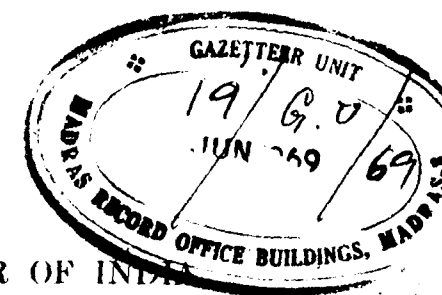


GAZETIER OF INDIA



MYSORE STATE

TUMKUR DISTRICT



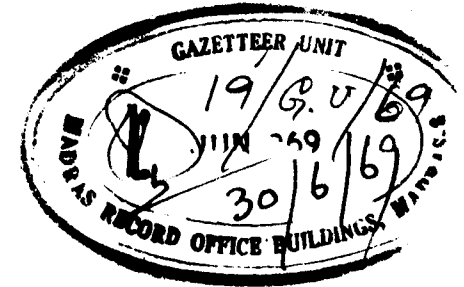
GAZETTEER OF INDIA

MYSORE STATE

TUMKUR DISTRICT



MYSORE STATE GAZETTEER



TUMKUR DISTRICT

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PREFACE

THE previous Mysore Gazetteer pertaining to the former Mysore State had been brought out during the third decade of this century ; it was in five volumes consisting, in all, of eight parts, seven of which dwelt on the State as a whole in general, while only the last one briefly dealt with Mysore by districts which were eight then. The work on those eight books, which had commenced in 1914, was concluded in 1930. The circumstances and scope, approach and outlook of those and other earlier works were different ; none-the-less, one cannot but be deeply impressed by the remarkable studies they present. This new series of Gazetteers naturally owes much to them.

The stupendous and significant changes and developments that have been taking place in the various spheres in India, since the dawn of Independence, called for production of re-oriented Gazetteers with a novel pattern to meet the new national requirements. A reappraisal of several of the other previous features, in the light of the fresh data, also became imperative. Because of the special position of the district as a unit of administrative organisation and in social and economic life of the people, a self-contained volume entirely devoted to each one of the districts became highly desirable.

The Union Government, accordingly, sponsored a scheme for publication of new Gazetteers for all the districts in India, which number about 345, and asked the Governments of all the States and Union Territories to undertake the execution of this task of national importance and offered a grant-in-aid. In order to have a broad and basic uniformity in the pattern of the new Gazetteers, so that one can lay one's fingers readily on the matters required and know the trends of developments, the Central Unit, in consultation with the State Units, devised also a common plan of contents encompassing a wide range of topics. Since the days when a Gazetteer meant only a geographical index, the concept has vastly widened and the Gazetteers of the present age, which are polymathic works, have to cover large dimensions and have to give, in a new perspective, an integrated and objective picture, without losing sight of the greatly changed social values ; this demands a good deal of caution and circumspection.

The modern Gazetteers are extra-ordinary publications dealing with a myriad variety of features which unfold the panorama of the many aspects of the variegated life of the people. Laborious and time-consuming processes are involved in their production. The District Gazetteers are the most comprehensive single source of knowledge about the districts. For the country as a whole and for the States, reference works on various subjects are available both for the specialist and general readers; but scarcely are there any reference works focussing on individual districts. The District Gazetteers fulfil this great need by delineating an all-round picture of individual districts. It is relatively more difficult to obtain required source-materials and isolate matters for a district than for a State as a whole. Particulars and data, if incomplete or inconsistent, do not lend themselves for treatment and persistent efforts are called for. A grave deficiency of many publications is that there is a yawning gap between the latest years of their facts and figures and the year of their actual production; this would be sharply felt all the more now when progressively more rapid and enormous developments and changes are taking place in the many fields. Every possible effort has been made to avoid that lacuna here.

By mirroring the past and present achievements and contributions, joys and woes and by indicating the potentialities of development in the future, of the various parts of the country, these unique publications help to dispel prejudices and parochial tendencies and to promote national and emotional integration of the people.

This is the eighth District Gazetteer of this State. The chapters in the volume, being correlated, complement one another; for instance, the chapter on history gets supplemented elsewhere when the relevant background of various aspects is traced, and particulars pertaining to places of interest can be found in chapters other than the 19th also. No pains have been spared to keep abreast of developments in the many spheres and to gather and make use of the latest possible data from the diverse and scattered sources and to make the publication as accurate and self-contained as possible. Highly useful appendices, an analytical and exhaustive index, a considerable number of illustrations, a scrupulous *addenda et corrigenda*, a detailed table of contents, a select bibliography and a general map of the district have been provided.

The State Advisory Board for Gazetteers, consisting of the Chief Secretary to the Government of Mysore as the Chairman and Sri D. C. Pavate, M.A. (Cantab.), Sri V. L. D'Souza, B.A., B.Com. (Lond.), Sri P. H. Krishna Rao, M.A., Prof. K. A. Nilakanta Sastri, M.A., and Prof. Dr. S. C. Nandimath, M.A., Ph.D. (Lond.), as Members, made many valuable suggestions in order to enhance the usefulness of the work. To all of them, hearty gratitude is due.

The Education and the General Administration Secretariats, a number of officers, at various levels, of the different Departments of the State Government and of the Union Ministries working in the State, as also many knowledgeable individuals and non-official institutions have been of help in a variety of ways and the Director and the Senior Deputy Director of Printing, Stationery and Publications and the Assistant Director of Printing in charge of this work extended close co-operation in meeting the several requirements of printing of this voluminous work of an extra-ordinary character and warm thanks are due to all of them.

Further, I would be failing in my duty if I do not express grateful thanks to Dr. P. N. Chopra, M.A., Ph.D., Editor, District Gazetteers, and the staff of the Central Gazetteers Unit, Ministry of Education, New Delhi, for their effective role in planning and co-ordinating the work of preparation of the District Gazetteers. The Unit scrutinised the draft of this volume with great care and made a number of helpful suggestions with a view to improving the standard and quality of the publication. It may also be mentioned here that a part of the expenditure incurred on the compilation and printing of the District Gazetteers is being met by the Government of India.

The preliminary draft of this Gazetteer had been compiled some years back during the tenure of office of the former Chief Editor, Sri B. N. Sri Sathyan, B.A. (Hons.), and it has been revised as also brought up-to-date, on the lines of the previous volumes of the series. He had been at the helm of the highly onerous task of this office since its very inception and I take this opportunity to tender to him very cordial thanks. Sriyuths: A. Ramakrishnan, Administrative Officer, P. B. Srinivasan, K. Puttaswamaiah, J. N. Kamalapur, J. G. Alavandar Naidu, M. A. Narasimha Iyengar and K. C. Bheemaiah, Editors, the first five of whom have since left this office, K. S. Narayanaswamy, who joined as Office Superintendent recently, G. V. Subba Ramu, Stenographer and other

members of the staff, who rendered concerted and useful service, are sincerely thanked. Sri B. S. Bhandari, Sri N. Venkataswamy and Sri N. V. Ranganatha Rao, who joined as Editors very recently, assisted in seeing the volume through the press.

Quality and thoroughness are of the highest value in an enduring work of this nature. A complex work of this magnitude, which is of abiding interest and importance to the society, cannot be just hustled through. (It is noteworthy that Documentation Centres abroad are preparing and issuing microeditions of old and new Indian Gazetteers, since these works constitute a basic research literature). Within, however, several limitations, every strenuous endeavour has been made to attain the best possible quality and thoroughness, comprehensiveness and virtual up-to-dateness by bestowing constant and meticulous attention.

BANGALORE-20,

Dated 21st March 1969

K. ABHISHANKAR,

Chief Editor,

MYSORE GAZETTEER.

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TUMKUR DISTRICT

CHAPTER I

GENERAL

TUMKUR is the headquarters town of the district, and the Origin of name district is also called by the same name. Popular tradition has it that Tumkur once formed part of a territory, whose capital was Kridapura, now a small village known as Kaidala, three miles to the south of Tumkur, and that it was presented by one of its rulers to a herald or tom-tom beater. *Tumuke* is the small drum or tabret, which is used for tom-toming, and the town might have been called *Tumuke-Ooru* to indicate that it belonged to the beater of *tumuke*. But the original name of the place, according to certain inscriptions of the tenth century, was Tummegooru, which means the place of the *tumma* or *tumbe*, a common fragrant herb (*Leucas aspera*) found abundantly in the area. It is said that the present town was built by Kante Arasu, a member of the Mysore royal family, and because the area was clearly known as *Tumme* or *Tumbe*, he seems to have continued the same name with the addition of *Ooru* for the town and called it *Tumme-Ooru* or *Tumbe-Ooru* which, in course of time, came to be pronounced as Tumakuru (or Tumkur in its anglicised form), as it is now known.

Tumkur belongs to the group of districts called the *maidan* Location (plains) districts and is situated in the east-central part of the Mysore State and to the south and south-east of Chitradurga district. It is situated between 12° 45' and 14° 20' north latitude and between 76° 20' and 77° 31' east longitude.

It is bounded on the north by the Anantapur district of General Andhra Pradesh, on the east by the Kolar and Bangalore districts, boundaries on the south by the Mandya district and on the west by the districts of Chitradurga, Chikmagalur and Hassan.

One peculiar feature of this district is that one of its taluks, i.e., Pavagada, is not at all connected with it at any point. The taluk is surrounded on all sides by the Anantapur district of Andhra

Pradesh and is connected with Mysore State at only one point by a narrow strip of land on the north-west, and that too, not with the Tumkur district to which it belongs, but with another district of Mysore State, *i.e.*, Chitradurga. This is because of the fact that this taluk once formed part of the Chitradurga district and was separated from it and attached to Tumkur district in 1886.

Area and population

The area of the district, according to the Commissioner for Survey, Settlement and Land Records in Mysore, is 4,073.7 square miles or 10,550.9 square kilometres* and its population, according to the 1961 Census, was 13,67,402. Both in area and population it occupies the eighth place. With a density of 336 per square mile, it is above the State average, which is 319, and ranks seventh among the districts of the State. But in 1951, the district was occupying the eighth place in respect of area, population and also density. The extreme length of the district from north to south is 102 miles and its greatest breadth from east to west is 67 miles.

Administrative history

During the early period, from the 5th to the 10th century A.D., a major portion of the area comprising the present Tumkur district formed part of Gangavadi and was in the possession of the Gangas. The north-eastern part of the district formed part of Nolambavadi in the 10th and 11th centuries and was ruled by the Nolambas, who had their capital at Penjeru or Henjeru (in the present Madakasira taluk of Andhra Pradesh) and a stronghold at Nidugal in the Pavagada taluk. At this time, the chief divisions of the country seem to have their revenue value affixed to their names. Thus, the area under the Gangas was known as Gangavadi-96,000 while the area under Nolambas was Nolambavadi or Nonambavadi-32,000. In the ninth century, there were matrimonial alliances between these two dynasties, and Nolambadhiraja, who married Jayabbe, younger sister of the Ganga king Nitimarga, assigned certain villages in the Sira country to each of his other queens. The Hoysalas, who succeeded the Gangas, held sway over almost the entire area. Their occupation of the country, it may be said, was in two stages: Vinayaditya (1047-1100) and Vishnuvardhana (1100-1152) are represented as ruling over only Gangavadi, whereas Narasimha I (1152-1173) is described as ruling over both Gangavadi and Nolambavadi. The area later came under the rule of the Vijayanagara kings in the 14th century and under the latter's sovereignty, there were, in this area, several small feudatory States such as those of Hagalvadi, Holavanahalli, Maddagiri and Nidugal. When the Bijapur army invaded the country, the descendants of some of these rulers were driven out of their estates and almost the whole of the northern part of the district was brought under Adil Shahi

*According to the figures furnished by the Survey of India, the area of the district is 4,091.58 sq. miles or 10,597.11 sq. kilometres. See also Appendix—Table 1.

rule. The Mughals, who later captured Golconda and Bijapur, made Sira a province, with Doddaballapur, Bangalore, Hoskote and Kolar, known as the Karnatak-Bijapur-Balaghat, under a Subedar or Faujdar. The southern part of the district, which was not appropriated by the Bijapur Government established at Sira, was, in the meanwhile, conquered by the Mysore ruler, Chikkadevaraja Wodeyar. Thus, by the end of the 17th century, the southern taluks of Tumkur district were part and parcel of the Mysore territory. The remaining portion fell to Mysore on the conquest of Sira by Haidar Ali in 1761.

After the fall of Tipu, the territory was restored to the Mysore royal family, and during the reign of His Highness the Maharaja Krishnaraja Wodeyar III (1811-31), Mysore State consisted of the six Faujdaris of Bangalore, Maddagiri, Chitaldrug (Chitradurga), Ashtagram, Manjarabad and Nagar. The present Tumkur district formed part of Maddagiri Faujdari. In 1834, these six Faujdaris were reconstituted into the four divisions of Bangalore, Nagar, Chitaldrug and Ashtagram. The Tumkur district, along with Chitaldrug district, formed the Chitaldrug division with headquarters at Tumkur.

During the days of the British Commission, Mr. Bowring, who was appointed as Commissioner in 1862, divided the State into eight districts and Tumkur district was one of them. These eight districts were grouped into three divisions. Each division was under the charge of a Superintendent, while each district was placed under the charge of a Deputy Superintendent. When the Commission was reorganised in 1879, the posts of Commissioners of divisions were abolished and there was only one Chief Commissioner for the whole State. The districts were put under the charge of Deputy Commissioners, and Assistant Commissioners and Amildars were in charge of sub-divisions and taluks, respectively.

The Chitaldrug division was broken up in 1863 when the Chitaldrug district was added to the Nagar division, while the Tumkur district was attached to the newly formed Nandidurg division. The Sira taluk was transferred from Chitaldrug district to Tumkur district in 1866. In 1879, all the divisions were abolished. The Chitaldrug district was reduced to a sub-division in 1882 under Tumkur district. It was, however, re-established in 1886, but without the Pavagada taluk, which was made a part of Tumkur district.

