municipality
Nababganj Charitable Dispensary	Ichapur-Nababganj	North Barakpur Municipality
North Dam Dam Charitable Dispensary	Birati, Calcutta-51	North Dam Dam Municipality
Palta Pumping Dispensary	Palta, Barakpur	North Barakpur Municipality
South Dam Dam Charitable Dispensary	Nagerbazar, Calcutta-28	South Dam Dam Municipality
Victoria Charitable Dispensary	Baruipur	Baruipur Municipality
Baduria Charitable Dispensary	Baduria	Baduria Municipality
Ramananda Ayurvedic Charitable Dispensary	Ariadaha	Kamarhati Municipality
Authpore Homoeopathic Charitable Dispensary	Syamnagar	Bhatpara Municipality
Homoeopathic Charitable Dispensary	Syamnagar	Bhatpara Municipality
Sital Dey Homoeopathic Charitable Dispensary	Ariadaha	Kamarhati Municipality

¹Source: C.M.O.H., 24-Parganas.

APPENDIX G (Contd.)

Name	Post Office/Address	Maintained by	
Apex Club Charitable Dispensary	Naihati	Private	Aided
Ariadaha Charitable Dispensary	Ariadaha, Calcutta-57	"	"
Arya Samity Rd. Charitable Dispensary	Behala, Calcutta-34	"	"
Bidhan Roy Ambulance Division Dispensary	Naihati	"	"
Deshbandhu Palli Seva Sangha Charitable Dispensary	Mayapur, Baj Baj	"	"
Jagabandhu Charitable Dispensary	Dandirhat	"	"
Gram Seva Sangha Charitable Dispensary	Haltugarh	"	"
Madhyamgram Kalyan Samiti Charitable Dispensary	Madhyamgram	"	"
Mandalpara Janakalyan Parishad	Syamnagar, 24-Parganas	"	"
R. W.A.C. Bagha Jatin Group Charitable Dispensary	Bagha Jatin Palli, Garia	"	"
Sodepur Samaj Seva Sangha	Sodpur	"	"
Adyapith Charitable Dispensary	Dakshineswar	"	"
Nabajagaran Homoeopathic Charitable Dispensary	Sodpur, Calcutta-41	"	"
Prabartak Asram Homoeopathic Charitable Dispensary	Freserganj	"	"
R. K. Mission Asram Homoeopathic Charitable Dispensary	Batanagar	"	"
Vivekananda Yuba Mahamandal Homoeopathic Charitable Dispensary	Khariberia	"	"

APPENDIX H

GOVERNMENT CHEST AND MATERNITY & CHILD WELFARE CENTRES¹
IN 24-PARGANAS DISTRICT

Name	Post Office/Address	Maintained by
Clinics:		
Baj Chest Clinic	Baj Baj	Private aided
Chest Clinic attached to K. S. Roy T. B. Hospital	Jadabpur, Calcutta-32	" "
Jalananda Arogya Bhaban Chest Clinic	Dakshineswar	Private non-aided
Chest Clinic attached to North Suburban Hospital	Kasipur	" "
Naihati Chest Clinic	Naihati	" "
Nehru Chest Clinic	Barakpur	" "
Projnananda Saraswati Chest Clinic	Asoknagar	" "
Maternity and Child Welfare Centres:		
A. T. Dhar Memorial M. & C.W.C.	Baj Baj	Baj Baj Municipality
Baranagar Municipal	" Calcutta-35	Baranagar Municipality
Barisha Municipal	" Calcutta-8	South Suburban Municipality
Behala Municipal	" Calcutta-34	South Suburban Municipality
Dam Dam Municipal	" Calcutta-28	Dam Dam Municipality
Garden Reach Municipal	" Calcutta-4	Garden Reach Municipality
Halisahar Municipal	" Halisahar	Halisahar Municipality
Jaynagar-Mazilpur Municipal	" Jaynagar	Jaynagar-Mazilpur Municipality
Lalit Mohan	" Naihati	Naihati Municipality
Matrimangal Pratishthan	" Bhatpara	Bhatpara Municipality
New Barakpur Co-Operative Home Ltd.	Aharampur	New Barakpur Municipality
South Dam Dam Maternity Home	Nagerbazar, Calcutta-28	South Dam Dam Municipality
Ariadaha M. & C.W.C.	Ariadaha	Private aided

¹Source: C.M.O.H., 24-Parganas.

APPENDIX H (Contd.)

Name	Post Office/Address	Maintained by
Badalia M. & C.W.C.	C/o. Magrahat II F. & C.W.P. Magrahat	Private (aided)
Baduria "	Baduria	" "
Bamanghata "	Bhajirhat	" "
Bishnupur "	Rajarhat-Bishnupur	" "
Bodra "	Bodra	" "
Champa "	Patharghata	" "
Changhat "	C/o. Swarupnagar F. & C.W.P., Swarupnagar	" "
Ghola "	Sarapul	" "
Gokulpur Samaj Kalyan Kendra	Tentulia	" "
Hatishala M. & C.W.C.	C/o. Bhangar II F. & C.W.P. Hadia via Sonarpur	" "
Harisankarpur M. & C.W.C.	C/o. Magrahat II F. & C.W.P. Magrahat	" "
Hashuri "	"	" "
Jagulgachi "	Bhangar	" "
Jatragachi "	C/o. Rajarhat F. & C.W.P. Rajarhat-Bishnupur	" "
Kalikapur "	Bhangar	" "
Kasidanga "	C/o. Bhangar I F. & C.W.P., Bhangar-Gobindapur	" "
Khayerpur "	C/o. Bhangar II F. & C.W.P., Hadia via Sonarpur	" "
Korelberia "	Bhajirhat	" "
Mahisgote "	Krishnapur	" "
Malangapara M. & C.W.C.	C/o. Swarupnagar F. & C.W.P.	" "
Marjada "	C/o. Magrahat II F. & C.W.P.	" "
Mobarakpur "	Chandpur	" "

APPENDIX H (Contd.)

Name	Post Office/Address	Maintained by
Nirman M. & C.W.C.	C/o. Swarupnagar F. & C.W.P.	Private aided
No. 1 Kulti Government Colony M. & C.W.C.	C/o. Bhangar II F. & C.W.P. Hadia via Sonarpur	" "
Balaram Sevamandir M. & C.W.C.	Khardah	" "
No. 3 Kulti Government Colony M. & C.W.C.	C/o. Bhangar I F. & C.W.P. Bhangar-Gobindapur	" "
No. 5 Kulti Government Colony M. & C.W.C.	"	" "
Pakuria M. & C.W.C.	South Bishnupur	" "
Raghunathpur "	C/o. Rajarhat F. & C.W.P. Rajarhat-Bishnupur	" "
Raigachi "	"	" "
Shikarpur "	"	" "
Shunpukur "	Shunpukur	" "
Sri Sri Balananda Brahmachari Matri Seva Bhavan M.C.W.	151, Diamond Harbour Road, Calcutta-34	" "
Vijaygarh M. & C.W.C.	Jadabpur, Calcutta-34	" "
Habra Urban Colony M. & C.W.C. (Haripur Nari Seva Samity)	Habra	Private non-aided
Humatipur (Haripur) M. & C.W.C.	Madhyamgram	" "
Duttabad "	Calcutta-48	" "
M. & C.W.C. attached to:		
Diamond Harbour Hospital	Diamond Harbour	" "
Prasuti Bhavan Maternity Home (Madhyamgram Kalyan Samity)	Barasat	" "
Saraswati Matri Sadan, Asokenagar M. & C.W.C.	Asokenagar	" "
Titagarh Jute Mills M. & C.W.C.	Titagarh	" "
Baranagar Jute Mills "	Baranagar	" "

APPENDIX I

PRIVATE NURSING HOMES¹ IN 24-PARGANAS DISTRICT

Name	No. of beds	Address
Nivedita Sisu Sadan	4	20/1, J. N. Chatterjee Street, Calcutta-50
South Land Nursing Home	5	Ganguli Bagan East Road, P.O. Garia, 24-Parganas
P. M. Nursing Home	8	Vill: Syamnagar, P.O. Masat, 24-Parganas
Barakpur Nursing Home	10	B. T. Road, P.O. Talpukur, Barakpur, 24-Parganas
New Eveland Nursing Home	4	2/2, Central Park, P.O. Jadabpur, Calcutta-32
Behala Nursing Home	15	88A, Rai Bahadur Road, Cal-34
South Calcutta Nursing Home & Polyclinic	8	Raja Subodh Mallick Road, Ganguly Bagan, P.O. Garia, 24-Parganas
Nandalila Seva Sadan	4	P.O. Purba Putiari, 24-Parganas
Radharani Seva Sadan	8	Shasthitala, P.O. Talpukur, Barakpur, 24-Parganas
Suburban Maternity Home	4	479, Jessore Road, Dam Dam, Calcutta-28
Modern Nursing Home	12	1, Rashtra Guru Avenue, Dam, Dam Calcutta-28
Naihati Matri Sadan	3	34, Mokkeswar Ghat Rd., P.O. Naihati, 24-Parganas
Nursing Maternity Clinic	2	71, Jan Muhammad Shut Road, Mahakalitala, P.O. Naihati, 24-Parganas
Nivedita Nursing Home	3	103/3, West Ghose Para Road, Garulia, 24-Parganas
Syamnagar Nursing Home	7	P.O. Syamnagar, 24-Parganas
Arta Seva Sadan	4	7, West Ghose Para Road, Syamnagar, 24-Parganas
Radha Krishna Sevayatan	5	P.O. Mandir Bazar, 24-Parganas
Dr. Ghosh Hazra Nursing Home	7	240, Diamond Harbour Road, Cal-34
Barakpur Matri Sadan	5	Seva Bhawan, Ghosh Para Rd., Barakpur, 24-Parganas
Mayer Ghar	2	P. N. Mukherjee Road, P.O. Khardah, 24-Parganas

¹Source: C.M.O.H., 24-Parganas

APPENDIX I (Contd.)

Name	No. of beds	Address
Maternity Nursing Home	4	41, Rai Bahadur Road, Behala
Reliance Maternity Home	3	P-13, Raipur, P.O. Garia, 24-Parganas
Netaji Subhas Maternity General Hospital	30	Akra, P.O. Jagannath Nagar, via Bala-nagar, 24-Parganas
Belgharia Nursing Home	3	B. T. Road, Bank of India House, P.O. Ariadaha, 24-Parganas
Arta Seva Sadan	4	Noapara, Garulia, 24-Parganas
Krishna Sevayatan	8	9, East Ghosh Para Road, Syamnagar, 24-Parganas
Central Nursing Home	4	Gopal Lal Thakur Road, Calcutta-36
Tollyganj Maternity Home	5	49, Anjuman Arza Begum Road, Cal-33
Panihati Nursing Home	6	B.T. Road, P.O. Panihati, 24-Parganas
Baranagar Nursing Home	8	118, B. T. Road, Calcutta-35
South End Nursing Home	10	84, Rai Bahadur Road, Behala, Calcutta-34
Kankinara Nursing Home	4	3, Kanchari Road, P.O. Kankinara, 24-Parganas
Naihati Nursing Home	4	51/1, Rishi Bankim Road, Naihati, 24-Parganas
Glory Nursing Home	7	1, Jaypur Road, Dam Dam, Calcutta-30
Amiya Devi Hospital	12	17, Kamarpara 1st Lane, Vill. Elachi, P.O. Narendrapur, 24-Parganas
Greenland Nursing Home	5	52D/11, Babu Bagan Lane, Calcutta-31
Tagore Park Nursing Home	16	33A, Raja Santosh Road, Calcutta-27
Tilottama Maternity Nursing Home	3	P.O. Batanagar, 24-Parganas
Bindubasini Nursing Home	3	181, Madhusudan Banerjee Road, P.O. Birati, 24-Parganas
Titagarh Seva Sadan	11	R. K. Debpath, P.O. Titagarh, 24-Parganas
Maternity Home	8	31, Gofamahal, Barakpur, 24-Parganas
Khardah Nursing Centre	2	9, Ramchand Nandi Road, B. T. Road, Khardah, 24-Parganas
Seva Sadan	4	123/6A, Gopal Lal Thakur Road, Cal-35
Badamtala Nursing Home	4	99, Ghosh Para Road, P.O. Ichapur-Nababganj, 24-Parganas
Syamnagar Christian Hospital	50	P.O. Syamnagar, 24-Parganas

APPENDIX I (Contd.)

Name	No. of beds	Address
Vidyasagar Nursing & Maternity Home	2	P-185, Kanangu Park, P.O. Garia, 24-Parganas
Seva Maternity & Nursing Home	4	80, Feeder Road, Calcutta-56
Basirhat Nursing Home	8	Nutan Bazar, P.O. Basirhat, 24-Parganas
Dulali Children Hospital	35	Gopipur, South Gobardanga, 24-Parganas
Seva Niketan	4	New Town, D. H. Road, 24-Parganas
"Sarala Surgical Clinic" (Nursing & Maternity Clinics)	2	53/5, Vidyayatan Sarani, Calcutta-35
Chakraborty Maternity Clinic	2	5, Robertson Road, P.O. Garia, 24-Parganas
Sarada Matri Sadan	1	77, Nimchand Maitra Street, Calcutta-35
Prem Nursing Home	10	10th Lane, Jagaddal, 24-Parganas
Homeland Nursing Home	4	4, Bhupen Roy Road, Behala, Calcutta-34
Santi Sadan Nursing Home	10	200, Dam Dam Road, Calcutta-30
Friends Nursing Home	4	54, East Ghosh Para Road, Syamnagar, 24-Parganas
Pretty Land Nursing Home	2	40A, P. N. Mitra Lane, Calcutta-53
Mandakini Nursing Home	3	23A, Ekbalpur Road, Calcutta-23
Santi Surgical Maternity Centre	2	156, B. M. Banerjee Road, Calcutta-56
Modern Nursing Home	10	13, East Ghosh Para Road, Kamarpara, Bhatpara, 24-Parganas
Canning Maternity Nursing Home	5	Canning Town, 24-Parganas
East Land Nursing Home	10	Vill. Ratepara, Bangaon, 24-Parganas
Maternity Home	1	67, Rajkumar Mukherjee Road, Calcutta-35
Roy's Polyclinic	1	S. N. Banerjee Road, Chiriamore, Barakpur, 24-Parganas
Baruipur Nursing & Maternity Home	4	Madarhat Station Road, Baruipur, 24-Parganas
Jaya Maternity & Nursing Home	5	45, M. Dutta Road, Calcutta-28
Kanchan Nursing Home	3	Vill. & Post. Kanyanagar, P.S. Bishnupur, 24-Parganas

APPENDIX J

FAMILY PLANNING CENTRES¹ IN THE URBAN AND RURAL AREAS OF 24-PARGANAS DISTRICT

F. W. P. Centres		Post Office
URBAN		
Barasat Subdivisional Hospital		Barasat
Basirhat Subdivisional Hospital		Basirhat
B. N. Bose Subdivisional Hospital		Barakpur
Bangaon Subdivisional Hospital		Bangaon
Chunaripara		Ichapur
Diamond Harbour Subdivisional Hospital		Diamond Harbour
M. R. Bangur Hospital		Tollyganj, Calcutta-33
Naihati		Naihati
Panihati Stage General Hospital		Panihati
Sagar Dutta Hospital		Kamarhati
RURAL		
Amdanga	P.H.C.	Amdanga
Amgachia	P.H.C.	Nepalganj
Baduria	P.H.C.	Rudrapur
Bagda	P.H.C.	Bagda
Baruipur	P.H.C.	Baruipur
Bhatipota	S.H.C.	Beenta
Bandipur	P.H.C.	Bandipur
Birajlaxmi	S.H.C.	Pujali
Biswanathpur	P.H.C.	Deganga
Canning	P.H.C. (I)	Canning Town
Canning	P.H.C. (II)	Canning Town
Canning	P.H.C. (III)	Canning Town
Chandpara	P.H.C.	Thakurnagar
Chhoto Jagulia	P.H.C.	Chhoto-Jagulia
Chhoto-Mollakhali	P.H.C.	Chhoto-Mollakhali
Dhanyakuria	P.H.C.	Dhanyakuria
Dwariknagar	P.H.C.	Dwariknagar

¹ Source: C. M. O. H., 24-Parganas.

APPENDIX I (Contd.)

F. W. P. Centres		Post Office
RURAL		
Phalta	P.H.C.	Phalta
Gadamathurapur	S.H.C.	Gurudaspur
Gajapeali	S.H.C.	Peali
Gopalpur	S.H.C.	Gopalpur
Habra	P.H.C.	Tababaria
Hatgachi	S.H.C.	Agarhati via Canning
Jaynagar	P.H.C.	Kultali
Kakdwip	P.H.C.	Kakdwip
Kulpi	P.H.C.	Kulpi
Madhyamgram	P.H.C.	Madhyamgram
Magrahat	P.H.C.	Magrahat
Mathurapur	P.H.C.	Mathurapur
Minakhan	P.H.C.	Minakhan
M. R. Chowdhury	P.H.C.	Sarisha
Padmarhat	P.H.C.	Dakshin Barasat
Panchagram (Netra)	P.H.C.	Panchgaon-Singberia
Pukurkona	P.H.C.	Birballavpara
Purandarpur	P.H.C.	Pakurhat
Ramkisorpur	P.H.C.	Radhanagar via Diamond Harbour
Rekjoani	P.H.C.	Rajarhat
Sagar	P.H.C.	Rudranagar
Sahebkhal	S.H.C.	Sahebkhal
Sandeskhali	P.H.C.	Khulna (W.B.)
Sarapul	P.H.C.	Sarapul
Sarsuna	P.H.C. (I)	Sarsuna, Calcutta-61
Sarsuna	P.H.C. (II)	Sarsuna, Calcutta-61
Shamali	P.H.C.	Nahajari
Sibhati	P.H.C.	Sibhati
Sonarpur	P.H.C.	Kodalia
Sri Ram Krishna	P.H.C.	Nimpith Asram
Sundarpur	S.H.C.	Patsimulia
Taki	P.H.C.	Taki
Tona	P.H.C.	Palerhat
Usthi	F.P.C.	Usthi

CHAPTER XVII

OTHER SOCIAL SERVICES

With a view to fostering the growth of a healthy spirit of community life among the industrial labour by providing for such recreational and other beneficial activities as would widen their mental horizon and keep them physically fit, the scheme of setting up welfare centres wherever there is a concentration of industrial labour was devised under the Fourth Five-Year Plan. Special health service benefits of various types are also allowed to the industrial workers in specified areas through different schemes under the Employees' State Insurance Act. The programme of Labour Welfare may be divided into two main headings, labour welfare and social security.

Of the several labour welfare measures undertaken in the district the establishment of labour welfare centres is one. These are situated in close proximity to areas having predominantly labour population; viz., at (1) Baruipur, (2) Bangaon, (3) Baj Baj, (4) Kankinara, (5) Nawabganj, (6) Naihati, (7) Sodepur, (8) Belgharia, (9) Dam Dam, (10) Sundia, (11) Patulia and (12) Birlapur. Of these 12 labour welfare centres, the last 5 are Model Labour Welfare Centres. The working hours of these centres in the industrial areas are at present from 12 noon to 8 p.m. with exception of a few centres where the working hours are from 1 p.m. to 9 p.m. The centres have opportunities of education in primary classes for workers' children, library for workers, craft and physical training and other recreational facilities.

The following is a brief description of the various facilities and amenities provided by the Labour Welfare Centres. Education: (a) Primary classes for workers' children are held in the labour welfare centres where the syllabus prescribed by the Education Department is followed. Tuition is free; books, slates and pencils are also provided free of charge to students. The staff attached to the Labour Welfare Centres conduct the classes. The staff of the Labour Welfare Centres also conduct Adult Education classes. (b) Each labour welfare centre has a small library of selected books in Bengali, Hindi and Nepali. Besides daily newspapers in Bengali, Hindi and English, weekly and monthly magazines etc. are also supplied to each of the labour welfare centres. (c) Group discussions on subjects relating to labour welfare, economic plans and projects, topics on family planning and national and special importance are

LABOUR
WELFARE

also arranged from time to time. (d) Tape-recording of music, dance, etc. and also group discussions and interviews of the labour welfare centres are done by the All India Radio and Doordarshan, Calcutta. These are subsequently broadcast as part of the "Mazdoor Mandali" programme of the A.I.R., Calcutta and also occasionally shown under the Doordarshan programme, "Silpa Jagat".

Craft training: Training in knitting, tailoring, etc. for women members are provided in the labour welfare centres. In addition, arrangements are made to impart training in basket making, rope making, etc. by trained instructors in the Model Welfare Centres.

Training in physical culture under trained instructors is imparted to the members of some of the Model Labour Welfare Centres.

Unit level classes under Workers' Education Scheme are held regularly. This Workers' Education Programme is sponsored by the Government of India, Ministry of Labour & Rehabilitation. The scheme covers all industrial workers, literate as well as illiterate, whether or not they are members of a union. Full time union officials and staff are also eligible for the services under the scheme. The programmes are intended in particular, to provide instruction in trade union consciousness, the purposes, functions and administration of trade unions and the conduct of union management relations. In short, the programmes are designed to ensure the development of the worker into a mature individual and create a mental atmosphere congenial to the development of leadership from among the ranks of workers. The Barakpur Regional Workers' Education Centre was inaugurated in 1964. This centre is responsible for implementing the Workers Education Programme at the second and the third stages, viz., the training of Worker Teachers and the training of the rank and file of workers in the region which covers Barasat and Basirhat Subdivisions of 24-Parganas, Nadiya, Murshidabad, Malda, West Dinajpur, Darjiling and Jalpaiguri. Workers' Education Programme has been able to attract workers towards Unions and has also motivated them to take more active interest in all their activities.

The Barakpur Regional Centre made efforts to stimulate trade unions and educational institutions to undertake Workers' Education Programme on the approved pattern and standard by making financial grants. During the last few years several national unions and federations accepted grants-in-aid from the Board and conducted Workers' Education Programme with the active co-

operation of the Barakpur Regional Centre. The Barakpur Regional Centre has a well-equipped library and receives a good number of important journals and periodicals from India and abroad. The centre also serves as a clearing house for information on problem related to labour-management relations. It is also equipped with audiovisual sides like 16 mm. film projector, charts, diagrams, flannel graphs, and various other audiovisual aids. The centre has a sales counter for publications which are sold at a subsidised price.

Almost every labour welfare centre is provided with a radio set. The Information and Cultural Department, Government of West Bengal and the Field Publicity Department, Government of India help in arranging free cinema shows and holding exhibitions at the centres. Periodical musical functions offering 'Kirtan', 'Qwali', 'folk song', etc. are organised by the staff of labour welfare centres. Musical instruments for use of the worker-members are supplied to some of the centres. For this purpose the part-time music masters have been appointed in some labour welfare centres to impart training in music to the participant workers and their family members. Each labour welfare centre is equipped with carom boards, playing cards, chess, table-tennis, ludo, etc. for conducting indoor games. Facilities for outdoor games like football, volley ball, badminton, etc. are also provided in the centres. Special functions, matches, prize distribution ceremonies, Annual children's sports, labour welfare day, etc. are also held in the centre. One Holiday Home at Fraserganj in the district is proposed to be set up for industrial workers.

Recreational activities

Special health service benefits of various types are allowed to the industrial workers in specified areas through different schemes under the Employees' State Insurance Act. The benefit provisions of the ESI Scheme as embodied in the ESI Act, 1948, were first introduced in two districts of West Bengal on the 14th August 1955, and subsequently, extended to the industrial workers in the district of 24-Parganas with effect from the 29th March 1964.

Employees' State Insurance Scheme

All employees in registered factories having more than 20 employees are compulsorily registered under this scheme who are in receipt of monthly remuneration not exceeding Rs. 1,000/-, excluding overtime. The benefits available to the insured workers and families under the Scheme can be classified as (1) Cash Benefits, and (2) Medical Benefits. Whereas the cash benefits are administered by the Regional Office of the ESI Corporation at Calcutta, the medical benefit is given by the State Government through the

Directorate of ESI (Medical Benefits) Scheme. The cash benefits, that the insured persons are provided under the Scheme are (1) sickness benefit; (2) extended sickness benefits; (3) maternity benefit for female workers; (4) disability benefits both in cases of permanent and temporary disability; (5) Dependants' Benefits and funeral benefits to the dependants of the deceased workers. The medical benefit is administered under three broad categories, namely, (1) out-door treatment; (2) specialists' services and (3) hospitalisation facilities. Among the implemented areas, the families of 24-Parganas are getting only restricted benefits by way of out-door treatment. Specialists' services are also given to them through Specialists' Units constituted in ESI Hospitals and other General Hospitals—both Government and non-Government. There are 77 specialists' services units working in the district for insured persons. There were 89 private chemists' and 12 Government chemists' shops supplying medicines to the insured persons, whereas 666 outpatients were treated through IMP's in the district in 1974.

Industrial
housing

There is also a Subsidised Industrial Housing Scheme in the public sector for the welfare of industrial workers. Following is a list showing construction of houses under the Integrated Subsidised Housing Scheme for industrial workers and weaker section of the community:

Flats at	No. of flats	Remarks
1. H. K. Sett Lane, Kashipur	160	Completed
2. Mahesh Mukherjee Feeder Road, Kamarhati	80	-do-
3. Junction of Picnic Garden and Kusthia Road	176	-do-
4. Diamond Harbour Road, Opposite to St. Elizabeth Girls' School	136	-do-
5. Gopalpur Sampamirjanagar at Baj Baj	672	Completed (CMDA Deposit work)
6. Baj Baj Gumar Math	396	Completed

PROHIBITION¹

There is no prohibition and temperance measures in the district, but with regard to the use of opium, some controlling measures

¹ Source: Superintendents of Excise, South and North area, 24-Parganas.

have been adopted. Ration cards are issued to opium eaters on medical grounds only. There were 4,083 opium eaters in the district on 31 December 1975. The habit of opium eating in the district has been on the decline, mostly on account of death of old addicts and on grounds of giving up of habit owing to recovery from ailments. The number of opium cards registered during the last five years is as follows:

Years	No. of cards
1971-72	5,346
1972-73	4,999
1973-74	4,771
1974-75	4,613
1975-76	4,093

Regarding the country liquor and other allied shops, the figures are as follows:

Nature of shops	No. of shops
Country spirit	95
Foreign liquor	44
Tari	88

Demand and collection of Excise Revenue in the district during the 1970-71 and 1975-76 financial years are furnished below:

Year	Demand Rs.	Collection Rs.
1970-71	2,29,30,238	2,29,27,088
1975-76	2,43,34,332	2,43,00,200

After Independence, the problem of the tribals who live interspersed with the general population, received special attention of the Government. A special ministry for Aborigines and Backward Classes was set up in June 1949 which co-ordinated the activities of the different departments in relation to the backward classes. Since June 1952, the administration of the tribal welfare activities was placed under the charge of a fullfledged Tribal Welfare Department.

During the early stage of the First Plan Period, the welfare schemes for scheduled tribes were implemented by the different departments of the State Government out of their own budget. In

ADVANCEMENT
OF BACKWARD
CLASSES AND
TRIBES

1954-55, a separate budget provision was made for Scheduled Tribes Welfare Schemes. A co-operative grain-gola was opened at Baman-ghata in the district during the First Plan. A whole-time Tribal Welfare Officer was appointed in the district in 1954-55. That year in the Kantatala area of the Bhangar P.S. test-relief operations were started for construction of roads connecting the tribal villages with the main road. *Dhotis*, *Saris* and blankets were distributed free among the tribes. The tribal children of the Kantatala area were taken on an excursion to the Alipore Zoo Gardens. The following sums were also spent for tribal welfare in 1954-55 in the district.

	Rs.
Provision of free tuition	5,269
Grant of stipends, etc.	320
Agricultural Demonstration Centre	1,500
Rural water-supply	13,200
Grant to one adult education centre and seven night schools	1,600
Reservation of two T.B. beds	4,000

In 1955-56, a Gazetted Special Officer, Tribal Welfare, replaced the Non-Gazetted Tribal Welfare Officer in the district. The new officer was vested with the powers of a Collector under Chapter VIIA of the Bengal Tenancy Act for restoration of land rights. In 15 cases, out of 143 filed, he delivered back the land to the tribals. A sum of Rs. 504 was spent on free legal aid.

The following sums were spent that year in the district for the welfare of the tribals:

	Rs.
1. Water-supply—22 projects	25,350
2. Water-supply for Harijans—50 projects	62,463
3. Special Water-supply for Sundarbans— 375 tube-wells	—
4. Book grants and boarding charges— 28 students	1,840
5. Grant to night schools—7 schools	1,400
6. Tribal sports	400
7. Grant to the exhibition at Bongaon	300
8. A club-house for Harijans at Bara-Bankra (Basirhat)	3,078
9. One social education centre in Basirhat	200
10. One pumping plant at Bongaon	2,250
11. Poultry birds	600

During the Second Plan Period, emphasis was given to the economic uplift of the tribals. A high priority was also given to their educational advancement. The Third and Fourth Plan similarly stressed on their economic regeneration. In the Fifth Plan, however, an important scheme, namely, the Integrated Tribal Development Project was undertaken. The State Government, after discussion with the Planning Commission, identified areas of tribal concentration at the village level where the tribal population was at least 50 per cent of the total village population. The broad objectives of the sub-plans undertaken here were to maximise the economic efforts for the economic welfare of Scheduled Tribes people living in ITDP areas and thereby to narrow the gap in the levels of development of tribal and other areas and to improve the quality of their social and cultural life. There is one such block in Sandeshkhali Police Station comprising 8 *mouzas* having 52.11 per cent of tribal population. Similar development schemes have also been undertaken for scheduled castes and integrated blocks are being thought of for them in the Sixth Plan.

The following table shows the sums spent on pre-matric education for the backward classes in recent years.

EXPENDITURE ON PRE-MATRIC EDUCATION AMONG BACKWARD CLASSES IN
24-PARGANAS DISTRICT: 1975-78

Name and the Scheme	1975-76 Expendi- ture	No. of students	1976-77 Expendi- ture	No. of students	1977-78 (Probable) Expendi- ture	No. of students
Book grants and examina- tion fees (scheduled caste)	3,31,000	16,000	6,25,000	12,000	5,12,000	25,000
Book grants and examina- tion fees (scheduled tribes)	26,000	1,200	65,000	2,700	25,000	1,300
Tuition fees (S.C.)	6,62,000	14,000	8,10,000	18,000	11,00,000	15,000
Tuition fees (S.T.)	1,03,000	2,000	1,23,000	2,600	88,000	1,700
Hostel charges (S.C.)	5,39,000	1,200	5,46,000	1,700	5,33,000	1,200
Hostel charges (S.T.)	1,54,000	345	1,33,000	360	1,36,000	320
Coaching arrangements (S.C.)	N.A.	N.A.	N.A.	N.A.	35,000	100

The following table shows the sums spent on Government of India's post-matric scholarships to the backward classes reading in colleges, universities for law, medicine, engineering, etc. Expenses for 2-class Higher Secondary classes under this scheme have been added in 1977-78.

EXPENDITURE ON POST-MATRIC EDUCATION AMONG BACKWARD CLASSES IN
24-PARGANAS DISTRICT: 1976-78

Subdivisions		1976-77		1977-78	
		Expendi- ture	No. of students	Expendi- ture	No. of students
Sadar and Diamond Harbour	Scheduled Caste	37,63,537	5,380	37,68,605	4,395
	Scheduled Tribes	40,976	56	12,650	10
Barasat, Barakpur and Bangaon	Scheduled Cast	38,99,858	5,116	37,60,669	5,877
	Scheduled Tribes	10,795	19	11,952	23
Basirhat	Scheduled Caste	9,09,497	1,305	9,68,930	1,263
	Scheduled Tribes	25,910	35	21,215	52

The Government also spent huge sums on different schemes for the welfare of the scheduled tribes a few years ago as can be understood from the following table.

Name of the Schemes	Amount spent in the year (Rs.)			Remarks
	1971-72	1972-73	1973-74	
1. T. D. Sub-Block Schemes tube-wells and construction of Houses	65,139.75	59,900.00	14,870.00	Centrally sponsord
2. Construction of <i>Bundhs</i>	—	—	48,577.96	-do-
3. Co-operative Grain-Gola Societies (15 Societies)	15,450.00	24,100.00	—	Subsidies
4. Minor Irrigation Schemes	—	18,000.00	8,956.00	—
5. Construction of Houses	—	4,800.00	10,800.00	—
6. Construction of F.P. School buildings	—	5,000.00	—	—

The following sums were spent in recent years for the welfare of the backward classes in the district.

ECONOMIC WELFARE SCHEMES FOR BACKWARD CLASSES
OF 24-PARGANAS DISTRICT: 1975-79

Year	Schemes meant for	Name of the Scheme	Target (approx.)	Expenditure (Rs.)
1975-76	Scheduled Castes	Water supply	16 tube-wells	92,497
1975-76	Scheduled Tribes	"	6 "	30,695
1975-76	S.C.	Rehabilitation	15 houses and 3 tube-wells	30,150
1976-77	"	"	20 houses	30,000
1975-76	"	Housing	25 "	37,500
1976-77	"	"	66 "	99,000
1977-78	"	"	N.A.	1,74,000
1978-79	"	"	N.A.	1,32,000
1975-76	S.T.	"	3 houses	4,500
1976-77	"	"	3 "	4,500
1977-78	"	"	N.A.	45,000
1978-79	"	"	N.A.	27,000
1976-77	S.C.	Poultry and live-stock	240 families	63,800
1976-77	S.T.	"	3 "	6,600
1977-78	S.C.	"	N.A.	25,960
1977-78	S.T.	"	N.A.	7,260
1978-79	S.C.	"	N.A.	55,000
1978-79	S.T.	"	N.A.	11,000
1977-78	S.C.	Construction of dug-well	N.A.	2,58,000
1977-78	S.T.	"	N.A.	1,10,000
1978-79	S.C.	"	N.A.	1,53,000
1978-79	S.T.	"	N.A.	75,000

Besides the expenditure incurred as in the table above, sums were also spent for different schemes in the Scheduled Tribes Sub-Plan area in Sandeshkhali P.S. as under :

Year	Name of the Scheme	Target (approx.)	Expenditure (Rs.)
1977-78	Live-stock	10 families	2,200
1978-79	Live-stock	N.A.	2,200
1977-78	Construction of dug-well	2 houses	2,000
1978-79	"	N.A.	3,000
1977-78	Construction of dug-well	N.A.	10,000
1978-79	"	N.A.	6,000

The alienated land of some tribals were formerly restored to them under Chapter VII-A of the Bengal Tenancy Act. Provision for protection of the land of the tribals was also made in West Bengal Land Reforms Act. The following table shows the quantum of land of the Scheduled Tribes people alienated and restored in recent times.

ALIENATION/RESTORATION OF LAND OF SCHEDULED TRIBES PEOPLE IN 24-PARGANAS DISTRICT: 1970-78 (IN ACRES)

Year	Land alienated with permission to non-tribal	Land restored to tribals
1970-71	1.63	nil
1974-75	4.08	5.60
1977-78	3.34	1.15

There are two welfare centres for Scheduled Tribes—one at Nazat, Sandeshkhali P.S. and the other at Kumirmari in Basanti P.S. They have recently been renovated at an approximate cost of Rs. 40,000 each. The affairs of the backward people are looked after by the Special Officer, Scheduled Castes and Tribes Welfare at Alipur; Special Officer, Scheduled Castes and Tribes Welfare at Barasat and the Tribal Welfare Officer at Basirhat. The first officer, however, looks after the welfare activities of these people for the entire district.

The Charitable Endowments Act, 1890 (Act 6 of 1890 of the Government of India) provides for the vesting and administration of property held in trust for charitable purposes including relief of the poor, education, medical relief and the advancement of any other objects of general public utility, but does not include a purpose which relates exclusively to religious teaching or worship. The following table shows the endowments created under the Act as functioning in the district.

CHARITABLE ENDOWMENTS IN 24-PARGANAS DISTRICT¹

Name of endowment	No. of vesting Order	Amount donated	Purpose
Narendra Narain Dutta Fund	2068-Medl. dt. 15.7.1924	1,000 (3 % loan 1896-7) 19,500 (3 % loan 1946) 2,900 (5½ % loan 1982)	Maintenance of charitable hospital and dispensary under Jaynagar-Majilpur Municipality
Prasannamayee Charitable dispensary at Sarsuna	3067-Medl. dt. 23.12.1925	34,900 (3 % loan 1946)	For maintenance
Bhabla School—Mookerjee Endowment Fund	1823-Edn. dt. 23.6.1924	8,600 (3 % loan 1946)	For maintenance of Bhabla Primary School
Manual Girls' School Fund, Baj Baj	638-Edn. dt. 17.3.1939	20,000 (3 % loan 1946)	For maintenance of the School
Novinkrishna Mitra Memorial Fund	1690-Misc. dt. 20.11.1930	54,000 (3 % loan 1946)	For development of Jaynagar-Majilpur Municipality
Devi Prasad Agarwalla School Fund	1619-Edn. dt. 11.12.1916	63,200 (3 % loan 1946)	For development of the school at Barakpur

¹ Source: Treasurer of Charitable Endowments, West Bengal.

CHAPTER XVIII

PUBLIC LIFE AND VOLUNTARY SOCIAL
SERVICE ORGANIZATIONSREPRESENTATION
OF THE DISTRICT
IN THE STATE
AND THE UNION
LEGISLATURES

After Independence, six General Elections and two mid-term Assembly Elections were held in the State of West Bengal up to 1977.

The district had different numbers of seats at different times according to the orders of the Delimitation Commission, India.

In the first and second General Elections, there were 2 double-member Lok Sabha constituencies and 9 double-member Vidhan Sabha constituencies. Those were reserved seats for the Scheduled Castes candidates. Before the third General Elections, double-member constituencies were abolished and some constituencies were kept reserved for the Scheduled Castes candidates.

The table below shows the number of seats allotted to the district at different elections.

Elections	No. of constituencies in		No. of seats in	
	Lok Sabha	Vidhan Sabha	Lok Sabha	Vidhan Sabha
First General Elections 1951-52 ¹	4 (2 double-member)	31 (9 double-member)	6	40
Second General Elections, 1957 ²	5 (2 double-member)	33 (9 double-member)	7	42
Third General Elections, 1962 ³	7	42	7	42
Fourth General Elections, 1967 ⁴	7	50	7	50
Mid-term Assembly Elections, 1969 ⁴	—	50	—	50
Fifth General Elections, 1971 ⁴	7	50	7	50
Mid-term Assembly Elections, 1972 ⁴	—	50	—	50
Sixth General Elections, 1977 ⁵	8	55	8	55

¹ Delimitation of Parliamentary and Assembly Constituencies (West Bengal) Order, 1951.

² Delimitation of Parliamentary and Assembly Constituencies Order, 1956.

³ Delimitation of Parliamentary and Assembly Constituencies Order, 1961.

⁴ Calcutta Gazette, Extraordinary, February 14, 1966 (Order of the Delimitation Commission, in respect of Parliamentary and Assembly Constituencies in the State of West Bengal).

⁵ Calcutta Gazette, Extraordinary, June 30, 1975 (Order of the Delimitation Commission, in respect of delimitation of Parliamentary and Assembly Constituencies in the State of West Bengal).

Up to 1969, electors from Graduates, Teachers and Local authorities sent members to the Legislative Council or Vidhan Parishad. Its constituencies were generally formed by zonal divisions. In 1969, the Vidhan Parishad was abolished. The Congress and the Communist Party played the main part in the political field of the district.