Huliyar, a town 14 miles north-west of Chiknayakanahalli, was once the headquarters of the Budihal taluk, which was in Chitaldrug district. In 1886, it was the chief town of a sub-taluk named after itself and finally it was amalgamated with Chiknayakanahalli. At the time when the survey rates of

Changes by
British
Commission

assessment were first introduced in the district between the years 1870—1882, the Tumkur district consisted of Sira, Tumkur, Maddagiri, Koratagere, Chiknayakanahalli, Honnavalli, Kunigal and Kadaba taluks. In 1881—82, Koratagere taluk, which consisted of 330 villages, was broken up and a sub-taluk of the same name attached to Maddagiri taluk was formed with 140 villages. The remaining 190 villages were added on to the adjoining taluks of Sira and Tumkur of Tumkur district, Nela-mangala and Doddaballapur taluks of Bangalore district and Goribidanur (Gauribidanur) taluk of Kolar district. Turuvekere was transferred from the old Kadaba taluk and was made a sub-taluk in Tiptur taluk in the same year. The present Gubbi taluk was called Kadaba taluk while the present Tiptur taluk was called Honnavalli taluk till 1886.

Changes after
1915

In 1915, there were two sub-divisions, eight taluks and two sub-taluks in the district. The Tumkur and Kunigal taluks were under the direct charge of the Deputy Commissioner. While the Maddagiri, Sira, Pavagada taluks and the Koratagere sub-taluk formed the Maddagiri sub-division, the Gubbi, Tiptur and Chiknayakanahalli taluks and the Turuvekere sub-taluk constituted the Gubbi sub-division. Maddagiri was given the name of Madhugiri in 1927 at the request of the local people. The Koratagere sub-taluk was converted into a taluk in 1928 and the Turuvekere sub-taluk was formed into a taluk in 1938. A new sub-division, with Tumkur as its headquarters, was established in January 1938 with a view to relieving congestion of work in the other sub-divisional offices of the district and also for dealing with the large amount of acquisition work arising in connection with the Marconahalli project. The Gubbi sub-division was abolished and the Gubbi, Tumkur and Kunigal taluks, which were under the direct charge of the Deputy Commissioner, were constituted into the Tumkur sub-division. The remaining taluks of Tiptur, Turuvekere and Chiknayakanahalli of the erstwhile Gubbi sub-division were formed into the Tiptur sub-division. There was no change in the Madhugiri sub-division.

Under the Provinces and States (Absorption of Enclaves) Order, 1950, Kotagaralahalli and Sarjammanahalli (jodi) villages of Madakasira taluk of Anantapur district of the former Madras State (now of Andhra Pradesh), having an area of 6.3 sq. miles, were transferred to the Madhugiri taluk of Tumkur district.

When the new Mysore State was formed in November 1956 by the integration of the Kannada areas of the adjoining States of the then Bombay, Hyderabad and Madras States, Coorg and the old Mysore State as the result of the States' Reorganisation Act of 1956, and the number of districts rose from 10 to 19, it was found necessary, for administrative convenience, to revive the divisions. The new Mysore State was thus divided into four divisions, each

TUMKUR DISTRICT

under the charge of a Divisional Commissioner. The Tumkur district, along with Bangalore, Kolar, Chitradurga and Bellary districts, was constituted into one division called the Bangalore Division. With effect from 1st February 1966, the Bellary district was transferred to the Gulbarga Division and in its place, the Shimoga district from the Mysore Division was attached to the Bangalore Division.

There are at present ten revenue taluks in the district. **Present position** These taluks are grouped into three revenue sub-divisions for administrative convenience. There are eleven towns and 2,444 inhabited villages in the district. The present administrative divisions of the district and the number of hoblies and villages in them are as follows :—

Sub-Division and Taluk	Number of hoblies	Number of villages	Number of towns	Area in		Population (1961)
				Square miles	Square kilometres	
1	2	3	4	5	6	7
Tumkur Sub-Division						
1. Tumkur	6	351	1	393.1	1,018.1	2,17,911
2. Gubbi	6	300	1	475.1	1,230.5	1,47,422
3. Kunigal	5	290	1	380.5	985.5	1,55,073
Tiptur Sub-Division						
1. Tiptur	4	216	1	320.5	830.1	1,14,638
2. Chiknayakanahalli	5	208	1	418.5	1,083.9	1,15,657
3. Turuvekere	4	222	1	297.5	770.6	1,02,325
Madhugiri Sub-Division						
1. Madhugiri	6	275	1	423.9	1,097.9	1,53,793
2. Sira	5	225	1	573.2	1,484.6	1,54,004
3. Koratagere	4	222	1	243.8	631.4	89,383
4. Pavagada	4	135	2	547.6	1,418.3	1,17,196
Total	49	2,444	11	4,073.7	10,550.9	13,67,402

The names of hobbles and the taluks in which they are located are given below :—

Sl. No.	Taluk	Number of hobbles	Names of hobbles
1	2	3	4
1.	Tumkur	6	1. Tumkur 2. Hebbur 3. Kora 4. Gulur 5. Bellave 6. Urdagere
2.	Gubbi	6	1. Gubbi 2. Chandrashekharpura 3. Chelur 4. Hagalvadi 5. Nittur 6. Kadaba
3.	Kunigal	5	1. Kunigal 2. Yedeyur 3. Amruthur 4. Huliurdurga 5. Kothigere
4.	Tiptur	4	1. Tiptur 2. Kibbanahalli 3. Nonavinakere 4. Honnavalli
5.	Chiknayakanahalli	5	1. Chiknayakanahalli 2. Settikere 3. Kandikere 4. Handanakere 5. Huliya
6.	Turuvekere	4	1. Turuvekere 2. Dandinashivara 3. Mayasandra 4. Dabbeghatta
7.	Madhugiri	6	1. Madhugiri 2. Dodderi 3. Midigeshi 4. Ittigadibbanahalli 5. Kodigenahalli 6. Puravara
8.	Sira	5	1. Sira 2. Kallambella 3. Bukkapatna 4. Hulikunte 5. Gowdanagere
9.	Koratagere	4	1. Koratagere 2. Channarayanadurga 3. Holavanahalli 4. Kolala

1	2	3	4
10.	Pavagada	4	1. Pavagada 2. Nidugal 3. Hoskote 4. Nagalamadike

Tumkur is a land-locked district. It has also no natural features like rivers or mountains dividing it from the other districts of the State. The district is generally an open tract except in the south of the Kunigal taluk, where the country is wooded and hilly, the other parts consisting mainly of undulating plains interspersed with clumps of tall and well-grown trees. To the east of Tumkur and north of Devarayanadurga, the appearance of the region presents the scenery of a hilly country intersected by cultivated valleys. The open parts of the district maintain a generally even level above the sea, except Sira and Pavagada which are at a considerably lower level than the rest of the district.

The following statement shows the elevation, above the sea level, of each of the taluk headquarters towns in the district :—

Sl. No.	Name of place	Height above the sea level. (in feet)
1.	Tumkur	2,660
2.	Madhugiri	2,389
3.	Koratagere	2,450
4.	Sira	2,160
5.	Pavagada	2,082
6.	Chiknayakanahalli	2,596
7.	Gubbi	2,544
8.	Tiptur	2,783
9.	Turuvekere	2,643
10.	Kunigal	2,554

The western parts of the Tumkur district are occupied by long ranges of hills running approximately in a south-south-easterly direction. These ranges of hills form the southern extension of the Chitradurga schist belt, grouped under the well-defined central group of the Dharwar schists occurring in Mysore State. The eastern part of the district is occupied by a narrow range of granitic hills forming the northern extension of the newer granites in Mysore grouped under the 'Closepet' granites. Their average width is about twenty miles, and they run north and south in this district. Among the hills of this group may be placed Devarayanadurga and Madhugiri hills. There are two parallel ranges

running north to south in the district. The first one on the eastern part of the district is made up of granites and passes through Pavagada, Madhugiri, Koratagere and northern part of Tumkur taluk. The second one, mainly composed of schistose rocks, passes through the western parts of the district in Chiknayakanahalli, Sira and Gubbi taluks. There is another cluster of hills covering the middle and southern parts of Kunigal taluk.

The eastern range enters the district from the north with Kamanadurga (3,534 feet) and Nidugal (3,769 feet) in the Pavagada taluk and is continued by Midigeshidurga (3,409 feet). This, which forms part of the range running through the west of the Bangalore district represented by Shivaganga and Savandurga, includes the prominent peaks of the Madhugiridurga (3,930 feet), Channarayanadurga (3,734 feet), Koratagiri (2,885 feet), Devarayanadurga (3,896 feet), Nijagal (3,562 feet), Hutridurga (3,708 feet) and Huliurdurga (2,771 feet).

To the west of the chain of hills mentioned above, a low range, commencing near Kibbanahalli, runs north-west past Chiknayakanahalli and joins the central belt of the Chitradurga district. The watershed separating the river system of the Krishna northwards from that of the Cauvery southwards, may be defined by a line drawn east and west from Koratagere to Tiptur, while the main chain of mountains forms the western limit of the upper North Pinakini basin.

The more important of the hills and peaks in the district with their elevations are given below :—

Sl. No.	Name of taluk	Name of peak	Height of the peak above the sea level (in feet)
1	2	3	4
1.	Tumkur	Devarayanadurga	3,896
		Nijagal	3,562
		Ramadevarabetta	3,881
		Seetakal	3,345
2.	Madhugiri	Madhugiridurga	3,930
		Midigeshidurga	3,409
		Dodnaramangala	3,101
		Byalya	2,913
3.	Koratagere	Channarayanadurga	3,734
		Koratagiri	2,885

1	2	3	4
4.	Pavagada	Kamanadurga	3,534
		Nidugal	3,769
		Pavagada	3,012
5.	Tiptur	Bommanahalli	3,125
		Choudanahally	2,665
6.	Kunigal	Hutridurga	3,708
		Huliurdurga	2,771
		Hemagiri	3,083
		Rangaswamibetta	2,997

The southern taluks, except around Huliurdurga, where the country is wooded and hilly, consist of undulating plains interspersed with clumps of tall and well-grown trees, where stone is scarce, except on occasional ridges of hillocks. Coconut and other palms are confined to the vicinity of tanks. Farther north, large plantations of cocoanuts occupy even the dry lands, especially in the taluks of Gubbi, Tiptur and Chiknayakanahalli. After crossing Tumkur eastwards, the park-like appearance of that taluk changes, north of Devarayanadurga, into the scenery of a hilly country intersected by cultivated valleys, the hills and their skirts being, for the most part, covered with shrubs interspersed with trees which remain verdant through the greater part of the year.

There are no perennial streams in this district. There are a few small rivers and a number of big streams that rise in the hills and feed a number of tanks. They flow only during the rainy season and dry up during the summer.

The most important rivers of this district are the Shimsha and Jayamangali. The river Shimsha rises in the south of Devarayanadurga in Tumkur district and flows in a southerly direction and finally joins the river Cauvery. The Jayamangali also rises in Devarayanadurga and flows in a north-westerly direction in the initial stages and then changes its course in the western plains towards the north and finally joins the river Pennar. Therefore the northward and southward drainages of these two rivers clearly point out to the existence of a central ridge in the district, which forms the watershed, and the same central ridge passes also right across the middle of the State in an east-west direction.

The following is a list of the important streams and rivers that take their birth in or flow through the district :—

Sl. No.	Name of stream or river	Place at which it rises	Taluk or taluks through which it flows with its length in each taluk	
1	2	3	4	
				Miles
1.	Jayamangali	.. Devarayanadurga (North)	Tumkur .. Koratagere .. Madhugiri ..	8 32
2.	Shimsha	.. Devarayanadurga (South)	Tumkur .. Gubbi .. Turuvekere .. Kunigal ..	17½ 2½ 8½ 15
3.	Suvarnamukhi	.. Channaraynadurga	.. Koratagere	15
4.	Garudachala	.. Devarayanadurga (South-East).	Koratagere	
5.	North Pinakini	.. Chennakeshava hill (North-West of Nandidurga in Kolar district).	Pavagada	

Jayamangali

The Jayamangali, which is an affluent of the North Pinakini or Pennar, rises in Devarayanadurga in a gorge called Jaladagondi and flows in a northerly direction into the Madhugiri taluk and receives the Garudachala stream near Holavanahalli from the east and the Suvarnamukhi near Rampura from the west. Continuing its course through the east of the Madhugiri taluk, it flows into the North Pinakini near Parigi in Anantapur district. The river is full of *kapile* wells and *talapariges* or spring-head streams drawn from the channel.

Shimsha

The Shimsha is an affluent of the Cauvery and is also called the Shimshupa, the Kadamba and the Kadabakola. It rises in the south of Devarayanadurga, and flowing south-west through the Gubbi taluk, forms the large Kadaba tank. Thence running southwards, it unites near Kallur with the Naga stream which feeds the Turuvekere tank. Then it flows in the Kunigal taluk and unites with the Nagini flowing from the Kunigal tank. Then turning east, it skirts the hills west of Hulyurdurga and takes a southern course into the Mandya district. A reservoir has been constructed across this river near Marconahalli in 1939, and the *atchkat* under this is about 11,000 acres.

The Suvarnamukhi is a stream which rises in Channarayana-
durga. It flows, at first, south-east and then north-east, and passing Koratagere after a course of 15 miles, runs into the Jayamangali. A reservoir known as the Boranakanive lake was constructed across this river between 1888—1892 as a famine relief work. The *atchkat* under this reservoir is 1,400 acres.

The Garudachala, a stream, which has its source near the boundary of the district south-east of the Devarayanadurga group of hills, flows north into Koratagere and joins the Jayamangali near Holavanahalli.

The North Pinakini, also known as the North Pennar, has a course of only a few miles in the district through the Pavagada taluk. Nearly three-fourths of the taluk is in the basin of this river. It passes along the borders of south-east corner of the taluk for about three miles and after a north-easterly course of nine miles in the Penukonda taluk, enters the taluk in the north-east at Pendagivi and then after a run of about nine miles, passes into the Anantapur district.

The Kundar or Kumudwati is a stream, which rises near Makalidurga in Doddaballapur taluk of the Bangalore district, and flows northwards through the Gauribidanur and Madhugiri taluks and runs into the North Pinakini just beyond the border of the State.

The Nagini has its source in the Kunigal-Doddakere and it flows in the Kunigal taluk for about six miles before it joins the Shimsha near Hanumapura. An anicut was constructed across this river in 1901 near Sankanpura in the Kunigal taluk with a total *atchkat* of 600 acres. One more reservoir across this river has been constructed near Mangala in the Kunigal taluk.

In the north-east of this district, there is a fertile tract irrigated from springs. These springs, called *talapariges* or flowing wells, form a marked and peculiar feature of the Madhugiri taluk. They are also to be found in the Pavagada and Koratagere taluks. *Talaparige* wells are dug up in various places, such as, alluvial terraces or beds of rivers, in or behind tank bunds or along the waste-weir *nalas* of some of the larger tanks.

The *talapariges* in Madhugiri taluk are distributed in four or five of the larger hydrographic basins which are of localised origin. The *talaparige* sources are mainly along the waste-weir *nalas* of the more prominent tanks of the villages of Bijavara, Siddapura, Chelanaahalli, Hampapura, Midigeshi and Beddihalli.

The water obtained from these spring-heads is either conducted directly by narrow channels to the fields, or *kapile* wells are constructed from which the water is raised by two or four bullocks. The cultivators have taken every advantage derivable from this bounty of nature. The channels leading from these springs are generally of considerable length and take much labour for keeping them in working condition. The structure of the sub-soil and the existence of the hills have given rise to these fine springs, which frequently come to a head in favourable spots in the valleys. Where the soil is not sandy, springs may be tapped at short distances from each other.

These *talapariges* are being used only in the rainy season as they will be dried up in summer. For want of timely and sufficient rains, these springs are not now working satisfactorily.

Geology

The Tumkur district is situated right on the archæan complex and the geology of the area is fairly simple. The rock formations belonging to the archæan complex are represented by the crystalline schists, the granitic gneisses and the newer granites. The crystalline schists of this district form the southern extension of the well-defined Chitradurga schist belt of the Dharwar system which are the oldest members of the archæan complex. Apart from the main central schist belt developed to the east of Chiknayakanahalli, there are many patches of schists scattered in the gneissic complex. Many of these patches are highly metamorphosed and the biggest of these schist patches is developed to the west of Huliurdurga. The other two schist patches are less than a square mile; one of them is developed near the village of Tipsandra in Kunigal taluk and the other patch is developed near the village of Bidaloti in Koratagere taluk.

The schist belt, which passes to the east of Chiknayakanahalli, sends out, to the west-north-west, near Banasandra, a branch which extends over 20 to 25 miles. This narrow belt of schists is composed of chloritic schists, micaceous schists, quartzites, limestones and ferruginous quartzites. Just near Bellara, within the schist belt, lens-shaped masses of grey trap occur between the villages of Bellara and Bukkapatna. These are basic and intermediate types of volcanic rocks. They are found to occur as flows and minor intrusions. Lately, a pillow structure has been recognised in some of the flows in the vicinity of the abandoned gold mine near Bellara. Portions of the schist belt near Doddaguni exhibit clear evidences of sedimentation.

The highly calciferous limestones show distinct signs of stratification and bedding. The chemical and mineralogical examination of some of these rock formations has confirmed the original sedimentary nature of the rock formations.

The thin patches of schists scattered about in the gneissic complex show evidences of repeated metamorphism. In extent, these outcrops are less than a square mile. The biggest of the scattered schist patches is developed to the west of Huliurdurga and covers an extent of about 20 square miles. Besides this, there are two small schist patches, one near Bidaloti in Koratagere taluk and the other near Tipsandra, east of Kunigal. These schists are intensely altered and new minerals like diopside, hypersthene, varieties of garnets, cordierite, sillimanite and corundum have developed giving rise to several interesting rock types. All these rock types are considered to be highly metamorphosed phases of impure argillitic sediments preserved here and there as remnants of the original schists in the gneissic complex.

The narrow schist belt of Chiknayakanahalli as well as the scattered schist patches occurring to the west of Huliurdurga, Kunigal and Koratagere, are all surrounded by the gneissic complex. The major portion of the district is covered by this complex of granitic gneisses which are classed under a separate group named the peninsular gneiss. This gneissic complex is said to be composed of four major components as follows:—

- (i) Banded gneisses,
- (ii) Granitic gneisses,
- (iii) Gneissic granites and granites,
- (iv) Grano-diorites, diorites, inter-action diorites and other varieties.

Regarding the mode of origin of this gneissic complex, it is stated that these banded gneisses form a composite series consisting of a mixed assemblage of older rocks—igneous and sedimentary—replaced and inter-bedded with acid material. Large parts of the granitic gneisses are found to be the granitised phases of older rocks, which are perhaps mostly argillites, grits and quartzites. The gneissic granites, on the other hand, represent the replaced and granitised phases of the dark hornblendic schists and granulites by the action of magmatic emanations and juices that came up during the intrusion of magma and engulfed the blocks of the gneissic granites and the dark hornblendic granulites and consolidated directly as granites. How and where the magma itself originated, and whether it formed a large continuous mass or arose as separate entities in different regions covered by the vast area of the peninsular gneiss, are points on which there is no information.

The younger granites constitute a well-defined narrow range 'Closepet' of hills, which run north and south in the eastern portions of the Tumkur district. These granites are usually coarse-grained and coarsely porphyritic, and they represent the northern extension of the younger 'Closepet' granites and intrude all earlier formations.

Minerals of
economic
importance

Asbestos (Amphibole type).—Asbestos is seen as small stringers in the amphibolites, about one furlong south-east of Honnamachanahalli tank bund and near Huliur, both in Kunigal taluk.

Corundum.—So far, a detailed survey of corundum deposits has not been conducted in the Tumkur district. However, a few areas of corundum-bearing zones in the Madhugiri, Pavagada, Kunigal and Sira taluks have been noted, where corundum occurs in the form of loose grains in the decomposed parts of the parent rocks and sometimes in the form of lumps in association with the amphibolitic schists.

Occurrence of corundum is reported from the following localities in Tumkur district:—

About one-fourth of a mile south-east of Koratagere, grey corundum is found in felspathic veins, and to the east of Koratagere, old workings are seen near the rest house. Corundum also occurs near Bandihalli in Huliurdurga. Near Palavalli in the Pavagada taluk, runs of corundum rock have been traced and loose crystals are seen on the rise east of the village of Timmasandra and in other areas in the Kunigal taluk.

Clay (Alkali-rich clays).—An extremely fine-grained type of white clay, soft and greasy to the feel, is exposed on a large scale in the manganese workings near Karekurchi, Muskondli and Janehar in the district. From the economic stand-point, these clays, which are rich in potash, are likely to be of use in the ceramic industry.

A number of white clay deposits have been located in other parts of the district, but their economic potentialities and uses are not yet fully assessed.

Feldspar.—This is a widely distributed mineral, but is found only occasionally in economically workable deposits. It is mostly used in the ceramic and pottery industry. There are several localities where feldspar is found in association with pegmatite veins in the Kunigal taluk.

Gold.—Gold is found in the native form associated with the white quartz reefs in the basic grey traps. It is also found in the form of disseminated grains at the contact of the quartz reef and the host rock near Bellara and other places.

The Bellara gold mining block is situated about 95 miles north-west of Bangalore and about half a mile to the east-north-east of Bellara which is a roadside village. The auriferous formation of this region consists of a massive basic igneous-rock grouped

Bellara Gold
Mines

under the grey traps. Most of the quartz reefs are found to show traces of gold (See also Chapter V).

Besides the Bellara Gold Mines, where the Department of Mines and Geology conducted deep prospecting work, there are other gold-bearing areas like Ajjanahalli, which is nine to ten miles to the north-north-east of the Bellara Gold Mines. Extensive prospecting work conducted in the Ajjanahalli block disclosed a large ore body at a depth of 100 to 300 feet.

Garnet.—Green garnets (uvarovite) are found near the village of Bandihalli in the Kunigal taluk, associated with the metamorphosed micaceous schists.

Limestone.—Limestone generally occurs on the margins of the schist area and, in most places, they are closely associated with the red and yellow ochry schist and manganiferous clay beds. Large exposures of limestone are found near Doddaguni in the Gubbi taluk where they occur in sizable quantities. Limestones are also found in certain portions of the schist belt in the western fringe of the Chiknayakanahalli taluk. In composition, they vary from pure limestones to siliceous and dolomitic types. The magnesian varieties are usually intersected with numerous veins of quartz and are massive and structureless.

Manganese.—Manganese is a mineral of high importance next to iron and coal. It is largely used in the steel and ferro-alloy industry. Manganese is added to steel in the form of ferro-manganese. Manganese mines are all located on the marginal portions of the schist belt. Large-scale mining operations are being conducted in the following localities in the district:—

- (1) South-west of Janehar (Chiknayakanahalli taluk),
- (2) North-east of Honnebagi,
- (3) Doregudda area,
- (4) North-east of Sondenahalli,
- (5) Round-about Karekurchi (Tiptur taluk),
- (6) Round-about Hatyal,
- (7) Round-about Shivasandra and Kondli, and
- (8) All along Kudurekanive State forest.

Ochres.—Yellow and red ochres are found in close association with limestone and the manganiferous clay schists. In the vicinity of Janehar in the Chiknayakanahalli taluk, it is found in fairly large quantities.

Quartz.—White quartz is a common mineral of great utility in ceramic and metallurgical industries and is also a common building

stone and road metal. It is found in abundance in the following localities in the district :—

- (1) East of Unkere (Tiptur taluk),
- (2) East of Koratagere taluk, and
- (3) Round-about Doddaguni (Gubbi taluk).

Sillimanite.—Sillimanite is an aluminium silicate mineral, which is used in the manufacture of spark plugs and other insulating materials required at high voltages. Sillimanite refractories are used in the cement, ceramic and glass industries. Sillimanite, 2" to 4" in length, occurs in the cordierite-mica gneisses near Polenahalli in the Pavagada taluk. The average content of sillimanite in the rock is 5 per cent.

Silver Sand.—The term 'silver sand' is applied to a pure white finely granular quartz which is friable. The silver sand, on account of its purity and equi-granular dimensions, is specially suited for fused silica-ware. The outcrops of silver sand are noticed near the Hatyal and Doregudda hill ranges and also near Kondli.

Soapstone.—Soapstone or steatite is used in the manufacture of household utensils, in the rubber and cosmetic industries and also as a neutral refractory material. It occurs in the following localities :—

- (1) On a ridge close to Kadehalli (Turuvekere taluk)
- (2) Near Birasandra (Tiptur taluk).

Vermiculite (Bronze-coloured mica-like mineral).—Vermiculite occurs in the old workings for corundum to the east of Nagalamadike in the Pavagada taluk very near the State border. The deposit has not yet been prospected and a careful search in this locality may lead to the discovery of fresh deposits of vermiculite.

Building and Ornamental Stones.—Red and grey and porphyritic types of granites are quarried in parts of the Tumkur district for building and ornamental purposes. The Turuvekere trap, a dark amphibolite, has been used in several cases of ornamental work and it takes a fine black polish. Grey and blue crystalline limestones found in many parts of the Tumkur district make good ornamental stones and are used for decorative purposes since they take a fine polish.

Forest wealth

The forest-region in the district is classed under the dry-belt zone, as distinct from the evergreen and the mixed-belt, which are found in the extreme west of the old Mysore area and in the middle of the State, respectively. The dry-belt zone lies to the

east of the mixed-belt and includes in it the whole of the Tumkur area. In this dry area, the tree vegetation is very much inferior to that of the mixed-belt, the change noticed being gradual and in some areas very marked. The exact boundary limit between the dry-belt zone and the mixed-belt zone is seen near the eastern slopes of the Bababudan hills. This line passes from north to south, and the region lying east to the line is called the dry-belt in which Tumkur district is situated. Most of the tree vegetation found in the mixed-belt is also found in the dry zone, but in the latter, the growth is not so spectacular as is found in the mixed-belt.

The forest regions in the district are found, to a large extent, in the lower slopes of hill ranges, viz., Devarayanadurga hills, hills around Koratagere, ranges near Madhugiri, chain of hills to the west of Kibbanahalli, the region around Bukkapatna, the area near Haliyurdurga, area around Kudurekanive and Keepalpura. The total area of the State forests in the district is 341 square miles, according to the Divisional Forest Officer, Tumkur.

The forests in the district are confined mostly to the lower slopes of the hill ranges and are spread over the entire district in small blocks. The forests are mostly open and consist of mixed species varying from dry deciduous to thorny bushes. Because of the scanty rainfall, which is about 27 inches per year, the tree growth in the dry-belt zone never attains a height of more than 25 feet. The forests consist mostly of fuel trees, providing fuel throughout the year.

Growth of tree vegetation

Characteristic of the zone to which the forest region belongs, the vegetative growth is of the dry deciduous type, typical of the *maidan* tracts. Classified technically according to the champion method, the area of forests in the district comes under the southern tropical thorn forest series. The northern half of the Bukkapatna State forest presents *Hardwickia* forest, which is an edaphic peculiarity. The growing stock is incoherent and consequently incapable of forming anything like a continuous forest canopy. The ground surface has no adequate soil or organic humous. Mineral or skeletal soil, therefore, lies exposed at the surface. The trees do not develop anything like a real 'bole' the stems being generally gnarled, twisted, knotty and branchy. This is particularly so in the dry belts.

Due to unregulated and excessive fellings coupled with excessive grazing in the past years, the forests have become much depleted and, in most of the areas, they have become barren. The areas, which abut cultivation, have been drained completely. In most of the lower slopes of the hills, gully erosion is rampant. Soil conservation and anti-erosion measures have been undertaken under the Five-Year Plan schemes to reclothe these areas.

Problems of erosion

Measures like continuous contour-trenching, sowing on the mounds and planting in trenches are being carried out annually for about 600 acres in the district.

Though the National Forest Policy lays down that one-third of the area should be under the forests, the percentage of the area under forests in this district, however, is only 8. The free grazing permitted in the State forests has had an inimical effect on the natural and artificial regeneration. The natural regeneration is badly browsed over and it has become a difficult task to protect effectively the young natural regeneration from the cattle. Grazing needs to be well-controlled for effective regeneration.

Flora

The flora of the forest is of the dry deciduous type of two orders, viz., higher and lower. The higher type is found in the Madhugiri State Forest zone, the Bukkapatna, Thirtharampura, Manchaldore, Huliurdurga and Devarayanadurga State Forest areas. The species occurring in the higher order are :—

(1) *Shorea talura* (Kannada name—'Jalari').—This is also called the lac tree, and the lac insect is propagated on it. Besides, a kind of dammar is obtained from the tree. The wood of this species is yellowish in colour and is capable of taking polish. Mostly, this timber is used for building purposes.

(2) *Anogeissus latifolia* (Kannada name—'Dindiga').—This is a good fuel tree. The sapwood is yellowish in colour. The species is tough. The gum, which exudes from the tree, is used for calico printing and dyeing.