In the First General Elections of 1951-52, the Congress won 4 Parliamentary and 23 Assembly seats out of 6 and 40 seats respectively. The Communist Party had 8 Assembly seats and 2 Parliamentary seats. Other Assembly seats were divided among Krishak Mazdoor Praja Party 4, Jana Sangha 1, Forward Bloc (Ruikar) 1 and independent 3 candidates.

In the Second General Elections of 1957, Congress had 3 Parliamentary and 20 Assembly seats out of 7 Parliamentary and 42 Assembly seats. The Communist Party had 2 Lok Sabha and 14 Vidhan Sabha seats. Other two Lok Sabha seats were won by the Praja Socialist Party and Independent candidates. Remaining 8 Vidhan Sabha seats were divided among other parties like the Praja Socialist Party 4, Forward Block—Marxist 1 and Independents 3.

In the Third General Elections, held in 1962, the Congress had 5 Lok Sabha seats and 33 (including one uncontested seat) Vidhan Sabha seats. The Communist Party had 2 and 8 seats in the Lok Sabha and Vidhan Sabha respectively. Remaining seat was won by an Independent candidate.

Fourth General Elections were held in 1967. Before the Fourth Elections, the Communist Party splitted up into the Communist Party of India and the Communist Party of India (Marxist) parties. Bangla Congress was formed by a group of dissident Congress members. The most striking feature of this Election was that Congress could not win a single Lok Sabha seat and secured only 12 seats in the Assembly Elections, though they contested in all the constituencies. The C.P.I. (Communist Party of India) secured 3 Lok Sabha seats and 3 Assembly seats out of 4 and 12 contestants. The Communist Party of India (Marxist) had 2 and 18 seats, contesting 3 and 29 constituencies. Bangla Congress secured 1 and 9 seats fielding 1 and 17 candidates. The remaining Lok Sabha seat was won by an Independent candidate and 8 Assembly seats were secured by the Socialist Unity Centre (3 out of 4), Forward Bloc (2 out of 3), Bharatiya Jana Sangha (1 out of 14) and Sanjukta Socialist Party (1 out of 2) and an Independent candidate. SUC and SSP also returned as Independents in the results.

Political unrest caused President's Rule in the State and a Mid-

Vidhan Parishad

Political Parties and Organisations: Local & All India. Hold on the District at different times and as reflected in the last elections

Calcutta. Mohanlal Vidyabagis and Sibnath Sastri also edited the journal for some time respectively between 1865 and 1874 when Dwarakanath was on leave from the post of Editor for about 9 years from 2 January 1865 to 26 July 1874. Dwarakanath resumed his post on 27 July 1874. He was the foremost editor publishing political news, commentaries as well as articles on social and economic affairs. In the field of literature also *Somprokas* was of high standard. It agitated on the cause of the peasants, and was one of the champions of the workers in indigo plantations. The increasing influence of the *Somprokas* as well as its bold voice frightened the British Government after imposition of the Vernacular Press Act in 1878. The Government's attitude towards the *Somprokas* was severe. Indeed, after a while the Government demanded a bond and a security for one thousand rupees from the *Somprokas* following the publication of a newsletter by its correspondent from Lahore. The *Somprokas* failed to satisfy Government and as a result it ceased publication for about a year.

HALISAHAR
PATRIKA

The *Halisahar Patrika* was edited and published by Janakinath Ganguli and was managed by young students of Halisahar. It was first published on 1st *Vaisakh* 1278 B.S. (A.D. 1871). In its first year it was a monthly, in the 2nd a quarterly and on and from the 3rd year it became a weekly newspaper. It fought for the cause of the *Riyots* and workers of indigo plantations, and also claimed for political rights in favour of Indians. It criticised the policy and activities of the British Government in bold language and with an uncompromising attitude ignored the Sedition Act. The *Vernacular Press Act 1878* which was modelled on the *Iris Coercion Act of 1870* provided for seizing the press and confiscating printing machinery, paper and other materials if a warning given by Government was flouted, empowered the Government to issue search warrants and enter the premises of any press and to take other summary actions without going to court. The *Halisahar Patrika*, with other Bengali newspapers of that time was mentioned very frequently in minutes as offending organs which needed dealing with but which would gain considerable publicity if court proceedings were instituted. Hence the Government took action under the *Vernacular Press Act 1878*, and as a result the *Halisahar Patrika* was closed down.

BHARAT
SRAMAJIVI

Sasipada Bandyopadhyay of Baranagar, a Brahmo reformist of that time, published a periodical newspaper, the *Bharat Sramajivi*, in May 1874 from Baranagar. His attempt was to educate the labourers as well as the ordinary lower class people of the

country through the journal. The *Bharat Sramajivi* was the first newspaper of its kind published in our country to enlighten the lower class people and labourers in all matters. It was an illustrated monthly and priced at one paise each copy and had a large circulation, even among the remotest villagers.

The *Banga Mahila* and the *Hindu Lalana*, both fortnightlies, were the first two women-edited periodicals published in Bengali from the district, the former from Khidirpur and the latter from Barakpur Nawabganj, in the year 1871 (i.e. *Vaisakh* 1278 B.S.) and 1878 (i.e. *Magh* 1284 B.S.). They were also published by women.

BANGA MAH
AND HINDU
LALANA

The list of journals published up to A.D. 1900 is given in the next page.

JOURNALS PUBLISHED UP TO 1900 A.D.

Name	Periodicity	Place of publication
1. <i>Chhotojagulia Hitaishi Sabhar Baktrita</i> (1853)	Monthly	Chhotojagulia
2. <i>Rajpur Patrika</i> (1860)	Monthly	Rajpur
3. <i>Dharma Pracharini</i> (May 1864)	Monthly	Behala
4. <i>Hitamihir</i> (1277 B.S.)	Weekly	Khardah
5. <i>Aryoday</i> (1278 B.S.)	Monthly (later Fortnightly)	Baruipur
6. <i>Barahanagar Pakshik Samachar</i> (A.D. 1878)	Fortnightly	Baranagar
7. <i>Baruipur Chikitsatattwa</i>	Fortnightly	Baruipur
8. <i>Grambasi</i> (1280 B.S.)	Monthly	Ranaghat
9. <i>Bijnan Bikas</i> (1780 B.S.)	Fortnightly	Khardah
10. <i>Kanchrapara Prakasika</i> (1280 B.S.)	Monthly	Kanchrapara
11. <i>Hindu Bilasi</i> (1281 B.S.)	Monthly	Kanchrapara
12. <i>Hindu Darpan</i> (1281 B.S.)	Monthly	Boral
13. <i>Bharatbarshiya Arya Patrika</i> (1282 B.S.)	Monthly	Harinabhi
14. <i>Prempracharini</i> (A.D. 1882)	Fortnightly	Barakpur Nawabganj
15. <i>Krishipaddhati</i> (A.D. 1883)	Monthly	Baranagar
16. <i>Arya Pratibha</i> (A.D. 1886)	Weekly	Halisahar
17. <i>Prabha</i> (1301 B.S.)	Monthly	Neela, Diamond Harbour
18. <i>Arundhati</i> (A.D. 1895)	Monthly	Baranagar
19. <i>Chittaranjan</i> (A.D. 1897)	Monthly	Natra, Diamond Harbour
20. <i>Samsartattwa</i> (A.D. 1899)	Monthly	Baranagar
21. <i>Hitaishini</i> (A.D. 1900)	Monthly	Baranagar

No daily newspaper is published from the district. The popular Calcutta dailies are in circulation. A list of periodicals now published (1976) is given in the next page with relevant details.

BENGALI PERIODICALS PUBLISHED FROM 24-PARGANAS DISTRICT: 1976

Name	Date of first publication	Address
Weeklies		
<i>Chutki</i>	1968	Kankinara
<i>Barasat Barta</i>	1954	Barasat
<i>Barakpur Dhvani</i>	1966	Barakpur
<i>Diamond Harbour Hitaishi</i>	1913	Diamond Harbour
<i>Gana Samaj</i>	1969	Basirhat
<i>Satya Prakas</i>	1961	Barasat
<i>Pratisruti</i>	1968	Calcutta
<i>Mahestalar Khabar</i>	1973	Mahestala
<i>Alipur Barta</i>	1966	Mahestala
<i>Dainandin</i>	1961	Bangaon
<i>Basirhat Hitaishi</i>	1920	Basirhat
<i>Bidhannagar Saptahik Patrika</i>	1983	Bidhannagar
Fortnightly		
<i>Agnikon</i>	1967	Rahara
<i>Dakshina</i>	1961	Diamond Harbour
<i>Foot Path</i>	1968	Diamond Harbour
<i>Grahanar</i>	1966	Barasat
<i>Hirak Barta</i>	1970	Diamond Harbour
<i>Naya Duniya</i>	1965	Ashoknagar
<i>Nutan Jagat</i>	1970	Madhyamgram
<i>Runner</i>	1969	Bakhrat
<i>Sahar Theke Dure</i>	1969	Barasat
<i>Sancharan</i>	1966	Habra
<i>Suhrad Bartabaha</i>	1968	Basirhat
<i>Agnisikha</i>	1957	Baj Baj
<i>Gangeya</i>	1972	Baruipur
<i>Buray Ananda</i>	1972	Datta Pukur
<i>Bangaon Barta</i>	1972	Bangaon
<i>Rakta Swakshar</i>	1973	Bangaon
<i>Darsak</i>	1960	Belghoria
<i>Bidagdha Patrika</i>	1968	Sodepur
<i>Sundarban Samachar</i>	1970	Gosaba
<i>Satya Prakas</i>	1961	Barasat
Monthly		
<i>Samaj Siksha</i>	1959	Narendrapur
<i>Kabikantha</i>	1960	Jadabpur,
		Calcutta-32
<i>Gobardanga</i>	1972	Khantura,
		Gobardanga
<i>Kisalayer Mela</i>	1971	New Barakpur
<i>Padakshep</i>	1972	Kanchrapara
<i>Bandar</i>	1969	Diamond Harbour
Bi-Monthly		
<i>Ujjwal Bharat</i>	1957	Baguihati

Name	Date of first publication	Address
Quarterly		
<i>Abhati</i>	1965	Bishnupur
<i>Nandimukh</i>	1960	4/8, Sahid Nagar
<i>Samrat</i>	1970	Atabagan, Garia
<i>Sahitya Kalpa</i>	1973	Basirhat
<i>Baitanik</i>	1960	Behala
Half-Yearly		
<i>Brishti</i>	1973	Bowali
<i>Jagrihi</i>	1952	Katju Nagar
<i>Kancha Lekha</i>	1967	Deshbandhu Nagar

VOLUNTARY SOCIAL SERVICE ORGANIZATIONS

The history of voluntary social service organizations goes back to the mid-nineteenth century. The Vidyabilasini Sabha was established in 1847 to uplift the moral and intellectual condition of the youths of Mazilpur in Jaynagar police station.

The Harinabhi Pragati Sangha, Harinabhi, in Sonarpur police station has been running a free reading room, a text-book library, a children's section, a poor-fund, an industrial training-cum-production centre for women, and a handicraft co-operative society. Training in tailoring, embroidery, book-binding, block printing, chappal-making, etc. are given to women through its industrial-cum-production centre following the Lady Brabourne Diploma Course. It also organizes cultural functions and games.

Prativa Sahitya Mandir: Sanskrit Samstha, founded in 1955 and situated at Kamdahari in Jadabpur-Behala Block, is a registered organization, running an affiliated college of music, dance, drama and fine arts. Besides, it also maintains a library with general reference and children sections. The Gramin Geeti Samstha, devoted to folk culture, specially folk music and dance, was founded in A.D. 1964 and is located at South-end Gardens in Jadabpur-Behala Block. It is a registered organization and is affiliated to the State Academy.

Aswatthatala Janasevak Sangha, a registered multipurpose social service organization, situated at village Aswatthatala (in Kulpi police station) in Diamond Harbour Subdivision, was established in 1929 and owes its origin to Dinasram Sangha, as it was named at that time. It runs and organizes a pre-basic (nursery), a junior-basic and a senior-basic school, an adult education centre, a rural library, a co-operative society, a work-cum-training centre for weaving and wood craft, etc. Vivek Bharat was established in 1958 by a few school students as a voluntary organization, to repair and clean the local roads and streets, to clear jungles from dwelling areas, to

clean and reclaim drains, etc. It has been registered in 1966 under the Act as a social service organization and is now located in its own building at Kamdahari in Jadabpur-Behala Block of Sadar Subdivision.

Sir Daniel Hamilton, the founder of the Co-operative Commonwealth at Gosaba set up a number of projects for furtherance of his mission. Among these was the Gosaba Reading Club to propagate cultural and social welfare activities in this area while other parts of Sundarban did not even conceive of similar thing. That was the early foundation of Sir Daniel Hamilton Cultural Institute, which was organised, merging other local clubs into a single organization in December 1970. It is a registered institute having youth welfare activities, namely, library, sports & games, physical education, cultural and social welfare works and programme for economic development in rural areas.

Sri Ramakrishna Asrama, registered under the Act, started functioning in 1960-61 at Nimpith, 3 kms. away from Jaynagar. It is situated in the backward area of the Sundarbans for serving the people of the region through educational, cultural, medical, agricultural and economic activities. The Asrama has been running, among educational activities, an evening B.Ed. College (part time), a high school for boys, a junior high school for girls, a junior basic school, a residential school for scheduled castes and tribes, a hostel building for all communities and another college hostel at Calcutta. They are running an aided library and a museum which contains many clay models of folk gods, bronze and stone images. Besides, the Asrama maintains a Mahila Samiti which is a learning-cum-earning centre having women who are generally trained in tailoring, embroidery and needle-work. The Mahila Samiti has a building of its own. There is also a furnished guest house of the Asram. The Asram has an Agro-development centre for benefiting the poor and marginal farmers of the Sundarbans. It has a building of its own and has got 7 power tillers and 4 pumps-sets which serve the agriculturist of the one-crop areas for growing double crops, such as, sun flowers, ground units, boro-paddy, brinjals, chillis and vegetables. The Asrama also does some relief work.

Purva Jadavpur Samskritik Sangha, a registered organization, was founded in 1951 at Santoshpur in Jadabpur police station area. The institution has been running a library which is the recognised rural library of this area including a free reading room and children's section. Besides, it is running a school, a co-operative store, and maintains a theatre hall, named Rabindra Mancha etc.

Activities of the Bharat Scouts & Guides in the district were started with the inception of the 1st Behala Siksha Sangha at Bishnupur in March 1953. At present, there are 74 Scout groups who are working in several places through schools and local clubs. The district branch of the Indian Red Cross Society was founded in 1945 and is located at 27, Belvedere Road, Alipur. It has six subdivisional branches at Alipur, Basirhat, Barasat, Barakpur, Bangaon and Diamond Harbour. All of these branches were established in 1975. Considering the local conditions and in the best interest of the poor and needy people of their respective areas, the district branch and its subdivisions frame their programmes of relief activities and execute them by exploring local resources and grants from its State Branch. The State Branch of the Society supplies relief materials, such as, milk powder, baby food, biscuits, multi-vitamin tablets and other food stuff, blankets and clothings to the branches from time to time for distribution to the people in distress in normal times and particularly at the time of emergent situation created by drought, flood or cyclone in any area of the district. The six subdivisional branches in the year of their inception (1975) distributed clothing valued at Rs. 20,000 approximately to the poor and the needy in their respective areas. The District branch sets up a camp every year at the Ganga Sagar Mela and helps the indigent pilgrims by supplying milk, biscuits, blankets and medicines and rendering First-Aid. They also run a maternity home at Diamond Harbour since 1963.

The district centre of St. John Ambulance Association was formed on 14 October 1968 having three other centres at Kasba, Sodepur and Dam Dam. During 1975, the Association rendered training to 1,094 persons: in First Aid to the injured (817), Home nursing (183) and Hygiene and Sanitation (94). Inoculation & Vaccination programme was also organized by the association at different areas, and training classes were organized at Nehru Yuva Kendras, National Service Scheme Units in different colleges, and many other organisations, schools, etc.

CASA (Christian Association for Social Action), a missionary organization does relief work and assists development programme. They supply mid-day meal under the nutrition programme to many primary schools. They have sunk deep tube-wells for drinking water in forty schools in south 24-Parganas during 1974 and 1975. Besides, they are running several night schools and adult education centres in collaboration with the Bengal Social Service League. They

separately provide for 16 adult education centres in Diamond Harbour area of which 4 are females and 12 for males.

Ramakrishna Asrama Mahila Samiti, a sectional institute of Nimpith Sri Ramakrishna Asrama, is situated at Nimpith, Jaynagar. It is a learning-cum-earning centre of women folk of the locality, having 30 women-scholars on the rolls who are generally trained in tailoring, embroidery and needlework. There are two Lady Brabourne-trained teachers for the purpose. Certificates and prizes are awarded to the successful trainees. The Samiti has a building of its own.

Sarala Punyasrama, a social charitable institution for destitute women located at Ruby Park, Kasba was established in 1929 by late Sarala Das, the pious wife of late Benimadhab Das, the teacher of Netaji Subhas Chandra Bose. Main objects of the Asrama are (i) to provide shelter and education for distressed adult women, specially widows and married girls forsaken by their husbands, destitute children irrespective of caste, creed or who find it difficult to study and to be independent in life; (ii) to train women by arranging diplomas in various arts, crafts and small cottage industries; (iii) to coach them for School Final or Higher Secondary or similar examinations; (iv) to teach children and to train them in various handicrafts; (v) to train the grown-up girls in confectionery. The Asrama has also a pre-basic and a primary school in their premises besides the Benimadhab Vidyamandir, a school from class V to class X. They are running First Aid and nursing classes under St. John's Ambulance Association, Rabindra Sangit training classes with five years' course and a library for girls and women.

Sarada Ramakrishna (*Sishu-o-Mahila*) Sevasrama, a registered organisation, located at village Marjada within Magrahat Block II, is nearby a group of dedicated nuns (*Brahmacharinis*). There are 100 poor and destitute female children in the Asrama who are maintained, educated and trained in various crafts. The Asrama secures financial assistance from the State Government for the maintenance of the children. The Asrama has within its premises, besides the Welfare Home for the children, training centres for weaving, dyeing, tailoring, food processing and food preservation, poultry, bee-keeping, etc. Where the inmates of the Asrama Home, local-girls and women, and women trainees sponsored by different Government departments and voluntary agencies are imparted training. The Asrama also runs quite a few Adult and Non-formal Education Centres for women and girls. There are also a feeding centre and a Homoeopathy Clinic attached to the Asrama.

Diamond Harbour Mahila Samiti, located at Diamond Harbour, was founded in 1956. It is a reagistered organization set up for encouraging and promoting welfare and development activities among women in the Diamond Harbour Subdivision.

Pravartak Asrama, located at Fraserganj, a philanthropic and religious institution, is a branch organization of the Pravartak Sangha of Chandannagar. This is a residential institution for maintenance, education and training of destitute children of the locality. The institution has a weaving centre. The inmates are given training in weaving, tailoring, agriculture and music. A library has been started for the inmates. Inmates of the institute get primary education in its own school, and thereafter in the adjacent High School.

The Sisu Kalyan Parishad (The Children's Welfare Association) (Rakhal Mukherjee Road, Sarsuna) has got the following sections through which it renders service to destitutes—(a) Jyotirmoyee Seva Bhavan (Children's Home), (b) Griha Kalyani (the industrial centre) and (c) a high school for girls. The Association is registered under the Societies Registration Act, W.B. and was at first located in a rented house in Beliaghata. In 1960, it was shifted to its own premises—a building on a plot of land purchased by the Association—at Rakhal Mukherjee Road, Behala.

A philanthropic institution, located at village Vivekanandapur (P.O. Ashuti, via-Batanagar), was established in 1970, with a view to building the career of destitute boys in the light of the ideals of Sri Ramakrishna and his disciple Swami Vivekananda. It is a residential Asrama, where more than a hundred destitute boys are getting maintenance, education and training in type-writing, sewing, carpentry and agriculture, free of cost. The Asrama has a primary and a high school within its compound. It has a library and a charitable dispensary. It also does social and relief work in the locality.

A branch of the Ramakrishna Mission, it is situated at Narendrapur in P.S. Sonarpur. This Asrama has its services open to all, irrespective of caste, creed and nationality, its special field being education. (For details see Chapters XV and XIX.)

It was set up by Lady Abala Bose in 1938 at Dam Dam for rehabilitating destitute women. In 1948, it was shifted to its present site at Uday Villa, 6 km. to the north of Calcutta, on Barakpur Trunk Road. The site covers a garden-house on 30 acres of land surrounded on all sides by a long stretch of water. It has started implementing schemes for training and rehabilitation of destitute refugee women sanctioned by the Ministry of Rehabilitation,

THE RAMA-KRISHNA VEDANTA MISSION (ANATH ASRAMA)

RAMAKRISHNA MISSION ASRAMA NARENDRAPUR

THE WOMEN'S CO-OPERATIVE INDUSTRIAL HOME LTD.

Government of India since 1955. The Home is registered under the Bengal Co-operative Societies Act. It runs a Production Centre where needy women are engaged in manufacturing handicrafts like ceramics, batik, silk and cotton printing, paintings and greeting cards on silk, ladies leather bags and tailoring. It is managed by a committee of which 50% of the members are elected from the workers who are also the members of the co-operative. Generally, a woman comes here as a trainee, sponsored by Government from time to time. She is trained in various handicrafts according to her aptitude and capacity. At the end of her training period, she becomes a worker-member of the Society and starts getting wages on work done, to be accounted for every month. At the end of the year, she also gets the usual dividends and bonus as may be declared at a General meeting of shareholders. For her residence, she gets free accommodation, if necessary. In the initial stages, Government helped it, bearing the total cost of training the women and setting up a production centre with buildings and equipments and giving business loans, otherwise it is run entirely by a non-Government organization.

Subhas Institute (Nabapalli, Barasat), registered and affiliated to Barasat Subdivisional Sports Association, was founded in 1948. It has a library and it organizes sports, games, cultural and recreational programmes, etc. and also renders social, health, sanitation and crematory services.

An SOS children's village has been set up on 3.64 acres of land donated by the Government of West Bengal at Bidhannagar. The construction of the architecturally beautiful building complex of this village at a cost of about Rs. 31 lakhs started in April 1975 and was completed in December 1976 with funds collected and donated by the Road and T.V. Station, Saarland, West Germany under the SOS Kinderdorf International Programme initiated by Dr. Hermann Gmeiner.

The SOS programme fulfils three important social needs: care of the unwanted child, a job and security for dedicated needy women (in some cases for her children) and thirdly, a direct form of participation in social work for a large number of people through the sponsorship programme. Besides, SOS acts as a social catalyst. The SOS children have not become privileged or under-privileged children. Like all normal ones they are attending schools, joining in recreational activities in the neighbourhood parks and participat-

MISCELLANEOUS ORGANIZATIONS

SOS CHILDREN'S VILLAGE, BIDHANNAGAR

ing in various other activities. Their interaction with their peers outside may set the process of social change by influencing attitude towards socially handicapped children. The SOS village also offers various services to the neighbourhood through its nursery school, clinic shop, etc. It represents fusion of love and goodwill of one neighbour with another. It has become increasingly clear that SOS as a system of child care is ideally suited to Indian conditions. Each child grows up, loved by and belonging to a family in a simple Indian home. Its joint family atmosphere preserves all that is good in our traditional way of life. The child is also educated in modern ways with every opportunity to make his way into the mainstream of national life as a healthy citizen of our country.

Towards the end of 1976, the village, with 20 houses, a clinic, staff quarters, etc. was ready to receive the mothers and the children. On January 1977 a group of 24 women entered the Village with the Village Father. Most of these women had dreamt of a family which could not be achieved owing to some social catastrophe. The mothers underwent a 12-week training course and towards the end of the period, they were looking forward eagerly to receive their children and setting up homes on 28 February 1977. With the arrival of more and more children, the strength will increase until there are 200 children living in 20 homes.

The mothers are given a food allowance of Rs. 80 each per month besides a pocket money of Rs. 200 for their needy dependents elsewhere. Their accommodation is free and they get free supply of water and electricity. The children also come from various situations, abandoned in roads, hospitals, etc.

ROTARY CLUBS There are branches of the Rotary Club at Barakpur, Behala, Baj Baj, Dam Dam, Joka, Kamarhati and Bidhannagar.

APPENDIX A

LOK SABHA ELECTIONS IN 24-PARGANAS DISTRICT: 1952-80

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1952	Basirhat (2 seats, 1 SC.)	1. Communist	1,72,182	27.50
		2. Congress	1,28,716	20.56
	Barakpur	Congress	81,585	51.24
	Diamond Harbour (2 seats, 1 SC.)	1. Communist	1,20,982	17.79
2. Congress		1,18,671	17.45	
	Calcutta South-West	Congress	73,634	51.11
1957	Calcutta South-West	Independent	94,944	50.30
	Diamond Harbour (2 seats, 1 SC.)	1. Congress	2,36,192	24.25
		2. Communist	2,47,785	25.44
	Basirhat (2 seats, 1 SC.)	1. Congress	2,05,832	24.00
		2. Communist	1,86,004	22.00
	Barakpur	Praja Socialist Party	1,32,906	55.00
1962	Barasat	Congress	1,39,783	51.10
			1,88,398	50.16
	Barakpur	Communist Party of India	2,28,318	57.56
	Basirhat	Congress	1,67,476	53.70
	Jaynagar (SC.)	”	1,52,372	53.28
	Mathurapur	”	1,67,028	51.11
	Diamond Harbour	”	1,52,540	47.56
	Calcutta South-West	Communist Party of India	1,43,918	50.07
1967	Barasat	”	1,43,883	40.84
	Basirhat	Bangla Congress	2,40,491	70.81
	Jaynagar (SC.)	Independent	1,57,545	43.95
	Mathurapur (SC.)	Communist Party of India	1,85,300	45.91
	Diamond Harbour	Communist Party of India (Marxist)	1,96,176	51.09
	Alipur	Communist Party of India	1,21,694	32.41
	Barakpur	Communist Party of India (Marxist)	1,62,231	39.16
	Barasat	Communist Party of India	1,11,806	33.28
1971	Basirhat	Congress (R)	1,28,640	41.25

APPENDIX A—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
	Jaynagar (SC.)	Congress (R)	1,58,943	41.60
1971	Mathurapur (SC.)	Communist Party of India (Marxist)	1,11,656	27.02
	Diamond Harbour	"	2,04,987	53.42
	Alipur	"	1,73,795	53.52
	Barakpur	"	2,84,590	56.28
1977	Barasat	Forward Bloc	2,03,694	56.15
	Basirhat	Janata	1,68,644	49.27
	Jaynagar (SC.)	Janata	1,80,587	49.91
	Mathurapur (SC.)	Communist Party of India (Marxist)	1,88,227	48.57
	Diamond Harbour	"	2,67,890	70.61
	Jadabpur	"	2,36,085	68.00
	Barakpur	Congress	2,95,551	64.59
	Dam Dam	Janata	2,10,400	52.03
1980	Barasat	Forward Bloc	2,97,758	53.03
	Basirhat	Communist Party of India	3,11,121	57.62
	Jaynagar (SC.)	Revolutionary Socialist Party	2,36,044	45.72
	Mathurapur (SC.)	Communist Party of India (Marxist)	2,62,917	51.61
	Diamond Harbour	"	3,10,406	63.78
	Jadabpur	"	3,09,094	59.99
	Barakpur	"	2,66,698	56.72
	Dam Dam	"	3,68,214	61.07

APPENDIX B

VIDHAN SABHA ELECTIONS IN 24-PARGANAS DISTRICT: 1951-82

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1951-52	Bangaon	Congress	7,510	37.34
	Gaighata	Congress	13,229	56.29
	Habra	Congress	14,951	52.00
	Swarupnagar	Congress	13,701	50.92
	Deganga	Congress	19,897	78.47
	Haroa-Sandeshkhali (2 seats, 1 SC.)	Congress Communist Party of India	9,594 14,935	12.90 20.07
	Hasnabad (2 seats, 1 SC.)	Congress Congress	14,065 10,482	17.43 12.99
	Basirhat	Congress	11,797	43.63
	Dam Dam	Congress	7,344	30.51
	Bhangar (2 seats, 1 SC.)	Congress Communist Party of India	16,943 16,176	17.77 16.97
	Baruipur (2 seats, 1 SC.)	Congress Communist Party of India	15,782 15,126	16.14 15.47
	Jaynagar (2 seats, 1 SC.)	Independent Independent	14,244 12,265	15.64 13.47
	Barasat	Congress	18,276	85.78
	Bijpur	Congress	10,035	49.51
	Naihati	Congress	10,878	50.06
	Barakpur	Congress	10,596	41.93
	Bhatpara	Congress	19,029	74.65
	Titagarh	Congress	10,441	50.87
	Baranagar	Communist Party of India	13,968	56.20
	Mathurapur (2 seats, 1 SC.)	Krishak Mazdoor Praja Party Congress	14,044 9,093	15.43 9.99
	Sagar	Krishak Mazdoor Praja Party	10,363	35.17
	Kulpi (2 seats, 1 SC.)	Krishak Mazdoor Praja Party Jana Sangha	23,270 16,101	21.95 15.19
	Magrahat (2 seats, 1 SC.)	Congress Congress	21,835 23,623	21.40 23.10

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1957	Falta	Communist Party of India	11,069	37.10
	Diamond Harbour	Krishak Mazdoor Praja Party	12,391	44.60
	Bishnupur (2 seats, 1 SC.)	Congress	14,755	14.79
		Communist Party of India	24,273	24.33
	Baj Baj	Communist Party of India	13,171	49.92
	Maheshtala	Communist Party of India	6,614	25.26
	Garden Reach	Congress	11,471	49.96
	Tollyganj	Independent	6,962	37.39
	Behala	Forward Bloc (Ruikar)	9,539	41.73
	Garden Reach	Communist Party of India	16,619	51.56
	Behala	Communist Party of India	20,683	64.80
	Maheshtala	Communist Party of India	14,091	41.41
	Baj Baj	Communist Party of India	18,443	51.52
	Bishnupur (2 seats, 1 SC.)	Communist Party of India	28,585	21.74
		Communist Party of India	28,476	21.67
	Baruipur (2 seats, 1 SC.)	Communist Party of India	35,628	26.88
		Communist Party of India	34,299	25.86
	Magrahat (2 seats, 1 SC.)	Congress	35,242	29.00
		Congress	33,004	26.00
	Falta	Congress	18,745	52.00
	Diamond Harbour	Praja Socialist Party	15,171	39.00
	Kulpi	Congress	22,948	53.00
	Kakdwip	Congress	28,764	64.00
	Mathurapur (2 seats, 1 SC.)	Congress	29,873	24.50
		Congress	32,273	25.50
	Jaynagar (2 seats, 1 SC.)	Independent	22,933	20.00
		Independent	16,668	14.50
	Bhangar	Congress	16,302	43.87
	Canning (2 seats, 1 SC.)	Congress	31,756	30.53
		Congress	29,779	28.63
	Sandeshkhali	Independent	11,154	36.70
	Hasnabad (2 seats, 1 SC.)	Communist Party of India	29,085	25.00
		Congress	29,812	25.00

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICES

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1957	Basirhat	Congress	13,330	39.00
	Baduria	Congress	24,088	57.50
	Swarupnagar	Congress	14,992	35.30
	Haroa	Congress	14,052	46.90
	Habra	Congress	29,825	61.00
	Deganga (2 seats, 1 SC.)	Congress	25,627	24.80
		Congress	21,432	20.80
	Barasat	Forward Bloc (Marxist)	13,455	40.00
	Dam Dam	Praja Socialist Party	26,990	58.50
	Baranagar	Communist Party of India	28,269	59.20
	Khardah	Praja Socialist Party	21,412	64.30
	Titagarh	Congress	12,768	44.30
	Noapara	Praja Socialist Party	17,765	58.60
	Bhatpara	Communist Party of India	9,417	39.90
	Naihati	Communist Party of India	17,128	52.40
	Bijpur	Communist Party of India	15,456	50.30
	Bangaon (2 seats, 1 SC.)	Communist Party of India	42,349	27.05
		Congress	35,809	22.87
	1962 Bagdah (SC.)	Congress	21,151	45.66
		Congress	33,220	56.87
	Bangaon	Congress	39,460	62.64
	Habra	Congress	26,919	50.42
	Barasat	Congress	20,377	47.25
	Bijpur	Communist Party of India	21,401	51.32
	Naihati	Communist Party of India	23,261	56.14
	Bhatpara	Congress	22,086	48.28
	Noapara	Communist Party of India	23,815	50.16
	Titagarh	Congress	37,132	58.21
	Khardah	Communist Party of India	40,830	56.9
	Baranagar	Communist Party of India	48,808	58.7
	Dam Dam	Communist Party of India		

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
	Rajarhat (SC.)	Congress	20,259	52.89
	Deganga	Congress	21,068	60.41
	Swarupnagar	Congress	29,067	50.01
	Baduria	Congress	24,205	52.68
	Basirhat	Congress	24,002	59.17
	Hasnabad	Congress	26,120	61.50
	Sandeshkhali (SC.)	Congress	17,564	41.49
	Kalinagar (SC.)	Congress	19,797	54.74
	Haroa	Congress	16,530	46.27
	Bhangar	Congress	30,320	57.69
	Basanti	Congress	20,131	60.44
	Canning (SC.)	Congress	15,759	45.96
	Jaynagar-North	Congress	24,185	52.58
	Jaynagar-South (SC.)	Congress	27,902	59.73
	Mathurapur-South East	Congress	20,743	45.23
	Kakdwip	Congress	20,778	34.37
	Mathurapur-North West (SC.)	Congress	24,429	52.30
	Kulpi	Independent	23,339	46.83
	Diamond Harbour	Congress	17,031	40.42
	Falta	Congress	24,249	52.71
	Magrahat-West	Congress	20,214	51.20
	Magrahat-East (SC.)	Congress—Uncontested		
	Baruipur (SC.)	Congress	24,597	57.17
	Sonarpur (SC.)	Communist Party of India	25,508	52.28
	Bishnupur-East (SC.)	Congress	28,657	61.07
	Bishnupur-West	Congress	24,723	52.65
	Baj Baj	Congress	21,573	48.68
	Maheshtala	Congress	24,498	56.79
	Behala	Communist Party of India	35,650	54.97
	Garden Reach	Congress	29,486	58.15

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1967	Bagdah (SC.)	Forward Bloc	32,263	71.08
	Bangaon	Congress	17,736	35.13
	Gaighata	Bangla Congress	18,922	39.17
	Ashokenagar	Communist Party of India	17,877	34.05
	Barasat	Forward Bloc	32,776	58.33
	Rajarhat (SC.)	Communist Party of India (Marxist)	14,874	30.30
	Deganga	Bangla Congress	30,073	73.11
	Habra	Bangla Congress	26,945	50.02
	Swarupnagar	Communist Party of India	32,087	56.66
	Baduria	Congress	19,824	37.38
	Basirhat	Communist Party of India	32,631	64.61
	Hasnabad	Bangla Congress	18,281	47.37
	Hingalganj (SC.)	Independent	14,478	31.75
	Gosaba (SC.)	Bharatiya Jana Sangha	17,620	38.70
	Sandeshkhali (SC.)	Congress	17,894	42.00
	Haroa (SC.)	Bangla Congress	23,613	61.03
	Basanti	Congress	21,325	38.54
	Canning (SC.)	Bangla Congress	28,961	58.18
	Kultali (SC.)	Independent	32,904	60.48
	Jaynagar	Independent	34,772	61.60
	Baruipur (SC.)	Independent	21,059	41.95
	Sonarpur (SC.)	Communist Party of India (Marxist)	18,019	36.12
	Bhangar	Bangla Congress	35,048	76.74
	Jadabpur	Communist Party of India (Marxist)	33,698	50.87
	Behala-East	Communist Party of India (Marxist)	20,757	45.77
	Behala-West	Communist Party of India (Marxist)	35,634	55.93
	Garden Reach	Congress	18,443	39.89
	Maheshtala	Communist Party of India (Marxist)	30,805	53.46
	Baj Baj	Communist Party of India (Marxist)	31,024	53.74

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
	Bishnupur-West	Communist Party of India (Marxist)	32,759	56.74
	Bishnupur-East (SC.)	Communist Party of India (Marxist)	19,224	39.69
	Falta	Communist Party of India (Marxist)	29,577	53.95
	Diamond Harbour	Communist Party of India (Marxist)	22,765	38.26
	Magrahat-East (SC.)	Communist Party of India (Marxist)	28,928	51.36
	Magrahat-West	Bangla Congress	26,891	47.42
	Kulpi (SC.)	Congress	29,682	53.62
	Mathurapur (SC.)	Bangla Congress	20,772	34.57
	Patharpratima	Independent	19,592	36.50
	Kakdwip	Congress	45,031	73.55
	Sagar	Congress	21,702	37.42
	Bijpur	Communist Party of India (Marxist)	17,662	38.72
	Naihati	Congress	26,619	46.83
	Bhatpara	Congress	32,027	49.45
	Noapara	Congress	21,248	42.62
	Titagarh	Congress	17,435	36.55
	Khardah	Communist Party of India (Marxist)	18,507	34.84
	Panihati	Communist Party of India (Marxist)	34,671	47.67
	Kamarhati	Communist Party of India (Marxist)	30,095	51.31
	Baranagar	Communist Party of India (Marxist)	31,354	52.50
	Dam Dam	Communist Party of India (Marxist)	37,066	53.64
1969	Bagdah (SC.)	Forward Bloc	23,885	53.06
	Bangaon	Communist Party of India	27,931	56.37
	Gaighata	Bangla Congress	21,888	45.29
	Ashokenagar	Communist Party of India	30,739	56.48
	Barasat	Forward Bloc	27,626	46.76
	Rajarhat (SC.)	Communist Party of India (Marxist)	23,841	44.80
	Deganga	Independent (Progressive Muslim League)	20,561	44.36

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
	Habra	Congress	27,588	47.89
	Swarupnagar	Communist Party of India	26,360	47.19
	Baduria	Communist Party of India (Marxist)	29,718	55.41
	Basirhat	Communist Party of India	27,668	51.12
	Hasnabad	Communist Party of India	17,256	42.68
	Hingalganj (SC.)	Communist Party of India	26,485	54.30
	Gosaba (SC.)	Revolutionary Socialist Party	29,528	60.08
	Sandeshkhali (SC.)	Communist Party of India (Marxist)	28,431	60.55
	Haroa (SC.)	Bangla Congress	17,477	39.78
	Basanti	Revolutionary Socialist Party	21,675	38.99
	Canning (SC.)	Congress	25,783	48.13
	Kultali (SC.)	Socialist Unity Centre	30,196	52.40
	Jaynagar	Socialist Unity Centre	31,873	54.88
	Baruipur (SC.)	Sanjukta Socialist Party	27,616	50.84
	Sonarpur (SC.)	Communist Party of India (Marxist)	31,179	56.86
	Bhangar	Congress	16,583	34.68
	Jadabpur	Communist Party of India (Marxist)	43,793	63.25
	Behala-East	Communist Party of India (Marxist)	29,600	62.96
	Behala-West	Communist Party of India (Marxist)	38,223	57.00
	Garden Reach	Communist Party of India	29,871	57.51
	Maheshtala	Communist Party of India (Marxist)	28,367	47.18
	Baj Baj	Communist Party of India (Marxist)	37,137	61.10
	Bishnupur-West	Communist Party of India (Marxist)	30,730	53.65
	Bishnupur-East (SC.)	Communist Party of India (Marxist)	22,984	48.97
	Falta	Communist Party of India (Marxist)	31,348	57.54
	Diamond Harbour	Communist Party of India (Marxist)	32,094	56.68
	Magrahat-East (SC.)	Communist Party of India (Marxist)	30,523	51.24
	Magrahat-West	Bangla Congress	20,126	34.12
	Kulpi (SC.)	Bangla Congress	25,207	50.51