(3) *Pterocarpus marsupium* (Kannada name—'Honne').—The wood of this tree is close-grained. The colour is of reddish brown. It is tough, strong and durable. It seasons well and takes a good polish. The wood is used in furniture-manufacture and also for cart-making, window frames and agricultural implements. The bark yields crimson-coloured gum.

(4) *Terminalia tomentosa* (Kannada name—'Karimatti').—The wood is very durable and is largely used as fuel. The leaves are used as manure for arecanut gardens. It yields a gum said to be used as an incense and cosmetic. The bark is used for tanning.

(5) *Terminalia chebula* (Kannada name—'Alale').—The fruit of this tree is valuable as a tan. The gall-nuts make excellent ink and dyes. The wood is used for making furniture, carts and agricultural implements.

(6) *Terminalia arjuna* (Kannada name—'Toramatti').—This is also a fuel tree, hard and tough. The sapwood is strong.

(7) *Tamarindas indica* (Kannada name—'Hunise').—The fruit of this tree is most valued for culinary purposes. The seeds are also roasted and eaten as food. The fruit, seed and leaves are also of medicinal value. The heartwood is very hard and durable. The wood is used for naves of wheels, rice-pounders, mallets, tent-pegs, oil and sugar mills, handles to tools, and so on.

(8) *Tactona grandis* (Kannada name—'Tegu' or 'Tega').—The value of this well-known wood arises from its strength and durability. It is used mostly in construction and ship-building and for making railway sleepers and furniture. It seasons well and takes good polish.

(9) *Santalum album* (Kannada name—'Gandha' or 'Sri-gandha').—The sandal tree is a State monopoly and yields a large forest revenue. This species is not found in the evergreen or heavy forests of the mixed-belt, but grows abundantly in the dry zone. The heartwood is hard and heavy. The best parts are used for making caskets, walking sticks and other articles. The wood is rubbed up as a paste and is used as aromatic and religious mark by Hindus. The oil extracted from the wood forms the basis of many scents and is exported to foreign countries.

(10) *Albizia lebbek* (Kannada name—'Bage' or 'Bigi').—The heartwood is dark brown in colour. It takes a good polish and is durable. It is used for making picture frames, oil ganas, etc.

(11) *Boswellia serrata* (Kannada name—'Chilaka-dhupa' or 'Dhupa').—The wood is inferior and is used as fuel or charcoal. The gum is used in medicine and as incense in temples and homes.

(12) *Hardwickia binata* (Kannada name—'Karachi' or 'Kammara').—This is one of the most durable timbers in the State. The heartwood is close-grained, dark and ringed with purple. The wood is soft and easy to work; but when cut, it becomes very hard. The wood is used in construction work. The young shoots and leaves of the tree are used as fodder.

In addition to the above species, 'Maradi' (*Buchnanian angustifolia*) and 'Thare' (*Terminalia bellerica*) are also found in the district.

The species of the lower types are found in the forest area of the Pavagada taluk. The predominant species in this zone are 'Kaggali' (*Acacia catechu*), 'Pale' (*Wrightia tinctoria*), 'Kare' (*Canthium parviflorum*), 'Bandre' (*Dodonaea viscosa*), 'Thangadi' (*Cassia auriculata*), 'Kakke' (*Cassia fistula*) and 'Chujjalu' (*Albizia amara*).

Minor forest produce

'Thangadi' and 'Kakke' occur all over the district and are an important source of revenue. The other important minor forest produce are 'Alale' (*Terminalia chebula*), 'Hunise' (*Tamarindus indica*), 'Maradi' (*Buchnanian angustifolia*), 'Tupra' (*Diospyros pruriens*) and 'Seethaphala' (*Annona squamosa*).

Fauna

As the district does not abound in rich forest wealth, game in the larger sense is absent. Formerly, tiger, panther and cheeta were sometimes met with. Wild animals like bear and wild boar can be now occasionally seen in the forest areas of the district. Small herds of spotted deer are found in the forest areas of Sira and Madhugiri taluks.

Among the birds, jungle-fowls are common, while peacocks are also sometimes seen. During seasons, ducks and teals visit the water-sheets. Among the rodents, mongoose and hare are plentiful throughout the district. Among the reptiles, both poisonous and non-poisonous varieties of snakes are found throughout the district.

Climate

The climate of this district, excluding the northern-most part, is similar to that of Bangalore district and is generally agreeable. But the climate of the Pavagada region and the part of the district north of Sira, is like that of the Chitradurga district with a somewhat hotter summer. The year may be divided into four seasons: The dry season, with clear bright weather, is from December to February. The period from March to May constitutes the hot season and the south-west monsoon season is from June to September; October and November may be termed the post-monsoon season.

Rainfall

Records of rainfall are available for ten stations for periods ranging from 78 to 91 years. Rainfall data of some more stations are also available for varying periods, but the data of these ten stations and of the district as a whole, being quite representative of the conditions in the district, are included in Tables 1 and 2 at the end of the chapter. The average annual rainfall in the district is 687.9 mm. (27.08"). The rainfall increases from the north to the south generally, and in the western part of the district from the west to the east. The rainfall is mostly confined to the period from May to November. The rainfall during the south-west monsoon season is only 50 per cent of the annual rainfall.

The post-monsoon month of October has the heaviest rainfall. Rainfall in this month and in November constitutes 28 per cent of the annual total. Rain, mostly in the form of thunder-showers, occurs in the latter half of April and in May. There are variations in the annual rainfall from year to year. During the fifty-year period from 1901 to 1950, the highest rainfall in a year

amounting to 148 per cent of the normal occurred in 1948, while the lowest rainfall was 50 per cent of the normal and occurred in 1923. In the same fifty-year period, rainfall less than 80 per cent of the normal was received in 13 years. Considering the district as a whole, rainfall less than 80 per cent of the normal occurred twice on consecutive two years. At most of the individual stations, there were two or three such occasions. But at Gubbi, the rainfall was less than 80 per cent on six consecutive years from 1920 to 1925. It will be seen from Table 2 that the rainfall in the district was between 400 mm. and 900 mm. (15.75" and 35.43") in 41 years out of fifty.

On an average, there are 45 rainy days (i.e., days with rainfall of 2.5 mm.—10 cents—or more) in a year. This number varies from 35 at Pavagada to 54 at Tumkur.

The heaviest rain in 24 hours which fell at any station in the district was 209.5 mm. (8.25") at Kunigal on 30th September 1925.

There are no meteorological observatories in the district. But, from the records of the observatories in the adjoining districts, a broad picture of the climatic conditions in the district can be formed. The period from March to May is one of continuous rise in temperatures. April is usually the hottest month. Maximum temperatures may sometimes reach 40 or 41°C (104 or 106°F). With the advance of the south-west monsoon over the district in June, the temperature drops appreciably and throughout the monsoon season, the weather is pleasant. After October, temperature decreases steadily and the weather remains cool till February. December is generally the coolest month of the year. The daily minimum temperature in the cold season sometimes goes down to 9 to 10°C (48 to 50°F).

Relative humidities are high during the south-west monsoon period and are generally moderate in the rest of the year. The humidities in the summer afternoons are comparatively lower.

Skies are heavily clouded to overcast in the south-west monsoon season and to a slightly lesser extent in the post-monsoon months. In the rest of the year, skies are clear or lightly clouded. There is some increase in cloudiness in the summer afternoons.

Winds are generally moderate with some increase in strength in the monsoon months. From May to September, winds are mainly south-westerly or westerly and on some afternoons north-westerly. North-easterly and easterly winds appear in October and these predominate till the end of January. There is a gradual shift of wind in a clockwise direction from February, and by April,

winds are mainly south-westerly to westerly in the mornings and between north-east and south-east in the afternoons.

Special weather phenomena

Occasional thunderstorms occur in February and March and these become more frequent in April, May and the early part of June. Even in the monsoon season, rain is sometimes associated with thunder. Thunderstorms increase in frequency again in September and October.

TABLE 1

NORMALS AND EXTREMES OF RAINFALL IN TUMKUR DISTRICT

Station	No. of years of data	•												Highest annual rainfall as % of normal and year**	Lowest annual rainfall as % of normal	Heaviest rainfall in 24 hours*	Date	
		Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Tumkur	50 a	3.8	9.9	8.1	32.8	91.9	77.0	97.3	123.7	152.1	142.7	60.5	7.1	806.9	168 (1903)	56 (1942)	139.7	1-11-1888
	b	0.3	0.6	0.4	2.6	5.8	5.9	8.2	9.2	8.7	7.8	3.9	0.7	54.1				
Madhugiri	50 a	5.3	4.6	6.3	31.0	74.9	64.8	75.4	96.0	145.5	142.0	62.5	9.4	717.7	146 (1948)	51 (1923)	195.6	15-9-1901
	b	0.5	0.4	0.4	2.1	4.5	4.7	6.5	6.7	7.6	7.4	4.1	0.9	45.8				
Chiknayakana- halli	50 a	2.8	5.1	9.7	37.1	103.1	60.2	67.3	83.8	115.8	146.1	69.3	8.4	708.7	153 (1917)	52 (1908)	183.6	13-10-1928
	b	0.3	0.3	0.7	2.7	6.0	4.5	6.5	6.7	7.0	7.8	4.0	0.6	47.1				
Sira	50 a	6.1	3.3	4.8	21.3	77.0	45.7	46.5	75.4	113.5	117.3	47.5	7.4	565.8	215 (1916)	44 (1942)	136.7	22-11-1946
	b	0.4	0.3	0.4	1.8	4.6	3.2	4.6	4.6	6.0	6.4	2.8	0.6	35.7				
Gubbi	50 a	2.5	5.8	6.1	33.8	99.8	72.1	86.6	111.0	140.5	142.5	63.0	7.9	771.6	185 (1948)	26 (1923)	165.6	13-11-1940
	b	0.3	0.4	0.6	2.2	5.8	5.0	7.6	8.2	8.0	7.3	3.7	0.8	49.9				

TABLE 1 (contd.)

I	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Tiptur	.. 50 a	1.8	4.1	6.3	37.3	103.1	47.5	49.3	72.9	92.5	125.2	64.8	10.4	615.2	168	45	141.2	19-10-1935
	b	0.3	0.3	0.5	2.8	6.3	3.7	4.6	5.3	6.2	7.1	4.0	0.9	42.0	(1906)	(1908)		
Pavagada	.. 50 a	4.1	3.8	5.3	20.3	72.4	48.0	51.6	79.5	112.0	103.9	51.8	7.6	560.3	179	34	132.1	8-9-1899
	b	0.3	0.3	0.4	1.4	3.9	3.1	4.7	4.9	6.5	5.4	3.4	0.7	35.0	(1916)	(1920)		
Kunigal	.. 50 a	2.5	3.3	7.6	35.8	104.4	68.3	69.6	115.1	144.0	147.6	57.9	8.4	764.5	152	42	209.5	30-9-1925
	b	0.3	0.4	0.5	3.0	6.5	4.7	6.0	7.7	8.0	8.2	3.6	0.7	49.6	(1948)	(1908)		
Koratagere	.. 50 a	4.8	5.1	4.3	27.2	82.8	59.4	74.4	84.8	123.7	125.2	58.7	7.9	658.3	160	45	134.6	26-9-1937
	b	0.4	0.4	0.4	2.0	4.7	4.4	6.6	6.2	7.1	7.1	4.1	0.9	44.3	(1933)	(1923)		
Turuvekere	.. 50 a	2.5	4.1	6.6	33.0	107.7	55.6	56.6	89.9	120.7	147.3	74.7	10.2	708.9	159	43	174.0	5-11-1934
	b	0.3	0.3	0.5	2.9	6.6	4.0	5.1	6.6	7.0	8.3	4.3	0.9	46.8	(1915)	(1908)		
Tumkur district	.. 50 a	3.6	4.9	6.5	31.0	91.7	59.9	67.5	93.2	126.0	134.0	61.1	8.5	687.9	148	50		
	b	0.3	0.4	0.5	2.3	5.5	4.3	6.0	6.6	7.2	7.3	3.8	0.8	45.0	(1948)	(1923)		

* Based on all available data upto 1955.

** Years given in brackets.

(a) Normal rainfall in mm.

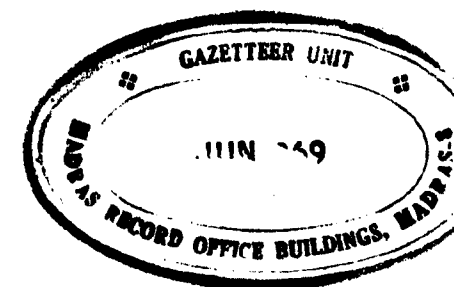
(b) Average number of rainy days (days with rain of 2.5 mm. or more).

TABLE 2

FREQUENCY OF ANNUAL RAINFALL IN TUMKUR DISTRICT

(Data 1901—1950)

Range in mm.	No. of years	Range in mm.	No. of years
301—400	2	701— 800	12
401—500	2	801— 900	4
501—600	11	901—1000	4
601—700	12	1001—1100	8



CHAPTER II

HISTORY

Pre-historic
Archæology

THERE are two localities, namely, Kibbanahalli and Biligere, both in the Tiptur taluk, in which palaeolithic specimens have been found in this district. At the eastern foot of the Banasandra hill range, about a mile to the south of Biligere, some palaeolithic remains were found in a gravelly layer below a thick accumulation of rainwash by Sampath Iyengar,¹ who considers this as a palaeolithic factory site. The occurrence of 'hammer-stones,' however, and of implements described as 'curved saws,' 'arrow-heads,' 'guillotine chisels,' and 'circular slings,' together with other palaeolithic material, shows that later material is also present on the site.²

The more important of these two sites, however, is Kibbanahalli. There is a large collection of artifacts in the museum of the Geology Department of the Central College, Bangalore, collected from this site by Professors Sampath Iyengar and L. Rama Rao. These artifacts were also found in the neighbourhood of the same Banasandra hill range, at a site which is roughly two miles and a half from Banasandra. This region covers an area of about half a square mile. The region was ideally suited for an open camp site, the neighbouring valley ensuring the palaeolithic man abundant water supply. Further, there was the availability of an inexhaustible supply of intensely-jointed quartzite, the raw material for his tools. The stream rising east of Kibbanahalli village actually flows from a haematite-quartzite outcrop which was most probably the source of the raw material used. The implements found here may be classified into the following groups: hand-axes on cores representing the largest group in the collection; cleavers of varied shapes, beaked implements, choppers and other chopping tools, scrapers such as end-scrapers, side-scrapers, hollow-scrapers, etc., fabricators and cores. Writing about the typological comparison of the Kibbanahalli industry with those from other parts of India, M. Seshadri says: "The typological position of the Mysore palaeolithic industries cannot at present be fully assessed. Kibbanahalli has produced

a larger collection of artifacts than any other Mysore* site so far investigated. But it is not the magnitude of the site as compared with other Mysore sites, which affects the problem of correlation, so much as the complicated nature of the industry itself. Together with the usual assemblage of South Indian palaeolithic artifacts, there occur at Kibbanahalli a number of beaked tools and clactonian types, which are apparently alien to the lower palaeolithic industries of neighbouring regions. Further investigation of these regions, which might reveal comparable industries elsewhere, is required before the question of the position of Kibbanahalli, and therefore also of Mysore itself can be finally assessed."