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
	Mathurapur (SC.)	Socialist Unity Centre	31,283	50.89
	Patharpratima	Socialist Unity Centre	33,981	57.00
	Kakdwip	Congress	30,114	49.76
	Sagar	Bangla Congress	36,310	60.41
	Bijpur	Communist Party of India (Marxist)	27,956	51.37
	Naihati	Communist Party of India (Marxist)	37,891	55.89
	Bhatpara	Communist Party of India (Marxist)	33,554	49.79
	Noapara	Communist Party of India (Marxist)	32,718	55.02
	Titagarh	Communist Party of India (Marxist)	30,723	57.27
	Khardah	Communist Party of India (Marxist)	35,325	57.34
	Panihati	Communist Party of India (Marxist)	53,346	69.71
	Kamarhati	Communist Party of India (Marxist)	43,111	65.04
	Baranagar	Communist Party of India (Marxist)	45,261	61.79
	Dam Dam	Communist Party of India (Marxist)	45,159	59.39
1971	Bagdah (SC.)	Forward Bloc	19,851	48.88
	Bangaon	Communist Party of India	20,127	44.92
	Gaighata	Congress (R)	17,208	38.47
	Ashokenagar	Communist Party of India (Marxist)	20,903	43.09
	Barasat	Forward Bloc	17,896	34.42
	Rajarhat (SC.)	Congress (R)	26,658	47.53
	Deganga	Muslim League	20,142	46.79
	Habra	Congress (R)	28,224	52.67
	Swarupnagar	Congress (R)	24,538	48.86
	Baduria	Congress (R)	23,117	51.38
	Basirhat	Congress (R)	18,009	49.41
	Hasnabad	Congress (R)	18,398	50.52
	Hingalgañj (SC.)	Communist Party of India (Marxist)	12,554	27.27
	Gosaba (SC.)	Revolutionary Socialist Party	23,571	43.74

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1971	Sandeshkhali (SC.)	Communist Party of India (Marxist)	20,053	40.68
	Haroa (SC.)	Congress (R)	17,106	44.49
	Basanti	Congress (R)	17,643	31.54
	Canning (SC.)	Congress (R)	20,015	36.96
	Kultali (SC.)	Socialist Unity Centre	26,705	44.21
	Jaynagar	Socialist Unity Centre	23,904	41.19
	Baruipur (SC.)	Communist Party of India (Marxist)	19,711	36.11
	Sonarpur (SC.)	Communist Party of India (Marxist)	30,007	70.23
	Bhangar	Muslim League	10,868	24.56
	Jadabpur	Communist Party of India (Marxist)	38,114	57.57
	Behala-East	Communist Party of India (Marxist)	21,817	52.37
	Behala-West	Communist Party of India (Marxist)	30,053	50.96
	Garden Reach	Congress (R)	15,582	31.08
	Maheshtala	Communist Party of India (Marxist)	24,112	44.73
	Baj Baj	Communist Party of India (Marxist)	32,399	60.63
	Bishnupur-West	Communist Party of India (Marxist)	33,199	58.63
	Bishnupur-East (SC.)	Congress (R)	22,757	46.57
	Falta	Communist Party of India (Marxist)	30,715	57.53
	Diamond Harbour	Communist Party of India (Marxist)	30,054	46.60
	Magrahat-East (SC.)	Communist Party of India (Marxist)	23,863	39.78
	Magrahat-West	Bangla Congress	19,319	33.50
	Kulpi (SC.)	Communist Party of India (Marxist)	11,752	24.35
	Mathurapur (SC.)	Socialist Unity Centre	24,403	41.81
	Patharpratima	Socialist Unity Centre	25,808	41.07
	Kakdwip	Communist Party of India (Marxist)	27,775	44.65
	Sagar	Communist Party of India (Marxist)	25,953	41.32
	Bijpur	Congress (R)	29,821	51.07
	Naihati	Communist Party of India (Marxist)	37,153	54.39
	Bhatpara	Congress (R)	40,173	49.88

Year	Constituencies	APPENDIX B—(contd.) Winning Parties	Valid votes polled by winner	
			Number	Percentage
	Noapara	Communist Party of India (Marxist)	36,567	53.42
	Titagarh	Communist Party of India (Marxist)	33,119	53.55
	Khardah	Communist Party of India (Marxist)	35,440	52.13
	Panihati	Communist Party of India (Marxist)	58,545	66.72
	Kamarhati	Communist Party of India (Marxist)	47,359	67.74
	Baranagar	Communist Party of India (Marxist)	43,340	57.30
	Dam Dam	Election had been countermanded		
1972	Bagdah (SC.)	Independent	24,769	63.32
	Bangaon	Communist Party of India	28,310	64.70
	Gaighata	Congress	30,217	66.34
	Ashokenagar	Independent	23,869	42.60
	Barasat	Congress	32,988	58.21
	Rajarhat (SC.)	Congress	32,282	55.35
	Deganga	Congress	19,314	41.33
	Habra	Congress	37,613	66.02
	Swarupnagar	Congress	33,669	71.17
	Baduria	Congress	31,320	64.28
	Basirhat	Congress	29,897	62.93
	Hasnabad	Congress	25,274	66.35
	Hingalganj (SC.)	Communist Party of India	15,436	35.71
	Gosaba (SC.)	Congress	26,867	53.16
	Sandeshkhali (SC.)	Congress	24,764	53.06
	Haroa (SC.)	Congress	21,239	54.21
	Basanti	Congress	26,873	50.82
	Canning (SC.)	Congress	30,676	57.25
	Kultali (SC.)	Congress	32,964	54.77
	Jaynagar	Congress	29,675	51.59
	Baruipur (SC.)	Congress	30,579	55.15

Year	Constituencies	APPENDIX B—(contd.) Winning Parties	Valid votes polled by winner	
			Number	Percentage
1972	Sonarpur (SC.)	Communist Party of India	30,700	56.14
	Bhangar	Communist Party of India (Marxist)	13,459	33.60
	Jadabpur	Communist Party of India (Marxist)	40,939	55.70
	Behala-East	Congress	28,939	60.70
	Behala-West	Communist Party of India	31,939	51.54
	Garden Reach	Communist Party of India (Marxist)	25,625	50.42
	Maheshtala	Congress	33,412	56.63
	Baj Baj	Communist Party of India (Marxist)	34,873	61.55
	Bishnupur-West	Communist Party of India (Marxist)	28,540	49.27
	Bishnupur-East (SC.)	Congress	29,390	58.61
	Falta	Congress	29,277	53.70
	Diamond Harbour	Congress	35,457	56.89
	Magrahat-East (SC.)	Congress	34,533	56.87
	Magrahat-West	Congress	29,475	51.69
	Kulpi (SC.)	Congress	31,067	64.75
	Mathurapur (SC.)	Congress	32,562	56.86
	Patharpratima	Congress	30,213	49.51
	Kakdwip	Congress	36,812	59.49
	Sagar	Communist Party of India (Marxist)	24,942	42.69
	Bijpur	Congress	40,017	61.23
	Naihati	Congress	37,511	52.55
	Bhatpara	Congress	49,187	57.65
	Noapara	Congress	48,112	67.27
	Titagarh	Congress	50,656	68.62
	Khardah	Communist Party of India	62,460	74.11
	Panihati	Congress	74,765	72.78
	Kamarhati	Congress	28,690	55.37
	Baranagar	Communist Party of India	69,145	69.56
	Dam Dam	Congress	91,428	85.71

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1977	Bagdah (SC.)	Forward Bloc	25,049	44.85
	Bangaon	Communist Party of India (Marxist)	27,820	47.15
	Gaighata	Communist Party of India (Marxist)	32,620	49.21
	Habra	Communist Party of India (Marxist)	29,676	54.03
	Ashokenagar	Communist Party of India (Marxist)	33,702	58.09
	Amdanga	Communist Party of India (Marxist)	27,189	51.84
	Barasat	Forward Bloc	31,444	55.93
	Rajarhat (SC.)	Communist Party of India (Marxist)	28,495	55.04
	Deganga	Independent (Muslim League)	23,589	51.80
	Swarupnagar	Communist Party of India (Marxist)	17,351	32.50
	Baduria	Communist Party of India (Marxist)	25,756	52.84
	Basirhat	Communist Party of India (Marxist)	26,447	46.77
	Hasnabad	Communist Party of India (Marxist)	15,188	35.94
	Haroa (SC.)	Communist Party of India (Marxist)	24,310	58.52
	Sandeshkhali (SC.)	Communist Party of India (Marxist)	32,907	60.61
	Hingalganj (SC.)	Communist Party of India (Marxist)	23,475	43.93
	Gosaba (SC.)	Revolutionary Socialist Party	24,300	43.20
	Basanti (SC.)	Revolutionary Socialist Party	24,695	52.30
	Kultali (SC.)	Socialist Unity Centre	24,086	46.83
	Jaynagar	Socialist Unity Centre	27,778	48.60
	Baruipur	Communist Party of India (Marxist)	31,689	57.94
	Canning-West (SC.)	Communist Party of India (Marxist)	20,675	35.39
	Canning-East	Communist Party of India (Marxist)	24,580	58.88
	Bhangar	Communist Party of India (Marxist)	14,680	34.29
	Jadabpur	Communist Party of India (Marxist)	35,762	69.86
	Sonarpur (SC.)	Communist Party of India (Marxist)	36,138	68.73
	Bishnupur-East (SC.)	Communist Party of India (Marxist)	25,631	63.77
	Bishnupur-West	Communist Party of India (Marxist)	34,620	62.72
	Behala-East	Communist Party of India (Marxist)	37,256	65.72

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICES

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1977	Behala-West	Communist Party of India (Marxist)	37,053	62.63
	Garden Reach	Communist Party of India (Marxist)	22,719	48.06
	Maheshtala	Communist Party of India (Marxist)	27,256	60.68
	Baj Baj	Communist Party of India (Marxist)	32,297	65.26
	Satgachhia	Communist Party of India (Marxist)	45,538	79.86
	Falta	Communist Party of India (Marxist)	32,298	64.40
	Diamond Harbour	Communist Party of India (Marxist)	36,584	66.03
	Magrahat-West	Communist Party of India (Marxist)	35,348	65.86
	Magrahat-East	Communist Party of India (Marxist)	35,449	60.79
	Mandir Bazar (SC.)	Socialist Unity Centre	19,151	34.95
	Mathurapur	Indian National Congress	21,616	33.79
	Kulpi (SC.)	Communist Party of India (Marxist)	21,844	44.99
	Patharpratima	Communist Party of India (Marxist)	16,043	31.83
	Kakdwip	Communist Party of India (Marxist)	26,949	52.72
	Sagar	Communist Party of India (Marxist)	26,159	48.55
	Bijpur	Communist Party of India (Marxist)	32,339	62.47
	Naihati	Communist Party of India (Marxist)	34,293	61.87
	Bhatpara	Communist Party of India (Marxist)	33,105	63.39
	Jagadal	Forward Bloc	32,519	65.36
	Noapara	Communist Party of India (Marxist)	24,566	59.02
	Titagarh	Communist Party of India (Marxist)	26,425	61.61
	Khardah	Communist Party of India (Marxist)	32,769	62.18
	Panihati	Communist Party of India (Marxist)	31,496	54.27
	Kamarhati	Communist Party of India (Marxist)	38,746	65.20
	Baranagar	Revolutionary Socialist Party	33,384	53.91
	Dam Dam	Communist Party of India (Marxist)	40,426	61.91
1982	Bagdah (SC.)	Forward Bloc	41,973	50.84
	Bangaon	Indian National Congress	46,545	51.29

APPENDIX B—(contd.)

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1982	Gaighata	Communist Party of India (Marxist)	51,122	55.48
	Habra	Communist Party of India (Marxist)	45,627	53.70
	Ashokenagar	Communist Party of India (Marxist)	46,893	59.05
	Amdanga	Communist Party of India (Marxist)	45,884	58.96
	Barasat	Forward Bloc	56,701	60.75
	Rajarhat (SC.)	Communist Party of India (Marxist)	52,286	59.06
	Deganga	Forward Bloc	34,781	50.06
	Swarupnagar	Communist Party of India (Marxist)	43,068	54.04
	Baduria	Indian National Congress	42,123	51.28
	Basirhat	Communist Party of India (Marxist)	48,990	54.50
	Hasnabad	Communist Party of India (Marxist)	38,645	55.04
	Haroa (SC.)	Communist Party of India (Marxist)	48,027	59.49
	Sandeshkhali (SC.)	Communist Party of India (Marxist)	53,225	63.01
	Hingalganj (SC.)	Communist Party of India (Marxist)	48,983	59.75
	Gasaba (SC.)	Revolutionary Socialist Party	42,066	56.39
	Basanti (SC.)	Communist Party of India (Marxist)	48,615	59.63
	Kultali (SC.)	Socialist Unity Centre	35,321	45.70
	Jaynagar	Socialist Unity Centre	33,147	40.97
	Baruipur	Communist Party of India (Marxist)	46,030	56.19
	Canning-West (SC.)	Communist Party of India (Marxist)	39,113	45.35
	Canning-East	Communist Party of India (Marxist)	42,457	61.62
	Bhangar	Communist Party of India (Marxist)	43,270	58.65
	Jadabpur	Communist Party of India (Marxist)	64,075	66.45
	Sonarpur (SC.)	Communist Party of India (Marxist)	53,074	65.36
	Bishnupur-East (SC.)	Communist Party of India (Marxist)	37,516	61.41
	Bishnupur-West	Communist Party of India (Marxist)	46,522	64.93
	Behala-East	Communist Party of India (Marxist)	59,805	66.74
	Behala-West	Communist Party of India (Marxist)	56,448	61.29
	Garden Reach	Indian National Congress	32,844	48.87

Year	Constituencies	Winning Parties	Valid votes polled by winner	
			Number	Percentage
1982	Maheshtala	Communist Party of India (Marxist)	40,523	63.15
	Baj Baj	Communist Party of India (Marxist)	40,276	61.41
	Satgachhia	Communist Party of India (Marxist)	50,618	68.26
	Falta	Communist Party of India (Marxist)	41,797	62.68
	Diamond Harbour	Communist Party of India (Marxist)	48,069	62.35
	Magrahat-West	Communist Party of India (Marxist)	43,429	57.44
	Magrahat-East (SC.)	Communist Party of India (Marxist)	48,096	69.00
	Mandirbazar (SC.)	Communist Party of India (Marxist)	34,832	45.28
	Mathurapur	Indian National Congress	39,408	45.01
	Kulpi (SC.)	Communist Party of India (Marxist)	40,681	57.55
	Patharpratima	Communist Party of India (Marxist)	36,064	49.60
	Kakdwip	Communist Party of India (Marxist)	41,403	56.58
	Sagar	Communist Party of India (Marxist)	45,977	55.14
	Bijpur	Communist Party of India (Marxist)	43,344	57.25
	Naihati	Communist Party of India (Marxist)	43,911	55.44
	Bhatpara	Communist Party of India (Marxist)	38,656	49.47
	Jagaddal	Forward Bloc	45,914	60.61
	Noapara	Communist Party of India (Marxist)	35,354	58.85
	Titagarh	Indian National Congress	31,930	48.65
	Khardah	Communist Party of India (Marxist)	55,445	66.79
	Panihati	Communist Party of India (Marxist)	50,765	55.91
	Kamarhati	Communist Party of India (Marxist)	57,616	65.63
	Baranagar	Revolutionary Socialist Party	59,985	58.43
	Dam Dam	Communist Party of India (Marxist)	68,178	66.15

CHAPTER XIX

PLACES OF INTEREST

ACHHIPUR—A village by the Ganga in Baj Baj police station; it is 28 km. from Calcutta. According to the Census of 1971, there were 1,850 persons in the village. One end of the Baj Baj Trunk Road is at the Achhipur ferry ghat from where boats ply to Uluberia in the Haora district on the opposite bank. Here, the river takes a horse-shoe shape. A *pucca* road leads from the Baj Baj Trunk Road to the interior of the village where there is a Chinese temple with two gates on the east and the west and inscriptions on 5 big-size blackstone pieces and one on white marble embedded in a wall. The Chinese from many parts of Calcutta come to this place every Sunday for about a month and a half beginning from 25th December every year. A covered *char-chala* structure of the temple to the east is utilized by local Hindus as the temple of Dakshindar, though it has no deity within.

A little away from the temple and on the river bank there is the grave of Tong Atchew, a Chinaman, after whom the village is so named. The tomb has a horse-shoe shape, is of red colour and is about 4 feet high. In 1977, the tomb and the river embankment close to it have been repaired by the Chinese of Calcutta.

Atchew or Tong Atchew was given a grant of land by Warren Hastings at this village and he started a sugar manufactory here. In a memorial which he submitted in 1781 to the Governor-General (Warren Hastings) and the members of the Supreme Council, he complained that his Chinese labourers were being enticed away by Chinese deserters from the ships in Calcutta. A notice was thereupon issued stating that Atchew was under the protection of Government, and that the Board wished to grant every encouragement to the colony of Chinese under his direction and were determined to afford him every support and assistance in detecting and bringing to condign punishment any ill-disposed person who inveigled away the Chinese labourers in his employ, who under indentures to him for a term of years. Atchew died shortly after this, as it appears from a letter dated 8 December 1783 from the Attorney to the East India Company stating that he had applied to the executor of Tong Atchew for the payment of a bond from the deceased to the Hon'ble Company. On 15 November 1804, an advertisement appeared offering for sale the estate of Atchepore, situated about (10 km.) below Baj Baj, with all the buildings, stalls,

sugar mills and other fixtures. The estate was said to consist 650 bighas held by *pottah* from the Burdwan Raj and paying rent of Rs. 45 per annum.

Some members of the Calcutta Historical Society visited the spot early this century. They found an abandoned residence which was formerly occupied by the Collector of 24-Parganas; it had some of its floors paved with Chinese marbles (*vide, Bengal, Past and Present*, October 1907, pp. 152-53).

A little away from the tomb, there is the powder magazine of the Port Commissioners which traces its origin from the eighteenth century.

AGARPARA—At Agarpara which is within Panihati municipality in Khardah police station, there is an *astana* of Tara Shah Pir on the south-eastern corner of the Agarpara railway station on the Sealdah-Ranaghat branch of the Eastern Railway. There is an old mosque and an old banyan tree here. It is said that Tara Shah had occult powers and he was disciple of Mahiuddin Qader Jilani. There is a tank named Tarapukur nearby which is considered sacred. A fair is held on first of Magh every year.

There is a church having a 74 feet high steeple which was built in 1837 by Mrs. Wilson. There are also an orphanage and a school managed by the Church Missionary Society.

There is an Asrama of Sri Ma Anandamayee here.

On the river bank there is the temple with deities of *Bura Siva*, *Muktakeshi Kali* and *Abhaya Kali* made of black basalt and *Visva Mata*.

Bura Siva,
Muktakeshi,
Abhaya &
Visvamata

A Yogoda Satsangha Asrama is located here.

Yogoda
Satsangha

There is an Asrama of a Sadhu Baba called Dasa Krishna Das Asrama at Mandal Ghat nearby.

The nunnery of the Ramakrishna order named Ram Krishna Sarada Mission is located here.

Ramakrishna
Sarada Mission

Dakshineswar, which is within this area, has been treated separately.

India Foils factory, Kamarhati Jute Mills are at the northern end of the village.

ARIADAHA—Is a suburban area of north Calcutta, but within this district and close to Baranagar and Dakshineswar. There are a number of places worth visiting in this locality. Their names are given below:

The Adyapeath Asrama, maintained and managed by Dakshineswar Ramakrishna Sangha, Adyapeath, Dakshineswar, is 1 km. away

Adyapeath

from Dakshineswar Kali Temple. It is near Dakshineswar railway station on the Sealdah-Dankuni section of the Eastern Railway. The place can also be reached by bus from Calcutta. The Asrama has a marble temple with three deities within it, namely, Sri Ramakrishna, *Sri Adyashakti* and the holy pair of Radha-Krishna beset within Pranab (*om*). The marble *nat mandir* in front of the main temple has recently been constructed.

It is believed that Sri Annada Thakur got hold of the image of *Adyashakti* from the lake at the Eden Gardens, Calcutta, in 1321 B.S. according to a direction given by Sri Ramakrishna in a dream. The Asrama along with the nucleus of the temple was then established in 1921 (1328 B.S.) under the divine ordination.

It is said that *Adyashakti* asked her image to be distributed among people to make them religious minded; and as a matter of fact, the image can be seen in many pious Hindu households.

Visitors may also see six old Siva temples and the room where Sri Annada Thakur lived. There are two orphanages—one for boys and another for girls, a Sanskrit Seminary, a girls' school, a home for women and a charitable dispensary.

Patbari of Dasa
Gadadhar

On the Ganga, there is the *Patbari* of Dasa Gadadhar, an attendant of Sri Chitanya at Puri. Dasa Gadadhar came to this place with Nityananda during the latter's missionary errand for the spread of Vaisnavism in Gaud. There is a two-storied building called Gadadhar Angan and a Bhajan Asrama and *Samadhi* of Gadadhar under a big canopy of Malati creepers, where Nityananda had a trance. It is said that Dasa Gadadhar made the local Kazi utter the name of Hari. There is a pond named Jamuna Kunda said to have been dug by Nityananda. There is also a pond named Nitai Sarobar nearby. It is said that Bhagawan Das, a Vaisnava doyen of Kalna, came to this place and under his instructions late Madhusudan Mallik of Calcutta took charge of this temple and also built the annexed Radhakanta temple where the Bal Gopal icon worshipped by Dasa Gadadhar can still be seen.

BADURIA—A municipal town in the police station of the same name, it has an area of 22.43 sq. km. and a population of 27,647 (14,102 males and 13,545 females) according to the Census of 1971. The town is situated on the right or the west bank of the Ichhamati or the Jamuna river. It is easily reached from Arbelia on Calcutta-Basirhat road. The municipality here was established in 1869, and maintains a charitable dispensary. Tube-wells are the main sources of drinking water. The markets are held in Baduria, Arbelia, Pura,

Taragunia and Poddarpur. Within the municipality an annual *mela* named the Baroari *puja*, lasting for three days, is held in May.

BAHARU—Baharu is a large populous (population 7,726 in 1971) village on Kulpi Road, in Jaynagar thana area. From the point of view of occupational distribution of the population, it is largely an agrarian village with some local crafts. Nearly 11 per cent of the population belong to the scheduled castes and there is a sprinkling of Muslim peasants. There is a big sprawling and crumbling English Neo-Classical (Palladian?) mansion within what was once a big well-laid out compound, to be approached from the main road through a *deodar* lined avenue. At the entrance to the mansion is a *eka-ratna dol-mancha* and the entry to the main mansion is through a massive doorway created by pseudo-Doric columns topped by a pediment. If this be the front, the exact back faces an interior rectangular courtyard to be reached by an imposing flight of stairs from the main building. At the further end of the courtyard is a splendid *hanri-kath*. On two flanks of the courtyard are rooms which have vestibules opening on the courtyard through arches above pseudo-Doric pillars. From the courtyard itself the main two-storey high structure really looks gorgeous. After ascending the stairways one reaches an enormous porch through the columns and the archways are extremely ornate and complicated in make, like in rococo buildings. The porch is decorated with false columns, false arches and double row of false and real venetian shuttered windows. On the arches and capitals of the columns one finds intricate stucco works representing highly ornamental vegetational motifs. The hall within used to be used for Durgapuja during the heyday of the Basu family, while the porch used to serve as *thakur-dalan*. Though the porch and the hall look two-storey high, they are just single storied structures with high ceiling, while the flankwise extensions are really two-storied.

To the north of the main building is a single-storey extension of the building, planned in a slightly different style. This is the temple of Shyamsundar, the family deity of the Basus. This is a south facing flat-roofed structure made of Chunar sand-stone. The sanctum has a porch in front, that is, on the south, and this porch has to be entered through lotus petal shaped Mughal-type archways supported by Mughal-type tapering columns with ribs and vegetational decorations at the top and the bottom. The temple faces a rectangular courtyard with gallery on three sides. The galleries have pseudo-Doric columns supporting cusped arches on the courtyard side and

rows of false and real venetian shuttered windows at the further side. The porch is rich in murals of the 19th century hybrid style, usually called the Company School style. The pictorial narrations are made through figures of men, women, animals, birds, reptiles and anthropomorphic gods and goddesses and occasional plants—all linearly arranged on flat two-dimensional planes without background and foreground, although in some panels, attempts have been made to place the figures on recessional planes without, however, changing the relative sizes of the figures. The figures are defined by non-anatomical bold, heavy and flowing contour lines of the sort we find in the contemporary folk art. But they are given volume by tonal devices and shadowings, and have a kind of gestural liveliness which we find in the provincial Mughal art of Murshidabad and Awadh. At the centre of the eastern wall is an iconic representation of Vishnunarayan and Lakshmi in *rasaleela*. The big vertically placed central figures are crossed by four horizontal panels. The top panel shows different *avatars* of Vishnu, Vishnu and Lakshmi and Vishnu in *ananta shayana*. The next panel shows Jagannath, Balaram, Subhadra, Chaturbhuj Siva and Radhika's *manbhanjan*. The next panel is about Krishna-Radhika's *rasaleela* and the lower most panel is about *Krishna-leela*. This eastern wall provides a clue to the name of the painter, but alas, not to the date of execution. In an inscription it reads, "*ati deena heena bhaktajana Durgaram bhashkarena chitrakarena*". The western wall has a circular composition with Bansidhari Krishna and two *gopinis* at the centre of a *padma*(lotus)-*mandalas*(circle); in the top three-fourths of the outer mandala are replicas of a small temple with various icons, and in the bottom one-fourth one sees episodes from the *gostha-leela* of Krishna. There are five doorways to the sanctum from the porch. Each doorway is topped by a false arch. Below the concave of each arch one sees a panel of painting. Above the central door, Ganesh is seen with two Brahmin preists. The door just to the east of the central one, shows Gouranga, Nityananda, Adwaita and Yavan Haridas dancing around a *tulsi mancha*. The eastern-most door shows Radha and Krishna in *jugalmilan* posture. The door just to the west of the central one shows coronation of Rama and Sita, with Bharata, Satrugna, Lakshmana and Hanuman standing. The western-most door shows Siva and Parvati riding a bull while two ascetics (Nandi and Bhringi?) are standing.

All the paintings are in extremely bad state of preservation. Colours are fading at places and at other places layers of colour are flaking or peeling off.

The deity is represented by stone-made icons of Radha and Krishna.

The *dol* of Shyamsundar used to be celebrated with great pomp and splendour till a few years back. The icons used to be taken out on the evening preceding *dol purnima* for *chanchor*. The icons would then spend the night at the *dolmancha* already referred to, and go back to the temple only on the evening of *dol purnima* after having played the *holl*. There used to be a fair at Baharu on the occasion of the *dol*. The *rasa-purnima* would call for a three-day festivity and the *Jhulan* would be a festival of flowers for a day. But none of these festivals retain the same splendour to-day. These have just become rituals to be observed somehow, with memories of splendour to be remembered and retold as tales.

The mansion, the *dol-mancha*, the temples and the festivals all were the work of the Basu family of Baharu. Nanda Kumar Basu was the man usually credited by the Basus with having given the tradition. Nanda Kumar, a *kulin* Kayastha, belonging to the Mahinagar lineage of *Dakshin Rarhiya* Basus, was the manager of the estate of Kantababu of Kashimbazar; he later became the Gomosta of the East India Company's factory at Mandalghat and at the last leg of his career he became the Dewan of the Calcutta Customs House under the East India Company. Having made a good deal of money, he shifted himself from his ancestral home in the village of Mayda, some two miles from Baharu, and settled himself at this place. He probably consecrated the temple of Shyamsundarjieu in 1232 B.S. corresponding to 1825 A.D. Baharu then was perhaps a wilderness in Sundarbans. He managed to get the whole village as a *devottora* grant and settled agriculturists and artisans there. Till the passing of the Estates Acquisition Act, the whole of the mauza of Baharu was an undivided *devottora* property of the Basus and all the collateral branches of the Basus were co-sharing *sevayets* of the deity. After the proclamation of the Estates Acquisition Act, the major portion of the property has vested in the *khas* and a dispute has arisen about the legality of *sevayets*. As a result, whatever property, including the temple and services of the deity remained with the co-sharers, are seeing bad days.

Although it seems that the family was a Vaishnava family, in so far as their celebration of Durgapuja was concerned it used to be celebrated in accordance with *Shakta-tantrik* rites. The family even found a surrogate of human sacrifice in front of Shaktidevi by sacrificing an image of a child made of straw, along with the sacrifice of goat;

BAJ BAJ—A municipal town under the police station of the same name in Sadar Subdivision, it has an area of 7.77 sq. km., with a population of 70,322 according to the Census of 1981. It is situated on the bank of Hugli and has the terminal station of the Sealdah-Baj Baj branch of the Eastern Railway. It is 25 km. from Calcutta (Sealdah Station) by rail and 16 km. from Alipur by road. It formerly contained a fort built during the Mughal rule, which Clive captured during his advance on Calcutta in December 1756. The fort ceased to exist in 1793, as appears from the *Gazette* of 7 March of that year, which notified its abandonment and dismantling.

It was at Baj Baj on 29th September 1914, after the First World War had broken out, there anchored a ship named the *Komagata Maru* (owned in Japan) chartered by a Singapore Sikh, Baba Gurdit Singh, to carry Punjab immigrants to Vancouver, but not allowed to unload these as Indian revolutionary literature of the Ghadr Party of the Sikhs had been introduced into it. The Sikhs were ordered to return to the Punjab. They demurred and without warning the imperialists fired on them. 18 were killed, 29 including Gurdit Singh disappeared, 39 were interned, and only 60 (including the 17 Muslims on board) were sent off by trains. The six men on the Government side who died were really killed in the wild massacre of the *fusikiess*. It has been said that the Baj Baj massacre belongs to the category of the more well-known Jallianwala Bagh.

The town was constituted a municipality on 1 April 1900. The municipality has 16 wards. The drainage of the town is a difficult problem, as its site is low. It has an E.S.I. hospital, recently inaugurated. The two Development Block Offices of Baj Baj I and Baj Baj II are located here.

The municipality maintains a hospital since 1900 and an indoor dispensary since 1905, and has opened a Homoeopathic Charitable Dispensary since 1967. It also maintains a maternity hospital.

This is the oil depot of Calcutta, at which ships importing oil discharge. Several large firms have oil depots here, the oil being pumped from tank steamers into huge circular iron tanks and distributed over the country by rail and in tank-trucks.

There is a south-facing *atchala* temple of an old Kali image named Khukikali at the cremation ground at Chitranganj. The temple is situated by the river and the icon within it is small but handsome. There are also a Siva temple and a room with the icon of Gopal. There is a Gouranga temple near Baj Baj police station. The Manasa temple is located in Manasatala. There are a number of

Sitala temples in the town. A number of mosques will also be found.

Outside the municipal area, at Raypur, within Baj Baj police station, a big fair is held in the Bengali month of *Paush* celebrating Kali and Ganga worships on the *Char* land of the Ganga. Rathajatra festival takes place in *Ashadh* at Pujali Goalpara, a village nearby.

BAKKHALI—Bakkhali and Fraserganj, the two small hamlets, situated at the distances respectively of 132 and 130 km. due south of Calcutta and 48 and 46 km. due south of Diamond Harbour, are basically fishing villages respectively on the Bay of Bengal and the confluence of the Ganga with the Bay of Bengal. Both the places can be reached from Namkhana, connected with Calcutta via Kakdwip and Diamond Harbour, by crossing the Hatania-Doania creek by ferry and then travelling another 8 to 10 kms. by road.

Early in the 'fifties attempts were made by the Government of West Bengal to turn Fraserganj into a sea-resort. But due to constant erosion of the beach there, the attempt was finally given up and a new scheme to develop Bakkhali, 2 km. further south-east, was taken up in the late 'sixties. Bakkhali is endowed with a wide beach to protect which from soil erosion the Forest Department has planted casurina trees along its length. Still, due to its nearness to the confluence of the Ganga the beach gets enough muddy silt to turn its sand somewhat clayey.

The Tourism Development Corporation of the Government of West Bengal runs an architecturally attractive Tourist Lodge, situated amidst tall casurinas and lush tropical vegetation. The Lodge has both cheap dormitories and higher priced double-bed rooms.

The principal occupation of the people of these two villages, however, remains fishing. Prabartak Sangha of Chandannagar runs an orphanage school at Fraserganj.

BANGAON—A municipal subdivisional town in the police station of the same name, it has an area of 15.57 sq. km. with a population of 50,538 according to the Census of 1971. It has the terminal station of the Sealdah-Bangaon branch of the Eastern Railway and is about 76 km. from Calcutta. There is a branch railway line connecting Bangaon with Ranaghat in Nadiya district. Earlier it formed a subdivisional town of the Jessore District (in Bangladesh), but has been added to the 24-Parganas District during the Partition in 1947. The town has 17 municipal wards. The Ichhamati river divides the

town into two parts and there is a floating bridge on it. Buses ply between Calcutta and this place along Jessore Road. It has the usual Government offices, hospitals, schools, etc. There is an Inspection Bungalow of the Public Works Department of the State Government here. There are some small industries like the comb making and ice-candy industries located here. A number of Kali and Siva temples are there. Of them mention may be made of the Kali temple on Champaberia-Chakdaha Road, Shmasan Kali temple in Khairamari, Kali temple of Jessore Road, etc. There is a sacred Kali temple in old Bangaon. It is said, robbers used to worship this deity in the olden days. There is the Keshaveshvar Siva temple on the Station Road. Other Siva temples are at Duttapara, Railway Bazar, Matiganj, Military Road, etc. There is a Madrasa of the Muslim community on Bagda Road. Ramakrishna temples are there in Ramkrishna Palli and Champaberia. On Chandrakanta Road at Chhaygharia there are a Siva and a Kali temples. These temples are of *atchala* type and are situated on elevated bases. There is a church on Jessore Road. At Benapole, about 8 km. from here, there is the sacred site of Haridas Thakur, the great Vaishnava saint. At this place he converted a fallen woman by teaching her the name of *Hari*. The place has a raised spot which is said to be the place where Haridas Thakur lived.

BARAKPUR (old Barrackpore)—The headquarters of the subdivision of the same name, it is situated on the Ganga, 25 km. north of Sealdah by the Eastern Railway and 24 km. from Government House, Calcutta by road. The town is comprised within two municipalities, namely, North Barakpur and Barakpur and a Cantonment Board.

In the Cantonment area there was once the Barakpur Park which had a golf course of 18 holes. The area is now covered by the Police Training College. The country house of the Governors-General of India until the capital was removed to Delhi in 1912 was here which now houses the Police Brigade Hospital. This house was the residence of the Commander-in-Chief of the Force in 1801. Lord Wellesley when appointed as Captain-General took over this residence which was allotted to the Commander-in-Chief. The successive Governors-Generals occupied this house. A little to the south of this building is the tomb of Lady Canning, wife of Viceroy Canning, who died of a fever contracted in the Tarai when travelling down from Darjiling. The tomb records the following: "Honours and Praises. Written on a tomb are at best a vainglory, but that

her charity, humility, meekness & watchful faith in her saviour will, for that saviour's sake, be accepted of God, and be to her a glory everlasting, is the firm trust of those who knew her best, and most dearly loved her in life, and who cherish the memory of her departed."

The above words were written on November 22nd 1861 by Earl Canning who survived his wife by seven months. He left India on the 18th March, died in London on the 17th June, and was buried in Westminster Abbey on the 21st June 1862.

In the enclosure there is a statue on horseback of Charles Johan Earl Canning who was the Governor-General and first Viceroy of India (1856-62). To the North of the Police Brigade Hospital there are the buildings which were the country-houses of the Governor of the Province. Some of the statues of important personages of the past, dislodged from the Calcutta Maidan area, are placed here.

There is an old banyan tree near the Police Brigade Hospital.

The name of the town, derived from the term Barrack, is due to the fact that troops have been stationed here since 1772. The Indian name for it is Chanak, which is sometimes said to have been derived from Job Charnock who had a country-house here. There appears, however, to be no authenticity of this derivation, for the name dates back to a time anterior to Charnock; Chanak is quite a common village name of Bengal. It may almost certainly be identified with the village of "Tajannok" entered in Van den Broucke's map of 1660 and referred to by him as "the small town of Tajannock", which, his account shows, was situated midway between "Cangnerre" and "Barrenger", i.e., Kankinara and Baranagar. Historically, the place is interesting as the scene of two mutinies of the Bengal Army (in 1824 and 1857).

As a garrison of importance in the eastern India, Barakpur got involved in the Anglo-Burmese war of 1824 in a curious manner. Again in the year 1857, the salvo fired by Mangal Pande, a private of the 34th Native Infantry, stationed here, became the signal for the India-wide uprising of the sepoys against the British rule, the first of such magnitude to occur in India under the British rule. All these have been described in detail in Chapter II. on History.

BARANAGAR—A municipal town in the Barakpur Subdivision situated by the Hugli, about 10 km. north of Calcutta, it is immediately to the north of Kasipur-Chitpur and south of Kamarhati. The municipality, within Baranagar P.S., has an area of 8.7 sq. km. and a population of 1,36,842 (76,010 males and 60,832 females)

according to the Census of 1971. Being contiguous to north Calcutta, the entire area appears to be a part of the metropolis.

It was originally a settlement of the Portuguese who were early foreign traders in Satgaon and Hugli and were expelled from Hugli in A.D. 1632. Afterwards Baranagar became the seat of a Dutch factory, which is now in the possession of a private owner. The Dutch established their *kuthi* here in 1659. During the greater part of the 18th century Dutch vessels stopped here on their way to Chuchura. This place was then famous for its *Bafta* (a kind of silk). The town was ceded to the British by the Dutch in 1795. It was then a favourite resort for the Europeans of Calcutta.

The name of the town appears in *Chaitanya-Bhagavata* written by Brindaban Das in the early 16th century. The name appears in the map of Jao De Barros (A.D. 1550). It also appears in *Mangal Chandir Git* written by Dviya Madhabacharya.

A number of religious institutions are there. The *patbari* here is a famous Vaishnava pilgrim centre. Sri Chaitanya, on his way to *Nilachal*, heard Sri Raghunath Upadhyaya reciting the *Bhagavata* and was so pleased that he named him *Bhagavatacharya*. The area was considerably improved by the late Vaishnava saint, Sri Ramdas Babaji. It has a *Chatushpathi* and a big library containing 3,306 manuscripts on different subjects.

Sri Ramakrishna Paramhansa (1836-1886) was associated with Dakshineswar Kali temple, situated on the Hugli, between 1856 and 1885. The Dakshineswar area once a part of this municipality, was ceded to Kamarhati Municipality on 1 October 1949. There are some places connected with the Ramakrishna order, like the *Alambazar Math* and the *Baranagar Math*. The R. K. Mission has also a school, and a sevayatan and a Mani-Mandir here. Jay Mitra's Kali temple is another famous religious institution. St. Jame's Church constructed in A.D. 1906 is also here. There are a number of schools, two colleges, a number of hospitals and some libraries here. The Baranagar Jute Factory and the Bengal Immunity Company Limited have their factories here. The Sports Goods Production-cum-Training Centre of the West Bengal Government and the Small Industries Service Institute of the Government of India have their head offices here. The Rehabilitation Industries Corporation of the Government of West Bengal has its work centre here.