There is only one megalithic site known from this district. The low range of hills, which begins at Kibbanahalli, runs along northwards of Chiknayakanahalli. On the crest of the low ridge about three furlongs west-south-west of Keralakatte, H. K. Slater noticed half-a-dozen of cist circles.³ The cists are eight feet square and composed of granite slabs. They are in disturbed condition and it has been reported that they were rifled a few years ago. A few more stone-circles, a few furlongs south-east of this site, are fortunately intact.

There are only a few places in this district that are, according to legends, associated with the epics, Ramayana and Mahabharata. One of these is Kadaba in the Gubbi taluk. Tradition has it that Rama on his return from Lanka encamped here and at the request of Seeta, he ordered the river, which was too narrow at this spot, to be dammed so as to form the present large tank. According to the *Sthalapurana*, Rama was received and honoured here by the sage Kadamba who had his hermitage in this locality. The name of the place is supposed to have been derived from the name of the sage. Another place, connected with the Mahabharata, is Sampige in Turuvekere taluk. This is said to be the site of Champakanagara, the capital of Sudhanva, son of a king named Hamsadhwa of the Mahabharata times. Legend and tradition

In common with the southern districts of the State, but unlike the districts on the other three sides, the known history of the Tumkur district begins with the Gangas. The Ganga family ruled over the southern and eastern districts of the State from early in the Christian era to 1025 A.D. No inscriptions of any of the earlier families like the Banas, Satavahanas or the Kadambas have been found in the district. The earliest record of the Ganga family found in this district belongs to about 400 A.D.⁴ It consists of a set of five copper-plates, of which the second plate is missing. One Madhavavarma was the granter of the charter. This Gangas

*He refers to the pre-States' Reorganisation Mysore State.

Madhavavarma was probably Kiriya Madhava or Madhava II who was the son of Dadiga. This record deals with a land-grant made by Madhava to a Buddhist named Bodhi-Sattva. The next Ganga record also consists of a set of five copper-plates dated about 545. It was found to be in the possession of one Srinivasa Rao of Kadagattur in the Madhugiri taluk. The genealogy and attributes of the various kings in these plates correspond with those known from other published Ganga grants. Next in point of time, are the Hebbur plates of the time of Navakama. These plates had been for a long time in possession of the Lingayat Wodeyars of the Hirematha of the place and two of them are missing, there being no ring or seal. In general, this inscription also gives information similar to what we have in other Ganga grants with one notable exception. This is in connection with Durvinita who, it says, "was restricted to the path of greatness by the instruction of the divine who was the author of Shabdavatara". The author of this work, as we know, was the celebrated Pujiyapada who, we must thus understand, was the Ganga kings' preceptor.

Sripurusha
Ganga

The first great Ganga ruler, of whom we have a number of inscriptions in this district, is Sripurusha (725-788). Many of them are *viragals* or hero-stones; most of them, however, are undated. Some of these *viragals* refer to the wars between the Gangas and Rashtrakutas. The one numbered Mi 99, for instance, and dated about 750, mentions a raid of the Rattas or Rashtrakutas on Gangavadi. It is a hero-stone recording the death of one Jadyamuttarasa who succumbed in this battle. The conflict referred to here is obviously the one between Sripurusha (725-788) and Krishna I (756-773) in which fell several Ganga heroes. The places where the several wars with the Rashtrakutas were fought were Pinchanur, Kagimogeyur and Bageyur. Of these, Bageyur is perhaps identical with Bagur, situated about five miles to the north-east of Gubbi. On the whole, these *viragals* give us a glimpse of a period of the Ganga history, when, being hard-pressed by enemies, they were putting forth gigantic efforts to hold their own and maintain their independence. The last Ganga inscription found in this district is the one numbered Tp 103 of date 972 when Satyavakya was ruling, having sway over all the Nolambas and hence invested with the title "Nolamba Kulantaka". This epithet identifies him with Marasimha III who reigned from 960 to 974.

Rashtrakutas

No inscription of the Chalukyas of Badami, who were the paramount power in the Deccan roughly from the middle of the 6th century A.D. to the middle of the 8th century A.D. has been found in this district. These early Chalukyas were succeeded by the Rashtrakutas in 753 when the Rashtrakuta prince, Dantidurga, defeated the last Chalukya king Kirtivarma II. The Rashtrakutas, who were probably an ancient people and the native rulers

of the country, continued to be in power for well over two centuries, until, in 973, the last Rashtrakuta king, Karka II, was de-throned again by a scion of the Chalukya family, Taila II. The members of the second family of the Chalukyas are referred to as Chalukyas of Kalyana.

Of the Rashtrakutas also, there are only three inscriptions in the Tumkur district. Of them, the one numbered Gb 61 is an important one. It consists of a set of copper-plates found while digging foundations for a bridge near Kadaba and were published originally by Lewis Rice in 1883; they were edited and published again by Dr. Luders in *Epigraphia Carnatica*, Vol. IV, p. 332. In the historical account giving information regarding the kings, is a reference to a splendid temple built by Akalavarsha, which he called *Kanneshwara* after his own name. This was obviously Krishna I (756-773), of which Kanna or Kanha is a Prakrit form. The temple in question has rightly been supposed to be the famous Kailasa temple of Ellora which was built by this king. Of Dharavarsha we are informed that when he was engaged in some battle on a river, he met with a misfortune and his elephants and boats were scattered by rough waves. But there are no particulars by which the event can be identified.

We are then, in the same record, introduced to a Chalukya family, in which are mentioned Balavarma, his son Yashovarman and his son Vimaladitya. The latter was in the line of Chakiraja who is described as the Adhiraja of the entire *Ganga-mandala*. He was apparently a viceroy appointed by the Rashtrakutas over the Ganga kingdom, when, about 781, they imprisoned its king Shivamara. Such a viceroy in the time of Dharavarsha, according to another inscription was Kumbarasa, who was apparently Chakiraja's son. Vimaladitya was the governor of Kunigil-desh which, as confirmed by many inscriptions, is the modern Kunigal area in this district. This Kunigal area seems to have been a 500-province.

The other Rashtrakuta inscription is the one numbered Si 27 dated 982 and found at Hemavati. It is of special interest to the historians as it confirms the date and mode of the death of Indraraja, the last of the Rashtrakutas, which took place at Shravanabelagola. The record praises his expeditions and battles and says that he had received the titles "Erevabedanga" and "Kirtinarayana". With a mind undisturbed and performing the Jaina vows, the king is said to have passed away on Monday the 20th of March 982.

Indraraja
Rashtrakuta

The third Rashtrakuta record, dated 903, refers to the reign of Krishna II (880-914). It states that at that time, Prachandadanda-nayaka Damapayya was stationed at Manne (in the Nelamangala taluk of the Bangalore district) as the general of the

south. This statement leads into the conclusion that the Gangas had virtually become the feudatories of the Rashtrakutas since the time of Shivamara. This inscription also refers to one Durvinita-arasa, the grant made by whose general forms its subject matter, who may be the same as the Durvinita mentioned in Mi 27, 39 and 42, along with his younger brother Butuga as fighting against the Nolambas.

Chalukyas of
Kalyana

The inscriptions of the Chalukyas of Kalyana in this district are no doubt numerous and range from 1040 to 1200; but they contain no information about the Chalukyas themselves. They merely acknowledge the supremacy of the Chalukyas in the opening sentence. Of them, seven are Chola inscriptions and the rest Hoysala. The Chalukyas are named mostly by their titles and these appear to have been used so loosely that it is difficult to make the dates fit in with the accepted list. The Chalukya supremacy was obviously little more than nominal during much of the period. Further, it appears that even this was felt only in the western and northern parts of the district. For, most of the Chalukyan inscriptions have been found in the Tiptur, Sira, Chiknayakanahalli and Pavagada taluks, only one being found in the Gubbi taluk.

Nolambas

During the time when the imperial powers in the Deccan were the Rashtrakutas and the Chalukyas of Kalyana, the principal local rulers were the Nolambas. The Nolambas or Nonambas, who were of Pallava descent, have left some records, particularly in the northern taluks of the district. Their kingdom was known as Nolambavadi-32000. They had their capital at Pencheru or Henjeru, which has been identified by Mr. Rice with Hemavati situated on the northern border of Sira taluk. Its name occurs in a number of professedly very ancient inscriptions as well as in certain legends and the existing remains show that it must have been a place of considerable importance. The Nolambas had their stronghold at Nidugal which is a few miles to the east of this place in the Pavagada taluk. The present Nonabas, residing largely in the Chitradurga district, are said to be the descendants of the subjects of the ancient Nolambas. The area covered by the Madhugiri, Pavagada and Sira taluks of this district, where the records of the Nonabas are to be found, appears to have been a part and parcel of this kingdom of Nolambavadi-32000.

Leaving out of account some doubtful early records, the earliest authentic record of the Nolambas is dated A.D. 948 and found in Sira taluk. It is a stone inscription on a pillar and gives the genealogy of the Nolamba kings. They claim to be of the Ishwara Vamsha descended from a king named Trinayana from whom was born the Pallava, the king of Kanchi.

We have three inscriptions of Mahendra, also called Mahendradhiraja, in this district, numbered Si 38, 24 and Pg. 45. The first of these belongs to the year 878 and probably also the second. The third is of about the same period. Mahendra's descent is given in the first two in the same way. This Mahendra is stated to have uprooted and destroyed Chola and all other rivals and to have seized his (Chola) kingdom by sowing dissension among those dependent on him beyond his frontiers. According to the inscription Si 38, when he was encamped at Baragur, he made an offering of his palace to Mahadeva and set up an image of god Mahendreshwara, making a grant of Nandur in Sire-nad for its support. In another inscription we are told that the minister, who had assisted him in his schemes of aggrandisement, had received from Nolambadhiraja the town of Oreyur in Polali-nad. The name of the minister is unfortunately effaced. This Oreyur seems to be a local place and not the old Chola capital near Trichinopoly (Tiruchirapalli).

Mahendra
Nolamba

Next, we have inscriptions belonging to Mahendra's son, best distinguished as Ayyapadeva or Nanniga. In the inscriptions numbered Mi 52 dated 897 and Mi 27, he appears as Nolambadhiraja Nolipayya. In another inscription numbered Si 39, he is styled as Nannigashraya and is stated to have made a grant in A.D. 920 to the temple of god Mahendreshwara of Baragur. His wives were Nagiabbe and Heleyabbe. The inscription numbered Mi 71 calls him Nolambadhiraja Nanniga and refers to a battle with the Gangas in which one Bhimayya's son, Pergade Benayya, died.

Then follow the inscriptions of his son Anniga or Bira Nolamba. There are three of these, two of which are not of much importance while the third one, numbered Mi 27, calls him Ankayya and mentions a battle with the Gangas under Butuga at Bidirur. Next come the inscriptions of one Ahavamalla Nolamba, numbered Si 26 and Si 29. The name Ahavamalla implies Chalukyan supremacy over Nolambavadi and the inscriptions have, therefore, been put down as belonging to about 980. This was the period, as we know, of the change-over from the Rashtrakutas to the Chalukyas of Kalyana at the imperial level.

This was also the time when the Nolambas were experiencing a hard time, as is indicated by the sudden decrease in the number of their records. It appears that so long as the Rashtrakutas were supreme and strong, the Nolambas were secure under their protection. The moment this power became weak, they began to feel the effects of the expansionist policies of the other major powers such as the Chalukyas and the Gangas. While the evidence of the Chalukyan supremacy has been seen above, we learn that, in about 974, the Nolambas were over-run by the Ganga king Marasimha, who boasts of having destroyed the Nolamba family.

and earned the title Nalamba-kulantaka. Further history of the Nalambas is not clear.

Cholas

The Cholas appear to have been supreme in this region from about 1000 A.D. to about 1070, i.e., till the rise of the Hoysalas. Throughout this period, there was keen rivalry between the Chalukyas and the Cholas and a number of battles were fought between the two during this period, in which the Cholas had often the upper hand. In fact, the Cholas had sometimes conquered territories north of the Tungabhadra; but that river was usually recognised as the boundary line between the two kingdoms. In spite of this supremacy of the Cholas for nearly three-quarters of a century over this region, only two inscriptions belonging to the imperial Cholas have been found in this district. Of these two, both of which are in Tamil, the first is dated 1048, in the 31st year of Rajadhiraja⁷ (1018-1054), and the second dated 1061, in the tenth year of Rajendra⁸ (1052-1064).

Hoysalas

Numerous inscriptions belonging to the Hoysalas have been found in this district, the earliest of them being dated 1078.⁹ No inscription belonging to the first Hoysala ruler, Nripakama, has been found in this region. The inscriptions belonging to Vinayaditya and the earliest few belonging to Bitti-Deva or Vishnuvardhana (1100-1152) are to be met with in the Tiptur taluk. The inscriptions Tp 104 dated 1130 and Gb 34 dated 1134 belonging to Vishnuvardhana show a line of chiefs ruling a district around Idagur. According to the latter, Vishnuvardhana was in possession of both the Gangavadi-96000 and Nalambavadi-82000.