The town celebrates the *Jhulanmela* and two Vaishnava festivals—one commemorating the visit of Sri Chaitanya in *Chaitra* (March-April) and the other the demise of Sri Ramdas Babaji in

Kartik. Pacha Charak festival takes places at the junction of B. T. Road and Bagha Jatin Road on the day following the *Charak* festival.

BARASAT—A municipal town with an area of 14.25 sq. km. and a population of 42,642 (22,565 males and 20,077 females) according to the Census of 1971; it is the headquarters of the subdivision of the same name. It is situated 20 km. north-east of Calcutta on the Eastern Railway. It has become the headquarters of the North 24-Parganas district following the bifurcation of the district of 24-Parganas.

A marble plaque embedded in a Siva temple of Dakshinpara contains the earliest historical reference to the place which says that Samkar, the General of King Pratapaditya, settled here in the 16th century during the bad days of the king. It may be recalled that Mansingh, the Moghul General with the aid of Bhabananda Majumdar of Nadiya pounced upon Pratapaditya at Dhumghat in South Bengal from where Samkar came down to Barasat after his defeat. The name of the town may have been derived from *Bar* or centre of the naval soldiers of Pratapaditya which actually existed at Jagdighata nearby. One of the oldest families is that of Ray Ramsundar Mitra who obtained zamindari for having helped Todar Mall in his survey work. His palace with its temple, tanks, etc. is still called *Baburbari* at Kuberpur. Nearby, there is a Kali temple, the deity of which is said to have been established by robbers of the area. There is also a *Bhadra Kalika* Temple at Kuberpur which was established by King Krishna Chandra of Nadiya.

The S.D.O.'s bungalow is said to have been the country-house of Lord Warren Hastings. It is a two-storied structure, whose upper floor is made of oak wood. The upper floor was the dancing hall and the stables for horses are the present out-houses of the building. The playground in front of that house was the old race-course. Governor Vansittart also built a three-storied building called Vansittart's Villa, which had a garden all around. That building was first converted into a military college in 1802 where British cadets were trained on their arrival from Europe. On this account the town was then called the Sandhurst of Bengal. It became the sub-jail when after ten years the Military College was closed down. It was pulled down in 1969 and a new house named the Institute of Correctional Services was built there for housing juvenile prisoners. The then Commander-in-Chief Colonel Champion also

built a house near Hastings' Villa which was later occupied by Hastings' friend Barwell and now houses the Criminal Court. Ramchandra Seth, a descendant of Jagat Seth, excavated the 'Seth Pukur' for storing drinking water. One Lambert, an employee of the East India Company, after marrying Lady Hope, spent his days in an octagonal garden house on the south-east corner of the Madhumurali tank, the tank which was excavated by two brothers, Madhu and Murali, earlier. Mr. Lambert built that house in 1764, but no trace of it can be found now. The Madhumurali tank is now hyacinth-covered and is dry in summer, its banks being full of recent dwellings. In the mid-18th century the East Bengal Indigo Company built an indigo factory on the north-west of Madhumurali. A tall pillar was built here for reasons unknown. Louis Bonnaud, the local manager of the Indigo Company used to stay in the indigo factory (*Nilkuthi*) and harass and oppress the local peasants. Sir Ashley Eden, who was the last District Magistrate of Barasat, some time came to the rescue of the peasants from the clutches of Bonnaud. No trace of the pillar or the indigo factory can be seen now (1978).

The peasant revolt (1830-31) of Titoo Meer took place at Narikelberia in the present Swarupnagar police station, but its repercussion was felt up to Barasat. Hawkins, the Magistrate of Barasat, sent a police contingent for capturing Titoo, but some of the policemen were killed in the affray. It is said that Titoo was killed somewhere near Barasat in an encounter with Sepoys on November 13, 1831. The British captains, who were killed in the fight, were buried on the west of Sethpukur and a burial can still be seen there.

Barasat became a district in 1834, with Mr. Grant as the first Magistrate-Collector. He used to stay in Hastings' Villa and Barwell's House became the collectorate offices. The Munsif's Court was established at Kadamgachi, a few kilometres to the east. Charles Trevor became the District Magistrate here in the 4th decade of the 19th century. He along with Kalikrishna Mitra of Barasat established the Zilla School in 1845. The first headmaster of this school was Babu Pearycharan Sircar, the author of the '*First Book*'. The school building was built in 1853. In this school attempts were made to educate students in agriculture. Madan Mohan Tarkalankar was the teacher of Bengali in this school. Ramtanu Lahiri became its headmaster in 1857-58. The public hall named Trevor Hall, which still exists was the first seat of the girls' school. Barasat ceased to be a district in 1861 and came to its present shape in 1904 when the Barakpur Subdivision was carved out of it.

The municipality was constituted here in 1869 because earlier there were frequent attacks of malaria. Measures were taken for drainage, drinking water supply, street lighting, etc. A high tank was excavated to the east and another tank named Jubilee Tank was excavated at Kazipara named after the Golden Jubilee of Queen Victoria.

In 1883 the railway line of the Bengal Central Railway Company was extended from Ghughudanga (Dam Dam Jn.) to Duttapukur. It was further extended to Gobardanga in 1884 giving rise to commuter population going to and coming back from Calcutta. The Barasat-Basirhat metre-gauge line was opened in 1905 and extended to Hasnabad in 1909. The Syambazar-Basirhat road was thrown open to buses in 1925. All this led to the importance of Barasat as a trading centre.

At present, there are the usual Government Offices like the S.D.O.'s office, criminal courts, civil courts, the Sub-Registry Office, a hospital, a Post & Telegraph office, etc. A Government College has been opened here after the Independence. There is also an evening college here. The office of the Additional District Magistrate, 24-Parganas (North) as also the offices of different Government departments looking after the northern subdivisions of the district have been located here, consequent upon the notional division of the district of 24-Parganas into two districts, viz., 24-Parganas (South) and 24-Parganas (North).

At Kazipara, in the outskirts of the town, a large fair is held for three days towards the end of December every year, in honour of Pir Ekdil Sahib, in the precincts of his *mazar* and the mosque built by him. It is said that once upon a time there lived a king named Shah Nil. His wife was Ashik Nuri. They had no children. One day when Ashik Nuri sent for the sweeper woman early in the morning, she refused to come saying that she would not like to see the face of an infertile woman that early in the day. Grieved by the remark, the queen set out on a pilgrimage to the holy places to be graced with a child. An angel took pity on her and promised that she would get a child but for two and a half days only. In due course, Ashik Nuri gave birth to a son, but two and a half days after the birth was carried away by the angel who came in the form of a fox. The child was deposited to one Kulla Tar who brought him up to the age of eight as an extraordinary person with supernatural endowment. He performed a number of miraculous feats and came to settle at Anarpur, the *pargana* in which present day Barasat is situated. On reaching there he pro-

ceeded to the house of one Chand Khan, a landholder of Srikrishnapur within the *pargana* and begged to be fed. Chand Khan in refusing to feed him gratis, asked him to earn his food by labouring for him. At that time Chand Khan was building a mosque. The boy, now known as Dil Mohammad lifted a big piece of stone, placed it on the half-complete brick structure and thus prevented any future construction. People of the area now point their finger to an unfinished structure of brick and stone and call that Chand Khan's mosque. He then disappeared from there and reappeared in a nearby village as a cowherd. On being ill-treated by the owners of cattle he would perform some miracle, like transforming them to tigers and bears, to punish them. Soon his fame as a miracle performing Pir spread. Upon his death a *mazar* was erected over his mortal remains by his admirers. The fair held there is to remember the boy Dil Mohammad who became Pir Ekdil Sahib.

BARASI—A village in Mathurapur police station within Diamond Harbour Subdivision, it has a population of 1,437 according to the Census of 1971. It can be reached along Raidighi Road from Mathurapur Road Station on the Sealdah-Lakshmikantapur branch of the Eastern Railway or by bus directly from Calcutta via Garia. There is an old *Atchala* temple of *Ambulinga* or *Badrikanath Sivalinga*. In the *Nat-Mandir* in front of the main temple, there are several images of *puranic* gods and goddesses. There is a sacred tank named *Sivakunda* nearby. The deity is worshipped daily, mainly with a view to curing several diseases. Special festivals take place during Sivaratri in the month of *Falgun*. *Charak* festival takes place there in *Chaitra*. There goes the legend that Bhagirath was proceeding towards Kapilasram after releasing Ganga from the head of Mahadev, the bereaved Mahadev followed Ganga up to this point till he got mixed with her in the shape of water at Chhatrapur. The choked flow of Ganga made Siva turn into the stoneform of Sivalinga.

BARUIPUR—A town in the Sadar Subdivision, about 25 km. south of Calcutta. It is situated on the main line of the southern section of the Eastern Railway and is also connected with Calcutta by road. Two lines, one up to Lakshmikantapur and another up to Diamond Harbour branch off from the Baruiপুর junction. According to the old Gazetteer, this town was situated "on the bank of the Adi Ganga (an old channel of the Ganges now almost entirely silted up)", and was "a mission station of the society for the Propagation of the Gospel, which erected a large Church in 1846".

Once the local economy was mainly dependent on the extensive cultivation of betel leaf. People belonging to Barui caste were the betel leaf growers. The place derives its name from this caste. In an old record the name appears as "Barrypore". Today, in this area, fruit and vegetable growing is an important means of livelihood. Indigo was also manufactured here around 1790s. In the early part of the Nineteenth Century it was the headquarters of the Salt Department of 24-Parganas and a Salt Agent and a Medical Officer were stationed here. It was the headquarters of the subdivision of the same name from 1858 to 1883 till it was amalgamated with the Sadar Subdivision.

Baruiপুর was constituted a municipality in 1869, the area within the municipal limits being 9.07 sq. km. There are two daily markets (Puratan Bazar and Kachhari Bazar) and a *hat* held twice a week on Sundays and Wednesdays. In the town, there are a Munsif Court, a Health Centre with a family planning unit, a Telephone Exchange, a Subdivisional High-way Office, a cinema-theatre, a town library, apart from some local offices of some departments of the Government of West Bengal. The town is fully electrified and the roads, both main and arterial, are metalled. Three private bus routes and a public bus route under the C.S.T.C. run through this town. Two big fairs are held every year, on the occasion of the Rash Jatra in November or December and Ratha Jatra in June and July. There are no local industries worth the name except tile making industry. Making of clay dolls and bamboo baskets may be mentioned as notable local handicrafts. At present, only a few local families are engaged in these household industries. The Ray Choudhury family of Baruiপুর deserves mention.

It is said that on his way to Nilachal from Santipur, Sri Chaitanya visited the village Atisara which is now within the Baruiপুর Municipality. Around the 16th and the 17th century Baruiপুর was a seat of the shakti cult. Bhuban Chandra Mukhopadhyay, who was a author of some fame for his "*Haridaser Gupta Katha*" and a few other books, was born at Baruiপুর in 1842. The Hindu Mela—Swadeshi Mela was held three times in 1869, 1871, 1872 (1276, 1278 and 1279 B.S.) at Baruiপুর on the mela ground of the Ray Choudhury. A medical journal titled "*Baruiপুর Chikitsa Barta*" edited by one Purna Chandra Das was published in 1873 (1280 B.S.) from Baruiপুর.

BASIRHAT—A subdivisional municipal town, it had a population of 69,311 in an area of 22.01 sq. km. according to the Census of

1981. It is about 56 km. from Calcutta and is situated on the south bank of Ichhamati river. It has a station of the Barasat-Hasnabad section of the Eastern Railway. Buses going to Itindaghat and Hasnabad pass through this town. A road, on which buses ply, leads to Nazat in the interior of the Sundarbans. The town has the usual complement of Government offices, schools, a college and a subdivisional hospital. There are some Kali temples at Barakalibari-para, Dantighat, Hatkhola and Naihati. The Kali temple at Naihati was built by Tarakshyapa, a disciple of the great Bamakshyapa. Inside the temple there is the icon of Dakshinakali, made of black basalt standing on the reclining figure of Siva, made of white marble. At Nalpara and Mandirhata there are two old Siva temples. A three-day-long fair is held every year at Basirhat Hatkhola on the occasion of *Gangapuja* or *Baruni* festival. There are two old ponds named Sonpukur and Neoradighi. There is an *astana* of a Pir on the bank of Sonpukur. There is another *astana* of a Pir on the Astana Road. Near Town School there is an old mosque known as the Salik mosque. It consists of a hall measuring 36 feet by 24 feet, with two carved stone pillars, 8 feet high, supporting the roof; the latter has six domes arranged in two rows. The mosque is popularly reputed to have been built by one Ala-ud-din in A.D. 1305, but an inscription over the central *mirab* shows that it was erected by one Ulugh Majlis-i-Azam in A.D. 1466. The inscription is in Arabic, written in Tughra characters and its translation is as follows: "No God is there but He, and Muhammad is His Prophet. This mosque was built by the great and liberal Majlis, Ulugh Majlis-i-Azam—may his greatness be perpetuated—in the year (A.H.) 871." An inscription on a mosque at Pandua in the Hugli district shows that it was built by the same person in A.D. 1477 during the reign of Yusuf Shah.

About 2 km. from the town there is Bhabla, the native place of Sir R. N. Mookerjee, one of the early industrialists of Bengal. There are schools, a dispensary and a post-office, all of which were built by the munificence of Sir R. N. Mookerjee.

A few kms. from this place is Itindaghat on the river Ichhamati which has a picturesque rural scene.

BATANAGAR—It is an industrial town on the bank of Ganga which has grown around Bata-India Limited, the makers of shoes. This non-municipal town in Mahestala Police station is spread over an area of 1.22 sq. km. and had a population of 20,355 in 1981. The place is about 17 km. from Calcutta and the nearest railway station

is Nungi on the Sealdah-Baj Baj branch of the Eastern Railway. A private bus enters the township along the private road of Bata-India Limited from Baj Baj Trunk Road.

Bata-India began in a small way in 1931. The factory was started by Mr. Thomas Bata, a Czechoslovak by origin. Its main factory is located at Batanagar along with its leather and rubber factories, a tannery, chemical, research and auxiliary departments. The Batanagar plant is also equipped with an engineering division for producing modern footwear and tanning machinery. Bata-India not only provides a livelihood directly to over 22,000 people in its own industrial and distribution complex, but also supports over 3,00,000 in ancillary industries. Bata-India fashions an infinite and ever-expanding range of footwear from leather, rubber, canvas and a variety of modern materials. The housing colony houses more than half the number of workers of the plant. A 60-bed hospital with an out patients' department, a cooperative store, kindergarten, primary, high and multipurpose schools (separate for boys and girls), play grounds, a stadium, a cinema house and clubs are there for the employees. There is also a Siva temple within the area. The Company started exporting footwear in 1935.

BAWALI—A village in Baj Baj police station with a population of 7,757 according to the Census of 1971 in an area of 361.67 hectares. It has some imposing dilapidated buildings and temples of the Mandal family, once a considerable landholding family which settled here before the 17th century. At present there are about 10 temples including a *Dol-Mancha* and a *Ras-Mancha* around the residential building. The *at-chala* Radha Kanta temple built in A.D. 1771 on a raised piece of land has some terracotta decorations. There is the *navaratna* temple of Gopinath with a *natmandir* beside the Radha-ballava temple situated in the area.

At present all the deities are worshipped only in Radhaballava temple, Gopinath and Shyamsundar temples being vacant. On the occasion of 'Rathayatra' in the Bengali month of *Ashadh*, a fair named Manikchandra Mandaler Rath is held here. There are also temples of Siva and Chandi in the village and a *than* named Satyapir's *than*.

A little distance away from here, at Kajbagan (Bakhra) there is a big and beautiful *at-chala* temple of Radhakrishna which was built in 1734 *Saka* (A.D. 1813) by one Krishna Charan Mandal.

BEHALA—A suburban town contiguous to the south-west Calcutta

derives its name from the police station which has also the same name. The police station covers some rural areas along with the urban areas falling within the South Suburban Municipality. In ordinary parlance, the South Suburban Municipal area is named Behala. There are some wards of the Municipality which still bear their old names, viz., Barisha, Sarsuna. The urban areas under the South Suburban Municipality has come to be incorporated within the jurisdiction of the Calcutta Municipal Corporation and Behala has thus lost its identity as a separate town, although the Behala thana continues to remain under West Bengal Police and not Calcutta Police.

The South Suburban Municipality was established in 1869 and included present Garden Reach Municipal area, Rajpur Municipal area, Tollyganj Municipal area and some portion of South Calcutta. The Municipal area is included within Khaspur Balia and Magura Pargana. The present Municipal area includes the Mauzas of Behala Punja Sahapur, Saiyadpur, Italgata, Gangarampur, Parui, Mandalpara, Muradpur, Barisha East and West, Basudevapur, South Behala, Mahmudpur, Putiary West, Sahapur, Sarkhel Hat, Sarsuna, Sibrampur, Siriti.¹

According to the Census of 1971, Behala police station covers an area of 52.08 sq. km. of which 30.38 sq. km. is under Municipal administration. It is the second biggest Municipality in West Bengal. The Municipal area is inhabited by 2,72,600 persons in 47,655 households and 27,544 persons, live in 4,810 households in the rural areas within the thana.

According to *Dasavali*, searched out by Haraprasad Sastri, Behala including Barisha, Mandalghat, etc., on the western side of the old Ganga, was included within Tamluk and formed a hinterland to Tamralipta port. The *Jogi* caste aligned to the *Natha* cult has been living here from distant past.

Pratap Chandra Ghosh in a work (1869) wrote that Behala was the *Bai 'Mahal'* (residence of the dancing girls) of the Burdwan kings and got its name from '*Bai Mahal*'. Acharya Dinesh Chandra Sen held the opinion that Behala derives its name from '*Behula*' (the famous heroine of the *Manasa Mangal*). Local people are of opinion that Behala comes from '*Bahu la*' ('*Bahu*'—many and '*la*'—rivers or boats). Once it was a part of the Sundarbans and even today the presence of several canals and ditches tends to support this opinion. Fishermen community lives here even today. Tigers were visible in

¹ *Dakshin Sahartali Pourabarta*, Vol. I, No. 8, 1976. p. 26.

the last century even. The name Barisha may come from '*Bada Hisya*' (greater part) or *Badsi* (angles).

Mitra family of Barisha traces its origin from Ballala Sena's time. It is said that Ballala Sena placed one Dhi Mitra of '*Mitra family*' in Barisha in the 12th century A.D. Only two families of the Mitras are residing in Barisha at present.¹

The Sabarna Choudhury of Barisha settled here in the early 17th century. History tells that the British East India Company succeeded in 1698 in procuring letters patent from the Governor Azim-us-shan allowing them to purchase from the existing holders the right of resting the three villages of '*Chuttanutte, Kalikata and Govindapur*'. Under this authority, the English purchased from Ramchand Ray, Manohar and others of this Sabarna family, what was called the Zamindaries of mauzas Kalikata, Sutanuti and Govindapur for a sum of rupees thirteen hundred only.² The deed was signed at Barisha at the residence of the Sabarna Zamindars and the place the *Kacharibari*, is still visible almost in a ruined condition.

Manik Chand, the Diwan or Minister of Siraj-ud-daula, who was appointed Governor of Calcutta after its capture by Siraj-ud-daula in 1756, had a country-house surrounded by a large garden (the present Raynagar area). In this Garden, Manik Chand encamped during the siege of the city.³

Jaynarayan Tarkapanchanan, the famous *Naiyayik* and the author of '*Atmatattwaviveka*', '*Vaisesik Darsan*', '*Sarbadarsan Samgraha*', etc. was a resident of this place. The ruins of his house can be seen in Muradpur.⁴

In 1853, Becharam Chattopadhyaya established '*Nityajnan Sancharini Sabha*' which was converted into *Brahmo Samaj* under the inspiration of Maharshi Debendra Nath Tagore to resist the spread of Christianity. This Society and Becharam were closely associated with Maharshi Debendra Nath Tagore.⁵

To resist the spread of both Christianity and Brahmoism '*Haribhakti Pradayini Sabha*' of Behala was established in 1854 (1259 B.S.) at Banamali Naskar Road.⁶

In the early years of this century Fredrick Wingfield Doughlass,

¹ *Dakshin Sahartali Pourabarta*, Vol. I, No. 10, 1976. pp. 7-8.

² *Census of India*, 1901, Vol. VII, Calcutta, Towns and Suburbs, Part I: A Short History of Calcutta: by A. K. Ray; Calcutta, 1902. p. 17.

³ L.S.S. O'Malley, *Bengal District Gazetteers: 24-Parganas*, Calcutta, 1914. p. 259.

⁴ Brajendra Nath Bandyopadhyaya, *Sahitya Sadhak Charitmalā*, Vol. VII, Calcutta, 1368 B.S. pp. 21-7.

⁵ *Dakshin Sahartali Pourabarta*, Vol. I, No. 6, 1976. pp. 11-4.

⁶ *Ibid.*, 1st year, No. 7. p. 42.

a missionary from England, purchased lands from the Sabarna Zamindars of Barisha and founded a Christian Mission. It has a church, accommodation for the orphans, a library for the public, a primary school, a technical school and a big field known as the Doughlass ground.

Many development projects are being executed by CMDA. The Diamond Harbour Road, the only link between Calcutta and Diamond Harbour, is now being developed under one such schemes. The cost of widening the road, approximately 9 miles (14.5 km.) in length was Rs. 601.94 lakhs. Another road on the defunct Kalighat-Phalta Railway line¹ has just been constructed from Taratala to Thakurpukur. Construction work of two super markets has already been completed and the work of drainage system, water supply and sanitary works etc. are also in progress.

Besides the Balananda Brahmachari Sevayatan, a Municipal Hospital and another new hospital—Vidyasagar Hospital on Brahmo Samaj Road—are functioning here. The Cancer Centre and Welfare Home at Thakurpukur was established in 1973 (for detailed information see ChapterXVII). A veterinary hospital also exists at Banamali Naskar Road. A new telephone exchange started functioning from 1977.

The municipal area has a number of secondary schools for boys and girls, 16 free-primary schools for boys and girls, and 3 colleges, viz., Thakurpukur Vivekananda College (co-education), Barisha Vivekananda College for Women and Behala College (co-education) at Parnasree Palli. Educational Institutions like Behala Sikshayatan (estd. in 1856) and Barisha High School (estd. in 1856) are functioning for over a century each.

The Calcutta Blind School, Behala, was the third institution for the blind, was founded in 1894 by Rev. Lal Behari Shah. It was registered in 1897. This school doing pioneering service to the cause turned a new leaf in the history of education of the blind.*

¹ The Kalighat-Falta Railway (narrow-gauge—0.762 metre or 2'6" gauge) was opened on 28th May, 1917 by Messrs. Mcleod & Co., Calcutta. The line was fenced at places between Gholeshapur and Thakurpukur (3.25 miles or 5.23 km.) within the South Suburban Municipality. Three stations within this Municipality were at Gholeshapur, Sakherbazar and Thakurpukur. The line was purchased by the Government of India with effect from 1st April, 1957 and closed to traffic from date with a view to dismantle it. Ref.: *History of Indian Railways*; Government of India, Ministry of Railways (Railways Board), Delhi, 1960.

* Gurusaday Dutta established one *Bratachhari* Village and a *Bratachhari* Shool at Thakurpukur. It has a museum too named after Gurusaday Dutta.

M/s Bengal Flying Club¹ a forerunner in the line of its kind was rechristened as "The Flying Training Institute, Behala" with effect from 8-8-1963, the date on which the management of the club was taken over by the Government of West Bengal in the Home (Transport) Department under D.I. Rules.

Trams were introduced in the Behala region from the year 1908. The length of the stretch between Behala Terminus and Majerhat Bridge is 2.64 km.²

In 1834-35, worship of Chandi was started at the time of Mahesh Chandra Choudhury, was the Sabarna Zamindar of Barisha. Afterwards this festival and the *mela* (in the month of *Agrahayana*) of the Sabarna family was turned into a local one. Tradition says that Nandadulal Ray Choudhury of this family was the founder of Devi Karunamoyee Kali. The deity, made of black stone, is still worshipped. The Siva temples of Barisha were once decorated with terracotta works. In 1298 B.S., Jajneswari Devi of this family founded the deity Sushileswari in the form of Kali near Karunamoyee Kali Kshetra. But the deity is worshipped as Chandi in the full-moon day of *Magh* each year. The Sabarna Choudhury were also the founders of twelve Siva temples near Sakher Bazar. Goddess Chandi of Chanditala in the Punja Sahapur Mouza is also worshipped from long ago. The deity is in the form of a stone with metallic eyes. A *mela* is held on every Tuesday from middle of May to middle of June each year. Folk gods are in abundance in this locality. '*Dharma Thakur*' and '*Budo Shiva*' are still worshipped in Parui, Sahapur and near Behala-Hido. Worship of '*Sitala*' is common. The golden image of goddess Durga of Behala is famous. In 1865, it was established by Jadunath Mukhopadhyaya. The present temple was erected in 1906-07. In the past the goddess was worshipped according to Tantrik rites, but at present according to Puranic rites. Also in 1868 Jadunath founded a decorative brass chariot or '*Rath*' on which the family deity '*Narayana Sila*' was mounted instead of Jagannath. Balaram and Subhadra during the *Rathayatra* festival in the month of *Ashad* (middle of June to middle of July). Another chariot or '*Rath*', founded by the Ray family of Behala in 1906, can be seen no more. At present, a chariot is pulled by the Utkal people from the Mint to the Siddheswari Kali temple. On this occasion, a *mela* is held on the Diamond Harbour Road near the old Tram Depot.

¹ Administrative Officer, Flying Training Institute, Behala, Home (Transport) Department, Government of West Bengal, Calcutta.

² Source: Press & Public Relations Officer, Undertaking of the Calcutta Tramways Company Limited (Under Government of West Bengal), Calcutta.

BIRLAPUR—It is a non-municipal town in Baj Baj police station situated on the Ganga. It has an area of 4.84 sq. km. with a population of 24,205 according to the Census of 1981. It is 3 km. away from Baj Baj-Achhipur Road and can be reached along the private road of the Birla Jute Manufacturing Company Ltd. It can also be reached via Charial-Amtala road from where a 2 km. long road branches off to the township. A private bus from Calcutta plies on this road.

It is famous for the factory of the Birla Jute Manufacturing Company Ltd. along with other industries of the Birla group, namely Staple Fiber Spinning Division, India Linoleums, Calcium Carbide factory, Acetylene Plant, Oxygen Plant. The township has its own market, schools, clubs, dairy, hospital, model labour welfare centre, etc.

BORAL—A village with an area of 104.48 hectares and a population of 1,892 according to the Census of 1971, it is about 15 km. to the south-east of Calcutta. It is within easy reach of Garia. It has an old agricultural co-operative bank. The place is known for its vegetable cultivation and floriculture. It is the native place of Rajnarayan Basu, famous author and Brahmo Samaj leader of the last century, after whose name Rishi Rajnarayan Basu Smriti Mandir containing his memorabilia has been established here. According to the archaeological finds recovered from here, it has been surmised that the place was a habitation during the Pala period.

The famous *Tripurasundari Devi's* temple is located here. It has a beautiful image of Tara Devi's *Bhairava*, *Panchananda*, located in a structure close by. The annual festival takes place here in the Bengali month of *Magh*. There are two old Siva temples, established by the Ghoses in A.D. 1776 and a Madanmohan temple here. There are two old tanks here named Sendighi and Saraldighi. At the time of the Charak festival a fair is held at Charakmath.

The old course of Ganga (*Adi-Ganga*) flew by this village. It is thought that the village was a great centre of trade and commerce between the 7th and 11th century. In the neighbouring Kamdahari village and old crematorium has two dilapidated Siva temples. Legend says that these Siva temples were established by Srimanta Sadagar of *Chandimangal*. There is a T.B. hospital of the Calcutta Corporation close by. It is said that in course of his journey to Puri, Chaitanya halted at a ghat of this village.

A little distance away there is a place called Natunhat; and further away there is Napalganj. The village is connected with Calcutta by a regular city bus service.

CANNING—A non-municipal town within the police station of the same name, it has an area of 12.98 sq. km. with a population of 86,159 according to the Census of 1981. It is the terminus of the Sealdah-Canning branch of the Eastern Railway. The town is variously called Canning Town and Port Canning, being situated on the Matla. It is 44 km. from Sealdah and can also be reached by road from Calcutta via Garia. The town has a piece of land, on the north of which goes the Vidyadhari which receives the water of the Atharabanka and Karatoya. The united streams form the Matla river which leads to the sea in the south.

The place is called after Lord Canning, during whose Viceroyalty an attempt was made to establish a port here. For many years before this, fears had been entertained that the Hugli was deteriorating, and in 1853 the Chamber of Commerce represented to Government the danger of the navigable channels closing and the necessity of establishing a port on the Matla, which should be connected with Calcutta by a railway or canal. Lord Dalhousie's Government took the precaution of acquiring land for the proposed port. The cost of laying out and draining the town, construction of roads and protecting the river front was estimated at upwards of Rs. 20 lakhs, and in November 1863. The municipality floated a loan of Rs. 20 lakhs, opened debentures at 5½ per cent interest repayable in five years. Only Rs. 2,65,000 was subscribed by the public. In 1864, Mr. Ferdinand Schiller of the firm of the Borradaile, Schiller & Co., who was Vice-Chairman of the municipality, proposed to form a company, to be known as the Port Canning Land Investment, Reclamation and Dock Company, which would develop the port, construct docks, tramways, etc. and offered to subscribe 2½ lakhs to the municipal debenture loan in return for certain concessions. (Mr. Schiller also proposed, *inter alia*, that the Sundarbans should be formed into a separate district with headquarters at Canning, that the Magistrate of Baruipur should be removed there, and that the Commissioner of the Sundarbans should make it his headquarters and also that a certain number of Government vessels and a certain quantity of the Government stores consigned to Calcutta should be sent via Canning. These proposals, however, met with little favour from Government.)

The Company started operations vigorously, posting lightships, moorings, buoys, etc. Its shares, which were issued in 1865, rose to a high figure, but they fell as rapidly as they rose, for it was soon realized that the sanguine expectations of the promoters were not likely to be fulfilled. In 1865-66 the port was visited by 26

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ships. But five years later not a single ship dropped anchor there and in the previous two years it was visited by only two ships, of which one was driven in by stress of weather. The failure of the scheme was patent. The Hugli channel had not deteriorated as was apprehended, and trade showed no tendency to go to Canning. The Company and municipality had come to loggerheads and were engaged in litigation, and the finances of the municipality were exhausted. No funds were available to meet the debentures that had fallen due, and Government refused to give any further advances. Finally, in 1871, the port was officially closed and the moorings taken up, while a Civil Court decree placed it under the Collector of 24-Parganas as a Government estate. A few years later the India General Steam Navigation Company had their vessels on the eastern river route loaded and discharged at Canning for about a year, and it was at one time proposed that the bulk oil depot of Calcutta should be established there, but eventually Baj Baj was selected for the purpose. The Port Canning Land Investment, Reclamation and Dock Company went into liquidation in 1870, and was later reconstituted as the Port Canning Land Company. Practically, all that now remains is the railway which has a certain amount of traffic in timber and other produces from the Sundarbans.

This is the gateway to the interior of Sundarbans. Boats and private launches flock on the river side and take passenger to Gosaba and other places. It is now a big trade centre. Rice, different kinds of food and fishes are brought here from the interior and then transhipped to Calcutta. It has the usual complement Government offices like the Block Development Office and has some old buildings of the former Port Canning Company. Apart from the usual Durga and Kali worship, *Brahma* puja is held every year during the Bengali months of *Falgun-Chaitra* at Canning bazar by traders. It started 15 years ago when a fire broke out in the market place.

CHANDRAKETUGARH—A historical site near Deganga, 35 km. from Calcutta on the Calcutta-Basirhat road, it can be reached from Deganga-Haroa road.

Archaeological excavations were conducted here by Calcutta University from 1957 for successive years over an area of 5.20 sq. km. The excavation revealed six strata of human habitation from the Sunga to the Pala period. Apart from the discovery of a surrounding wall of the township having burnt brick trenches, a north-facing polygonal brick temple belonging perhaps to the Gupta

period has also been discovered from the site called *Khanamihirer-dhipi*. Two votive *stupas* and an extensive brick wall indicate Buddhist association in post-Gupta times. For further details see the Appendix at the end of this Chapter.

CHHATRA BHOG—A village in Mathurapur police station within the Diamond Harbour subdivision, it has an area of 35.66 hectares with a population of 434 (224 males and 210 females) according to the census of 1971. It can be reached from Mathurapur station on the Sealdah-Lakshmikantapur branch of the Eastern Railway along the Raidighi Road. A *kutchra* road to the village. At this site Sri Chaitanya, in the 16th century, spent a night while going to Nilachal. Then it was located by the then channel of the Ganga which is now derelict. At that time the village had wider area covering several villages like Krishnachandrapur, Barasi, Kasinagar, etc. It was then an important port on the Ganga. According to the copper plate inscription of Lakshmanasena discovered from Bakultala and Dakshin Gobindapur, two neighbouring villages, this place was within the administrative division of *Betadda Chaturaka* in Bardhaman-bhukti. Towards the end of the 15th century one Ramchandra Khan, a chieftain of South Bengal, lived here according to the *Chaitanya Bhagavata* of Brindaban Das. Several images of Puranic gods and goddesses made of black basalt have been discovered from this place and its neighbourhood. Relics of many old buildings have also been found here. At present, there is a flat roofed temple of *Tripura-sundari* here. The ruins of the older temple can be seen beside the present temple. Apart from the daily worship, a big festival takes place on the full-moon day of the Bengali month of *Jyaishtha*. Reference has been made to this goddess in *Chandimangal* of Mukundaram written in the 16th century. It was earlier mentioned in *Manasar Bhasan* of Bipradas Pipilai (A.D. 1495).

DAKSHINESWAR—A place within Kamarhati Municipality, it is connected to a station of the same name on Sealdah-Dankuni section of the Eastern Railway, it is also approachable by road from Calcutta. The place is famous for the massive *Navaratna* temple of *Jagadisvari Kali* or *Bhabatarini* built by Rani Rasmani in the 19th century on the bank of the Hugli where the great saint Ramakrishna Paramahansa was once a priest.

Rai Raj Chandra Das, a wealthy Mahisya zamindar of Jan Bazar in Central Calcutta was noted for his munificence. He died on 8th

June 1836 leaving his consort Rani Rasmani, who later achieved glory for her charity and devotion to God. The title of "Rani" was conferred on her by the people of the land who looked upon her as the Mother incarnate.

During the life time of Raj Chandra, the husband and the wife decided to establish a temple, but the same remained unfulfilled owing to the sudden death of Raj Chandra. Rani Rasmani cherished the idea of founding a suitable temple as pre-planned. In 1847, she decided to go to Varanasi for pilgrimage and began the journey by boat, as the railways were not established then. Just prior to the journey she had a vision directing her to build a temple by the side of the Ganga near Calcutta. She gave up the idea of visiting Varanasi and advised her son-in-laws to find out a suitable spot by the bank of the Ganga for erecting the temple.

Accordingly, a land was selected in village Dakshineswar on the eastern bank of the Bhagirathi. Relevant extracts from the Deed of Endowment executed by Rani Rasmani in favour of the several deities are as follows:

"During the life time of my husband, he had a mind to erect a temple and perform Deb-sheba. But as he died suddenly and could not fulfil his desire, I have for carrying out his wishes purchased by a Bill of Sale a piece of revenue paying land measuring 54½ Bighas... in village Dakshineswar... from Mr. James Hasty... on 6th Sept. 1847 at price of Rs. 42,500 and I have erected there-upon a pucca Navaratna Temple, Dwadas Mandir and a Temple for Vishnu and a Nat-Mandir... and 18th Jyaishta, 1262 B.S. (31 May 1855) installed and consecrated 12 Shivas and Sree Sree Radha Krishnaji in the Vishnu Temple and Shri Jagadiswari Kali Thakurani and Laksmi-Narayan Shila etc. in the Navaratna Temple for the fulfilment of the desires of my deceased husband and for his spiritual welfare." This Deed of Endowment was executed on 18 February 1861.

The building of the temples, courtyard, Nat-Mandir, Chandni Ghats, Bhog-ghars, Store-rooms, staff quarters, gates, embankments, etc. were completed within the span of this 7½ years approximately. The total cost of these constructions was to the tune of Rupees six lakhs or nearabout.

The deities in the several temples were consecrated on the auspicious *Snan-Yatra* Day of 31 May 1855 with great pomp and grandeur. More than a lakh of Brahmins and Pandits of reputation were invited from far away places all over India. They were highly contended with the costly gifts and cash money awarded to them

by Rasmani. The number of persons entertained with *prasad* and other palatable sweets were too numerous to be counted. Nearly Rupees nine lakhs was spent on this single day for the *Puja*, *Homa*, charity to Brahmins, distribution of *prasad* and entertainment in form of *Yatra*, *Kavi-Gan*, *Kirtan* etc. All the three son-in-laws of Rasmani personally supervised the function to the satisfaction of all.

Sri Ram Kumar Chattopadhyay of Kamarpukur, Hugli, performed the Sastric rites of the *Pratistha* function. His youngest brother Gadadhar, who subsequently came to be known as Ramakrishna Paramahansa Dev, then aged only 19 years, was present on the occasion as a spectator. Ram Kumar was appointed the *Pujari* of the Kali Temple by Rasmani. Gadadhar used to come to his brother occasionally from Jhamapukur. After some time Gadadhar began to stay with his brother Ram Kumar within the temple premises. Ram Kumar, who was in falling health, appealed to Mathur Mohan Biswas, the youngest son-in-law of Rasmani who was then the *de facto* Karta managing the *Debottar* estate, to provide Gadadhar with a post in one of the temples. Accordingly, Mathur Babu appointed Gadadhar as the '*Beshkar*' (one who arranges the wearing apparel) of Jagadiswari Kali Thakurani. Gadadhar's name was recorded in the Service Book as Shri Ramakrishna Bhattacharjya. Instead of the original surname 'Chattopadhyay' the term 'Bhattacharjya' was usually applied to all priests in general and hence this change in the surname. Subsequently, Ramakrishna served as *Pujari* of Radha-Krishnaji's temple for some time. After the death of his elder brother Ram Kumar, he became the *Pujari* of Jagadiswari Kali Thakurani some times in June/July 1858 at the age of 21.

Under the patronage of Rasmani and Mathur Mohan, the young *Pujari* Ramakrishna had full opportunity to follow his peculiar mode of *Puja*, which differed from the stereotyped method and raised a storm of controversy.

After the consecration of the temples, Rasmani lived only 5 years and 9 months. During this period, she would occasionally visit Dakshineswar and witness the devotion of the young *Pujari*. She afforded him all facilities to proceed in his spiritual attainments. After the demise of Rasmani in February 1861, the young priest continued to receive the fullest co-operation and help of Mathur Babu who looked upon him as his Guru (preceptor).

Besides the 14 temples mentioned above, there is '*Panchabati*' and '*Panchamundi-Asan*' within the temple precincts. At the extreme north (near the present Wimco Match Factory) is Panchamundi.

Here under a *Bilwa* tree, Ramakrishna used to sit on the *Asan* and attained *Siddhi*. Skulls of 5 human beings were buried underneath the *Asan*. At present, it is protected by a wall fencing with a door. It is said that Ramakrishna planted the saplings of *Aswathwa*, *Bata*, *Bel*, *Asok* and *Amlaki*, which constitute the present *Panchabati*. Here he used to meditate in the night.