The inscription Tm 9, dated 1151, shows a chief named Gulibachi ruling the Marugerenad in Kaidala. He is described as the lord of Manyakhetapura (Malkhed, the Rashtrakuta capital) and a Gangaputra; perhaps his family was connected with the ancient Rashtrakuta rulers. His genealogy is given for several generations. He was a patron of the four creeds, i.e., the Bauddha, Jaina, Shaiva and Vaishnava. He built, at Kaidala, temples of Gangeshvara, Narayana and Chalavarishvara in the name of his grand-father, of Gangeshvara in the name of his father, of Rameshvara in memory of his daughter and, besides, some Jain *basadis* in memory of his wife. He is also stated to have constructed the big Bhimasamudra and Adalasamudra tanks. His Senabova is further stated to have constructed the Marasamudra tank. The inscriptions of the Hoysala king, Ballala II, are from 1173, the first year of his reign. The inscription Ck 36, dated 1177, represents Ballala Deva as having made victorious expeditions in all directions, conquered Pandya and made Uchchangi his royal city. It describes him as putting down the evil and upholding the good in the lands surrounded by Hima and Sethu, i.e., the Himalayas and the Cape Comorin. The inscription speaks highly of Madhava Dandadhipa, the king's general, who, it says, captured the elephants, horses, treasury and

white umbrellas of the hostile kings and gave them to his master, while Tp 43 dated 1205 says that the Bhimarathi was the boundary of the Hoysala kingdom at that time. This river is the same as the present Bhima, a northern tributary of the Krishna, running from the north-west of Poona to the vicinity of Raichur.

We have a few inscriptions referring to the next Hoysala ruler, Narasimha II (1220-1238). Leaving out of account the more or less defaced inscription dated 1224,¹⁰ his earliest record is dated 1226. This record, numbered Gb 11, informs us about Naganna, a special counsellor of the senior queen Padmalamahadevi. Inscription Tp 42 dated 1229 represents Narasimha II as ruling from Kanchipura with the surrounding ocean as his boundary, while Gb 45 dated 1233, in which year the king was again at Dorasamudra, is of interest as mentioning the generals Appaya and Gopayya who, with the permission of the king Narasimha, destroyed the Kadava (i.e., Pallava) king and released and brought the Chola king in his place, for which exploit, king Narasimha granted them a village as a reward. The explanation of this event is contained in a Tamil inscription of Rajaraja's sixteenth year, i.e., 1231, found by Dr. Hultsch on the western wall of the *prakara* of the Devanayaka Perumal temple of Tiruvendipuram on the east coast. In this, it is said that the Hoysala king, on hearing that the Kadava king Perunjinga (meaning great lion) had captured the Chola emperor (Rajaraja III) at Sendamangalam, set out from Dorasamudra to rescue him, hoping that the trumpet should not blow until he had justified his title as the 'establisher' of the Chola-mandala. This inscription, which describes the expedition in detail, must evidently have been engraved at the instance of the two Hoysala generals and the place at which it occurs was perhaps the spot where the Chola emperor was released and given to their charge. The last inscription of Narasimha II is dated 1238; but it is unimportant and very much effaced. This comes from Gubbi taluk and records a grant made by a merchant described as Mahavadda-Vyvahari and the Pattanaswami of Nittur, of lands under a tank called Hireyakere, which was constructed by himself to the temple of god Mallikarjuna at Sampige.

Of the next ruler Someshvara (1232-1267), we have only three or four inscriptions which are not of much political importance. Two of them are *viragals* or hero-stones and the other two relate to grants of lands. The inscriptions of the next king Narasimha III (1254-1292), which are more numerous, date from the year 1259. Among the titles of this king are the 'uprooter of Magadha kingdom' (of Magara and Kadava kingdoms in one inscription), 'supporter of the Pandya family' and the 'setter up of the Chola kingdom'. Inscription Ck 2 dated 1261 states that he was the son of Somesha and Bijjala. This inscription gives an elaborate and interesting account of the formation of

Settiyakere and its hamlets in the Asandi-nad into an *agrahara* named Bharitaprakashapura by Gopala Dannayaka, son of the king Narasimha's minister, Nacharasa. Similarly, in Tp 2 dated 1263, the great minister for peace and war, Sovanna Dannayaka, having received Turuvekere from the king, formed it into an *agrahara* with 96 shares called the Sarvajna Vijaya Narasimhapura.

Ramanatha
Hoysala

Next, we come across some inscriptions referring to king Ramanatha Hoysala who, in the partition of the Hoysala kingdom after the death of his father Someshvara, had received the Tamil districts and Kolar. But from the distribution of his records in the Tumkur, Gubbi, Kunigal and Chiknayakanahalli taluks, it appears that a portion of these taluks also formed a part of his territories, or it may be, as stated by Rice,¹¹ that towards the end of his reign, he had pressed westwards upto the base of the Devarayanadurga hills. His earliest inscription in this district is dated 1279, i.e., in the 25th year of his reign. Most of these inscriptions record grants of lands by his ministers.

Ballala III

There are a number of inscriptions referring to the next Hoysala king Ballala III who reigned from 1291 to 1342. These begin right from the beginning of his rule. These were difficult days for the Hoysalas owing to the frequent invasions by the Muhammadans. Ballala III had been driven from his capital by the Muhammadans and Ck 4 of 1318 gives Arunasamudra as his residence. This place, however, is not yet properly identified. The inscription refers to the death of one of his followers in a battle which took place when he was marching from Kannanur, which is another name for Vikramapura near Srirangam in the Chola country, where formerly the Hoysala king Someshvara had taken up his residence. In Tp 24 dated 1325, however, we have the king again is Dorasamudra. This record, which is incomplete, refers to his two ministers Bicheya Dannayaka and Singeya Dannayaka. In Gb 30 dated 1331, by which time Dorasamudra had been finally destroyed by the Muhammadans, we have the king in Virupaksha-Hosadurga (probably modern Hosadurga). In Si 10, which belongs to 1341, we see the king having his residence at Unnamalepattana. The last record referring to him is a *viragal*, Tp 100 dated 1342, which was also the last year of his reign.

Kakatiya record

Reference should here be made to a single Kakatiya record, which belongs to this period and which though not of much political importance, is interesting on account of its contents. It refers either to the Kakatiya king Pratapa-Rudra-Deva I (1158-1195) or Pratapa-Rudra-Deva II (1295-1326). The year of this inscription, which is numbered Tm 14, is not clear. It may also be said here that of this interesting inscription, no original is forthcoming; only a copy made by the people has been procured. Brahma, the record says, having created the Solar and Lunar races,

on supplication by the gods, created for the protection of the earth another famous Kshatriya family called the Kakitiyas in which Vishnu himself was born as one of the kings. Their capital was Orungal, the modern Warangal in Andhra Pradesh. The first king mentioned in the record is Mahadeva who married the princess Mummadyamba. Their son was Pratapa-Rudra, who, having subdued the Maharashtras, Kalingas, Saurashtras, Ghurjaras, Varahatas, Karnatas, Dravidas and Taulas, was their lord. He had an army numbering nine lakhs composed of four arms. In the course of a tour to the holy places, he came to Kakudgiri (Shivaganga) and at the summit of the mountain saw the Ganga which rises when the sun enters Makara. The reference here is to one of the two pillars on the highest peak on this hill from beneath which about a quart of water is said to ooze on the day of the winter solstice or Makara-Sankranti. (The attendant priests formerly received the tiny stream in a vessel and, devoting half to the god, conveyed the remaining half to the palace at Mysore). Having witnessed this miracle, the inscription says, the Kakatiya king made a festival for the god Gangadhareshvara and celebrated the Girijakalyana. Also, at a distance of three *krosas* west of this mountain, he came to a place where Ramachandra had offered sacrifice and where the earth on that account was like ashes. Here he founded an *agrahara* called Anantapura and constructed a tank.

The last Hoysala ruler was Virupaksha Ballala or Ballala IV, son of Ballala III. He ascended the throne in 1343, and this is practically all we know of him, for his kingdom was soon overrun and annexed by the newly risen kingdom of Vijayanagara. Naturally, therefore, no inscription of his is found in this district.

The last Hoysala king was utterly helpless and had no power to maintain his authority. The flower of the Hoysala army was annihilated in the southern campaign and the treasury also had been emptied. Many of the nobles including the commander-in-chief, Ballappa Dandanayaka, left him and joined the king of Vijayanagara. He was unable to offer any effective resistance and was obliged to abandon his kingdom and seek safety in flight within three months after his coronation. This, however, was not followed by the immediate submission of the Hoysala dominions to Vijayanagara. Local chieftains resisted and it was not until 1346 that Bukka could reduce them to subjection. The absorption of the Hoysala dominion in the Vijayanagara kingdom, it is said, was the most notable achievement in the reign of Harihara I (1336-1356) and there was great jubilation in Vijayanagara.¹²

Though, thus, this region formed part of the Vijayanagara kingdom as early as 1346 and though Harihara I was on the throne till as late as 1356, we have no records belonging to him in this district. The earliest of the Vijayanagara inscriptions in this

district is Pg 74 and though it is dated 1354, it refers to the reign of Bukkaraya or Bukka I (1344-1377). In addition to this, there are four other inscriptions belonging to the reign of Bukka I, namely, Tp 15 dated 1363, Mi 74 dated 1370 and Si 100 and 102 dated 1376, but these are all fragmentary and unimportant.

Immigration of families

Reference should, however, be made here to a group of inscriptions in Telugu, describing some migrations of some *goudas* and their families, due to various reasons, from the Telugu country and the founding by them of various villages in the kingdom. Out of six such inscriptions, five come from the Pavagada taluk and one from the Madhugiri taluk. As an example of these, the contents of one of them, numbered Pg 82, which, in addition to referring to one of such migrations, is also interesting from the social point of view, are given here. It refers to the reign of Bukka Bhupati and states that a number of Reddies (named with their descent), of the Sujana Kula and Penugolu Gotra, on the Sultan (referring perhaps to the then Bahmani ruler) demanding one of their daughters, migrated the same night with a hundred and one families and seven elephants to the Nadinigudda country. There they sought to make matrimonial alliances in Ckittalapuri-pattana, but were refused. Thereupon, Konda Nayaka and two others went to Penukonda and represented the matter to Ramaraya and Bukkaraya, who had come there with an army. They held an enquiry as to why the Reddies of Godipet and Chandragiri declined inter-marriages and sent for their guru Tatacharya to decide the question. In his presence, the heads of Sujana Kula were invested with honours and they agreed to make certain payments (specified) on the occasions of marriages. Marriages were accordingly performed, the Raya himself spending 150 Ramatenki *varahas* for the purpose. All the six inscriptions refer to the reign of Bukkaraya, but their dates, which are different in different inscriptions, are said to be wrong. The Bukkaraya to whom they refer is Bukka I rather than Bukka II, who ruled independently for only one year, 1405-1406.

Harihara II

Next come the inscriptions of Harihara II who ruled from 1377-1404. In Kg. 43 dated 1380, Channappa Wodeyar, son of Mallappa Wodeyar, who was Harihara's younger brother, claims to have defeated "the Turukas when they were swarming over the Advani hill-fort and the kingdom"; Ck 15, though falling within his reign, refers to Bukkaraya and speaks of the 'Turukas' coming and taking Kottakonda, when the army had gone to the Orungal country (that is the kingdom of the Kakatiyas of Warangal). A chief named Saluva Rama Deva, styled as "shelter of the good in Talkad, the heroic land on the Kaveri, and terrifier of the Turuka army", fell in the fight. Inscription Tm 39 dated 1387 and also referring to 'the Mahamandaleshvara Vira Bukkanna Wodeyar' is on the rock above the pond at Anebondi of Devarayadurga. It states that in that year, Poley

Nayaka, Bukkanna Wodeyar's bodyguard, had the pond built to the north of Jaladagondi of the upper fort of Anebiddasari. He had also the Polasamudra (name of a tank) constructed to the west of Bukkarayasamudra. Si 95 dated 1403 is a copper-plate record found with Patel Narasimhiah at Seebi Agrahara. It states that Harihara established a village and a tank in the forest on the border of Sibur in the Chelur-nad to the west of the Anebiddasari hill and named it as Harihararayapura and, having made 80 shares in it, granted it to Brahmins.

What exactly happened at Vijayanagara on the death of Harihara II is not known. The succession to the throne was disputed, the claimants to it being his three sons Virupaksha, Bukka and Devaraya. All of them attempted to take forcible possession of the throne and, though the struggle for succession lasted for two years, little is known about the course of events during the period. Virupaksha appears to have crowned himself immediately after the death of his father, but his rule came to an end after one year. He was probably overthrown by Bukka who proclaimed himself king. After one year's reign, he also, in his turn, yielded place to Devaraya who ascended the throne in 1406 and ruled for 16 years until his death in 1422. He is Devaraya I. There is one inscription (Pg 97), unfortunately without date, belonging most probably to 1405-06, which states that in the year of Parthiva, Gopanna built the fort of Pavagada¹³. It is interesting to note that the Pavagada hill-fort is as old as the early years of the Vijayanagara kingdom.

The order of succession of the kings, who immediately followed Devaraya I on the Vijayanagara throne, is not definitely known. The evidence of inscriptions is confusing, as two of his sons Ramachandra and Vijaya, as well as his grandson Devaraya II, are found to have been ruling simultaneously at Vijayanagara in 1422.

According to a mnemonic verse preserved in the 'Vidyanaya Kalajnana', Devaraya I was followed by kings bearing names beginning with 'Ra' and 'Vi', i.e., Ramachandra and Vijaya respectively. They were ultimately succeeded by Devaraya II who ruled from 1422 to 1446. A few inscriptions of this king have been found in this district. Of them, Tm 11 dated 1426 is a copper-plate grant found in the possession of Narasimha Bhatta of Jodi Hulenahalli. The inscription states that Vijaya Bhupati was the son of Devaraya and Demambika and that Devaraya II was the son of Vijaya Bhupati and Narayanambika. The inscription records the grant of the village Hulenahalli in the Gulursime, belonging to Anebijjaridurga-Venthe of the Marugalanad of Ghanadri, to one Malli Bhatta. The political situation at Vijayanagara after the death of Devaraya II, again, is not definitely

known. It is now commonly held that he was succeeded first by Vijaya II, his younger brother (1446-47), and then by his son Mallikarjuna (1447-65). No inscription of either of them has been found in this district. Of the next ruler, Virupaksha II (1465-85), who assassinated his cousin and usurped the throne, there is but one inscription in this district. The details of this inscription, numbered Gb 29 and dated 1470, which states that his great minister was ruling a fortunate kingdom, etc., cannot be fully made out. With Virupaksha II ends the Sangama dynasty of Vijayanagara.

Saluva Narasimha

Next to come to the throne was the Saluva dynasty. Saluva Narasimha ruled from 1486 to 1491. He has left only two or three inscriptions in this district. Two of them are not only incomplete but also unimportant. There is one copper-plate grant (Tm 54 dated about 1486), coming from Sitakallur in Tumkur taluk. According to it, one Gange Gowda was, by order of the king, granted the *gaurdike* (headmanship) of Hejjaji, which he had built, and of some other villages. As this Saluva Narasimha had only two sons, who were too young to govern the kingdom, he appointed, at the time of his death, his minister Tuluva Narasa Nayaka as the guardian of the princes and as the regent of the kingdom, with instructions to hand over the reins of the kingdom, after the princes had attained majority, to the one whom he considered most worthy to rule.

Tuluva Narasa Nayaka

Ultimately, Tuluva Narasa Nayaka proved to be the second usurper of the Vijayanagara throne and the founder of the Tuluva dynasty. During the period between 1491 to 1503, during which he ruled, inscriptions referring to himself and Saluva Immadi Narasimha have been found in this district. Kg 26 dated 1494 found at Chandrahalli calls the king Mahamandaleshvara Immadi-raya Maharaya. It records the grant made by his son, Silluri Devappa Nayaka, of the village Chandadapura for the temple of god Virabhadra of the Channapatna market. Mi 33 dated 1496 is a stone inscription from Nagenahalli. It refers to both Saluva Immadi Narasingaraya and his general Narasana Nayaka. It is a *dharmaśhasana* recording the grant of Nagenahalli in the royal city (Rajadhani) of Tumukuru of Koranad. Mi 59 dated 1503 and found at Handralu in Madhugiri taluk, refers to the Mahamandaleshvara Saluva Immadi Narasingaraya and records the grant of the village Handarahala to the temple of god Tirumala as a 'pura' by Beleha Timma Nayaka's son Tamma Nayaka.

Of the remaining Vijayanagara inscriptions, the majority belong to Krishnadeva Raya (1509-1529), Achyuta Raya (1529-1542) and Sadashiva Raya (1542-1570). Few of these are of political interest, most of them dealing with either grants of lands to individuals or remissions of taxes to different communities.

During the 15th and 16th centuries, the Vijayanagara kings granted tracts of lands to various vassal chiefs, bearing different titles, in recognition of the services rendered by them and some of the petty States, which already existed, were also allowed to continue. Such feudatory States of purely local interest that had arisen in this district, those of Nidugal, Holavanahalli, Maddagiri (modern Madhugiri), Hagalvadi and Hebbur, are worth mentioning.

Minor Ruling Families

The Nidugal chiefs were descended from Harati Tippa Nayaka whose possessions were in the north-east of the Chitradurga district. The inscription numbered Pg 54 dated in 1487, traces the genealogy of this chief. It describes him as ruling from the Nidugal hill-fort and as becoming the master of many other hill-forts. At the time of his death, he divided his territory among his seven sons, but on the invasion of the country by the Bijapur army, the descendants of these were driven out of their estates and one Timmanna Nayaka, who had lost Dodderi, retired to the hill of Nidugal which he fortified. The family remained there for a long time, paying to the Subedar of Sira a tribute of three thousand pagodas. On the capture of Sira by Haidar Ali in 1761, the Nidugal chief, also called Timmanna Nayaka, submitted to the conqueror, who imposed on him a tribute of 7000 pagodas and a supply of 300 men. Subsequently, while accompanying Tipu Sultan in his expedition against Mangalore, he fell ill, and when at the point of death, was compelled to sign a letter relinquishing his territory and ordering his son Hottenna Nayaka to deliver it up to the Governor of Chitradurga. Possession was taken immediately, and Hottenna Nayaka and his brother were transferred as prisoners to Chitradurga and thence to Srirangapattana. They were ultimately put to death when the British army ascended the ghats.

Nidugal Chiefs

The Holavanahalli family, in the east of the district, was founded by Baire Gowda or Vira Gowda, said to be one of the refugees that settled in the 15th century at Avati (in Devanahalli taluk, Bangalore district), whose history is prominent in connection with Bangalore and Kolar districts. There are a few inscriptions of these Holavanahalli chiefs in this district. The territory of Holavanahalli, however, was soon conquered by the chief of Magadi who gave it to his own brother Ankana Gowda. The dispossessed chief, Baire Gowda, with his eldest son Doddabai Gowa, retired to the Muslim Court at Sira where he was not only well received, but was also invested with an important command. Meanwhile, the younger son, Sanna Baiche Gowda, apparently preferring his own people, sought protection from the chief of Doddaballapur, who, after some time, sent a force and reduced Holavanahalli. Sanna Baiche Gowda was placed in the Government and Ankana Gowda with his family was imprisoned at Hulikal. But within two years, a Sira army attacked Doddaballapur and

Holavanahalli Chiefs

captured it. Baiche Gowda fell in the siege and the eldest son, Dodda Baiche Gowda, was invested with the Government of Holavanahalli with an increase of territory, in recognition of his services. Subsequent members of the family fortified Koratagere, subdued the neighbouring hobbles belonging to Devarayanadurga, Makalidurga and Channarayanadurga and waged war successfully with the chief of Maddagiri. The successes of the Mysore army soon reduced those possessions, which were ultimately annexed by Haidar Ali. The succession of these chiefs is given in Mi 31 of 1656, Mi 45 of 1680 and Mi 30 of 1726.

Maddagiri Chiefs

The Maddagiri line of chiefs arose in a similar manner and extended its territory over the north of the district fortifying Madhugiri, Channarayanadurga and other points. In 1678, the joint rulers, Ramagowda and Timmegowda, on the capture of their capital by Devaraja, the Dalavayi of Mysore, were taken prisoners and conveyed to Srirangapattana. They were afterwards released and granted Midigeshi as an estate.

Hagalvadi Chiefs

The Hagalvadi chiefs ruled for about 300 years from 1478 to 1776. The founder of the dynasty, Erimada Nayaka, was succeeded by Sali Nayaka (1508-1544) who largely expanded the territory. Inscription Ck 38 dated 1669 relates to them. Sali Nayaka, who captured Kandikere and Settikere and other places, assisted the Penukonda army with a force, on condition of being confirmed in his conquests and when that army was defeated, escaped to his own capital with such plunder as he could secure. Chiknayakanahalli was founded and named after his brother, and Honnavalli, Turuvekere and Nonavinakere were added to the possessions. It was on the completion of these enterprises that he is said to have taken the name of Sali Nayaka from the idea that his conquests extended in a 'Salu' or line. His grandson, Mudi-yappa Nayaka-I, also considerably extended the territory. Mudi-yappa Nayaka-II, who was the ninth in the line, had been hailed as a *Rajarishi* for his benign rule; later, he gave up the throne and engaged himself in spiritual pursuits. His son, Mudduveerappa Nayaka (1740-1753), successfully resisted the onslaughts of Salabat Jung and Dilawar Khan and was called 'Jung Bahadur'. Channabasappa Nayaka, the twelfth ruler in the line, was imprisoned by Haidar Ali at Srirangapattana. The Nayaka died in prison and the territory was annexed by Haidar Ali. According to M. S. Puttanna ('Hagalavadi Palayagararu' 1931), the Hagalvadi State had once covered more than three-fourths of the present district of Tumkur.

Hebbur Zamin- dari

At Hebbur, a small *zamindari* was formed under Hale Gowda and Timme Gowda. This was seized for a time by Kempe Gowda of Magadi, who owned the southern parts of the district, and then

by the Hagalvadi chief. It was finally united to Mysore at the time of Chikka Devaraja.

The overthrow of the Vijayanagara empire in 1565 in the Bijapur rule battle of Rakkasa-Tangadgi opened the way for many invaders. The Bijapur army under Ranadulla Khan overran the north of the district in 1638 and Sira, with Doddaballapur, Bangalore, Hoskote and Kolar forming what was called Karnatak-Bijapur-Balaghat was placed under the Government of Shahji. As memorials of the rule of the Adil Shahi dynasty over the district, there are two or three inscriptions in this region. A Persian inscription (numbered 66-B) dated in 1651, on the tomb of Malik Rihan, Subedar of Sira, says that he came there in 1637 "to increase the beauty of the country". He is described as a "lord of riches and power" and his characteristics "those of a friend of God".

The Mughals succeeded the Adil Shahis of Bijapur. On the capture of Golkonda and Bijapur by Aurangzeb in 1686 and on the conquest of their territories by the Mughal army, Sira was made the capital of a new province, consisting of the seven *paraganas* of Basavapattana, Budihal, Sira, Penukonda, Doddaballapur, Hoskote and Kolar and placed under one Khasim Khan as Subedar or Foujdar. This officer, it is said, applied himself with energy and success to the task of improving the area. He was killed in 1698 at Dodderi and was succeeded by the distinguished general, Zulfikar Khan. Sheik Farid, one of the rulers, built a big mosque at Sira in 1696. Another governor named Rustam Jung is said to have built the fort and *petta* and obtained the title of Bahadur and the name Kaifiat Khan. In 1720, the Subedar was one Nawab Dusa Kuli Khan. In 1742, Nawab Dilawar Saheb was the Subedar and he apparently put down certain disturbances. In 1757, Sira was taken by the Marathas and restored two years after on the conclusion of peace with Mysore. In 1761, it was taken by Haidar Ali, in alliance with Basalat Jung, who had conferred upon him the title of 'Nawab of Sira'. In 1766, it fell again into the hands of the Marathas owing to defection of Haidar's brother-in-law and in 1774 was re-conquered by Tipu. The Marathas once more occupied it for a short time in 1791 in the course of their march to join the army of Lord Cornwallis. Of this transitory rule of the Marathas also there are two inscriptions in the district. Both of them are in Marathi and dated about 1767. They were found at Channarayanadurga which was fortified by them. The following is a professed list of the Subedars of Sira under the Mughal Government, as given in the Mackenzie manuscripts:—

Khasim Khan	.. 1686	Pudad Ulla Khan	.. 1706
Atish Khan	.. 1694	Dawood Khan	.. 1707
Kurad Manur Khan	.. 1697	Sadat Ulla Khan	.. 1709
Dhakta Manur Khan	.. 1704	Amir Khan	.. 1711

Ghalib Khan ..	1713	Darga Kuli Khan ..	1720
Darga Kuli Khan ..	1715	Abdul Rasool Khan ..	1721
Abid Khan ..	1715	Tayar Muhammad Khan	1722
Mulahavar Khan ..	1716	Dilavar Khan ..	1724-56

Wodeyars of
Mysore

The area comprising this district, it may be said, became a part of the princely State of Mysore roughly in four stages. The earliest acquisition in this district was that of Hebbur in the Tumkur taluk by Kanthirava Narasaraja Wodeyar I (1638-1659) in April 1650 from Immadi Kempe Gowda. This he did by inflicting a severe defeat on the latter's son, Chikka Kempe Gowda or Mummadi Kempe Gowda, in an action in the Yelahanka-nad, and exacting his submission. From this date onwards, Mysore began to extend its territories gradually in the northern direction. We are told that by 1673, i.e., the last year of Devaraja Wodeyar's (1659-1673) reign, the kingdom of Mysore, now powerful and practically independent, had been extended "as far as Hassan and Sakrepatna in the west, Salem in the east, Chiknayakanahalli in the north, and Erode and Dharapuram in the south"¹⁴. This means that, by the end of Devaraja Wodeyar's reign, a considerable portion of the Tumkur district had formed part of the Mysore territories. The third stage consists of the conquests of Chikka-Devaraja Wodeyar (1673-1704). There are several inscriptions found in this as well as surrounding districts which give the particulars of Chikka-Devaraja's wars. One of the earliest of these inscriptions dated 1675,¹⁵ describes him as sitting on the throne of the Karnataka country like the great Indra, and enumerating his conquests in all directions, it states that in the north, he defeated Ranadulla Khan (the Bijapur general) and captured Ketasamudra, Kandikere, Handalakere, Gulur, Tumkur and Honnavalli, all in the Tumkur district.

Further, defeating Narasa Nayaka, also called Mushtika (fighter with the fist), in a battle Chikka-Devaraja is said to have captured Jadakanadurga (now called Devarayanadurga in Tumkur district) and changed its name to Chikka-Devarayadurga. Another record belonging to 1679¹⁶ also gives these particulars and adds that he defeated also Timmappa Gowda and Ramappa Gowda and took Maddagiri, Midigeshi, Bijjavara and Channarayanadurga, all in the Tumkur district. As the capture of these places is not mentioned in the inscription dated 1675, but is referred to in the one dated 1679, it follows that these places were taken between 1675 and 1679. The acquisition of this chain of impregnable hill-forts largely widened the sphere of influence of Mysore in the north. In view of these conquests and addition of a considerable territory to the kingdom, the view of Mark Wilks¹⁷ that the conquests of Chikka-Devaraja, "present little interest or demand no particular explanation" is obviously untenable. By the end of his reign, thus, large parts of the Tumkur district formed part of Mysore.

Whatever had remained outside, finally fell to it during the time of Haidar Ali on his conquest of Sira in 1761 and annexation of Hagalvadi in 1776.

Of the inscriptions of the Mysore Wodeyars in this district, the earliest is dated 1662 and refers to the reign of Devaraja Wodeyar. The inscription, numbered Kg. 37, which records the establishment of an *agrahara* at Halagere, traces the origin of the Mysore dynasty to some princes of the Yadu race who came to the Karnataka country to visit their family god at Yadugiri, i.e., Melkote, and, surprised at the beauty of the country, took up their abode in the city called Mahisha (i.e., modern Mysore). Another inscription, numbered Kg. 46, informs us of a grant made by the same king in 1664 as a thanks-offering for his victory against Bidanur. This inscription, exceptionally, commences with an apparent acknowledgment of Vijayanagara supremacy, but Srirangaraya, its king, was now a fugitive at the Bidanur court. Shivappa Nayaka of Bidanur had installed the refugee king at Sakrepatna and Belur and was preparing to attack Srirangapattana claiming that he was restoring the authority of the Vijayanagara king. Perhaps, Devaraja was a little apprehensive as to the course of events and acknowledges Vijayanagara in this solitary instance, as a matter of policy.