The room where Ramakrishna used to stay at Dakshineswar as *Pujari* is maintained most carefully by the management, where the bedstead and other personal belongings are kept. Devotees are permitted to enter the room and therein silence, befitting the solemnity, it deserves.

The *Nahabat-Khana* by the side of the Ganga, only at a stone's throw from Thakur's room, is maintained as the temple of *Sarada Ma*, consort of Ramakrishna, as she used to stay there for some time when visiting her husband at Dakshineswar.

A newly built temple by the Trustees, accommodates a white marble statue of Rani Rasmani in sitting posture. It stands in between Thakur Ramakrishna's room and the *Nahabat-Khana* of *Sarada Ma*.

Besides the above, there is the burial place of a Muslim saint better known as *Gazi-Pir*, located under a banyan tree on the north side of the big tank contiguous to the Kali Temple on the eastern side.

The heirs of Rani Rasmani instituted a suit in the High Court in 1872 for declaration of the Debottar Estate, as set forth in the Deed of Dedication executed by *Ranima* and for proper management of the said Estate. The Court framed a Scheme for the proper administration and management of the Debottar Estate in 1920, when the Board of Trustees were formed. The Trustees, 3 (three) in number, were to be elected from amongst the *Sebais*. The tenure of office and power of the Trustees were fully defined in the said Scheme.

The Dakshineswar Temple have earned wide repute and glory. People flock in large numbers on all festive occasions, especially on special occasions like *Syama Puja*, *Kalpataru* (1st January), *Siva Chaturdashi*, solar and lunar eclipses, *Nava-Varsha* etc.

DAM DAM—A busy town contiguous to Calcutta, it is under the Dam Dam police station of the Barakpur Subdivision. There are three municipalities within this police station, namely, North Dam Dam having an area of 15.60 sq. km. and a population of 96,019, Dam Dam having an area of 0.20 sq. km. with a population of

36,348 and South Dam Dam with an area of 15.19 sq. km. and a population of 2,27,578. The police station also covers some non-municipal localities like Sultanpur, Dam Dam Aerodrome Notified Area, etc. The North Dam Dam municipality is located at Birati near Birati station on the Sealdah-Bangaon branch of the Eastern Railway.

The name Dam Dam is a corruption of Damdama, meaning a raised mound or battery. It appears to have been first applied to an old house standing on a raised mound, of which the following account is given by R. C. Sterndale in the *Annual Report of the Presidency Volunteer Reserve Battalion for 1891*, in which year it was used as the Volunteer headquarters—"Dum Dum House, or as it is some time called by the natives, the Kila (the fort), is a building of some historic interest". It is probably one of the oldest existing buildings in Bengal, as it was in existence, though not in its present form, before the sack of Calcutta by Nawab Siraj-ud-daula in 1756. The first mention of it occurs in Orme's *History of the War in Bengal*. He states that when Clive marched through the Nawab's camp at Sealdah, on the morning of 8 February 1757, in a dense fog, he crossed the Dam Dam Road. "This road," says the historian, "leads to Dum Dum an old building stationed on a mound." The cantonment and station of Dam Dam were not established until nearly fifty years later, but the Bengal Artillery used to come out to Dam Dam to practise on the plane, when the officers used to occupy the old building, while the men were in the grounds.

"The building appears to have been originally a one-storeyed block house, so constructed as to secure a flank fire along each face, with underground chambers or cellars. The walls were of great thickness, from 4 to 8 feet thick, while they were further strengthened by massive buttresses, between which the walls were apparently loopholed for musketry. No authentic account of the origin of this building can be found, but it was probably either a Dutch or Portuguese factory. The native tradition is that the mound on which it stands was thrown up by a spirit in a single night, and to this day the house and grounds have the reputation of being haunted. Some time after the battle of Plassey, Lord Clive made the old building his country-house, altering the lower storey, so as to destroy its character as a defensive position, and building a fine upper storey; the grounds were also laid out with great expense and taste in the then prevailing formal Dutch style. Bishop Heber speaks of this house as then presenting a venerable appearance and being

surrounded by very pretty walks and shrubberies. No remains of these now exist, though the lines of the old walks and garden paths may be traced through the turf in the dry summer. From its elevated position and the massiveness of its structure, the old house would be still capable of a stout defence against anything but artillery."

At Dam Dam, on 6 February 1757 was concluded the treaty by which the Nawab of Bengal ratified all privileges previously enjoyed by the English, made restitution of Calcutta, Kasimbazar and Dacca, permitted Calcutta to be fortified and granted freedom of trade and liberty to establish a mint. A cantonment was established in 1783, previous to which the place had been the practice-ground of the artillery and it was the headquarters of the Bengal Artillery until 1883, when they were removed to Meerut. In the latter part of the eighteenth century Dam Dam was a fashionable place of resort for the European residents of Calcutta. "As Dum Dum grew", writes Miss Blechynden in *Calcutta, Past and Present*, "it became the fashionable resort for Calcutta society, and many a gay cavalcade of fine ladies and gentlemen passed along the raised Dum Dum Road to be present at a grand review. The gay dames and gallants have long slept in their scattered tombs, but the memory of their passing to and fro still lingers in the countryside, where the simple village folk, as they gazed after them across the level expanse of their rice fields, threaded their own exclamations of pleasure at the sight and on the melody of a song, which may yet be heard when in the quiet evening hour, mothers croon their babies to rest..." The melody is possibly the one which used to run as follows in the days of the Raj:

*"Dekho meri jan,
Kompani nishan,
Bibi gaya Dumduma,
Uri hai nishan".*

But linguistically, this appears to commemorate the visit of one great lady, at whose visit the Company's flag was flown.

From 1861 to 1893 Dam Dam was the headquarters of a separate subdivision, which was amalgamated with the Barasat Subdivision in the latter year.

It also contains a Protestant Church (St. Stephen's) capable of containing seven to eight hundred people, a Roman Catholic Church and a Wesleyan Chapel. Within balustrade which surrounds the Protestant Church, there is a handsome pillar of the Corinthian order

raised by his brother officers, to the memory of Colonel Pearse,* the first Commandant of the Artillery regiment, who died in Calcutta on 15 June 1790. In front of the mess house there was another monumental column raised to the memory of the officers and men who fell during the insurrection and retreat from Kabul in 1841 but more especially to Captain Nicholl and the officers and men of the 1st Troop, 1st Brigade, Horse Artillery, who were out down to the last man in defence of their guns. This was blown down by a gale in 1852, and the pediment, with the marble slab containing the names of the officers and men, is all that now remains. The cantonment also contains the ammunition factory of the Ordnance Department, which manufactures arms, shells, etc., and has given its name to the "Dum Dum bullet".

The Dam Dam area has the Calcutta Air Port and the five-star Air Port Hotel. There are several temples, mosques and a college for women and a few dispensaries and libraries. Of the several industries there are, the Jessop Company, the Gramophone Company (India) Limited, Dam Dam Ordnance Factory, etc. are here. There are some small scale industries located in this area which include rubber, bakery, paper machinery, aluminium, drycell battery manufacturing, pharmaceuticals manufacturing factory, etc. The Ordnance Factory is owned by Government of India. The recently developed residential areas like Lake Town, Bangur Colony, Dam Dam Park, Green Park, etc. are within the South Dam Dam Municipality. The Salt Lake area which once formed a part of this municipality is now a Notified Area.

DIAMOND HARBOUR—The subdivisional town on the east bank of the Hugli, which is joined by the Diamond Harbour *khal*. It has an area of 6.47 sq. km. and a population of 20,095 according to the Census of 1981. The *khal* was known as Hajipur *khal* after Hajipur, the local name of the place. It is about 78 km. to the south by the river, 51 km. by road and 61 km. by rail from Calcutta. It is the terminus of the Sealdah-Diamond Harbour branch of the Eastern Railway. Buses ply further south to Kakdwip and Namkhana and also to Mathurapur *via* Hatuganj from here. There is a ferry service between Kukrahati and this place, from which the State Government through its Public Works Department earn Rs. 12,000 and through

* Colonel Pearse in a letter, dated 23rd February, 1775 says that his corps was encamped at tents in Dam Dam to carry on practice which usually lasted two months.

the Land Revenue Department Rs. 21,500 per year. Diamond Harbour was a favourite anchorage for ships a century and more ago. According to Hamilton's *East India Gazetteer* of 1815, "At Diamond Harbour the Company's ships usually unload their outward, and receive the greater part of their homeward bound cargoes, from whence they proceed to Saugor roads, where the remainder is taken in. There are mooring chains laid down here, and on shore the Company have warehouses for ship's stores, rigging, etc. and at an adjacent village provisions and refreshments are purchased". Graves, dating back to this period, were earlier seen in an old European cemetery situated beyond the telegraph station. The inscriptions on the graves dated back to over a century, the earliest being of the latter part of the eighteenth century. One epitaph recorded the death in 1832 at "Hidgelli Contai" (Hijili in the Medinipur district) of two young girls within two days of one another; it also mentioned the death of their mother but the last lines of the epitaph were missing. From the Bengal Obituary, in which the whole epitaph is given, we learn that she was the wife of a member of the Bengal Civil Service and died at Calcutta of a broken heart less than three months after her daughters' death.

In the compound of the house of the Assistant Engineer (a mark in the floor of the verandah showed as erected in 1882 for the Trigonometrical Survey), there were two graves, of which one had an inscription to the memory of John Aitken, Inspector of Police, who, with his wife and child, was killed in the cyclone of 1864; the other had a slab but no inscription. Diamond Harbour suffered severely from this cyclone, which swept away the majority of its inhabitants; the loss of life within a mile of the river bank was estimated at four-fifths of the population.

About 1 km. to the south on the river bank is the Chingreekhali fort where artillery from Barakpur used to encamp annually for gun practice. The fort is now in shambles and a number of heavy cannons are lying embedded in the ground there. At present, picnickers frequent this place on way to the fort. There is an imposing tourist lodge on the left from where one can get a panoramic view of the vast waters of the Ganga in front with boats and steamers plying.

There is a massive sluice gate here which controls the network of drainage channels of this part of south 24-Parganas. Bharat Sevasram Sangha has established a Siva temple near the railway station in 1949 which has been remodelled in 1969. There is also a temple of Sri Chaitanya constructed by the Gaudiya Math by

the river. There is a Roman Catholic Church by the river. The subdivisional hospital has 175 indoor beds. There is also a maternity hospital of the Red Cross. A veterinary hospital is also there. The town has 2 high schools for boys and 2 for girls. It has 2 colleges, one of which is a B.T. College. The usual State Government and Central Government offices are there. Besides the Sagarika tourist lodge, which is controlled by the West Bengal Tourism Development Corporation for which booking can be made on the reception counter, there is an Irrigation Dak Bungalow and a Zilla Parishad Dak Bungalow respectively controlled by the Executive Engineer, Canals Division, Irrigation Department and the Administrator, Zilla Parishad, 24-Parganas, Alipur.

DHANYAKURIA—A village in Basirhat police station with an area of 149.97 hectares and a population of 2,993 (1,514 males and 1,479 females) according to the Census of 1981, it is situated on the Calcutta-Basirhat road. It can be reached by bus along that road. It is about 48 km. from Calcutta. There is a beautiful garden-house of the local Gayen family built in the style of the castles of bygone days. There is a maternity home, a guest house and a Government hospital built by Shyama Charan Ballabh, the late jute magnet of the place. The *navaratna* Rasmancha of this village has an architectural beauty of its own.

GARDEN REACH—A municipal town and a police station area having 25 wards and sprawling over 12.95 sq. km. with a population of 1,91,389 according to the Census of 1981. It is cantiguous to Calcutta on one side and Metiabruz police station on the other. Roughly, the Garden Reach Road divides the 2 police station areas of Garden Reach and Metiabruz. This town borders on the Ganga and has a ghat overlooking the Sibpur Botanical Gardens on the Haora side. In the 18th century it was the site of the small Mughal fort of Aligarh overlooking which on the other bank of the Ganga stood the fort of Tanna, both of which were taken by Clive in his operations for the capture of Calcutta in 1756. It is the place where the last Nawab of Oudh came to stay after being deposed and exiled. Many buildings were built here between 1868 and 1890 to serve as the residences and places of worship of the royal family. Though thickly populated and covered by big industrial units, there are some edifices of historical interest here. There is a structure named Firdaus Mahal consisting of a school and a mosque which was built by Sams Jahan Begum, wife of Nawab Feredun Mirza of Murshidabad in A.D. 1897. The queen inherited this property

from her maternal side and the entire site including the iron gate, Bengali Bazar, etc. belonging to her are now a *wakf* estate. There is an Imambara built by Nawab Ali Jelisuddaula of the Oudh family. At a short distance from this place there is a Sahi Mosque built by the queen of Wazed Ali Shah, the last Nawab of Oudh. The Nawab of Oudh had his palace at this site but no trace of it can be seen now except the mosque. All these sites are considered sacred by the Shia Community of Muslims residing here. Garden Reach town has in 1984 been incorporated into Calcutta Municipal Corporation area.

GHUTIARI SARIF—A station on the Sealdah-Canning Branch of the Eastern Railway, it is a hamlet within Mauza Bansra (J.L. No. 181) in Canning police station. It has an area of 719.56 hectares with a population of 8,274 according to the Census of 1971. The place is sacred to Muslims and is also held in veneration by other religious communities, being the seat of Pir Mubarak Gazi. The dargah and the mosque of the Pir is located near the Railway Station. Legend has it that in ancient days there was a confrontation between the Gazi and the tiger-god Dakshin Ray. It was compromised through the intervention of Ban Bibi. The woodcutters of the Sundarbans pay special homage to Gazi before going to the forest.

Another legend says, this place was within the administrative division named Madan Malla Pargana which was a part of the Sundarbans. The Gazi had cleared some forest for human habitation in the area. Whence a minor landlord could not pay his taxes in time and was brought to the capital, the boy's mother began to cry; on hearing her cries the Gazi went to the Durbar seated on a tiger. The king was so pleased to see the Gazi that he agreed to release the boy. Madan Mohan, the boy on being released, was given zamindari of South Bengal. He was the ancestor of the Raychaudhuris of Baruipur. Fairs are held here in *Ashadh* (during Ambubachi) and *Sravan* commemorating respectively the appearance and death of the Gazi where both the Muslims and Hindus assemble to venerate the memory of the Gazi.

GOBARDANGA—A municipal town under the Habra police station in Barasat Subdivision, it has an area of 10.36 sq. km. with a population of 28,034 according to the Census of 1981. A large number of people coming from the erstwhile East Pakistan after the partition of 1947 have settled here. It is situated on the east bank of the Jamuna or Ichhamati river and is 58 km. to the north-east of Calcutta. Trade and commerce in the earlier times

was carried on along the Jamuna river which flows by this town. The Calcutta-Jessore road was built in 1791 and when the former Sealdah-Khulna railway branch line was laid, a station was opened here in 1883. The zamindar of Gobardanga and Sris Chandra Vidyaratna of Khatura, a neighbouring village, helped in establishing this station. Legend says that this place was the spot where Krishna tended his flocks. Gopinis or milkmaids lived here with whom Krishna sported at Gaipur. An embankment across the river is called Gopinipota, and a contiguous village is named Kanhainatsal meaning "Krishna's pleasure resort". This place had several sugar mills between the middle of the 18th century and the later part of the 19th century on the bank of the Jamuna. There are two palatial buildings of the Raychaudhuris, the zamindars of this place. There is a sundial in the palace which was built in 1868. Besides, in the family museum of the Raychaudhuris there are many curios. In 1229 B.S. Prasannamayee-Kali temple was built by a zamindar. Besides the Kali icon, there are icons of Gopal and some Narayanasilas. There are also 12 Siva temples in two rows of six in the courtyard of the Kali temple. The Gajan festival is celebrated here in *Chaitra* and Goshtha utsava in *Baisakh*. During the latter festival, a fair is held here at Shashthitala. Raahajatra is celebrated in *Ashadh*. There are some other temples in the area, Gour Nitai in Hari-Sabha, Babarhan and a few Kali, Siva and Manasa temples.

The municipality here was established on 26 April 1870. It has 11 wards, bounded on the north by Mauza Jamdari of Gaighata police station, on the south by the Jamuna river, on the east by the Media *baor* and on the west by Gaipur-Ichhapur *Khal*. There is a degree college, a teachers' training college and several schools in the locality. Khatura is a developed village situated close by. Sris Chandra Vidyaratna of Barabari is a historic person who first married a widow under the patronage of Iswar Chandra Vidya-sagar. In Uttarpura here, there was a salt factory and also an indigo factory. In 1859 indigo cultivation was stopped in the wake of a clash here with the cultivators. The ruins of the *nilkuthi* can still be seen at Sarkarpara. Legend says that a king named Ratneswar lived here whose palace was surrounded by a moat. That moat is named Kankana lake. There are a temple of Chandi, a Siva temple and a Kali temple here. Chandi is considered very sacred by the Hindus. There are a pair of Siva temples built by Sris Chandra Vidyaratna on the bank of the Kankana lake.

GOSABA—An island on the Vidyadhari, it is in the Sundarbans,

within a police station of the same name. The village has an area of 318.94 hectares with a population of 2,492 according to the Census of 1971. The place can be reached by launch from Canning, about 46 km. away. It has a church, a rural reconstruction institute (high school). A market here is held on Saturdays. There are several Government offices of which mention may be made of the Block Development Office, Tiger Project Office, Office of the State Bank of India, Indian Council of Agricultural Research, Salt Paddy Research Station, etc. By a small creek one can visit the *Sajinakhali Bird Sanctuary* on Gandhi Khal to the east which has an area of 362.40 sq. km. The sanctuary has mangrove forests containing Garan, Geon, Bain, Gol-pata, Hental trees. Several species of birds can be seen here between July and December. They are Egrets, Paddy Birds, Cormorants, Openbill Storks, Snake Birds, White Ibis, Purple Heron, Grey Heron, Green Bittern, Pelicans, etc. One may also find tiger, axis deer, wild Pigs, etc. The sanctuary has two watch towers. For visits, permits can be obtained from the Field Director, Sundarbans Tiger Reserve, Gosaba.

Under the control of the aforesaid officer there is the *Sundarban Tiger Reserve Sanctuary* spread over 2,585 sq. km. which contains tigers, different species of deer, wild pigs, varieties of birds, estuarine crocodiles, Gangetic dolphins and many other aquatic animals and reptiles including water lizard. The best period for visiting this sanctuary is between September and May.

Sir Daniel Mackinnon Hamilton, a Scotsman by origin, came to Calcutta in the first decade of the twentieth century as the Chief Executive of the Mackinnon Mackenzie Company. This benevolent gentleman desired to set up a model colony for the uplift of down-trodden people. In 1903 he took settlement of about 9,000 acres of land in Gosaba and had it reclaimed by felling the woods and raising embankment on the river side. The work of reclamation continued between 1903 and 1907 and the land there was made cultivable. At that time most of the inhabitants were tribals from arid western parts of Bengal brought for reclamation. Sir Daniel advocated co-operation. Under his inspiration a cooperative movement was started there. A credit bank was established with the help of cultivators, in 1924. To Gosaba Central Cooperative Bank were attached smaller units of the Cooperative Bank of the different villages. In 1937, the then governor Sir John Anderson visited the place and was pleased to see the rural reconstruction activities there.

Since 1932, Sir Daniel stressed on rural reconstruction and a

rural reconstruction institute was established there in 1934. It acted like a rural reconstruction college and offered certificate to the students who qualified in the examination. This institute imparted training in weaving, agriculture, house construction, etc. In 1938, a free High English school was also opened under the aforesaid college. Before his death in 1939, Sir Daniel made a voluntary trust for the people's benefit and vested his property to it. Rabindra Nath Tagore went to see Gosaba colony on 19 December 1932 and returned from there in early next January.

The *HALLIDAY ISLAND Wild Life Sanctuary* (5.95 sq. km.) on the confluence of the Matla river and the Bay of Bengal is about 174 km. from Diamond Harbour. It can be visited with permits obtained from the Divisional Forest Officer, 24-Parganas, Alipur, between December and February. It can either be approached from Canning or from Gosaba by steam launch. It is the home of the Royal Bengal Tiger, deer, wild bears, water birds, etc.

HAROA—A village within the police station of the same name there, it has an area of 33.80 hectares with a population of 632 according to the Census of 1971. It can be reached from Calcutta by road via Berachampa or from Haroa Road station on the Barasat-Hasnabad branch of the Eastern Railway. There are a *Chandimandap*, and the *Darga* and mosque of Pir Gorachand. Besides, there are the ruins of an old mosque named Ranga Masjid. Pir Gorachand or Gorai Gazi is now worshipped as a powerful deity by Hindus and Muslims alike. Legend says that he was born in a great Arab family and came to this place in the middle ages to convert king Chandraketu of Deulia. Gorachand had magical powers but could not at first persuade Chandraketu to forsake his religion. Then Gorachand went to Hatiagarh to preach Islam. There ruled the king Mahinda Mondal whose sons Akananda and Bakaranda were great fighters. There was fight at Hatiagarh between the king's sons and Gorachand in which one son died and Gorachand was wounded. It is said that one Kalu Ghosh used to feed him with milk. Knowing that he would die soon, Gorachand asked Kalu Ghosh to take him to Haroa. There the Pir was buried on his death. For this act Kalu Ghosh was looked down upon by his Hindu neighbours. At this Kalu Ghosh became angry and killed one of his neighbours. He was then arrested for the killing and sent for trial to the rulers at Gaud. His wife sat beside the tomb of Gorachand and prayed for her husband's release. It is

said that Pir Gorachand rose from the tomb, went to the ruler of Gaud and asked for Kalu Ghosh's release. At this the ruler released Kalu Ghosh and offered much landed property for the *darga* and also built a mosque there. A big fair is held for 3 days every year in the month of *Falgun* commemorating the activities of Gorachand Pir. Different classes of people, especially Muslims, come to this place on that occasion to pay respects to the *Pir*. Huge quantities of milk are poured at the sacred site by the devotees especially by the milkmen which is taken as *prasad* by the pilgrims.

JAYNAGAR—A part of the twin town of Jaynagar-Majilpur, it is located on the west of the Baruipur-Bishnupur road. Majilpur is located to the east of that road. It is under Jaynagar police station and has a station on the Sealdah-Lakshmikantapur branch of the Eastern Railway. The municipality named Jaynagar-Majilpur has an area of 5.18 sq. km. and a population of 16,334 according to the Census of 1981. *Adi Ganga*, an old channel of the Ganga, once used to flow by this town.

As to Majilpur, legend says that during the reign on Jahangir when Raja Mansingh invaded Jessore, one Chandraketu Dutta migrated to this place from Jessore. Some Brahmins also came with him. The old records of the Majilpur Dutta family says that in A.D. 1606 Chandraketu Dutta and his priest came and settled here. He was the *munshi* of King Pratapaditya. It may be that all these people came after Pratapaditya was defeated in the battle with Islam Khan's army. In course of time Majilpur became a seat of Sanskrit learning and many *Chatushpathis* were established here. There is a *Siva* temple in Bhattacharyapara. The *Dhanvantari Kali* temple of this place is well-known. It is also called *Kalipith*. As to folk gods, there are the *Panchananthakur* of Panditpara and of Koilpara. There is a Panchanan temple also at Raktakhanpara. Besides these divinities, there are *Sitala*, *Dakshin Ray* and other folkish divinities.

KAKDWIP—A village within the jurisdiction of the same named thana in Diamond Harbour Subdivision, it is 46 km. by road from Diamond Harbour railway station. Situated on the bank of the Muriganga, an estuarian branch of the Hugli river, it is also the gateway to the vast Sundarbans hinterland. Boats ply between this place and Kachuberia on the northern tip of the Sagar Island. Through a creek named Kalnagini Khal boats enter the interior of

the Sundarbans area when the said *khal* is full of tidal waters. The trunk road from Calcutta goes south from here to Namkhana on the bank of Hatania-Doania river, from the opposite bank of which one can reach **BAKKHALI** and **FRAZERGANJ**, places having tourist attraction. This village consisting of an area of 533.38 hectares and a population of 5,343, according to the Census of 1971, is a big trade centre serving the people of the Sundarbans as also a part of the Kanthi Subdivision of the Medinipur District. Apart from the daily markets, bi-weekly markets are held on Wednesdays and Saturdays and sometimes dates are changed according to the tides of rivers. There are a boys' school, a girls' school and a college and a primary health centre here. There are two temples here *Gaur Nrisinha* and *Satsangha*. Besides *aman* paddy, water-melon, chilli, sunflower, etc. are grown as *rabi* crop. Apart from the local sub-post office, there is the Central Brackish Water Fisheries Research Institute here. The usual State Government offices like the Kakdwip Development Office, Namkhana Development Office, Malaria Inspector's Office, etc. are located here.

KHARDAH—A municipal town in the police station of the same name in Barakpur Subdivision, it has an area of 3.88 sq. km. and a population of 45,282 according to the Census of 1981. It has a railway station of the same name on the Sealdah-Ranaghat branch of the Eastern Railway. It can also be reached along the Barakpur Trunk Road from Calcutta.

The place is sacred to the Gaudiya Vaishnavas having been a home of Nityananda, a senior contemporary and close associate of Shri Chaitanya. It is said that Nityananda came here to live the life of an ascetic by the Ganga. The temple of Nityananda called Sri Mandir is, 3 kms. to the west of the railway station, on the bank of the river. The Goswami or Gossains of Khardah trace their origin from Nityananda's son Birbhadra. A large number of people flock here during the *Dol* and *Ras* festivals. It is said that the stone image of Krishna in worship came floating to Khardah and was brought ashore by Birbhadra. The *ghat* on to which the stone-piece arrived is called *Syamsundar Ghat*. Three images, namely, those of *Syamsundar*, *Radhaballabh* and *Nandadulal* were carved out of it, and the remaining portion was left under a tree and is called *Baharkumari*.

Three centuries ago, a devout Hindu, named Rudra, of Ballabh-pur, near Srirampur, had a vision, in which the God Radhaballabh appeared before him and ordered him to go to Gaud and from there

obtain a stone which was above the doorway of the palace, which he was to make into an image of the God. Rudra went to Gaud and announced to the minister of the Muhammadan Governor the divine orders he had received. Soon after his arrival the stone began sweating and the minister, who was a pious Hindu, pointed out to his master that the drops oozing out of it were tears and that so inauspicious a stone should be removed. This was done, but the stone was so heavy that it was difficult to move it into a boat. It fell into the water, and then miraculously floated to Ballabhpur. Rubra made three images out of it, called *Radhaballabh*, *Syamsundar* and *Nandadulal*. Birbhadra longed to obtain one of them, but Rudra could not be induced to part with any. One day, however, when Rudra was observing his father's *sraddha* the sky became overcast, and it seemed certain that the ceremony would be interrupted by rain. Birbhadra, who was one of the guests, thereupon began praying, and though there was heavy rain all round, not a drop fell on the spot where Rudra and his guests were. Birbhadra then begged Rudra to make him a gift of one of the images, and the grateful Rudra made over to him the image of *Syamsundar*, which he installed at Khardah. The image of *Radhaballabh* is at *Ballabhpur*, and that of *Nandadulal* at *Sahibana*, a village 8 kms. to the east of Barakpur. It is considered an act of great religious merit to visit all three images in one and the same day.

KHARI—A village (J.L. No. 49) in Mathurapur police station within Diamond Harbour Subdivision, has an area of 1,251.57 hectares with a population of 15,114 according to the Census of 1981. It can be reached from Mathurapur station on the Sealdah-Lakshmikanthapur branch of the Eastern Railway along Mathurapur Road. An unmetalled road leads from the main road to this village. Once-Adi-Ganga, the old channel of Ganga, flew by it. At present there is only a small water course flowing which is called *Khari*.

In the manuscript named *Dakarnava* of the 10th-11th century, Khari has been referred to as one of the 64 *pithas* of the Buddhist Tantriks. The name also appears in the Sundarban Copper Plate of Maharaja Lakshmana Sena, which was discovered towards the end of the 19th century from a tank at village Bakultala, situated about 8 km. from here. The inscription says that during the rule of the Senas in the 12th century it was the headquarters of the Khari *mandal* of Paundravardhanabhukti.

The place has been reclaimed from forest during the last century.

At the time of the reclamation relics of many old houses and temples and some icons of Hindu gods and goddesses, made of black basalt, were recovered from this area.

Of the old places of interest in the area are the *astana* of Barakhan Gazi and the temple of *Narayani*. Besides, there are a *Hari* temple, and a newly built temple of *Radhaballav-jiu*. Legend says, there was a fierce fight between Dakshin Ray and Barakhan Gazi in this region. The *astana* of Barakhan Gazi is single-domed and has a big image of the Gazi seated on a horse. There is another temple of *Narayani Devi* with the *devi* seated on a lion. The *Hari* temple having the image of Sri Chaitanya was built in 1341 B.S. The *Radhaballav-jiu* temple, built in 1956, has the images of *Krishna* and *Radha*, the former made of black stone and the latter of white stone. This temple is built on the site of an earlier temple. There is a flat-roofed temple containing the stone image of *Dakshina Kali* commissioned in A.D. 1748 by King Kesava and made by Basudeva, an architect. A recent marble plaque on the temple says that it was built by late Kesab Ray Choudhuri of Patdaha in 1155 B.S. Another such plaque says that it was repaired in the 1356 B.S. The Ray Choudhuris were the local chiefs of Patdaha (Bardaha) where there is a temple of *Pateswari*. Legend says that King Kesava had no son for sometime, and his two wives made a vow to *Siva* for begetting sons which was fulfilled later. King Kesava then brought the *lingam* (icon) from Varanasi and had the temple built by Basudeva, an architect of Ramchandrapur. Many renowned scholars and sages of the area attended the inauguration ceremony.

The temple is situated on a five feet high base. There are 3 corridors on the sides of the sanctum. The front of the corridors have conical arches on which stand squat columns to hold the *char-chala* top. There are a few terracotta plaques on the facade, one being that of Vishnu. Much of the structural details have been lost owing to repairs.

About 1 km. away from here at JAGADISPUR there are 2 *rekha deuls* containing *Siva lingams*, though the site of the temples is called Haorirhat. One of the temples has recently been built on the site of an earlier temple, the broken top of which lies nearby.

THE LOTHIAN ISLAND WILD LIFE SANCTUARY—(938 sq. km.) on the Saptamukhi river can be visited with permission of the DFO, 24-Parganas from December to February to see wild pigs, axle deer, estuarine crocodiles, Gangetic dolphin, water birds, etc. It is 88 km.

from Diamond Harbour, and can be approached from either Kakadwip or Namkhana by boat, via Hatania-Doania creek.

MALLIKPUR—A small village within the Baruipur police station, situated 5 kilometres to the south-west of Baruipur town, is connected with that town by a semi-metalled road. There is a railway station of the same name on the Sealdah-Diamond Harbour line. The village is famous for an old *darga* of Fakir Abdullah. It is an ordinary brick-built building. Both Hindus and Muslims congregate at this *darga* for paying homage. At this *darga* an annual fair is held every year in December on the occasion of Fatehah-doaz-Daham and is visited by a large number of people of both religions.

MANDIRBAZAR—A village within the police station of the same name, is 14 km. by road from Diamond Harbour via Hatuganj. It can also be reached via Baruipur-Bishnupur road. It is about 11 km. from Bishnupur.

An unmetalled road from the main road leads to a very big *at-chala* temple named *Kesavesvar Siva* temple. There is a market around this temple. A 5 km. long *kachcha* road leads from the temple to Lakshmikantapur railway station on the Sealdah-Lakshmikantapur branch line of the Eastern Railway. A terracotta plaque on the temple says that it was built in 1670 of the *Saka* era.

MAYDA—Mayda is a medium sized (population 2,039 in 1971) village in Jaynagar thana area, to the north of Baharu. Nearly 41 per cent of the population of Mayda is composed of people belonging to different Scheduled Castes like, Kaivartas, Bagdis, Haris, Tiyaars, Jalia Kaivartas, Napits and Dhobas and there is a fair sprinkling of Muslim peasants.

The village is situated on the old course of the Ganga and according to Gopendrakrishna Basu the name of the village has been derived from the Portuguese word *Madia*, meaning an inland port. The village indeed was a place in the *Khari* region of Sundarbans, on one of the many rivers, which had been favoured by Portuguese pirates and slave traders from the middle of the sixteenth to the middle of the eighteenth century. According to the family history of the Basuchaudhurs of Mayda, their ancestor Rammohan Basu, a Dakshin Rarhiya *Kulin* Kayastha belonging to the Mahinagar lineage of the Basus, was sent as a *Chaudhuri* or a revenue official by the then Nawab of Bengal, some time in the eighteenth century, for collection of revenue and extension of

settlement. In course of time the Basuchaudhurs acquired zamindari and became the foremost among the zamindars of the region.

Among other zamindar families residing in Mayda mention should be made of Dakshin Rarhiya Kayastha, Sarkars and the Rarhiya Brahmin, Mukherjees. The Dakshin Rarhiya Kayastha, Mitras were intermediaries or pattani-talukdars of the Dattas of Majilpur and the Rarhiya Brahmin, Banerjees were the *sewayats* of the estate of the Dakshina Kali of the village, granted by the Savarna Chaudhurs of Behala-Barisha for being the family supplying the priests of Dakshina Kali.

Each of these landholding families reside in a particular *para* or neighbourhood in the village and each *parha* or neighbourhood is marked off and separated from the neighbouring *parha* by *garhkhais* or moats going round the neighbourhood. Though the *parhas* inhabited by common peasants belonging to the Scheduled Castes and the Muslims are also well marked and distinct, these do not have any moats or *garhkhais* around them. But even there, the mudhouses of all substantial peasants are actually clusters of huts around rectangular courtyards with the huts opening on to the interior courtyards only. The outer sides of the huts have seer walls with occasional windows at very high levels. The entry to the courtyards are through one or two narrow lanes running in between two huts. The huts have high plinths. This type of protective layout and make of the dwellings is peculiar to the Sundarbans area of the south 24-Parganas.

The Basuchaudhurs had very substantial income from their landed property as indeed the huge masonry mansions, *thakur-dalans* and temples in the Basuchaudhuri *parha* bear testimony too. But at the same time, the *parha* shows what happens to an original undivided property where its division is not prevented by a trust deed like *devottara*, *brahmottara* or *wakf*. The Basuchaudhuri *parha* is an amorphous conglomeration of motley structures, all made in different styles, belonging to the different collateral branches of the family, built after the co-sharers of the property had separated at different times. There are residential mansions in the 19th century neo-colonial style, *thakur-dalans* in the English neo-classical style, *at-chala* temples and flat-roofed rectangular temples. In one English neo-classical type *thakur-dalan*, not much unlike the Baharu *thakur dalan*, remnants of beautiful stucco work can be seen.

Most of the branches of the Basuchaudhurs were Vaishnavas. In the house-temple of one family of Basuchaudhurs can be seen

the icons of Radha and Krishna, worshipped as Shyamsundar, made of black basalt. In this temple, consecrated by Gopinath Basu in the late 19th century, curiously enough, the *Sakta* divinity *Mangal-chandi*, a goddess of folkish origin, is also worshipped.

In the family temple of the Basuchaudhuri line, founded by Gadadhar Basu, Siva is the presiding deity. But the most interesting is the case of *Sitala* being worshipped as *griha-devata* or family deity by the Basuchaudhurs of Paschimbari. This semi-malevolent female divinity of folkish origin is not usually worshipped as a family deity and here in this village that too by a high-caste family.

As zamindars the Basuchaudhurs also took care of the ritual needs of the subjects. They had consecrated a *Bibi-ma* for the Muslims and a *Panchanan* for the Hindu Scheduled Caste subjects, with their Mukherjee priest rendering services of *Panchanan-thakur*.

Though the Mukherjees were as old a zamindary family as the Basuchaudhurs and the Sarkars too had zamindary, they perhaps did not have as many divisions of the lineage property as the first mentioned had. One reason might have been that the latter did not have as much property as would let the divided families live as comfortably after the division as they were doing before the division and this factor might have prevented too many splits. The ancestral residences and the *parhas* of the Sarkars and the Mukherjees show that they did not suffer as many divisions of the family properties as did the Basuchaudhurs. But all these families have suffered equally from the cityward emigration of the educated scions of the families. And these emigrations have adversely affected the traditional festivities.

Mayda is famous for its *Dakshina Kali*. The deity is represented by a slab of stone, supposedly a *swayambhu*, that is, self-generated and not worked out. The Kali is housed in an unadorned and not very old looking *at-chala* temple facing south, with a plain enough rectangular *nat-mandir* in the front. On entering the temple through the door-way in the south the first thing one sees is a *yupa-kastha*, as indeed on every Tuesday and Saturday and on special occasions like the *Gostha-utsava* of the 1st of Baisakh, *Ambubachi* in Sravan, *Talnavami* in Bhadra, Kalipuja in Aswin or Kartik and on the 1st of Magh, goats are sacrificed to this *Sakta-tantrik* divinity. Fairs are held on the occasion of the special festivals just referred. It is supposed that if women delivering still-born babies worship the *devi* after having bathed in the tank adjoining the temple, called *Kali-ganga* (supposedly a part of the dried-up old course of the Ganga), they would no longer have to give birth of dead children.

It is said that Gangadhar Chaudhuri of the Savarna Chaudhuri family of Behala-Barisha had founded the temple in 1176 B.S., corresponding to 1770 A.D. and endowed the rent of a few *mahals*, in *devottara*, for the upkeep and services of the temple. He engaged the Rarhiya Brahmin, Banerjees as the priests as well as the *sewayets* of the temple and the *devottara* property. The Bandyopadhyay family still retains the *devi-yantra* necessary for worshipping the deity in accordance with *Sakta-tantrik* rites. It is said that on the northern end of the temple beneath the surface of the ground there is a *pancha-mundir-asan*, again in indispensable aid to *tantrik* rites.

METIABRUZ—A police station consisting of a non-municipal town, Panchur Anchal, it is entirely urban in character and has an area of 7.9 sq. km. having 51,119 persons according to the Census of 1981. It is contiguous to Garden Reach. The Nawab of Ajodhya after his deposition in 1856 had settled in Metiabruz, the dilapidated palace now being included in the Garden Reach Police Station. The Imambara named Sibtainabad is within present Metiabruz. It contains the burial of the Nawab and his eldest son and has some beautiful pictures and portraits of the royal family. There is a small school nearby, built by one of the Nawab's daughters.

NARENDRAPUR—It is famed for the Ramakrishna Mission Asrama School occupying an area of 160 acres dotted with flower gardens, fields, mango groves, lakes and buildings. The place is about 16 km. from Calcutta on the Garia-Baruipur Road. It can also be reached via Sonarpur railway station on the Sealdah-Baruipur branch of the Eastern Railway from where the campus is about 3 km. away. The students of the school reside in 10 separate hostels to which they are distributed according to their ages and classes. The junior section has a separate campus with its own school building and hostel.

Ramakrishna Mission Asrama was established in 1943 as a Students' Home for poor and meritorious post-Matriculation students studying in various under-graduate, degree and post-graduate colleges. It had residential accommodations, a library and a reading room at 18 Jadulal Mallik Road, Pathuriaghata, Calcutta.

In 1956-57, some buildings were completed in Narendrapur and the Students Home was shifted from its former home at 18 Jadulal Mallik Road, Pathuriaghata to Narendrapur.

In 1957 a Blind Boys' Academy was started in Narendrapur to impart secondary education to blind boys. It later merged itself

into the secondary school when the latter started functioning at Narendrapur. In 1981 the Blind Boys' Academy was again separated from the main secondary school and given a separate status as a special school.

The secondary school at Narendrapur started functioning from 1958.

The degree college (for Honours studies only) was established in 1960.

Lokasiksha Parishad is functioning as a distinct institution since the inception of the Asrama in 1956, taking part in Adult Education Programme (since 1956), Social Education Programme (since 1956), Farmers Functional Literacy Programme (since 1967-68) and Non-Formal Education Programme for 15-25 age-group (since 1975-76) and Gram-Sevak Training Programme, with playground, gymnasium and library. The school has two broad sections, one with English as a medium of instruction and the other Bengali. Government of India sends a large number of students here who win the annual competitive merit scholarship. There is a Central Library apart from the libraries attached to the College, School and other institutions of the Asrama. It had about 39,000 volumes and 60 journals towards the end of 1975. A junior technical school is in existence here (apart from it there are, since 1967, a pre-vocational training centre attached to the multipurpose school, a commercial institution offering shorthand and typewriting courses and a school of automobile engineering). Other trade courses like book-binding, poultry-keeping and tailoring are also offered by the Asrama.

The imposing buildings of all the institutions in a sylvan surrounding add to the beauty of the place.*

NAVABGANJ—A place on the bank of the Ganga in Noapara police station within North Barakpur Municipality, it can be reached from Badamtala near Barakpur railway station on the Sealdah-Ranaghat branch of the Eastern Railway, by walking to the west for about 1 km. It can also be reached from Palta railway station. There are two *Radha-Krishna* temples here, one called *Gopinath Jiu's* temple and the other *Radha Gobinda Jiu's* temple, on Sridhar Bansidhar road. The former temple was built in 1257 B.S. by Sridhar Bansidhar Mandal. There is a pillared hall, in the middle of which there is the combined *Radha-Krishna* icon named Gopinath

* Narendrapur Ramakrishna Mission Asrama, Narendrapur (24-Parganas), *Narendrapur Samachar*, 25th December, 1975. pp. 21-4.

Jiu. The latter temple was built in 1327 B.S. by one Dasumani Dasi. The icon here is the same as in the former temple. The *Jhulan* festival, in the month of Sravan, is held here with great pomp. An exhibition of clay dolls is held on the occasion. A fair is held here for a month by the road side during the *Jhulan* festival. There is a *Syamsundar* temple by the river. There are also a *Kali* and a *Siva* temples founded by Dasumani Dasi, a *Bura Siva* temple and an old Shashthitala.

NAZAT (NYAJAT)—A village in Sandeskhali police station within Basirhat Subdivision; it is 26 kms. from Basirhat and can be reached by bus from Basirhat. Before this route was opened, people used to come to this place by boat from Hasnabad along the river route. It has an area of 682.45 hectares with a population of 3,360 according to the Census of 1971. It has a concentration of Scheduled Tribe people, mainly Oraons. On the opposite bank of the river, passing by this village, there is Kalinagar, where the biggest paddy market of the Sundarbans area is held on every Monday and Friday. Paddy and jute are produced locally. It is the gateway to the Sundarbans' hinterland. There are the Block Development Office, Sandeskhali, Subdivisional Tribal Welfare Office, Sundarban Development Office etc. here. The headquarters of the floating bank (*Rupasi Bangla*) managed by the United Bank of India is also located here. There are high schools at Nazat, Kalinagar and Sehara. There is an Inspection Bungalow of the Irrigation and Waterways Department of the State Government here.

NIMPITH—Which has Sri Ramakrishna Asrama, consecrated in 1960-61. It has a prayer hall and temple. There is an evening Teachers' Training College, a High School for Boys, a Girls' School, a Junior Basic School, a hostel for Scheduled Tribes and Scheduled Castes students. The Asrama has a library and a museum, a Mahila Samiti, a guest house, etc. The Block Development Office is located here. Nimpith Asrama is engaged in rural development work in the Sundarbans.

NURPUR—A quiet village by the Ganga, in Diamond Harbour police station. It has an area of 222.90 hectares with a population of 4,077 according to the Census of 1971. It is about 11 km. from Sarisha on Calcutta-Diamond Harbour Road. Buses ply to this place from Diamond Harbour. It has a ferry ghat from where launches ply to the opposite bank to Geonkhali in Medinipur district. A little to the north on the opposite bank can be seen the

confluence of the Rupnarayan with Ganga. The village, now sleepy, has tourist potentialities of becoming a happy retreat from the din and bustle of cities. It has some Calcutta Port Commissioners' establishments. There is also the Naba Jivan Home of the Missionary of Charity (of Mother Teresa) here which houses destitute males who are mentally and physically retarded. It is functioning since 1972 and has an area of 16½ acres with 200 inmates, including 25 members of the staff. The Government of West Bengal has constructed a fishing harbour at RAYCHAK near Nurpur.

PANIHATI—A municipal town in Khardah police station within Barakpur Subdivision, it has an area of 19.43 sq. km. and a population of 2,05,546 according to the Census of 1981. The place is about 15 km. north of Calcutta and is situated on the left bank of the Ganga. It is about 2 km. from Sodpur station on the Sealdah-Ranaghat branch of the Eastern Railway.

Legend says that towards the end of the thirteenth century A.D., Maharaja Chandraketu of Deganga established a *garh* here. He placed an icon of *Bhawani* within the fort. The *Bhawani Garh* was somewhere in Ghoshpara to the north of Panihati, now is called Bhawanipur. There can still be found an egg-shaped drain supposedly constructed by Chandraketu, traces of which can be seen through *garhs*, *jhils*, ponds etc. Some say that the Kali image in the *pancharatna* temple of Trannath was once located in the palace of Chandraketu at Berachampa. During the Turko-Afghan raid there some one had carried the image away and established it here. The other version is that the idol belonged to the Gangulis of Baghbazar (Calcutta) and was sent here during the Maratha raids of the 18th century. In Jessore (Bangladesh) a kind of paddy named *Penity Dhan* is in vogue, which is said to have been taken there from Panihati.

It is said that when Husain Shah became the ruler of Gaud he posted a *Kazi* here, who lived at Kazipara. Relics of Turko-Afghan architecture can still be seen at this place.

It is a great pilgrim centre of the Vaishnavas. There are the famous *Asvattha* and *Bat* trees on the bank of the river where Sri Chaitanya and Nityananda supposedly had rested for some time. The place has been referred to in different Vaishnava books, namely, *Chaitanya Mangal*, *Chaitanya Bhagavat*, *Chaitanya Charitamrita*, *Bhakti Ratnakar*, *Chaitanya Chandodaya* (drama), *Bansi Bistar* by Nityananda, *Vaishnava Namdeva* by Debaki Nanda and *Vaishnava Achar Darpan*. Sri Chaitanya halted here twice, once in A.D. 1515 on his way to Puri and another time when going to

Vrindavan from Puri via Gaud. He came here in the month of *Kartik* and stayed in the house of Raghav Pandit, his disciple. The image of Madan Mohan worshipped by Sri Chaitanya in the house of Raghav, as also the *Samadhi* of Raghav under a canopy of *Madhabi* creepers can still be seen in Raghav *Bhavan* or *Pat Bari*. Sri Nityananda also came here in A.D. 1516 when he was on a missionary errand for spreading religion of love in Gaud. Raghunath Narayandev, a renowned zamindar of Saptagram met Nityananda under a *Bat* tree by the Ganga. On Nityananda's advice, the zamindar distributed *chira* and curd to the pilgrims assembled there in the month of *Jyaishta* of 1517. This festival is still celebrated and is called *Danda Utsav*. The commemorative festival recalling Sri Chaitanya's visit to Raghav Bhavan on his way back from Puri is celebrated since 1321 B.S. in the Bengali month of *Kartik*. Ramdas Babaji, a great Vaishnava saint used to visit this place. His disciple Sri Amulyadhan Ray Bhatta established *Sri Gouranga Grantha Mandir* containing many Vaishnava manuscripts and mementos, some of which have been shifted to Baranagar *Pat Bari*.

On 18 June 1883, Sri Ramakrishna Paramhansa along with some of his disciples visited Panihati to attend Mahotsava there. Sri Ramakrishna attended the Mahotsava for the last time in June 1885 when he was accompanied by Narendranath (Vivekananda) and 24 other disciples. All of them came by boats along the Ganga from Dakshineswar. He halted in the house of Mani Sen, and later joined the *kirtan* and visited Raghav Pandit's house.

Mahatma Gandhi stayed at the Khadi Pratishthan at Sodpur for two months in 1946. He went to Panihati from there on foot on 18 January that year and was shown the old *Bat* tree, venerated by the Vaishnavas, on the bank of Ganga. He was also shown several things said to have been used by Sri Chaitanya there.

An imposing two-storied building with big columns and a spacious garden, on the bank of the river, now houses Gobinda Kumar Home. This building was once a garden house of Asutosh Deb, son of the merchant Ramdulal De of Calcutta. It was then called *Mokshadham*, though people called it Chhatubabu's garden house after Asutosh Deb who was called Chhatubabu or Satubabu. Gobinda Kumar Chaudhuri, the zamindar of Serpur in Mymensingh District (Bangladesh) purchased the garden house on 22 February 1886. His son Gopal Das Chaudhuri handed it over on 29 March 1928 to a Board of Trustees to establish Gobinda Kumar Home after the name of his father, housing destitute women. Rabindranath Tagore visited this garden house in his boyhood in order to avoid

an epidemic of dengu fever, then prevailing (1871-72) in Calcutta. That was his first acquaintance with the outside world. He visited this place for the second time on 29 May 1919, that is, the day preceding 30 May 1919 when he forsook the Knighthood in protest against the Jalianwallabagh killing in Punjab. He was accompanied by P. C. Mahalanobis at that time. He visited this building for the third time on 5 March 1933 to attend the marriage ceremony of a girl of the Asrama. He also planted a mango tree there on that day. He inaugurated the Basanti Cotton Mill in Panihati on 8 August 1934. It has some marble rooms and 2 tanks within the area. It has altogether 14 living rooms and 2 halls at present (1977).

Three famous roads pass through this town, namely, Barakpur Trunk Road, Mursidabad (Nilganj) Road, and Raja Chandraketu Road. The first road leads from Calcutta to Kanchrapara and the second road was the old route for going to Calcutta. The army of the Nawab went to siege Calcutta in 1756 along this road from Mursidabad. The third road led to Jessore from the Ghat of Raja Ramchand.

The river bank has not much changed here for about 500 years. Within the span of a little over one km., there are 14 old *ghats* on the bank, namely:

1. *Thakurbari Ghat of Giribala*—This Ghat was built by Giribala Das of Janbazar (Calcutta) in 1318 B.S.

2. *Madan Bose's Ghat*—In 1270 B.S. a ship ran aground at this place and a part of this Ghat was broken.

3. *Chandpal's Ghat*—Chandpal's mother used to feed *sannyasis* here and on her death her son used to do that.

4. *Amdani-Raptanir Ghat*—This Ghat was used for trade in rice.

5. *Bazarer Ghat*—Gauricharan Roy Chaudhury, Dewan of Rani Bhavani, obtained the zamindari of Panihati during the rule of Lord Clive. His son Joygopal built this ghat.

6. *Ramchand's Ghat*—It was built in A.D. 1808 by Ramchand, the Raja of Posta.

7. *Sri Chaitanyer Ghat*—Also called Mahotsavtala, it has the famous *Bat* tree under which Sri Chaitanya and Nityananda rested during their visit to this place.

8. *The Ghat of the Sens*—It was built in 1296 B.S. by Gurucharan Sen of Barabazar (Calcutta), along with Sri Chaitanya temple. His son Mani Madhab Sen was a devotee of Sri Ramakrishna Paramhansa; the latter visited this temple along with his disciples in 1885.

9. *The Ghat of Dawns*—It was built in 1329 B.S. by Nandalal

Dawan of Jorasanko (Calcutta), along with a Jagaddhatri and 2 Siva temples.

10. *The Ghat of the Sadhu Khans*—It was built by Gauri Dasi in memory of her late husband Gaur Mohan of Baghbazar (Calcutta) in 1330 B.S.

11. *The Ghat of Gobinda Home*—It was built by Asutosh Deb (Chhatubabu) of Calcutta in A.D. 1871 being a part of Gobinda Home. It has a *Bakul* tree near by.

12. *Tranbabu's Ghat*—This Ghat, along with a *Pancharatna Kali* temple and 3 Siva temples, was built by Trannath Bandyopadhyaya, a great son of the locality.

13. *The Ghat of the Duttas*—It was built by Haris Chandra Dutta. There are 12 Siva temples near by. In 1924, the surveyors of the Calcutta Port Commissioners reported that no other Ghat down Kalna was so broad, so easy of ascent and so beautiful to look. It never ran dry even at the lowest ebb.

14. *Iswar Sunri's Ghat*—It was built near Sodpur on the south of village Sukchar by Iswar Sunri of Sodpur. One of the earliest of chemical engineering establishments of the country, managed by the Indians themselves, the Bengal Chemical and Pharmaceutical Works had established its factory at Panihati which is now being run as a Government of India Undertaking. Within the municipal area a college named Panihati Mahavidyalaya has been functioning from 1976. The Panihati State General Hospital with 100 beds was also opened that year. In some areas there is piped water supply on roads. The municipality has also some tube-wells on roads. Many of the houses still have wells. There is a launch service from the newly laid up ferry ghat to Konnagar (in Hugli district) on the opposite bank.

PHALTA (Falta)—A village within the police station of the same name on the Ganga, it is 53 km. from Calcutta and 14 km. from Dostipur. According to the Census of 1971 a population of 494 persons live here. The village is connected by bus with Calcutta.

In the 18th century, the Dutch, who along with the English and the Portuguese fought for commercial supremacy in Bengal, maintained a station here for their sea-going vessels. There was a fort on the bank of the Ganga and the present two-storied building with the mast and a draw-bridge in front was the watch tower of that fort. This building is now an inspection bungalow controlled by the Zilla Parishad. *Bengal Gazette* of 15 April 1794 gave notice of the sale of the factory and land at Falta. These were sold for Rs. 5,800

on 8 July of that year. The Fort was abandoned and blown off by the English after the World War I, who found it to be no longer of strategic importance, and made over the watch tower and the draw-bridge to the District Board in 1923. After the capture of Calcutta by Nawab Siraj-ud-Daula on 20 June 1756, the English Garrison Commander Governor Drake deserted his charge and fled to the ship, not without risk, for several muskets were fired at him by the enraged men whom he had abandoned to their fate, but none of them hit him. Even on the ships Drake and the survivors were not safe, for when they attempted to make their way down the river, they were forced back by the guns of Fort Tanna, and two of the smaller vessels were driven ashore. They accordingly returned to their anchorage off Gobindapur, and remained there till the 24th, when they were joined by three ships from Bombay that had run the gauntlet. Emboldened by this reinforcement, they set sail, and after losing another vessel, which ran ashore off Baj Baj, reached Falta on 26 June. Falta was then "a place of some importance, having a town with a large bazar, and was moreover the station of all the Dutch shipping." At Falta the English remained for six months, until an avenging force had been collected, and they felt themselves strong enough to take the field. In the beginning of August they received a reinforcement of 230 men, mostly Europeans, under Major Kilpatrick, which had been sent from Madras before the news of the fall of Calcutta. The Europeans from the outstations also made their way to Falta, as well as those who had escaped from Calcutta during the attack, of whom there must have been nearly one hundred; after the fleet was materially strengthened by the arrival of vessels from England, Bombay and elsewhere, they were bound for Calcutta.

"But though they were thus early enabled to muster so considerable a force at Falta, they were wretchedly provided with arms, ammunition, stores, and even with clothing; nor were they much better off for provisions. Their numbers, too soon began to decrease at a fearful rate, especially in Major Kilpatrick's detachment, in which the mortality was very great. Partly from the absence of sufficient shelter on shore, and partly from fear of surprise, they all slept on board the vessels, where, from want of room, they were compelled to occupy the open decks. This exposure during the rainy season, coupled with bad cough and other privations, brought on a malignant fever, which infected all the ships, and ultimately carried off a majority of the party, leaving the remainder in a wretchedly reduced and pitiable condition. When at length,

in December 1756, the relief expedition arrived from Madras, under the command of Clive and Admiral Watson, sickness and death had been so fearfully busy amongst them, that out of the party of 230 men brought round by Major Kilpatrick, one-half had sunk into the grave, and only about thirty of those who survived were fit for active duty. The remnant of the Bengal military force, from being more accustomed to the climate, appears to have fared better."

An old cannon, collected from the fort area, is kept on an elevated structure in the police station compound. The picturesque residential building of late Sir J. C. Bose and Bose Research Institute are located by the river. There are Sri Aurobindo Sadhan Pith at Mala, a neighbouring locality and Sri Ramakrishna Sri Mandir at Phalta.

PIYALI TOWN—A town situated about 4 kms. to south of Baruipur Railway Station on the Baruipur-Uttarbhag Road in Baruipur police station area. It was planned and inaugurated by Dr. Bidhan Chandra Roy, the then Chief Minister of West Bengal, as an industrial estate for the economic development of the region. It is situated on the land owned by the former 'Ulpur Samabay Samity' at Phultala (an old name of the locality). At one time, it was planned to rehabilitate the refugees from East Pakistan (now Bangladesh) in Piyali town, besides developing it as an industrial estate. At present, a few refugee families are living in this town and some units of small and cottage industries are located here. There are about 10 powerloom units functioning here, some under co-operative societies and others under individual ownership, the total number of looms being about 110. These looms produce 60 count cloths (*Sari* and *Dhoti*). Apart from these powerlooms, there is one Surgical Instruments manufacturing factory which has made an impact on the surrounding areas; it has promoted entrepreneurship among young people and a fairly good number of them have taken to manufacturing surgical instruments at cottage level. There is also a factory called 'Basanta Pran' producing small Dhup-machine-parts wherein about 50 persons are employed. Dhup-Kathi (scented incense stick) manufacturing has become sort of domestic industry in almost every family in the town and it has become a secondary source of livelihood. Ramanagar Block Development Office is located in this town.

The Experimental Workshop-cum-Research Institute of the Small and Cottage Industries Department of the Government of

West Bengal, situated in this town, deserves special mention. It is the only Institute of its kind in West Bengal. Under the aegis of this Institute researches are carried on in various handicrafts, improvement of designs, exploring markets of handicrafts and providing guidance to artisans. The Institute has a museum where products designed and developed are kept and displayed.

SAGAR ISLAND—It can be reached by boat from Kakdwip or Namkhana. Sagar Island within the Sagar police station comprises 46 villages spread over 580.9 sq. km. with a population of 1,15,113 according to the Census of 1981. As the land is situated near the confluence of the Ganga and the Bay of Bengal it is full of creeks and channels. Thirty-seven canals cross this island which is subdivided into four large and small islands. There is a Block Development Office here. There are 7 Panchayat Samities and 40 Gram Panchayats. There are 11 permanent roads within the island, of which two are most important one of which goes straight to the *mela* ground from Kachuberia, and the other, a new road constructed in 1976, goes from Chemaguri jettyghat to the *mela* ground.

Apart from the *Kapilmuni* temple near the sea, many other temples have been erected centring round it. They are Omkarnath Thakur's *Jogendra Math*, *Chintaharanesvar Siva* temple of the *Satnami Nagas*, *Mahanirvan Kalimandir* of Sukhamanidas, *Bharat Sevasrama Math* and *Durga Mandir*, managed by the Calcutta Yuva Sangha.

Situated as it is at the point where the holy Ganga once mingled its waters with the sea, it is regarded as a sacred spot. The legend accounting for its sanctity is as follows:

Sagar, King of Ayodhya, the thirteenth ancestor of Rama, was performing the *Asvamedha Yajna*, or horse-sacrifice, ninety-ninth time. Indra, King of Heaven, who had himself performed the ceremony a hundred times became jealous of being displaced by this new rival, stole the horse, and concealed it in a subterranean cell, where the sage Kapila or Kapilmuni, was absorbed in meditation, deaf to all happenings of the external world. Sixty thousand sons of Sagar were sent in search of the horse and they found the horse in his hiding place, and believing the sage to be the author of the theft, assaulted him. The holy man being thus roused, opened his eyes and cursed his assailants, who were immediately burnt to cinders and sentenced to hell. A grandson of Sagar, in search of his father and uncles, at last came to Kapilmuni, and begged him

to resurrect the souls of the dead. The holy man replied that this could only be effected if the waters of Ganga could be brought to the spot to touch the ashes. Now, Ganga was then residing in Heaven, in the custody of Brahma, the Creator, and the grandson of Sagar prayed to him to send the goddess to the earth. He died, however, without his supplication having been granted. He left no issue; but a son, Bhagirath, was curiously born of his widow, and through his prayers Brahma allowed Ganga to visit the earth. Bhagirath led the way as far as *Hathiagarh* in the 24-Parganas, near the sea, and then declared that he could not show the rest of the way, whereupon Ganga, in order to make sure of reaching the spot, divided herself into a hundred mouths, reached the cell, and by washing the ashes, completed the atonement for the offence of the sons of King Sagar, whose souls were thereupon admitted into heaven. Ganga thus became the sacred stream with hundred mouths. The people say that the sea took its name of Sagar from this legend; and the point of confluence of the river and sea at Sagar Island is a celebrated spot of Hindu pilgrimage.

The festival is held at the time of the *Makar Sankranti* when the sun enters capricorn, which identified with the last day of *Poush* and the first day of *Magh* (in the middle of January), and is the occasion of a large fair. The Makara Sankranti festival of Sagar attracts thousand of Hindu pilgrims from all over the country for which special arrangements have to be made by the State Government.

The reclamation of the island from jungle was started early in the nineteenth century. In 1811, a Mr. Beaumont applied for permission to hold a hundred acres of land in the island for the purpose of establishing a manufactory of buff leather, and asked that all tiger-skins brought to the collector's office might be made over to him for this purpose. His application for land was granted by the Board of Revenue in November 1811; and in the following year, in consequence of a Government resolution offering favourable terms for the cultivation of Sagar Island, Mr. Beaumont applied for a grant of land on a cultivating tenure. This application was rejected on the ground that Government had decided not to grant leases to Europeans for cultivation. Leases of the island were offered to Indians only, and many proposals were received from them, but this scheme of colonization was a complete failure. The island was subsequently leased to an association composed of Europeans as well as Indians, free of rent, for thirty years, and to a rent of four annas per bigha thereafter. The under-

taking was begun with vigour, but too many unforeseen difficulties occurred, so up to the 1st September 1820 not more than four square miles could be effectually cleared. Amongst other obstacles it was found that as the woods were cut down, the sea encroached the sandy beach not having sufficient tenacity to resist its invasion. Twenty-five families of Maghs from Arakan were settled at the confluence of two creeks, and a road constructed for facilitating pilgrims to visit the temple of Kapila.

In 1819, Mr. Trower, Collector of 24-Parganas, formed a company, called the Sagar Island Society, for the systematic reclamation and development of the island; he himself was a considerable share-holder, and the central part of the island was called Trowerland after him. The company obtained a grant of the whole island, subject to certain conditions (the breach of which entailed forfeiture of the grant) and carried on operations vigorously until 1833, when their work was destroyed by a cyclone and they abandoned the project. Their interest in the northern part of the island was then taken over by four European gentlemen, who combined the manufacture of salt with cultivation of rice. The progress of the island was again interrupted by the cyclone of 1864, when 4,137 persons or the three-fourths of the population perished, only 1,488 being left.

As to the annual fair the first preparatory meeting is convened by the end of September each year by the District Magistrate, 24-Parganas. The Government departments and voluntary organizations which take part in the *mela* are brought under a unitary fold by him. During the British days this fair used to be conducted, according to its own regulations like other *melas* in the land, i.e. devotees used to visit the place on the fixed date and time of their own and the shops functioned according to the discretion of the shop-owners. In those days the *mela* used to run for about a month. Starting in the middle of December, it usually closed by the middle of January each year. From 1899 the charge of the *mela* devolved on the Court of Wards. The District Board was in charge of sanitary arrangement and public health.

In 1919 cholera broke out in an epidemic form and the Government authorities became apprehensive. The entire responsibility was then taken over from the Court of Wards and was entrusted to the District Board authorities. In 1953 Ganga Sagar Mela Bill was introduced in the legislature to maintain parity between the income and expenditure. In terms of this bill a tax of rupee one per pilgrim was fixed which was lifted after 10 years in 1963. In 1964 the

responsibility of managing the *mela* affairs was entrusted to the District Magistrate, 24-Parganas.

A permanent committee consisting of twelve members was formed in 1969 as per resolution of the Home (Political) Department of the Government to look after the welfare, general improvement and management of the *mela*. This committee advises Government regarding allotment of money and other matters on the one side and advises the District Committee on the other hand.

The management of the sheds, rest-houses, drinking water supply, drainage, sewerage, electrification of the *mela* yard, etc. are entrusted to the Public Health Engineering Department. They arrange for the resting places of the pilgrims and take Government servants on duty from the Outram Ghat in Calcutta to Diamond Harbour, Kakdwip-Namkhana, Kachuberia, Chemaguri, etc. There is a protected reservoir in the *mela* yard, and water for drinking purposes is pumped out from it and distributed to about 150 drinking water tanks. They also construct barricades in different places of the *mela* and are also responsible for all sorts of internal and external arrangements for the *mela*, for which suitable allotment of fund is made by the Government. It amounts to Rs. 10 to 15 lakhs per annum.

The West Bengal State Electricity Board is in charge of supplying power to all the necessary locations. In Rudranagar a permanent centre of the State Electricity Board has been opened, which lies about 12 kilometres from the *mela* ground.

The means of communication on land are buses, trains, trucks and other small vehicles. A number of trains also ply daily from Sealdah to Diamond Harbour. Eastern Railway authorities make arrangements to run special trains during the *mela*. The Public Vehicles Department requisitions some private buses from their regular routes and allow them to ply from Haora Station, Outram-ghat, Diamond Harbour to Namkhana and Kakdwip. Some buses ply after crossing the ferry by steamer from Kakdwip and go direct to the *mela* ground from Kachuberia. The Home (Transport) Department allots some launches for departmental work.

The Zilla Parishad maintains the Kakdwip jetty, runs the ferry service across the river and maintains the road from the Chemaguri jettyghat to Chayer Gheri.

The launches anchor themselves to steel barges. These barges are owned by the Central Inland Waterways Transport Corporation. They also ply a few big steamers. The Public Works Department also sends a few barges.

The West Bengal Police and the District Superintendent of Police maintain peace and security during the *mela*.

The members of the Mobile Civil Emergency Force keep themselves in readiness. Their chief service include saving the lives of drowning persons at Namkhana, Kakdwip, Kachuberia, Chemaguri and the sea-beach verging on the *mela* ground. About 32 voluntary organizations render various services at Namkhana, Chemaguri, Kachuberia and the *mela* yard. They assist the pilgrims on one side and also help the administration and police in different matters.

For instant communication there exists a telephone system at the *mela* yard, Chemaguri and Kachuberia which is installed by the Telephones Department. In addition, temporary Post and Telegraph Offices are set up. Arrangement for Radio transmission of urgent messages are in existence by which direct communications can be made from and to Chemaguri, Kachuberia, Namkhana, Diamond Harbour and Calcutta.

SAJNAKHALI BIRD SANCTUARY is situated within the Sundarbans Tiger Reserve Project area. Sajnakhalī is an island in the Basanti thana area, with the Vidyadhari on its west and north and the Jhilla on its east; to its south is Halliday Island. It can be reached from Canning by motor launch *via* Gosaba. The journey takes about four hours by motor launch. Sajnakhalī is in fact the gateway to the Sundarbans Tiger Reserve and act as the buffer zone between the prowling area of the tigers and the human settlements. The Sajnakhalī Wild Life Sanctuary which was declared as such, only in June 1976, covers an area of approximately 362.40 sq. kms. In the same year a bird watching tower was constructed at a distance of about a kilometre from the Sajnakhalī Forest Station.

Sajnakhalī area like other places in the Sundarbans is forested mainly by the *baen* and *hental* plants, the latter is a favoured cover of the Royal Bengal Tiger. Estuarine crocodiles and large sized (up to the length of about 8 feet) water monitor lizard (*varanus salvato*) are found a plenty in the rivers, creeks and shores in and around Sajnakhalī. Herds of the ubiquitous *Cheetal* or the spotted deer are there for everyone to see.

During the resting and hatching season, from June to September, a visitor is likely to see open-billed storks (*sammukhole*), large egrets, median egrets, little egrets, white ibis, night herons, little cormorants, purple herons, other varieties of egrets, spot darters and rare melanic varieties of open-bills, white bellied sea-eagles, golden plovers, common sand pipers, whimbler, red-wattled lap wing,

several varieties of king fishers, several varieties of wood peckers, *munias* etc. etc.*

SODPUR which is within Panihati municipality and in Khardah police station, there is a pound for old and diseased cattle. This institution named Calcutta Pinjrapole was established in 1895 and is patronised by the rich Marwari community of Calcutta. The Gopashtami fair is held in every *Agrahayan* when the cattle are fed sweet and grass by the visitors. Gandhi Asrama at Sodpur is famous as Mahatma Gandhi stayed here for two months in 1946 (for details please see PANIHATI).

SUNDARBANS TIGER RESERVE PROJECT—In 1972, the number of tigers in the West Bengal portion of the Sundarbans, the abode of the Royal Bengal Tiger, had dwindled down to 135; the same number of tigers were killed during the five year period from 1929 to 1934. Alarmed at this rate of decrease, the World Wild Life Fund urged the Government of West Bengal to take immediate steps for the protection, preservation and growth of the species. As a result of this urging, the Government of West Bengal declared 2,585 sq. kms. of river and creek-crossed areas in the south of the Diamond Harbour, Sadar and Basirhat subdivisions as the Project Tiger Reserve, in 1973. The core comprises 1,330 sq. kms. As a result of the protection, preservation and growth policies adopted, the population of tigers in the Sundarbans has already risen to 205 (in 1979) from 135 (in 1972).

The forests of the Sundarbans Tiger Reserve form part of the estuarine mangrove vegetation of the Sundarbans delta. The forests are inundated by tidal back waters. The species of vegetation are salinity resistant. Main species are the *genwa* (*excaecaria agallocha*), *jhanti garan* (*ceriops tagal*), *baen* (*avecennia officinale*), *keora* (*sonneratia apetala*), *garjan* (*rhizophora mucronata*), *kankra* (*bruguiera gymnorrhiza*), *sundari* (*heritiera minor*), *hental* (*phoenix paludosa*) and *golpata* (*nipa fruticans*). The common grass is *oryza coarctata* on the tidal mud flat and *saccharum munja* on the sea faces.

At the present the fauna of the Sundarbans Tiger Reserve consists of the following species of mammals, birds and reptiles: (i) the Royal Bengal Tiger (*panthera tigris*), (ii) *cheetal* or the spotted deer (*axis axis*), (iii) wild boar (*sus scrofa*), (iv) Rhesus monkey (*macaca mulatta*), (v) fishing cat (*felis viverrina*), (vi) estuarine

* Source: P. Sanyal, Field Director, Sundarbans Tiger Reserve.

crocodile (*crocodilus porosus*), (vii) water monitor (*varanus salvator*) and (viii) Indian python (*python molurus*). Some of the most important of the 42 species of birds seen in the Sundarbans Tiger Reserve Project area have received our attention in the description of the Sajnakhali Bird Sanctuary.

The buffer zone of the Sundarbans Tiger Reserve, which also includes the Sajnakhali Bird Sanctuary, is allowed for fishing and honey collection. But cutting of *hental* (*phoenix paludosa*) is banned for the *hental* provides the typical tiger habitat. A number of sweet water holes have been dug inside the core area of the Reserve to keep the tigers and the prey from straying out of the area in search of water. Wild hogs are reared by the Project Tiger authority and released in the core area to make the area rich in prey for the tigers. Yet, tigers do stray out of the core area, into the buffer zone and occasionally also into human settlements when the salinity of water in the rivers and creeks rise. 40 to 50 cases of man eating has occurred every year between 1973 and 1982. However, in all these years no man eating by tiger has taken place in the monsoon months of July, August and September when the salinity of water is at its lowest and when plenty of sweet water is available in the depressions and holes.

The Project Tiger authority has constructed a tiger watching tower and a deer watching tower, besides one bird watching tower in the buffer zone at Sajnakhali for ring side view of the wild life.

In the Sundarbans Tiger Reserve, there is a place called. Netadhopani where the ruins of an old brick-built temple can be seen. Traces of an old road, lined on both sides by exotic *mimusops hexandra*, can also be seen leading to the temple. It is believed to be the temple of Neta, the washerwoman who saved the life of Lakshminder, of the *Manasamangal* legend of the medieval times, at the earnest prayers of his wife Behula. From the ruins of the temple it appears to have been a *rekha deul* of the 12th-13th century, like Jatar Deul of Uttar Jata.

The main commercial products of the Sundarbans Tiger Reserve are fish, honey and bees' wax. During the 1981-82 financial year 470.8 quintals of honey and 3,082 kilograms of bees' wax were collected from the Reserve.*

TITAGAR—A municipal town within the Police Station of the same name in Barakpur Subdivision, it has an area of 3.24 sq. km. with

* Source: Pranabes Sanyal, Field Director, Sundarbans Tiger Reserve.

a population of 1,04,439 persons according to the census of 1981. It is 19 km. to the north of Calcutta, and is served by a station of the same name on the Sealdah-Ranaghat section of the Eastern Railway. It can also be reached along Barakpur Trunk Road from Calcutta. There are some jute mills and one paper mill here. *Annapurna* temple along with 12 Siva temples is worth visiting here. It was founded by Jagadamba Devi, the daughter of Rani Rasmani and wife of Mathura Mohan Biswas. It is a big *Navaratna* temple with icon of *Annapurna*, situated on the Park Road by the Ganga. The temple has floral decorations made of stucco.

There is a sacred site named *Porasivatala* where some stone-pieces are worshiped as Siva in *Chaitra*. There is a *Visalakshmi* temple by the Ganga. The deity of which has four hands and three eyes.

In the beginning of the 19th century Europeans had country houses here. Then there was dock-yard here from where a 1,445 ton vessel named the 'Countess of Sutherland' was launched. Once the place had a site named Chandmari where shooting was practised. Now the place is called Anandapur where new settlers have built their houses. There is a *Ram-Sita* temple here and a *Harisabha* on Harisabha road.

At Shashthitala, on B. T. Road, *Jhulanjatra* is celebrated with much pomp. There is a Sitala temple and Kali temple near Talpukur and an old Kali temple on B. C. Chatterjee Road in Bachaspatipara. There is an Asrama of Sitaram Das Omkarnath.

APPENDIX

CHANDRAKETUGARH—Among the ancient sites in the lower Ganga valley, Chandraketurgh in 24-Parganas district is extremely fascinating. Flanked by the river Vidyadhari, a little away in the south, the site is situated approximately 40 kilometres to the east of Calcutta. The name Chandraketurgh, literally "the fort of Chandra-ketu", is applicable to a wide region about a couple of square kilometres in length and breadth, while the names like Berachampa, Devalaya, Hadipur, Singerati, Jhikra etc. designate limited areas covering plains and mounds in the area. In fact, explorations have indicated that, the ancient settlement of Chandraketurgh even spread beyond the periphery of the fort whose earthen ramparts may still be recognised as vestiges of a past glory. The importance of the site was first indicated in the last century when a number of

silver punch-marked coins, mainly of the Mauryan epoch, were unearthed from the region and were ultimately acquired by the then Royal Asiatic Society of Bengal. After that, the site was apparently forgotten until 1907, when archaeologist Longhurst visited the site in response to a petition from the locality and found some examples of early pottery and characteristically ancient bricks from the area. After some years several rectangular cast coins were recovered from the site and they were ultimately preserved by the Bangiya Sahitya Parishad in Calcutta. As a result of such discoveries some of the ancient mounds at Chandraketugarh were declared 'Protected' in November 1920 by the Archaeological Survey of India. The then Superintendent of the Eastern Circle of the Archaeological Survey of India felt that the "place was one of the earliest settlements in India".

Some of the antiquities from Chandraketugarh were examined by R. D. Banerji, who eventually became convinced about the importance of the site. Decades after, the site was again visited by Prof. Kunja Govinda Goswami who conducted a brief field-work on behalf of the Asutosh Museum of Indian Art of Calcutta University. Though the report of Prof. Goswami indicated that the site had hidden remains of early historic epochs, no proper action was taken for a number of years to come. In the meantime the site continued to fascinate historians and antiquarians while stories of King Chandraketu who perished with his queens in spite of his victory over the invaders found expression in local myths.

The high mounds of Chandraketugarh and the nature of its relics led one historian to guess that, the place actually concealed the secrets of the ancient port of Ganga which stood on one of the mouths of the Ganga according to the *Periplus of the Erythraean Sea*, a log-book of an unknown Greek sailor who recorded his voyage along the coast of India in 1st or 2nd century A.D. Actually, the site gained more attention of archaeologists when a terracotta toy-cart (*mrichchhakatika*) gracefully envisaging Surya in the prevailing style of the 2nd century B.C. was discovered here and found its way to the Centenary Exhibition of the Calcutta University. When the terracotta was displayed it recalled the beauty and composition of the sculptures of Surya in the monuments of the Sunga period and decisively proved the archaeological importance of Chandraketugarh. Important collections from the site are now being preserved in the Asutosh Museum of Indian Art of Calcutta University and in the State Archaeological Gallery of West Bengal. As a result of several archaeological explorations various antiquities,

including terracotta plaques and figurines, beads, coins, seals, pottery etc. have been found from the site which bear the testimony to the wealth and prosperity of the buried city of Chandraketugarh. A series of excavations were carried out at the site by the Asutosh Museum of Indian Art of the Calcutta University from 1957 onwards. The diggings for the first time brought to light the sequence of culture at Chandraketugarh and exposed certain outstanding remains of an ancient habitation. The excavations revealed that the occupation here dates back from pre-Mauryan period and afterwards the settlement achieved a peak of civilization during the Maurya, the Sunga and the Kushan epochs. It appears that the major periods of occupation at the ancient site date from the pre-Mauryan to the Gupta times and the habitation of the city continued for a few centuries more. The excavated trenches at one time exposed a neatly laid pipeline composed of cylinders of baked clay which were probably used in some kind of a drainage system in the Maurya-Sunga period. A beaten ramp on the outer face of the defence, uncovered during excavation also, indicated the nature of the rampart in early times when it might have steeply plunged into a moat or waterway that in all likelihood allowed ships or small boats to steer. Whatever might be the scope of trenches laid down at Chandraketugarh the findings bear witness to the wealth and culture of a vanished city. That the site still retained its glory in early medieval times has been proved by the excavated monument of Khana-Mihider Dhibi which sprawls in the vicinity of the main high-road to the east. A series of excavations conducted here by the Asutosh Museum have revealed extensive ruins of a brick-built temple and its ancillary shrines whose features will recall the architectural forms of religious edifices built according to coded instructions during the Gupta times.

While the excavations at Chandraketugarh have only highlighted a sequence of habitation at specific areas, the innumerable antiquities found from a wide region, are mementoes of a forgotten city whose wealth and glory remain yet unmeasured. These antiquities include punch-marked coins of silver and copper, mainly dating from Mauryan times, terracotta plaques and figurines of the Maurya, the Sunga and the Kushan periods, pottery wares of various kinds, beads of semi-precious stones and glass, terracotta seals, ivory dices and combs as also arrow-heads and collyrium sticks of bone. Some of the findings appear to be of high antiquity almost bordering on protohistory. This aspect though supported by diggings requires to be further illuminated from various angles. The stratigraphy at

Chandraketugarh has already indicated that an early phase of settlement at the site, characterised by a class of redware which antedates the Northern Black Polished Ware whose horizon in northern India generally extends to circa 600 B.C. A small terracotta button-seal with the famed bull-leaping motif familiar in the art of Minoan Crete, as also a terracotta head of a bearded warrior wearing check-pieces and a ribbed head-gear like its comparable figures from the eastern Mediterranean world of 7th-8th century B.C. will appear extremely interesting. The seal and the terracotta now preserved in the State Archaeological Gallery of West Bengal will offer a new clue to the history of the earliest settlement of Chandraketugarh *vis-a-vis* its maritime relations with distant lands. That the rolling mounds of Chandraketugarh conceals the remains of a port city has been especially vouched for by several terracotta seals depicting high-masted ships as also by the occurrence of rouletted dishes of Roman origin. A class of redware of thin fabric also appears to be affiliated with the ceramics of the Mediterranean world. A series of extoic footed cups with beakspouts of polished black ware unearthed during excavation may also go a long way toward proving the trade with the early Middle East. A class of silver punch-marked coins with ship motif recovered from Chandraketugarh may also throw light on this aspect while the image of ships on sealings and coins may be compared with similar motifs on certain Roman and Jewish coins, a unique terracotta sealing depicts what appears to be a harbour. Inscribed with Kharosthi, and other characters sometimes appearing as stray letters of early Brahmi and more frequently as characters of an unknown script, the sealings may be regarded as memorials of ancient voyages towards distant shores.

The beads from Chandraketugarh prepared of semiprecious stones vouch for the skill and talent of the ancient lapidary. Such beads made of agate, carnelian, chalcedony, amethyst or quartz crystal have often a sparkling surface. The beads from Chandraketugarh like those from other early historic sites of northern India include circular, spherical, disc-like, barrel-shaped, leech-shaped, tubular, diamond-shaped and other varieties. Sometimes etched with designs in white, these works of lapidary are indeed very beautiful. It appears, that the stones used to be imported for the industry of bead-making.

The early pottery from Chandraketugarh will always fascinate archaeologists for the variety of forms and types. Apart from the Northern Black Polished Ware, sometimes bearing golden or silvery

splotches, the footed cups and a class of red ware the finds include examples of dishes of buff complexion, black-and-red ware, vases gracefully tapering at the base and stamped pottery.

The early historic terracotta plaques from the site often appear as vignettes of life by throwing light on the material culture of the settlement. There are also certain terracottas which may be ascribed to pre-Mauryan times. Thus, an excavated figure of a woman with her accentuated hips recall to memory an ancient tradition of the cult of the snake goddess, inseparably associated with fertility. Among other archaic examples from the site mention should be made of a seal showing in an almond-shaped depression a male figure approaching a female divinity wearing a flounced skirt and seemingly holding a flask (?) in the centre who is flanked by another figure to her left. What appears outstanding is a hollow terracotta head of a warrior wearing decorative check-pieces and a ribbed head-gear. The head is in the round and the features, especially the curved occipital slowly merging with the lines of the neck have rendered a touch of realism to the portraiture. The early historic plaques and figures of baked clay from Chandraketugarh bearing images of Yaksha, Yakshi, apsaras and animals etc. narrate or depict the stories and episodes from the Buddhist *Jatakas*, *Puranas* and Jain mythology, stylistically they exhibit Maurya, Sunga, Kushana and Gupta affinities with unmistakable regional variations.*

* Note contributed by P. C. Dasgupta, the then Director of Archaeology, Government of West Bengal, in 1978.

APPENDIX
Chapter VI: Table II
LIST OF FAIRS AND FESTIVALS IN 24-PARGANAS

Police Station	J.L. No.	Mauza/ Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
<i>Amdanga</i>	11	Masunda	Paush	Masanchandi Puja	7 days	4,000
	48	Amdanga	Paush	Karunamoyee Kalipuja	4 days	5,000-7,000
<i>Baduria</i>	32	Atlia	Kartik	Bara Pirer Utsav	8 days	7,000-8,000
	36	Atghara	Chaitra	Charak	1 day	300-400
	43	Andharmanik	Agrahayan	Urs of Saha Chand Pir	15 days	5,000-6,000
	45	Rudrapur	Magh	Kali Puja	3 days	1,300
	85	Taragunia	Chaitra	Baruni Snan	10 days	7,000
	101	Aturia	Ashar	Rathayatra	1 day	2,000
<i>Bagdahi</i>	1	Sindrani	Chaitra	Gajan	1 day	—
	86	Khoara	"	"	1 day	—
	88	Durgapur	"	Charak	1 day	300
<i>Baj Baj</i>	33	Buita	"	"	1 day	400-500
	42	Pujali	Ashar	Rathayatra	—	—
	54	Bawali	"	"	2 days	25,000
	98	Chaul Khola	Chaitra	Charak	1 day	2,000-3,000
	—	Baj Baj	Baisakh	Goshtha Utsav	—	—
	—	"	Ashar	Rathayatra	—	—

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<i>Bangaon</i>	—	Rajpur	Paush	Kali & Ganga Puja	—	—
	—	Birlapur	Ashar	Rathayatra	—	—
	33	Keutipara	Ashar	Rathayatra	2 days	500
	33	Marikhata (Keutipara)	Magh	Maghipurnima Snan	4 days	8,000-9,000
	51	Gaurapota	Chaitra	Charak	7 days	3,000
	52	Gobrapur	Baisakh	Mahisha Mardini Puja	15 days	2,000
	54	Bajitpur	Chaitra	Siva Puja	4 days	200
	74	Gopalnagar	Ashar	Rathayatra	2 days	1,000
	108	Haridaspur	Kartik	Kali Puja	—	—
	143	Bhandar Kola	Aswin	Durga Puja	2 days	300-400
	149	Ballavpur	Sravana	Panchananda Puja	1 day	—
	—	Banagram Town	Paush	Kali Puja	2 days	4,000-5,000
	—	Banagram Simultala	Chaitra	Charak	2 days	5,000-6,000
	—	Bangaon Town (Beside Jessore Road)	Ashar	Rathayatra	2 days	4,000-5,000
	—	Bangaon Town (Beside Bagdah Road)	Lunar month	Id Mela	1 day	—
	—	Bangaon Town (Beside Chhaygaria Chandrakanta Road)	Kartik	Kali Puja	—	—
	—	Bangaon Town (Sree Palli-Barakpur)	—	Rasayatra	—	—
	—	Bangaon Town	Falgun	Dolyatra	—	—
	—	Gaurpota	Baisakh	New Year (Bengali)	3 days	600
	—	Bangaon Charaktala	Ashar	Rathayatra	1 day	500

Table II—Contd.

Police Station	J.L. No.	Mauza/Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
<i>Baranagar</i>	—	Jhulantali	Shravana	Religious Fair	7 days	5,000
	—	Rathtala	Shravana	Religious Fair	3 days	6,000
	—	Dakshineswar	Paush	Kalpataru Utsav	1 day	—
	—	Ariadaha	Kartik	Sri Annada Thakur's Birthday Celebration	1 day	40,000
	—	Ariadaha	Magh	Adya Puja	2 days	50,000
	—	Ariadaha	Magh	Bindhya Basini Puja	2 days	50,000
<i>Barasat</i>	1	Babpur	Baisakh	Kali Puja	4 days	150
	16	Saibana	Kartik	Rasayatra	1 day	3,000
	16	Saibana	Magh	Nandalal Jiu Utsav	1 day	5,000
	16	Saibana	Ashar	Rathayatra	1 day	—
	30	Katura	Ashar	Rathayatra	1 day	500
	30	Katura	Chaitra	Charak	1 day	500
	57	Deera	Chaitra	Siva Gajan	1 day	1,500
	78	Uttarhat-Kazipur	Magh	Siva Gajan	8 days	1,000
	97	Bamangachhi	Magh	Mela of Manik Pir	4 days	250
	115	Chhoto Jagulia	Chaitra	Mela of Manik Pir	4 days	400
	116	Bahera	Baisakh	Mela of Ekdil Pir	4 days	100
	122	Dattapukur	Kartik	Rasayatra	8 days	600

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129	Panchuria	Magh	Panchuria Mela	4 days	950
140	Ula	Paush	Mela of Manik Pir	6 days	150
143	Kadambagachhi	Magh	Mela of Manik Pir	1 day	150
144	Sankargachhi	Falgun	Mela of Sankargachhi	3 days	300
148	Sinulgachhi	Chaitra	Mela of Maniktala	4 days	200
164	Balipur	Magh	Mela of Balipur	4 days	250
165	Bhagyamantapur	Chaitra	Charak	1 day	250
165	Bhagyamantapur	Kartik	Rasayatra	4 days	500
166	Dadpur	Magh	Mela of Burima	1 day	4,000
171	Kayemba	Kartik	Rasayatra	6 days	350
194	Sardar Ali	Ashar	Rathayatra	2 days	7,000-8,000
—	Barasat Municipal Area	Ashar	Rathayatra	7 days	2,000
—	Beniabau	Falgun	Mela of Pagal Pir	5 days	400-500
—	Dhala	Falgun	Mela of Ekdil Pir	4 days	350
—	Sona Kharki	Falgun	Fatema Khatim Mela	4 days	1,000
—	Narayanpur	Falgun	Mela of Pir Gorachand	4 days	1,000
20	Malikpur	Paush	Fateha-Dowaj Daham	1 day	—
31	Madarat	Chaitra	Sivagajan	1 day	500
31	Baruipur	Baisakh	Gaur-Nitai Puja	15 days	—
31	Baruipur	Ashar	Rathayatra	7 days	10,000
31	Baruipur	Kartik	Rasayatra	1 month	25,000
31	Baruipur	Falgun	Dolyatra	1 day	2,000
31	Baruipur	Chaitra	Charak	2 days	5,000
63	Indrapala	Baisakh	Goshthayatra	3 days	—

Baruipur

Table II—Contd.

Police Station	J.L. No.	Mauza/Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
<i>Baruipur</i>	97	Dhapdhapi	Magh	Jantal Utsav of Dakshin Ray	2 days	5,000
<i>Basanti</i>	71	Amjhara	Baisakh	New Year (Bengali)	1 day	600-700
	71	Amjhara	Aswin	Durga Puja	1 day	—
	151	Bharatgar	Falgun	Sitala Puja	7 days	—
<i>Basirhat</i>	7	Dhanyakuria	Ashar	Rathayatra	2 days	3,000-4,000
	7	Dhanyakuria	Kartik	Rasayatra	4 days	10,000-12,000
	7	Dhanyakuria	Chaitra	Charak	1 day	500-600
	8	Nehalpur	Falgun	Urs of Pir Gorachand	1 day	—
	9	Begampur	Chaitra	Chaitra Samkranti	7 days	400
	18	Kankra	Chaitra	Charak	1 day	400-500
	23	Kripalpur	Lunar Month	Id	15 days	4,000-5,000
	27	Metiabazar	Chaitra	Chaitra Samkranti	1 month	500
	36	Gobindapur Dhokra	Ashar	Rathayatra	2 days	—
	36	"	Chaitra	Baruni Snan	1 day	2,000
	43	Basirhat Townhall	Chaitra	Batuni Snan	2 days	7,000-8,000
	54	Rajapur	Chaitra	Chaitra Samkranti	15 days	250
	55	Champa Pukuria	Baisakh	Hari Puja	1 day	500
	64	Chaita	Chaitra	Chaitra Samkranti	1 month	300
	73	Pifa	Aswin	Durga Puja	1 day	5,000

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<i>Behala</i>	73	Pifa	Kartik	Kali Puja	1 day	5,000
<i>Bhangar</i>	73	Pifa	Chaitra	Charak	1 day	5,000
	112	Sivahati	Ashar	Sinha Bahini Puja	1 day	250-300
	117	Gachha	Falgun-Chaitra	Mela of Pagla Pir	8 days	8,000-10,000
	120	Panitara	Kartik	Siva Puja	7 days	—
	—	Kholapota	Chaitra	Chaitra Samkranti	1 month	450
	—	Chona	Chaitra	Chaitra Samkranti	20 days	500
	—	Begadanga	Chaitra	Chaitra Samkranti	15 days	250
	—	Hajratala	Chaitra	Chaitra Samkranti	2 days	250
	—	Bagundi	Chaitra	Chaitra Samkranti	5 days	200
	—	Barisha	Agrahayan	Chandi Puja	7 days	—
	24	Pithapukuria	Magh	Mela of Pir	3 days	700
	45	Barunia	Falgun	Gorachand Mela	1 day	200-300
	67	Sanpukuria	Magh	Mahotsava Mela	2 days	500-700
	72	Sakhar	Paush	Paush Samkranti Mela	7 days	5,000
	72	Maricha	Falgun	Kalachand Mela	3 days	3,000
	72	Maricha (Pirsthan)	Baisakh	Anniversary of Bhangar Pir	1 day	5,000
	92	Bhangar	Chaitra	Urs of Bhangar Pir	1 day	5,000
<i>Bijpur</i>	119	Sank Sahar	Paush	Urs of Baban Pir	10-12 days	8,000-10,000
	—	Kanchrapara	Baisakh	Charak	1 day	—
	—	"	Ashar	Rathayatra	2 days	6,000-7,000
	—	"	Magh	Annakut Utsav	1 day	10,000
	—	"	Chaitra	Charak	—	—
<i>Bishuapur</i>	9	Jhikurbere	Chaitra	Nil Puja	—	—

Table II—Contd.

Police Station	J.L. No.	Mauza/Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
Bishnupur	34	Jayrampur	Falgun	Sivaratri	1 day	700
	34	Jayrampur	Chaitra	Gajan	3 days	20,000
	41	Kanchanbaria	Ashar	Rathayatra	2 days	10,000-12,000
	42	Nadabhangra	Baisakh	Goshthayatra	5-6 days	500-600
	46	Bakrahata	Magh-Falgun	Sitala Puja	5-6 days	500-600
	47	Kirtankhola	Chaitra	Baruni Snan	1 day	100,000
	47	Kirtankhola	Chaitra	Sitala Puja	1 day	1,000
	50	Jaychandipur	Baisakh	Dharmaraj Utsav	1 day	1,000
	50	Jaychandipur	Paush	Mela of Hajat	1 day	4,000
	151	Matsyakhali	Baisakh	Goshtha Utsav	1 day	4,000
Canning	158	Bharu Ramakrishnapur	Baisakh	Goshtha Utsav	4-5 days	1,000
	158	Ramnathpur	Baisakh	Goshtha Utsav	4 days	500
	51	Kalikatala	Magh	Banabir Puja	4 days	350-400
	52	Matherdighi	Chaitra	Basanti Puja & Charak	8 days	600
	75	Canning	Falgun-Chaitra	Brahma Puja	7-12 days	10,000
	78	Taldi	Baisakh	Goshthayatra	3 days	25,000
	78	Taldi	Jyaishtha	Sitala Puja	2 days	400-500
	78	Taldi	Falgun	Kali Puja	3 days	2,500
	94	Devis Abad	Falgun	Dolyatra	1 day	500-600

Deganga	120	Raybaghini	Chaitra	Charak	3 days	500
	181	Ghutitari Sarif	Ashar	Pir Mobarak Gazi's Utsav	7 days	20,000
	17	Sohai	Chaitra	Charak	1 day	1,000
	26	Dogachhia	Chaitra	Pir Gorachand Mela	4 days	150
	30	Deganga	Ashar	Rathayatra	2 days	10,000-12,000
	30	Deganga	Agrahayan	Jagaddhatri Puja	4 days	10,000-15,000
	47	Uttar Kalsur	Baisakh	Olai Chandi Puja	1 day	3,000
	47	Uttar Kalsur	Kartik	Rasayatra	12 days	3,000-3,500
	68	Deulia	Ashar	Rathayatra	2 days	15,000
	68	Deulia	Chaitra	Charak	1 day	—
Diamond Harbour	53	Kultikari	Chaitra	Baruni Snan	4 days	20,000
	81	Parulia	Chaitra	Panchananda Puja	8-10 days	7,000-8,000
	97	Harindanga	Baisakh	Rakshakali Puja	4-5 days	1,500
	129	Masat	Lunar Month	Maharam	1 day	5,000
	22	Jaleswar	Chaitra	Gajan	1 day	8,000-10,000
	30	Bagna	Paush	Hajat Newaz	6 days	—
	36	Ichhapur	Falgun	Dolyatra	4 days	10,000
	75	Saruipur	Baisakh	Siva Mela	8 days	300
	90	Thakurnagar	Falgun	Baruni Snan	3 days	30,000
	10	Keotsaha	Falgun	Dolyatra	1 day	1,000
Habra	140	Metiagachhi	Falgun	Ichhale Chhawar	1 day	1,000
	161	Gobardanga	Baisakh	Goshtha Mela	7 days	20,000
	161	Gobardanga (Shashthitala)	Ashar	Rathayatra	7 days	7,000-8,000
	161	"	Aswin	Durga Puja	—	—

Table II—Contd.

Police Station	J.L. No.	Mauza/Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
<i>Habra</i>	161	Gobardanga (Shashthitala)	Falgun	Sivaratri	—	—
	161		Chaitra	Gajan	—	—
<i>Haroa</i>	8	Haripur	Chaitra	Charak	2 days	1,000
	45	Kamarganti	Kartik	Kali Puja	2 days	250
	94	Uchildaha	Chaitra	Charak	7 days	250
	112	Haroa	Aswin	Durga Puja	4 days	3,000-4,000
	112	Haroa	Falgun	Urs of Pir Gorachand	7 days	25,000-30,000
	112	Haroa	Lunar month	Maharam	7 days	5,000-6,000
<i>Hasnabad</i>	21	Kharampur	Paush	Baroari Mela	3 days	200
	60	Rameswarpur	Falgun	Dolyatra	3-8 days	800-900
	79	Ichhapur	Falgun	Dolyatra	1 day	700-800
	79	Bhebia	Paush	Baroari Mela	3 days	200
	79	Komarpur	Magh	Sitalapuja	7 days	500
	79	Parghata	Falgun	Dolyatra	1 day	300
	79	Boltala	Chaitra	Baruni Snan	1 day	350
<i>Hingalganj</i>	95	Kanaknagar	Chaitra	Charak	1 day	—
	98	Bankra	Chaitra	Charak	3 days	3,000
	109	Deuli	Falgun	Dolyatra	7 days	200
	111	Charalkhali	Chaitra	Baroari Mela	1 day	200

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114	Ranapur	Falgun	Dolyatra	3 days	300
115	Madhabkati	Falgun	Kalipuja	7 days	700
117	Jogesganj	Falgun	Mabkan-ghumti's Mela	8 days	350
117	Hingalganj	Falgun	Dolyatra	14 days	4,000-5,000
1	Bhatpara	Kartik	Raspurnima	1 month	10,000
1	Bhatpara	Falgun	Panchamdol	1 day	—
2	Madral	Falgun	Saptamdol	7 days	10,000-12,000
4	Narayanpur	Chaitra	Jay Chandi	3 days	200
16	Atpur	Ashar	Rathayatra	15 days	5,000
18	Mulajor	Paush	Kalipuja	1 month	6,000-7,000
19	Gar Syamnagar	Baisakh	Baisakhi Samkranti	—	—
10	Khaksara	Baisakh	Charak	1 day	4,000-5,000
17	Jaynagar	Baisakh	Dhanwantari Kalbari Utsav	3 days	1,500
17	Jaynagar	Ashar	Rathayatra	7 days	2,000
19	Jaynagar-Majilpur	Baisakh	Goshthayatra	7 days	10,000
19	Jaynagar-Majilpur	Baisakh	Annual Festival of Dhanwantari Kali	15 days	20,000
19	Jaynagar-Majilpur	Jyaisntha	Chandipuja	15 days	600-700
19	Jaynagar-Majilpur	Falgun	Pancham Dol	9 days	15,000
30	Kalinagar	Chaitra	Chaitra Samkranti	1 day	500
41	Mayda	Falgun	Sree Panchami	1 day	1,000
114	Gobindapur	Baisakh	Goshthayatra Utsav	2-3 days	2,000-3,000
7	Sitarampur	Falgun	Mahotsav Mela	3-4 days	3,000-4,000
8	Madhabnagar	Baisakh	Goshthayatra Mela	7 days	3,000-4,000

Kakdwip

Table, II—Contd.

Police Station	J.L. No.	Mauza Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
Kakdwip	26	Uttar Durgapur	Falgun	Gorachand Mela	7 days	3,000-4,000
	33	Manipur	Paush	Gangapuja Mela	7 days	800-900
	38	Ganga Sagar	Paush	Paush Samkranti Snan	7 days	3,00,000-4,00,000
Khardah	2	Khardah	Baisakh	Phooldol of Syamsundar Jiu	1 day	—
	2	Khardah	Kartik	Rasayatra of Syamsundar Jiu	1 month	8,000-10,000
	2	Khardah	Magh	Maghi Purnima of Syamsundar Jiu	1 day	—
	8	Sodpur	Agrahayan	Gopashtami	1 day	8,000-10,000
	10	Panihati	Jyaishtha	Danda Mahotsav	1 day	—
	10	Panihati	Kartik	Sree Chaitanya Agaman Mahotsav	1 day	—
	11	Agarpara	Magh	Tarapukur Mela	15 days	—
	11	Khardah Raskhola	Ashar	Rathayatra	2 days	10,000
	21	Deria	Ashar	Rathayatra	8 days	1,000
	38	Syambasur Chak	Jyaishtha	Dharma Puja	1 day	4,000-5,000
Kulpi	38	Syambasur Chak	Ashar	Rathayatra	1 day	4,000-5,000
	38	Syambasur Chak	Chaitra	Charak	1 day	4,000-5,000
	139	Udayrampur	Chaitra	Charak	1 day	400-500
	185	Durganagar	Chaitra	Charak	2-3 days	8,000

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Kultali	145	Nalgora	Chaitra	Chaitra Samkranti	2 days	—
	146	Sonatikri (No. 6)	Paush	Ganga Puja	—	—
	146	Sonatikri (No. 6)	Chaitra	Gajan	—	—
	146	Sonatikri (No. 6)	Chaitra	Goshtha Puja	—	—
	146	Sonatikri (No. 8)	Chaitra	Gajan	—	—
	146	Sonatikri (No. 9)	Falgun	Dolyatra	8-10 days	4,000-5,000
	146	Sonatikri (No. 12)	Chaitra	Gajan	8-10 days	10,000-12,000
Magrahat	7	Tyarpur	Ashar	Rathayatra	2 days	3,000
	15	Serpur	Chaitra	Charak	3 days	5,000
	16	Sitarampur	Baisakh	Goshthayatra	1 day	1,000
	17	Chakparankatakhal	Baisakh	Goshthayatra	2 days	1,500
	17	Chakparankatakhal	Aswin	Durga Puja	3 days	2,500
	21	Beramara	Magh	Saraswati Puja	3 days	2,000
	24	Karimabad	Kartik	Kali Puja	1 day	1,000
	34	Manirampur	Baisakh	Goshthayatra	4 days	300-400
	41	Baniberi	Baisakh	Ganga Snan	2 days	2,000
	43	Salika	Chaitra	Charak	1 day	—
	43	Salika	Chaitra	Bibimayer Puja	1 day	2,000-3,000
	56	Rajballavpur	Baisakh	Goshtha Mela	3 days	3,000
	57	Maheswara	Baisakh	Dharma Puja	2 days	1,500
	59	Dhandhania	Baisakh	Dharma Puja	2 days	2,000
	61	Sivpur	Aswin	Durga Puja	3 days	1,500
	67	Sapmara	Baisakh	Charak	1 day	1,000
	67	Sapmara	Baisakh	Goshthayatra	2 days	2,000

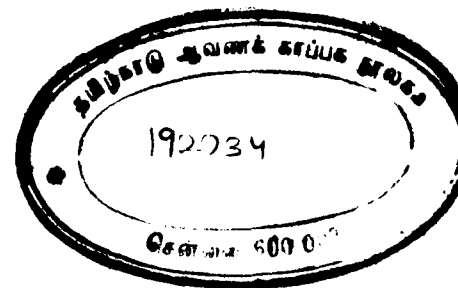


Table II—Contd.

Police Station	J.L. No.	Mauza/Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
Magrahat	79	Rangilabad	Chaitra	Charak	3 days	700
	97	Bamangachi	Magh	Manik Pir Mela	4 days	250
	97	Najra	Chaitra	Charak	1 day	500
	102	Kanpur	Chaitra	Charak	1 day	1,000
	105	Uttarkusum	Shrawana-Bhadra	Maharam	2 days	7,000
	115	Uttarkalas	Chaitra	Death Anniversary of Pir	3 days	500
	118	Ajamkhali	Falgun	Dolyatra	1 day	500
	118	Ajamkhali	Chaitra	Charak	1 day	1,000
	129	Sangrampur	Baisakh	Gajan & Goshtha Mela	1 day	1,000
	136	Bamna	Baisakh	Goshtha Mela	1 day	1,000
	136	Bamna	Magh	Saraswaty Puja	2 days	1,500
	142	Sarachi	Baisakh	Goshtha Mela	1 day	1,000
	145	Ektara	Baisakh	Goshtha Mela	1 day	1,000
	188	Maitir Hat	Kartik	Kali Puja	1 day	1,000
	193	Ban Sundaria	Baisakh	Ganga Snan	2 days	5,000
	193	Ban Sundaria	Baisakh	Charak	2 days	3,000
	194	Benipur	Baisakh	Gajan	3 days	2,000
	194	Benipur	Aswin	Durga Puja	3 days	2,000
	201	Katapukuria	Baisakh	Dharma Puja	1 day	1,000

204	Abad Iswaripur	Baisakh	Goshtha Mela	2 days	1,500
204	Iyarpur	Baisakh	Charak	1 day	1,000
204	Mohanpurhat	Baisakh	Charak & Goshtha Mela	4 days	5,000
204	Majada	Baisakh	Charak	2 days	1,500
204	Makali	Baisakh	Dharma Puja	1 day	2,500
204	Kathalbarua	Baisakh	Charak	1 day	1,000
204	Barhanpur	Baisakh	Goshtha Mela	1 day	1,000
204	Alida	Baisakh	Goshtha Mela	3 days	5,000
204	Alida	Baisakh	Bibimayer Puja	4 days	500
204	Tonarhat	Baisakh	Goshtha Mela	1 day	1,000
5	Mahestala	Ashar	Rathayatra	2 days	500
8	Chakmira	Chaitra	Charak	2 days	500
13	Ganpur	Chaitra	Charak	2 days	400
39	Bagpota	Baisakh	Goshtha Puja	3 days	2,000
39	Bagpota	Jyaishtha	Chandi Puja	3 days	2,000
39	Bagpota	Magh	Saraswaty Puja	2 days	2,000
39	Bagpota	Chaitra	Gajan	5 days	2,000
39	Banesjor hat	Ashar	Rathayatra	2 days	400
39	Parbangla	Ashar	Rathayatra	2 days	400
39	Dakghar	Ashar	Rathayatra	2 days	1,000
39	Maynagar	Ashar	Rathayatra	2 days	400
39	Nungi	Ashar	Rathayatra	2 days	700
39	Nungi	Chaitra	Charak	2 days	600
39	Sibrampur	Chaitra	Charak	2 days	500

Mahestala

Table II—Contd.

Police Station	J.L. No.	Mauza Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
<i>Mahesala</i>	39	Chatla	Chaitra	Charak	2 days	400
	39	Bisalakshmitala	Chaitra	Charak	2 days	400
	39	Gopalpur	Chaitra	Charak	2 days	100
<i>Mandirbazar</i>	78	Siddheswarpur	Baisakh	Goshthayatra	3 days	500
	101	Gopalnagar (East)	Baisakh	Goshthayatra	3 days	—
	101	Gopalnagar	Baisakh	Dharmaraj Puja	3 days	—
	209	Bishnupur (East)	Paush	Paushparvan	3 days	—
	209	Jagadisapur	Ashar	Rathayatra	7 days	10,000-12,000
	209	Mandirbazar	Falgun	Sivaratri	1 day	4,000
	209	Mandirbazar	Chaitra	Chaitra Samkranti, Gajan & Goshthayatra	6 days	7,000
	209	Bishnupur (South)	Paush	Paush Samkranti	1 day	3,000
	209	Polarhat	Paush	Paush Samkranti	1 day	3,000
	209	Bijayganj	Paush	Paush Samkranti	4 days	400
<i>Mathurapur</i>	9	Gobindapur (North)	Baisakh	Goshthayatra	1 day	1,000
	35	Nalua	Magh	Sree Panchami	6 days	250
	36	Krishnachandrapur	Paush Samkranti	Nama-Samkirtan Mahotsav	3-4 days	15,000-20,000
	41	Chhatrabhog	Chaitra	Snanyatra	—	—
	41	Chhatrabhog	Chaitra	Charak	—	—

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<i>Minakhan</i>	46	Barasi	Falgun	Sivaratri	2 days	—
	46	Barasi	Chaitra	Hindu Mela	15 days	5,000
	46	Barasi	Chaitra	Snanyatra	3 days	25,000-30,000
	49	Khari Faujdartala	Chaitra	Sarvamangala Puja	6-7 days	5,000
	119	Gilarchhat	Baisakh	Nabavarsha Mela	5 days	2,500
	156	Gobindapur (South)	Falgun	Sivachaturdasi	8 days	300
	187	Lakshmi Janardanpur	Paush	Bisalakshmi Puja	7 days	500
	189	Kumarpur	Kartik	Jagannathdev Mela	8 days	300-400
	189	Raypur	Baisakh	Gangasnan Mela	—	—
	69	Dhuturdah	Agrahayan	Kali Puja	8 days	500
	80	Malancha	Bhadra	Manasa Puja	1 day	—
	82	Madari	Kartik	Rasapurnima	6 days	300
	87	Jaygram	Falgun	—	5 days	150-200
	90	Bamanpukuria	Aswin	Durga Puja	4 days	500-600
	90	Bamanpukuria	Magh	Kali Puja	8 days	200-300
	90	Bamanpukuria	Chaitra	Siva Puja	1 day	500-600
	90	Bamanpukuria	Chaitra	Death anniversary of Pir Gorachand	2 days	500-600
<i>Nailhati</i>	159	Nimchi	Falgun	Nimchi Mela	8 days	300
	3	Nailhati	Ashar	Rathayatra	8 days	10,000-12,000
	4	Kanthalpara	Ashar	Rathayatra	15 days	1,000
	4	Muktapur	Agrahayan	Rasayatra	1 month	2,000
<i>Namkhana</i>	70	Amrabati	Paush	Makar Samkranti	3 days	6,000-7,000
<i>Noapara</i>	—	Nababganj	Sravan	Jhulan Utsav	1 month	8,000-10,000

Table II—Contd.

Police Station	J.L. No.	Mauza/Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
<i>Pathar Pratima</i>	143	Digambarpur	Falgun	Narayani Puja	3 days	—
	185	Karnadevpur	Baisakh	Chandani Puja	3-4 days	2,000
	201	Sridharnagar	Falgun	Bisalakshmi Puja	1 day	700-800
	211	Indrapur	Magh	Bisalakshmi Puja	3 days	2,000
	9	Mamudpur	Baisakh	Dharmaraj Puja	4 days	500-600
<i>Phalia</i>	14	Padmapukur	Magh	Ganga Puja	7 days	500-600
	23	Sahara	Chaitra	Chaitra Samkranti	3 days	1,500
	27	Jagannathpur	Jyaishta	Snanyatra	1 day	2,000
	28	Belsinha	Ashar	Rathayatra	1 day	700
	43	Rasulpur	Baisakh	Goshthayatra	3 days	1,200
	54	Daluipur	Kartik	Rasayatra	7 days	15,000
	61	Rukhia	Kartik	Maharam	—	—
	70	Dooltikari	Baisakh	Dharmayatra	1 day	5,000
	76	Basudevpur	Paush	Bisalakshmi Puja	8 days	900
	85	Dostpur	Magh	Ganga Puja	4-5 days	1,000
	87	Kodalia	Baisakh	Goshthayatra	6 days	1,000
	123	Fatepur	Baisakh	Goshthayatra	6 days	8,000
<i>Rajarhat</i>	123	Fatepur	Ashar	Rathayatra	2 days	7,000
	126	Hasimnagar	Baisakh	Siva Gajan	3 days	5,000

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<i>Rajarhat</i>	126	Mala	Baisakh	Goshthayatra	3 days	5,000
	126	Samirath-Gopalpur	Lunar month	Maharam	1 day	7,000
	126	Daulatpur	Paush	Bisalakshmi Puja	4 days	900
	7	Arjunpur	Magh	Gorakshanath Puja	1 day	1,000
	38	Jhalagachhi	Agrahayan	Paglagazi Mela	1 day	150
<i>Sagar</i>	49	Sikharpur	Kartik	Rasayatra	3 days	800-900
	49	Gobra	Paush	Badarpir Mela	5 days	250-300
	49	Gobra	Magh	Ekdil Saheb Mela	6 days	200-250
	49	Rajarhat	Falgun	Bhul Bhuliya Mela	4 days	300
	7	Silpara	Chaitra	Charak	7 days	20,000
	21	Mrityunjaynagar	Falgun	Sivaratni	4 days	—
	22	Sumatinagar	Aswin	Durga Puja	5 days	2,000
	24	Lalpur	Aswin	Durga Puja	6 days	6,000
	24	Lalpur	Kartik	Kali Puja	2 days	6,000
	24	Lalpur	Kartik	Rasayatra	8 days	6,000
<i>Sandeshkhali</i>	24	Lalpur	Chaitra	Siva Puja	1 day	6,000
	—	Iswaripur	Paush	Ganga Puja Mela	2 days	300-500
	—	Daspur	Falgun	Sivaratni	1 day	500
	21	Nyajat	Aswin	Durga Puja	4 days	2,000
	37	Sandeshkhali	Chaitra	Charak	1 day	2,000
	40	Hatgachha	Falgun	Dolyatra	3 days	2,000
	41	Sitalia	Aswin	Durga Puja	4 days	2,000
	52	Jaygopalpur	Chaitra	Charak	1 day	—
	54	Durgamandap	Aswin	Durga Puja	4 days	2,000

Table II—Contd.

Police Station	J.L. No.	Mauza/Place	Time (Bengali Month)	Occasion	Duration	Approximate Attendance
Sonarpur	22	Gorkhora	Chaitra	Charak	1 day	6,000
	36	Harinavi	Chaitra	Rasayatra	3 days	—
	41	Kamrabad	Falgun	Dolyatra	1 day	2,000-3,000
	55	Rajpur	Baisakh	Dharmaraj Puja	7 days	—
	55	Rajpur	Falgun	Sivachaturdasi	7 days	—
	55	Rajpur	Falgun	Dolyatra	1 day	—
	55	Rajpur	Chaitra	Sivagajan	1 day	—
	65	Banbugli	Chaitra	Charak	1 day	—
	103	Raypur	Chaitra	Chandi Puja	1 day	700-800
	103	Raypur	Shravan	Independence Day Celebration Mela	6 days	1,000
	108	Sangur	Baisakh	Goshtayatra	2 days	—
	109	Navasan	Baisakh	Goshtayatra	1 day	500-600
	25	Kapileswardpur	Magh	Maghipurnima	15 days	—
	26	Diara	Paush	Maghipurnima	7 days	400-500
Swarupnagar	28	Ghola	Magh	Maghipurnima	1 month	15,000-20,000
	34	Bargharia	Falgun	Dolyatra	1 day	—
	42	Chhota Bankra	Chaitra	Sivagajan	3 days	2,000-3,000
	62	Kajjuri	Chaitra	Charak	1 day	5,000-6,000

Source: *Paschim Bangar Puju Parvan O Mela—Vol. III—Census of India 1961: West Bengal: Vol. 16, Part B, Government of India, Delhi, 1971.*

CHAPTER VII: TABLE 2

POSTAL TRANSACTIONS IN 24-PARGANAS DISTRICT: 1975-76

	North Presidency Division (including Barasat)	South Presidency Division
1. Money Orders		
(a) No. issued:	7,81,270	2,39,426
(b) Amount issued:	Rs. 3,94,28,150	Rs. 1,86,49,638
(c) No. paid:	7,61,270	2,18,915
(d) Amount paid:	Rs. 3,64,30,200	Rs. 2,27,86,618
2. Registered Letters		
(a) No. booked:	44,92,324	1,51,582
(b) No. delivered:	43,84,369	2,26,807
3. Registered Parcels		
(a) No. booked:	2,11,776	4,135
(b) No. delivered:	4,84,620	10,817
4. Insured Letters		
(a) No. booked:	6,85,894	11,967
(b) No. delivered:	6,04,826	4,519
5. Insured Parcels		
(a) No. booked:	72,288	6,307
(b) No. delivered:	50,419	2,152
6. Number of Radio Licences Issued	3,02,458	658
7. Small Savings		
(a) Savings Bank		
(i) No. of Accounts:	2,17,459	86,517
(ii) Amount deposited:	Rs. 10,38,90,580	Rs. 2,57,16,937
(iii) Amount withdrawn:	Rs. 9,50,97,545	Rs. 2,54,06,150
(b) Recurring Deposits/ Cumulative Time Deposits/ Term Deposits		
(i) No. of Accounts:	35,766	7,634
(ii) Amount deposited:	Rs. 27,25,63,853	Rs. 20,24,442
(iii) Amount withdrawn:	Rs. 2,09,06,060	Rs. 12,20,501

CHAPTER IX

COMPOSITION OF THE LIVELIHOOD CLASSES IN
24-PARGANAS DISTRICT: 1981

In 1981 Census the population of the district has been classified into three main groups, namely, main workers, marginal workers and non-workers—each mutually exclusive of the others. The main worker is one who has done economically productive work for at least 183 days during the year preceding the date of enumeration. The marginal worker is somebody who has participated in economically productive work for less than 183 days during the year preceding enumeration. And the non-worker is he who has not done any economically productive work at all during the last one year.

The distribution of the total population of the district according to the above classification is given in the table below:

Table 2

Category number	Description	Number of		
		Persons	Males	Females
I	Total No. of persons enumerated	1,07,26,751	56,34,777	50,91,974
I to IX	Total main workers	27,91,432	26,30,680	1,60,752
I	Cultivators	6,07,126	5,96,459	10,667
II	Agricultural labourers	6,10,680	5,85,073	25,607
V(a)	Household Industry (Manufacturing, Processing, Servicing & Repairing)	1,28,994	1,14,450	14,544
III, IV, V(b) and VI to IX	Other workers	14,44,632	13,34,698	1,09,934
	Marginal workers	2,25,574	1,43,243	82,331
	Non-workers	77,09,745	28,60,854	48,48,891

In 1981 the proportion of workers to total population was 26.0 as against 25.87 in 1971. The percentage of the different category of workers to total workers in 1981 as compared with those in 1971 are given in the table below:

Category number	Description	1971	1981
I	Cultivators	24.33	21.75
II	Agricultural labourers	27.65	21.88
V(a)	Workers in household industry	2.34	4.62
III, IV, V(b) and VI to IX	Other workers	45.68	51.75

CHAPTER XVIII

PUBLIC LIFE & VOLUNTARY SOCIAL SERVICE
ORGANIZATION

The election to the Lok Sabha was held a few months ahead of the schedule, following the assassination of the Prime Minister Mrs. Indira Gandhi.

LOK SABHA ELECTIONS: 1984

Name of the constituency	Name of the winning party	Percentage of the valid votes polled
Barasat	Cong. (I)	49.46
Basirhat	C.P.I.	51.90
Jaynagar (S.C.)	R.S.P.	44.19
Mathurapur (S.C.)	Cong. (I)	47.79
Diamond Harbour	C.P.I. (M)	48.00
Jadabpur	Cong. (I)	50.87

VIDHAN SABHA ELECTIONS: 1987

Name of the constituency	Name of the winning party	Percentage of the valid votes polled
Bagda (S.C.)	I.N.C.	49.16
Bangaon	C.P.I. (M)	50.30
Gaighata	C.P.I. (M)	53.37
Habra	C.P.I. (M)	41.33
Asoknagar	C.P.I. (M)	52.96
Amdanga	C.P.I. (M)	53.40
Barasat	A.I.F.B.	58.76
Rajarhat (S.C.)	C.P.I. (M)	53.76
Deganga	Muslim League	44.90

Source: Government of West Bengal—Paschimanga, 4th January, 1985 (Special issue).

Chapter XVIII—Contd.

Name of the constituency	Name of the winning party	Percentage of the valid votes polled
Swarupnagar	C.P.I. (M)	52.21
Baduria	C.P.I. (M)	46.81
Basirhat	C.P.I. (M)	47.32
Hasnabad	C.P.I. (M)	54.57
Haroa	C.P.I. (M)	51.59
Sandeshkhali	C.P.I. (M)	57.35
Hingalganj	C.P.I. (M)	54.10
Gosaba	R.S.P.	54.10
Basanti	R.S.P.	55.29
Kultali	S.U.C.I.	50.34
Jaynagar	S.U.C.I.	44.77
Baruipur	C.P.I. (M)	55.75
Canning West (S.C.)	I.N.C.	45.61
Canning East	C.P.I. (M)	62.44
Bhangar	C.P.I. (M)	54.62
Jadabpur	C.P.I. (M)	64.83
Sonarpur	C.P.I. (M)	60.30
Bishnupur East (S.C.)	C.P.I. (M)	58.47
Bishnupur West	C.P.I. (M)	50.57
Behala East	C.P.I. (M)	57.91
Behala West	C.P.I. (M)	55.07
Gardenreach	I.N.C.	52.53
Mahestala	C.P.I. (M)	55.44
Baj Baj	C.P.I. (M)	48.87
Satgachhia	C.P.I. (M)	57.12
Phalta	C.P.I. (M)	54.92
Diamond Harbour	C.P.I. (M)	52.93
Magrahat West	C.P.I. (M)	53.74
Magrahat East (S.C.)	C.P.I. (M)	56.52

Chapter XVIII—Contd.

Name of the constituency	Name of the winning party	Percentage of the valid votes polled
Mandirbazar	C.P.I. (M)	45.53
Mathurapur	I.N.C.	46.80
Kulpi	C.P.I. (M)	51.93
Patharpratima	C.P.I. (M)	49.29
Kakdwip	C.P.I. (M)	55.31
Sagar	C.P.I. (M)	55.12
Bijpur	C.P.I. (M)	50.38
Naihati	I.N.C.	51.49
Bhatpara	I.N.C.	51.58
Jagaddal	A.I.F.B.	72.38
Noapara	C.P.I. (M)	53.18
Titagarh	I.N.C.	53.42
Khardah	C.P.I. (M)	60.89
Panihati	C.P.I. (M)	47.41
Kamarhati	C.P.I. (M)	58.28
Baranagar	R.S.P.	50.60
Dum-Dum	C.P.I. (M)	61.19

Source: Government of West Bengal—*Paschimanga*; Special Election Number: 27th March, 3rd April, 1987.

APPENDIX

A NOTE ON SUNDARBAN FORESTS

The region known as Sundarban forms the southern part of the Gangetic delta between the river Hooghly on the west in West Bengal and the river Meghna on the east in Bangladesh. The included area consists of fiftyfour (54) low-lying swampy islands formed by the principal distributaries of the Ganges, their numerous water channels and backwater creeks from the Bay. It is noteworthy that the rivers of the eastern portion of the forest lying in Bangladesh have connections with the Ganges and receive fresh water. Westward, in West Bengal, the rivers have been mostly transformed into mere backwaters of the sea and are consequently more saline than those in the east. The better portion of the plant growth has, therefore, fallen in Bangladesh. The forests in West Bengal comprise medium to low height mangrove species, with very high density of crop per unit area.

The present area of mangrove forests under the control of the Forest Directorate is 4264 sq. km. of which 2585 sq. km. lying between the Matla river in the west and the Harinbanga river in the east, bordering Bangladesh, falls under Sundarbans Tiger Reserve and balance of the area, to the west of the river Matla, under 24-Parganans Forest Division.

History

Even though reference of this forest is available in the *Mahabharata* and the *Puranas*, nothing definite is known about the area until the end of the 15th century when a few details of the area are found to be mentioned in *Manasamangal* of Bipradasa and in the *Ain-i-Akbari*. The story of Chandsadagar and the account of Todormal also give indication of existence of a vast swampy forest to the south and east of present Calcutta, as one proceeds along the Adiganga towards the Bay of Bengal. The actual ruler of the Sundarbans towards the end of 16th century was a chief called Pratapaditya, one of the Barah Bhuniyas. The exact extent of the Sundarban forests of the period, although is not mentioned anywhere, scattered evidences and records available from various sources indicate that the forests extended from the south-eastern portion of Midnapore district of West Bengal to Bakharganj district in East Bengal covering almost the entire portion of 24-Parganas district (West Bengal),

Khulna district and Barisal district (East Bengal). Records about Sundarbans, including the portion in East Bengal, show that in 1895 the total area of Sundarban forests was about 20,000 sq. km., of which 60% belonged to East Bengal and 40% to West Bengal.

At the time of partition of India in 1947, about 10,000 sq. km. of forests was still intact of which 4264 sq. km. devolved to West Bengal.

Status of the Sundarban Forests

It is generally accepted that the name Sundarban has come from *sundariban* or the forest of *Sundari* trees, a species which was common in this forest, particularly on its eastern portion lying in Bangladesh.

Since Sundarbans contained a sizeable population of tigers, an area of 2585 sq. km. was declared as Tiger Reserve in the year 1973. The core area of this Tiger Reserve measuring 1330 sq. km. was declared a National Park in 1984 and in the buffer zone of the Reserve there exists an old sanctuary named Sajnakhali Wildlife Sanctuary covering approximately 362 sq. km. In the eastern portion of the Sundarban, outside the Tiger Reserve, there are two sanctuaries, viz. Lothian Island Wildlife Sanctuary measuring 38 sq. km. and Halliday Island Wildlife Sanctuary measuring approximately 6 sq. km. Recently the entire area of Sundarbans, south of the Dampier-Hodges Line, covering 9630 sq. km. has been declared as Biosphere Reserve. The Sundarbans has earned yet another distinction : The entire National Park has been included in the list of World Heritage of the International Union for Conservation of Nature and Natural Resources (IUCN).

Characteristics of Sundarban Forests

Sundarban forests comprise the coastal mangrove vegetation area lying in the inter-tidal zone of the Bay of Bengal and its innumerable creeks. Most striking features of some of the species are :

- (a) Viviparous germination of seeds which germinate while in the tree itself ;
- (b) Presence of stilt roots which support the plants against tidal inundation ;
- (c) Existence of pneumatophores which are nothing but respiratory roots coming out of soil vertically like spears ;
- (d) Dense, almost impenetrable, low swamp forests flourishing on fine clay, difficult to negotiate on foot.

Administration of the Forests

The area to the east of the river Matla upto the river Harinbhangra, bordering Bangladesh, falls under Sundarbans Tiger Reserve and is headed by a Field Director of the rank of Conservator of Forests. The portion of the forests lying between the Matla river and Sagar Island comes under the administrative control of Divisional Forest Officer, 24-Parganas Division.

Wild life : Past & Present

No data are available regarding the population of tiger in Sundarbans in the past; but records indicate that there was a sizeable population of tiger in this area, known for its ferocious man-eating habits. Equally dreaded were the estuarine crocodiles and lurking sharks in the saline creek waters. The Sundarban mangrove eco-system has varied types of mangrove species starting from Mesophilous halophytes (freshwater mangrove) to Helophilous halophytes (saline-alkaline mangrove). Only about 100 years back it had in addition to existing species of wild animals, (1) Javan rhinoceros (*Rhinoceros sondaicus*), (2) Wild Buffalo (*Bubalus bubalis*), (3) Swamp Deer (*Cervus duvauceli*) and (4) Barking Deer (*Muntiacus muntjak*), which mostly roamed in the freshwater mangrove forests. Even One-horned Rhinoceros (*Rhinoceros unicornis*) was also reported to be there in Bakkhali area in the past. With the reclamation of the Sundarban forests for extension of cultivation, most of these freshwater mangrove forests disappeared leading to extinction of these species. The main population of wildlife in Sundarbans today are the Royal Bengal Tiger, Estuarine Crocodile, Spotted Deer, Wild Boar, Monitor Lizard, Rhesus monkey, Smooth Indian Otter, Gangetic Dolphin, Fishing Cat and variety of birds and reptiles and other smaller animals.

Socio-Economic Profile of the Sundarban Forests

Inhabited villages are mostly located outside the northern and the western limits of this forest, the southern side being the Bay of Bengal and on the eastern side the forests of Bangladesh Sundarbans. The population living on the periphery of the forest are mainly composed of fishermen. A small portion of this population, however, earn their livelihood through working in forest as honey collectors, woodcutters etc. *Abadi* cultivators prefer to stay away from the fringes of the forests.

Sundarban forests yield domestic requirement of fuelwood, some

inferior timber, for making poles for construction of village homes and betel yard. Timber for construction of boats and making of packing cases locally are also fetched from these forests. Forest produces collected from Sundarbans not only feed the adjoining villages but also reach Calcutta, industrial area of Haldia and other parts of 24-Parganas and Midnapore districts. Sundarban forests also produce approximately 500 quintals of honey a year and this honey is much in demand. Fish captured from the allowed area of Sundarbans and its periphery feed Calcutta city and the neighbouring towns of the adjoining districts.

Management of the Sundarban Forests

The entire portion of the forests falling under 24-Parganas Division, excepting the two Sanctuaries, is open to coupe-working, honey collection and fishing. In the core area of the Tiger Project and in Sajnakhali Sanctuary, however, no entry of local people is allowed and no commercial exploitation is permitted. Commercial activities are allowed only in a part of the buffer zone which lies on the north-eastern part of the Tiger Reserve.

There is a forest officer under Sundarban Development Board whose primary duty is to take up all available areas south of Dampier-Hodges Line, but outside reserved and protected forests, for extension of plantation in order to meet the small wood and firewood requirement of the local people. Strip plantations (around 300 hectares per year) along canal banks, embankments and field bundhs, and block plantations on 900 hectares of mud flats have been raised by Sundarban Development Board and the South 24-Parganas Forest Division. Plantations of mangrove species are also being raised in the peripheral areas as a part of restoration of mangrove eco-system under the scheme of mangrove conservation.

Following immediate measures have been undertaken in Sundarbans, particularly the Tiger Project area :

1. Restriction has been imposed on commercial felling and people's entry inside identified areas ;
2. The staff have been given greater mobility through launches, mechanised boats and speed boats to enforce such restriction ;
3. Radio transmission network has been established over the entire area including provision of mobile Radio transmission sets in the launches and boats for quick transmission of messages ;

4. The staff have been provided with rifles to combat the poachers and timber smugglers ;
5. Captive breeding of endangered species and their release in the wild ;
6. To enlist public support mass awareness programme and eco-development work have been taken in hand.

The Sundarbans Protocol

The essence of success of conservation-oriented forest management lies in protecting the forests from the onslaught of human misuse and overuse, proper management of habitat and habitant, and developing harmonious relationship between management and local people; towards this end a Sundarbans Protocol was signed in 1989.

Measures to control man-animal confrontation

No figure is available regarding the number of tigers in Sundarbans prior to 1970s; but an estimation of tiger population done in 1973 revealed the total number of tiger in Sundarbans was around 150 then. The 1989 census revealed the tiger population to be 295. This indicated that with conservation measures, the population of tigers had increased. The main problem facing the Sundarbans, in particular, was the number of human beings killed by tiger annually which was around 100 persons a year, in the late seventies. Though most of the killings took place inside the forest areas, this was greatly resented by the local people. Preventive measures to reduce the man-animal confrontation had to be taken and the measures adopted are :

1. Restriction of entry of the people in the core area so that exposure of the people to the tiger gets reduced ;
2. Stoppage of permit for collection of *hental* (leaf) which is the typical abode of tiger ;
3. Providing tiger guards to the people entering forests with permission ;
4. Providing human mask to permit-holders entering forests, for use on to the backside of the head ;
5. Installation of electrified human dummies in the forests to give shock experience to the tiger attacking such human dummies ;
6. Digging of sweet water ponds and pits in the forest to change the habit of drinking saline water by the tiger which is the supposed cause of man-eating habit of the tiger ;

7. Releasing farm-bred wild pigs in the micro-localities of the prey-depleted buffer zone to reduce tiger straying inside the habitation areas ;
8. Installation of electric fencing and 'garanchita' fencing in the periphery of forests adjoining localities to reduce straying of tiger into the neighbouring villages ;
9. Tranquilisation and capture of tigers which stray out in the villages and their translocation into the core area or zoo garden ;
10. Installation of solar panel light in the fringe area to reduce straying of tiger into the localities ;
11. Building up of apiaries outside the forest, by setting of apiary boxes, so that the people are not required to enter forests for honey collection ;
12. Advising the people not to remain on land in the forest on vulnerable hours and locations.

With adoption of these measures, human casualty by tiger has gone down to 40 persons a year, despite the facts that the tiger population in the forests and human population in the fringe villages have doubled in the mean time.

Conservation, eco-development & welfare programmes

With the formation of the Project Tiger and the conservation-oriented forest management there has been restriction of human movement inside and human use of the Sundarban forests. To compensate the loss of employment resulting from reduced commercial activity in the forests, a large number of special work programme have been undertaken in the periphery of the Sundarban forests so that the people living by the side of the forests do not get alienated against the conservation approach. The steps undertaken are :

1. Mangrove fuelwood plantations are being raised in the peripheral areas outside the forest area for meeting the requirement of fuelwood of local population ;
2. Fuel-efficient smokeless *chullas* are being provided in the peripheral areas to reduce the demand of fuelwood ;
3. A number of pisciculture ponds have been dug in the peripheral villages to improve the economic status of the local people ;
4. Silvo-pisciculture has been undertaken under 24-Parganas Division as a part of multiple use of forest land ;

5. Arrangements have been made for supply of drinking water through installation of tubewells and sweet water ponds in the peripheral villages;
6. Attempts are also being made to supply solar cookers in the peripheral villages for development of alternate source of energy to reduce the demand of fuelwood;
7. Compensation in approved scale is being paid for human casualty, death and injury to livestock. In case of human injury full cost of treatment in approved hospitals are reimbursed by the government;
8. Mobile medical facilities have been provided to the local people through non-government organisations;
9. Janata Insurance facilities have been extended to cover the life risks of the people entering Sundarbans;
10. In addition to above, under Biosphere Reserve programme the following work have been taken up :
 - (a) Bank protection to bamboo groves from attacks by school of procupines;
 - (b) Development of crab culture;
 - (c) Development of oyster culture;
 - (d) Development of mushroom culture;
 - (e) Regular nature education camp and interpretation trips for the local population;
 - (f) Aerial seeding of some highly denuded forest areas in islands, west of the Matla river, done on 1000 hectares in 1989 and 1990.

Certain basic information regarding forestry activities in the Sundarbans are given below :

		1988-89	1989-90	1990-91
Revenue	...	Rs. 38 lakhs	30 lakhs	32 lakhs
Expenditure : Non-plan				
including committed	...	Rs. 110 lakhs	130 lakhs	195 lakhs
Plan expenditure	...	Rs. 100 lakhs	125 lakhs	170 lakhs
No. of registered fishing boats		5500	5550	5550
No. of permits issued for fishing	...	25,300	25,550	26,400
No. of persons killed by tiger		27	15	38

Bhagabatpur Crocodile Project

There is a crocodile project at Bhagabatpur which was started in the year 1976 for rearing of crocodile and turtle; and till now, 224 nos. of crocodiles raised in the area have been released in the forest. In addition, tourists also visit Sundarbans Tiger Reserve and their number annually is 25,000.

List of plants, animals and birds normally seen in Sundarbans are given in List I, II and III respectively.

Places of Interest

- Gosaba* : Sir David Hamilton's settlement.
- Project Tiger* : (2585 sq. kms.). The core area (1330 sq.kms.) is a National Park. The Sundarbans Tiger Reserve (STR) has a tiger population of 287 (1984 census). The only mangrove species, the tiger here had adapted well to its habitat. Winter is the best time to see 'His Majesty'. Watch towers at Sajnakhali, Sudhannyakhali, Haldi and Netidhopani.
- Netidhopani* : The ruins of a 400-year old temple and legends lend an atmosphere.
- Sajnakhali* : Bird Sanctuary, Olive Ridley Turtle hatchery & museum.
- Bhagabatpur* : Hatchery of the largest estuarine crocodile in the world.
- Kanak* : Nesting place of Olive Ridley Turtles.
- Halliday Island* : Last retreat of the Barking Deer.
- Piyali* : Gateway to the Sundarbans. 70 kms. from Calcutta via Dosarhat.
- How to go* : The Sundarbans are accessible only through riverine waterways.
- Calcutta to STR* : Rail : Sealdah to Canning (54 kms.) Bus : Babu Ghat (Strand Road) to Sonakhali (100 kms.) & Basanti (105 kms.). Watercraft to : Sonakhali-Gosaba-Sajnakhali.
- Calcutta to other places* : Bus : Esplanade to Namkhana. Watercraft to : Namkhana, Bhagabatpur, Lothian & Halliday Islands. Tourist launches on hire from Tourist Bureau. Private launches at Sonakhali & Namkhana.

Conducted tours : 1/2/3-day tours to STR & Tiger Projects. 1-day tour to Piyali, Dabu & Nimpith from Calcutta, arranged by Tourist Bureau.

Where to stay : Sundar Chital Tourist Lodge, Sajnakhali. Reservations : West Bengal Tourism Development Corpn. Tel : 28-5917/5168.

Festivals : Sanjnakhali : Bonbibi Puja & Jatra on Poush Sankranti (mid. Jan.).

Products : Bouled Khalsi honey at Sajnakhali.

Permits : Required for foreigners visiting Tiger Project & Sajnakhali from Secy., West Bengal Forest Department, Writers' Buildings, Calcutta 700 001, on request. Other areas of the Sundarbans : Div. Forest Officer, 24-Parganas, 35 Gopalnagar Road, Calcutta 700 027, Tel : 45-1037.

Further information :

Tourist Bureau, Government of West Bengal, 3/2 BBD Bag East, Calcutta 700 001, Tel : 28-8271/72.

1 Nehru Road, Darjeeling, Tel. 2050.

Hill Cart Road, Siliguri, Tel. 21632, 24650.

West Bengal Information Bureau, A/2 State Emporia Buildings, Baba Kharak Singh Marg, New Delhi 110 001, Tel : 35-3840, 34-3775.

18 Wallajah Road, Madras 600 002, Tel : 83-2346.

Government of India Regional Tourist Office, 4 Shakespeare Sarani, Calcutta 700 071, Tel : 44-1402/3521.

t—1 **List of Sundarban Plants**

Scientific Name	Local Name	Family
<i>Acanthus ilicifolius</i> L. (ME)	Harguza	Acanthaceae (S)
<i>A. volubilis</i> wall (ME)	Lata harguza	Acanthaceae (C)
<i>Aegialitis rotundifolia</i> Roxb. (ME)	Tora	Plumbagenaceae (S)
<i>Aegiceras carniculatum</i> (L) Blanco (ME)	Khalsi	Myrsinaceae (T)
<i>Avicennia alba</i> Blume (ME)	Piara baen	Verbenaceae (T)
<i>A. marina</i> (Forsk) Vierh. (ME)	Kala baen	Verbenaceae (T)
<i>A. officinalis</i> L. (ME)	Jat baen	Verbenaceae (T)
<i>Aglaia cuculata</i> (Roxb.) Pellegrin.	Amur	Meliaceae (T)
<i>Acrostichum aureum</i> L.	Hodo	Pteridaceae (S)
<i>Bruguiera cylindrica</i> (L) Blume (ME)	Bakul	Rhizophoraceae (T)
<i>B. gymnorhiza</i> (L) Lam. (ME)	Kankra	Rhizophoraceae (T)
<i>B. Sexangula</i> (Lour) Poirot. (ME)	Kankra	Rhizophoraceae (T)
<i>B. Parviflora</i> (Roxb.) Wight and Arn. (ME)	Bakul	Rhizophoraceae (T)
<i>Brownlowia tersa</i> (L) Koster	Lata-sundari	Tiliaceae (S)
<i>Cerbera manghas</i> Geartn.	Dakor	Appocynaceae (T)
<i>Clerodendrum inerme</i> (L) Geartn.	Bajai	Verbenaceae (S)
<i>Caesalpinia bunducella</i> (L) Roxb.	Nate	Leguminosae (S)
<i>C. cristata</i> (L)	Nate	Leguminosae (S)
<i>Ceriops decandra</i> (Gritt) Ding Hou. (ME)	Jhamti or jele goran	Rhizophoraceae (S)
<i>C. Tagal</i> (Perrottet) C. S. Robinson (ME)	Math goran	Rhizophoraceae (S)
<i>Cynometra iripa</i> Kostel.	Singra	Leguminosae (T)
<i>Derris scandens</i> (Roxb.) Benth.	Kalilata	Leguminosae (C)
<i>D. heterophylla</i> (Willd.) Back and Bakh.	Kalilata	Leguminosae (C)
<i>Dalbergia spinosa</i> Roxb.	—	Leguminosae (C)
<i>Entada scandens</i> Benth.	Gila	Leguminosae (C)
<i>Excoecaria agallocha</i> L. (ME)	Genwa	Euphorbiaceae (T)

Contd... List—1

Scientific Name	Local Name	Family
27. <i>Finlaysonia obovata</i> L.	Dudhilata	Asclapiadeceae (C)
28. <i>Fimbristylis ferruginea</i>	—	Cyperaceae (H)
29. <i>Hemithrea compressus</i> L.	—	Graminae (Gr.)
30. <i>Heliotropium curassavicum</i> Linn.	—	Chenopodiaceae (H)
31. <i>Heritiera fomes</i> Buch-Ham. (ME)	Sundari	Sterculiaceae (T)
32. <i>Hibiscus tilliaceous</i> L.	Bhola	Malvaceae (T)
33. <i>Kandelia candel</i> (L) Druce (ME)	Garia	Rhizophoraceae (T)
34. <i>Lumnitzera racemosa</i> Willd. (ME)	Kripa	Combrataceae (T)
35. <i>Mukuna gigantea</i> (Willd.) D. C.	—	Cucorbitaceae (C)
36. <i>Myriostachya wightiana</i> (Nessex Steud) Hook f.	Ghash	Graminae (Gr.)
37. <i>Nypa fruticans</i> Wurmb (ME)	Golpata	Palmac (T)
38. <i>Phoenix paludosa</i> Roxb. (ME)	Hental	Palmac (T)
39. <i>Porterasia coarctata</i> (Roxb.) Tateoca. (ME)	Dhanighash	Pocceae (Gr.)
40. <i>Pandanus tectorius soland</i>	Keya	Pandanaceae (T)
41. <i>Pluchea indica</i> Linn.	—	—
42. <i>Rhizophora apiculata</i> Blume (ME)	Garjan	Rhizophoraceae (T)
43. <i>R. mucronata</i> Lam. (ME)	Garjan	Rhizophoraceae (T)
44. <i>Sacharum cylindricum</i> L.	Ulu	Graminae (GL)
45. <i>Suaeda nudiflora</i> Mog.	Gira sak	Chenopodiaceae (H)
46. <i>S. monoeca</i> L.	Nonaguru	Chenopodiaceae (H)
47. <i>S. meritima</i> Dumort.	Nonaguri	Chenopodiaceae (H)
48. <i>Sesuvium Portulacastrum</i> L.	Jadu Palang	Ficoidae (H)
49. <i>Salicornea brachiata</i> Roxb.	—	Chenopodiaceae (H)
50. <i>Salacia prinoidea</i> (Willd.) D. C.	—	Celastraceae
51. <i>Scirpus littorea</i> Schrad	—	Cyperaceae (H)
52. <i>Sonneratia apetala</i> Buch-Ham. (ME)	Keora	Lythraceae (T)
53. <i>S. Caseolaris</i> (L) Engl. (ME)	Ora	Lythraceae (T)
54. <i>S. griffithii</i> Kurz. (ME)	Ora	Lythraceae (T)

Contd... List—1

Scientific Name	Local Name	Family
55. <i>S. alba</i> J. Smith (ME)	Ora	Lythraceae (T)
56. <i>Stenochlaena palustre</i> Bold.	—	—
57. <i>Stichtocardia tilifolia</i> Hallier F.	—	Manispermaceae (C)
58. <i>Thespesia populnoides</i> (Roxb.) Kostel.	Paras	Malvaceae (T)
59. <i>T. populnea</i> (Linn.) Solex Carrea	Paras	Malvaceae (T)
60. <i>Tamarix troupii</i> Hole	Nona Jhau	Tamaricaceae (T)
61. <i>T. dioica</i> Roxb.	Nona Jhau	Tamaricaceae (T)
62. <i>Viscum orientale</i> Van.	—	Loranthaceae (C)
63. <i>Xylocarpus granatum</i> Koenig. (ME)	Dhundul	Meliaceae (T)
64. <i>X. mekongensis</i> Pierre (Sym. X. Gangeticus Parkinson) (ME)	Passur	Meliaceae (T)

List—2 List of Sundarban Animals

Scientific name	English/Local name
1. <i>Panthera tigris</i>	... Tiger
2. <i>Felis viverrina</i>	... Fishing cat
3. <i>Felis chaus</i>	... Jungle cat
4. <i>Viverra zibatha</i>	... Civet cat
5. <i>Viverricula indica</i>	... Small Indian civet
6. <i>Cervus axis</i>	... Axis deer or chital
7. <i>Sus scrofa</i>	... Wild boar
8. <i>Macaca mulatta</i>	... Rhesus monkey
9. <i>Varanus salvator</i>	... Water monitor or salvator lizard
10. <i>Varanus flaviscense</i>	... Yellow monitor or monitor lizard
11. <i>Crocodilus porosus</i>	... Estuarine crocodile
12. <i>Platanista gangetica</i>	... Gangetic dolphin
13. <i>Chilleseylum griseum</i>	... Tiger shark
14. <i>Stegestoma fasciatu</i>	... Tiger shark
15. <i>Ophiophagus hannah</i>	... King cobra
16. <i>Naja naja</i>	... Indian cobra
17. <i>Bungurus fasciatus</i>	... Banded krait
18. <i>Vipera russelli</i>	... Russell's viper
19. <i>Praescutata viperina</i>	... Sea-snake
20. <i>Enhyalina schistosa</i>	... Sea-snake
21. <i>Hydrophis obscurus</i>	... Sea-snake
22. <i>Carcinoscorpius rotundicallada</i>	... Horse-shoe crab
23. <i>Batagur baska</i>	... Common batagur
24. <i>Lepidochelys olivacea</i>	... Ridley turtle
25. <i>Eretmochelys imbricata</i>	... Hawksbill turtle
26. <i>Lissemys punctata</i>	... Pond turtle
27. <i>Hilsa ilisha</i>	... Hilsa
28. <i>Hilsa toli</i>	... Hilsa
29. <i>Lates calcarifer</i>	... Bhekti
30. <i>Liza tada</i>	... Kalagachhi bhangar

Contd... List—2

Scientific name	English/Local name
31. <i>Liza microlepis</i>	... Ram parse
32. <i>Mugil ocephalus</i>	... Aadh bhangar
33. <i>Liza parsia</i>	... Parse
34. <i>Penaeus monodon</i>	... Prawn
35. <i>Boleophthalmus boddarti</i>	... Menomachh
36. <i>Scylla serrata</i>	... Red crab
37. <i>Coenobita cavipes</i>	... Hermit crab
38. <i>Diogenes avarus</i>	... Hermit crab
39. <i>Clibarius padaversis</i>	... Hermit crab
40. <i>Metaplex crenulata</i>	... Metaplex crab
41. <i>Metaplex dentipes</i>	... Metaplex crab
42. <i>Metaplex distincta</i>	... Metaplex crab
43. <i>Uca Acutus</i>	... Fiddler crab
44. <i>Uca lactea</i>	... Fiddler crab
45. <i>Uca dussumierf</i>	... Fiddler crab
46. <i>Uca triangularis</i>	... Fiddler crab
47. <i>Sesarma bidens</i>	... Tree-climbing crab
48. <i>Sesarma impressa</i>	... Tree-climbing crab
49. <i>Sesarma taciolatum</i>	... Tree-climbing crab
50. <i>Sesarma tetragonum</i>	... Tree-climbing crab

List—3

List of Sundarban Birds

Scientific name	English/Local name
1. <i>Phalacrocorax niger</i>	... Little cormorant
2. <i>Ardea purpurea</i>	... Purple heron
3. <i>Butorides striatus</i>	... Little green bittern
4. <i>Ardeola grayii</i>	... Pond heron
5. <i>Bubulcus ibis</i>	... Cattle egret
6. <i>Egretta alba</i>	... Large egret
7. <i>Egretta intermedia</i>	... Median egret
8. <i>Egretta garzetta</i>	... Little egret
9. <i>Nycticorax nycticorax</i>	... Hight heron
10. <i>Anastomus oscitans</i>	... Openbill stork
11. <i>Leptoptilos javanicus</i>	... Smaller adjutant stork
12. <i>Haliastur indus</i>	... Brahminy kite
13. <i>Vanellus indicus</i>	... Redwattled lapwing
14. <i>Numenius phaeopus</i>	... Whimbrel
15. * <i>Limosa limosa</i>	... Blacktailed godwit
16. * <i>Tringa hypoleucos</i>	... Common sandpiper
17. * <i>Streptopelia decaocto</i>	... Ring dove
18. <i>Streptopelia chinensis</i>	... Spotted dove
19. <i>Psittacula krameri</i>	... Roseringed parakeet
20. <i>Centropus sinensis</i>	... Crow pheasant
21. <i>Cypsiurus parvus</i>	... Palmswift
22. <i>Ceryle rudis</i>	... Pied kingfisher
23. <i>Halcyon orientalis</i>	... White-collared kingfisher
24. <i>Dinopium benghalense</i>	... Golden-backed woodpecker
25. <i>Picoides macei</i>	... Fulvus-brested pied woodpecker
26. <i>Hirundo rustica</i>	... Common swallow
27. * <i>Mirops orientalis</i>	... Small green bee-eater
28. <i>Dicrurus aeneus</i>	... Bronzed drongo
29. <i>Artamus fuscus</i>	... Ashy swallow-shrike
30. <i>Sturnus contra</i>	... Pied myna

List—3

Scientific name	English/Local name
<i>Acridotheres fuscus</i>	... Jungle myna
<i>Corvus macrorhynchos</i>	... Jungle crow
<i>Coracina melanoptera</i>	... Black-headed cuckoo-shrike
<i>Coracina novaehollandiae</i>	... Large cuckoo-shrike
<i>Aegithina tiphia</i>	... Common iora
<i>Pycnonotus cafer</i>	... Redvented bulbul
<i>Rhipidura albicollis</i>	... Whitespotted fantail flycatcher
<i>Orthotomus sutorius</i>	... Tailor bird
<i>Capsychus saularies</i>	... Magpie robin
<i>Nectarinia asiatica</i>	... Purple sunbird
<i>Zosterops palpebrosa</i>	... White-eye
<i>Passer domesticus</i>	... House sparrow
<i>Lonchura malacca</i>	... Black-headed munia

ked birds are migratory, others are local

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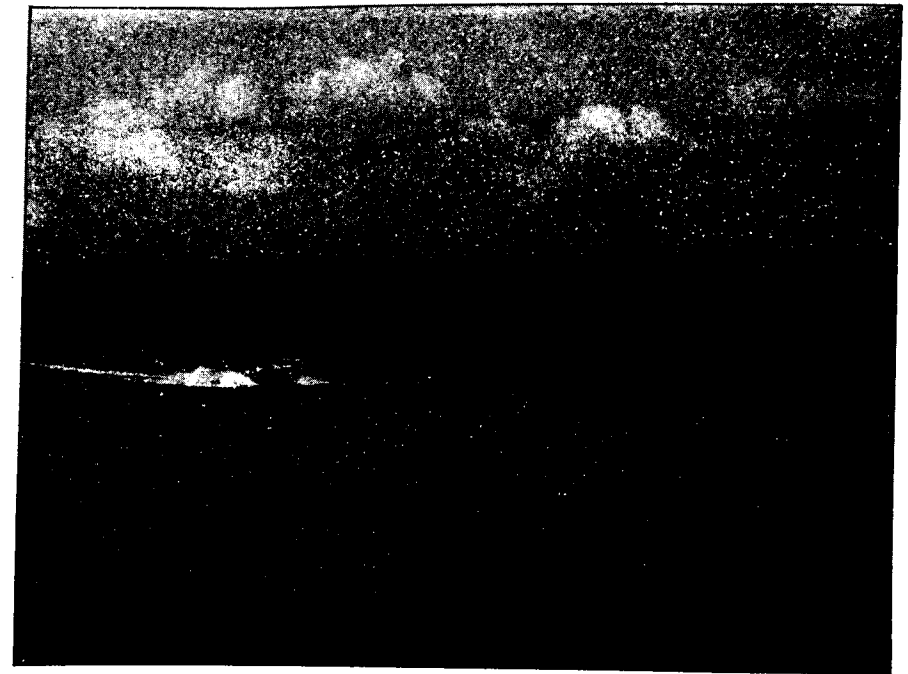
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PLATES



Subhas Chandra Basu's ancestral house at Kotalia.



Patrolling round the Sunderban Reserve Forest.



Temple of Kapil Muni at Gangasagar.



Way to Reserve Forest.



Punyasnan at Sagar.



Pug-mark of a Royal Bengal Tiger.



A ship in making at the Netaji Subhas Shipyard.





Banabibi.



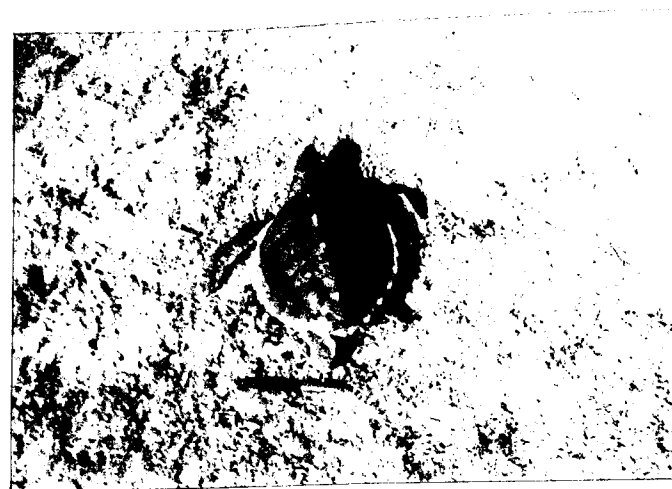
Honey Collecting.



A Royal Bengal Tiger



Garjan - a Sundarban Plant



Olive Reddish Marine Turtle



Fishing



Mangrove of Sundarban



Rowing with a clay replica of a man to deceive the tiger



Boatmen of Sundarban



Flora of Sundarban



Posur : a Sundarban Plant.



Supporting Root



Bird Sanctuary of Sajinakhali.



Deer.



Boar.



Reptile of Sundarbans.

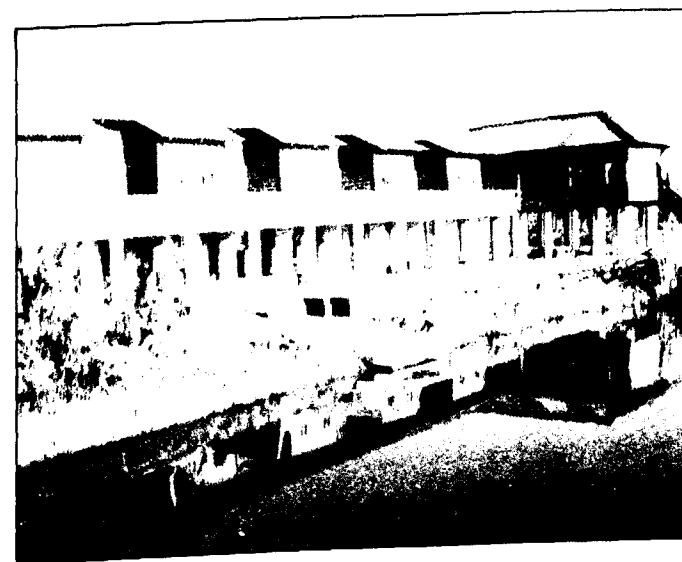


Breathing Root

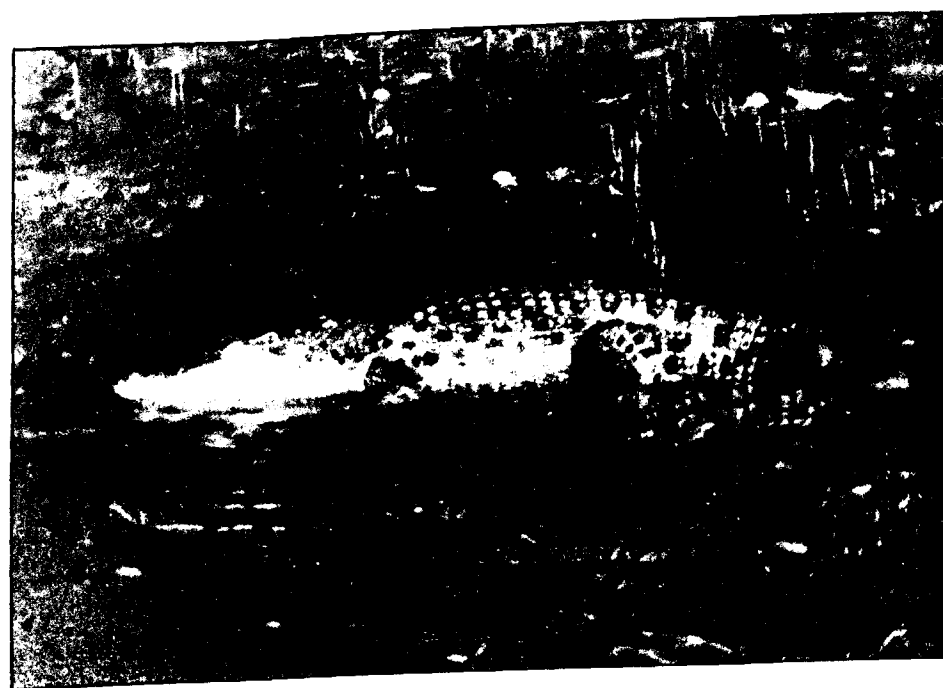




Thatched hut of a Sundarban Village.



Sajmakhali Tourist Lodge.



Crocodile.



Tripursundari.



Temple of Tripursundari at Boral.



Inside View of Bata Shoe Company.

Courtesy

CALCUTTA PORT TRUST
BATA SHOE CO.
CONSERVATOR OF FORESTS, WEST BENGAL

SHRI SUDIPTA PAL
SHRI ANJAN CHATTERJEE
SHRI KAMAL KAR
SHRI ARUN CHAKRABORTY