Devaraja Wode-
yar's inscrip-
tions

There are four or five inscriptions belonging to Chikka-Devaraja, beginning with Kg 7 dated 1674; Tm 45, which also belongs to his reign, mentions the previous name of Chikka-Devarayadurga or the present Devarayanadurga, which was Jadakanadurga belonging to Anebiddasari. The inscriptions of Krishnaraja Wodeyar-I begin with Tm 46 dated 1719. This record states that Dasarajayya, one of his Dalavayis, set up an image of god Lakshminarasimha in Suragiridurga, i.e., Nijagal, situated to the north of Kakudgiri or Shivaganga. Inscriptions of the time of Haidar Ali begin with Si 96 dated 1777 in which the Chikka-Seebi village was granted to the temple at Seebi in consideration of its having been cleared of the jungle that had overgrown the site and after ascertaining that it was formerly a property of the temple. Mi 18 and 19, both dated 1782, record the erection of certain fortifications on the Maddagiridurga. The remaining grants of the Mysore Rajas are quite modern. Of these, Tm 41 and 42, both dated in 1858, record the repairs of the tower of the Narasimha temple at Devarayanadurga (originally erected by Chikka-Devaraja Wodeyar), carried out by Mummadi Krishnaraja Wodeyar's queen Muddu-Krishnamamba, and also the repairs of the *vimana* and the images of the ten incarnations of Vishnu carried out under orders of Krishnaraja Wodeyar himself. The rest of the history of this district runs parallel to that of the entire erstwhile State of Mysore. Administratively, there were several changes in the set-up of this district and they have been already dealt with in Chapter I.

Political awakening

In 1881, soon after the Rendition of the State, a beginning was made to provide a forum for expression of public opinion by prominent citizens of the State by establishing a Representative Assembly which was the first of its kind in the country. The momentous events that were taking place in what was British India, after the founding of the Indian National Congress in 1885, were exercising considerable influence on the people of the princely State of Mysore also. In 1907, a Legislative Council was also ushered in with a view to associating with the Government non-official gentlemen qualified by practical experience and knowledge of local conditions and requirements in assisting the Government in making laws and regulations. Owing to the pressure from the paramount power, the Dewans were following a very cautious policy and many a time resorted to suppressive measures in order to curb the aspirations of the people. Nevertheless, several public-spirited persons, like Sri M. Venkatakrishnaiah, made pioneering efforts through the press, platform and the Assembly and the Council in educating the people about their rights and for development of democratic institutions in the State. They tried also, as far as possible, to make the Dewans' regimes responsive to the wishes of the people.

In 1918, the Prajamitra Mandali led by Sri H. Channaiah and others, which had been formed to work for the advancement of the backward communities, urged reformation of the Representative Assembly and the Council and local self-government institutions, so as to make them democratic. This body was running its own journals to propagate its views. Later, a new local party called the Praja Paksha led by Sri D. S. Mallappa of Tiptur also came into being. From 1921 onwards, Congress Committees were also being set up in several of the places in the State and one of the earliest such committees was at Tumkur. After the Indian National Congress established the Karnataka Provincial Congress Committee and a session of the National Congress was held at Belgaum in 1924 under the presidentship of Mahatma Gandhi, the people of Mysore came closer to the nationalist movement. The Prajamitra Mandali and the Praja Paksha later merged to form the Praja Samyukta Paksha and this new organisation was also later merged in the State Congress.

As early as 1919 and 1921, demands had been voiced for the establishment of a responsible government in the State, and in the elections held to the Assembly and the Council in 1927, a new generation of leaders emerged, who demanded full-fledged democratisation of these bodies. Raiyat Sanghas were also started for the betterment of the lot of agriculturists. A committee appointed under the chairmanship of Dr. M. Visvesvaraya recommended that a party-system of government based on the British model might be introduced in the State, while retaining

the Dewan as the Chief Minister for some years. However, the reforms suggested by this committee were not accepted and steps were taken to place severe restrictions on civil liberties.

Several aspects of the nationalist constructive programme such as Khadi, revival of rural industries, encouragement of swadeshi articles and Harijan uplift had been adopted in Mysore State. A number of persons from Tumkur and other districts had gone to other parts of Karnataka to participate in political struggles there. Tumkur had also one of the earliest branches of the Hindustani Seva Dal which trained up volunteers for the nationalistic work. In the course of his tour for Harijan uplift work, Gandhiji visited Tumkur on the 4th January 1934 and addressed a public meeting and appealed for full co-operation in implementing the constructive programme. He was presented with a purse of Rs. 1,000 and with an address at Tumkur and with another purse at Kyatsandra. The visit thrilled the people of Tumkur and encouraged them to put forth better efforts in the following years for strengthening the nationalist movement. With a view to suppressing the rising tempo of enthusiasm of the people for the national struggle, the Independence Day celebrations planned at Tumkur in January 1937 were banned by the Maharaja's Government and severe restrictions were enforced under the Mysore Police Regulation. Lawyers and other influential men of the district and students took an active part at Tumkur, Tiptur, Madhugiri and other centres to further the national cause.

After 1937, by which time the neighbouring British-governed provinces had made considerable progress in achieving democratic rights, the movement for constitutional reforms and establishment of responsible government in the State gained fresh momentum. Early in 1938, a separate organisation called the Mysore Congress was formed to work for the attainment of full responsible government under the aegis of the Maharaja. A meeting of the All-Mysore Congress Committee was held at Tumkur on the third November 1938, under the presidentship of Sri T. Siddalingaiah, to review the several events such as the Vidurashwatha tragedy, which had taken place earlier on 25th April 1938, and resolved to intensify the struggle for responsible government in the State. In August 1942, when the national leaders were arrested by the British Government, there was a spontaneous and vehement reaction of the people in the district as in other parts of the State. In June 1943, a special session of the Mysore Congress was held at Tumkur, which urged the removal of repressive orders and reiterated the demand for establishment of representative form of government. This movement gradually gained strength and just after the attainment of Independence, it naturally received further momentum. The demand for establishing responsible

Struggle for Responsible Government

government in the State was championed in the district by leaders like K. Rangaingar, T. Subramanya, B. C. Nanjundaiya, M. V. Rama Rao, B. Hutche Gowda, K. Henjarappa, R. Channigaramaiya, T. N. Kempahonnaiya, C. R. Basappa and others who belonged to the district.

A vigorous *satyagraha* was launched on the 1st September 1947 and this upsurge continued all over the State for about a month. Thousands braved the repressive measures and courted arrest. There was a lathi-charge and a firing at Tumkur on the 14th September 1947, in which three youths named Gorur Ramachandra, Nanjundappa and Gangappa were killed. The movement ended shortly next month after an agreement was reached between the Maharaja's Government and the Mysore Congress. On the 24th October 1947, Sri K. C. Reddy, who was then the president of the Mysore Congress, formed a popular Government with eight other ministers, three of whom were independents. As the Constitution of India was in the offing, the Mysore Constituent Assembly, which was set up under the agreement, got itself converted into a legislative body. With the promulgation of the Indian Constitution in 1950, Mysore became a Part 'B' State with the Maharaja as the Rajpramukh. With the reorganisation of States in 1956, a new Mysore State was formed with the other Kannada-speaking areas and a Governor was appointed as the constitutional head of the State.

ARCHAEOLOGY*

The pre-historic archaeology has been dealt with at the beginning of this chapter. The archaeological relics of the later periods are described here. These may be studied under four heads, namely, (1) temples, (2) forts, (3) Muslim monuments and (4) other remains.

Temples

Perhaps the earliest temples in the district are to be met with at Nonavinakere. Nonavinakere is an ancient village, its name being derived from its large and highly useful tank originally known as Nonabanakere mentioned in an inscription¹⁸. The inscription is dated A.D. 1162. Perhaps to this early period also belong some of the five *linga* shrines situated in or near the place, namely, Nonabeshvara, Shanteshvara, Garigeshvara, Choleshvara and Kalleshvara. The association of the five *lingas* together in worship and the architectural evidences point to the fact that at least some of these temples date back to the 10 century A.D. The more important temples of the place, for instance, Venugopala or Gopalaswami and Beteraya temples, however, belong to the Hoysala and Vijayanagara periods.

*In recent decades, in many places of archaeological importance in the district have been dealt with in the Mysore Archaeological Reports of 1927, 1934, 1935, 1938, 1939, 1945 and 1947-1956 and their help has been also availed of in the treatment of this section and in Chapter XIX.

The Nonabeshvara temple is a small structure which must have been originally of granite. Its walls have now been built of bricks, perhaps during the renovations of the 19th century. The original temple consists of a small *garbhagriha* containing a flat head and a medium-sized *linga*, an open vestibule and a *navaranga* with four stout pillars. The ceiling of the vestibule is flat with a large *padma*, while that of the *navaranga*, which is also flat, is divided into nine panels by two pairs of intersecting rafters with pendants. The central panel contains a *padma*. The doorway of the *navaranga* is of granite.

The Garigeshvara temple, situated just to the north of the Nonabeshvara temple, is entered by a similar doorway and has similar pillars. The ceilings also must have been similar originally. It is supposed that the two temples were 'twins', constructed probably on the occasion of some matrimonial or other kind of alliance between the Nolamba and Gariga dynasties. Between these two temples is a small platform near which lie the greenish trap stone images which originally belonged to the *Saptamatrika* group. Among these may be identified Kapali, Vaishnavi, Maheshwari and Brahmi. There are some images of Chamunda, Indrani, Kaumari, Varahi, Nandi and Bhairava lying in the neighbouring field.

The Shanteshvara temple, about 50 yards directly behind the Garigeshvara temple, is also similar to the above two temples. The nandi in its *navaranga* appears to be old in that it has an ornamentation rather unusual, particularly its garland of longish bells and a diadem with a *padma* flower.

Now coming to the more important temples of the place, the chief of these is that of Gopalaswami. It is a *trikutachala* (a three-celled) temple of the Hoysala period with a towerless *mahadvara*. The *mukhamantapa* and the long six-pillared outer *navaranga* with its 16-fluted pillars are probably of Vijayanagara period. The south side has an image of Venugopala, the north one of Yoganarasimha and the west one of Janardana, all the three images being of Hoysala workmanship. The most beautiful objects in the temple are the metallic images of Janardana and his consorts. In workmanship they appear to belong to the Vijayanagara period. Their bodies are shaped beautifully and ideally according to the ancient Hindu notions, even the backs being most naturally finished.

The Beteraya temple is said to have been constructed by one Koneri Iyengar about 440 years ago. His image with a long coat and a conical cap is carved on one of the pillars of the *navaranga*. The temple consists of a towerless *mahadvara* of cubical pillars with eight side shafts, a *garbhagriha*, a vestibule and a long and

large *navaranga*. The outer *navaranga* has 16 pillars on one of which there is the image of Koneri Iyengar, while on the other pillars are the relievo figures of several chiefs pointed out by the local people as those of Krishnaraya and other Vijayanagara kings and queens. In the *garbhagriha* stands the image of Venkatesha carved out of black stone with a *prabhavali*. It is a fine image showing traces of Hoysala influence on Vijayanagara workmanship.

Lakshminarasimha temple

Of the four temples at Vighnasante, about two miles south-west of Nonavinakere, the largest and finest is that of Lakshminarasimha, situated facing north on a height which was formerly the centre of the town. According to a local inscription, it was constructed in 1286 A.D. by three brothers when Narasimha III, the Hoysala king, was ruling. The temple is a typical *trikutachala* of the Hoysala style. Of the three cells, only the west one has a vestibule and a stone tower with several rows of turrets and figures rising one above the other. The *navaranga* has four pillars and has a small porch in front and on the north. The tower is one of exquisite workmanship with remarkable floral carvings. It has four rows of miniature towers with projection over the vestibule on whose front face is a large *kirtimukha* bearing an image of Garuda. In the main cell stands a fine image, about five feet high, of Keshava supported by a consort on each side, having serpentine scroll with fine lace-work and the ten *avatars* on the *torana*. The image has been well made and represents a slim and tall form.

Channakeshava temple

Nagalapura has two temples, one of Channakeshava and the other of Kedareshvara, both belonging to the Hoysala period. The Channakeshava temple is built on a high ground in the centre of the old town which has now been converted into fields. The structure has a *garbhagriha* without a *vimana*, a vestibule and a *navaranga* and appears to have had a porch which has now disappeared. The *garbhagriha*, whose outer walls now stand almost intact, is a highly ornate star-shaped structure. The walls of the outer *navaranga* are intact only to the level of the basement, which contains six beautifully worked friezes of elephants, horses, *makaras* and swans, scroll working and a blank frieze on which the *pauranic* scenes were intended to be carved. All these carvings closely resemble those of Somanathapura. In the *garbhagriha*, there had been the Channakeshava image which has now disappeared; in its place now stands a large image of Venkatesha, about five feet high, with scroll working on the *prabhavali* and a consort on each side. The image is of the Vijayanagara times.

Kedareshvara temple

More finely worked are the sculptures of the Kedareshvara temple, entirely built of soap-stone, standing about 200 yards away to the north-east of the Channakeshava temple. The temple has a *garbhagriha* of the 16-pointed star-shape, a vestibule and a *navaranga* with its door to the south. The old porch has

disappeared. The outer walls of this temple have also six friezes on the basement similar to those of the Channakeshava temple. The *navaranga* is also very similar to that of the Keshava temple, with the pillars exactly similarly worked, as also the two niches against the west wall. The ceilings too are very similar to those of the Keshava temple. Inside the *garbhagriha*, under a flat plain ceiling and on a large *panipeetha*, is placed a small cone-headed *linga* which reminds us of the Kedareshvara *linga* at Halebid.

The most important temple at Kunigal, called Kunigil in the old Kannada and Tamil epigraphs, is that of Narasimha. The original temple with its *garbhagriha*, vestibule and *navaranga* is of the Hoysala period. To this original temple, a *mahadvara* was provided in the east later on. In the late Vijayanagara days, some alterations appear to have been made. A *mukhamantapa* of three *ankanas* or squares, another *mahadvara* and two rows of cells facing each other between the two *mahadvaras* appear to have been added during this period. Though the temple goes by the name of Narasimha, the *garbhagriha* has, at present, a figure of Janardana. The garuda facing the main image is peculiar since it has four arms holding a *kalasha*, *chakra*, *shankha* and *sarpa*. The figure is interesting though rudely carved in granite in the old Vijayanagara style. It has moustaches and the religious mark of the Tenkale sect. Another temple worth mentioning at Kunigal is that of Padmeshvara, an ornate granite structure in the typical Hoysala style. The *garbhagriha* of the temple has a medium-sized *linga* on a fine pedestal. The Someshvara temple contains several buildings constructed at different times, dating from the Hoysala to the Palayagar days. It is a granite structure with the original temple having a peculiar plan. The *linga*, which is an entirely round stone, appears to date from the 12th century or earlier. The *navaranga* has plain ceilings and four cylindrical granite pillars.

The Yogamadhava temple at Settikere, has evidently been built in two instalments, the first one being of fine Hoysala workmanship and the second of the Vijayanagara days. The temple has three cells out of which only one on the west has a stone tower and a *sukhanasi*. There are two *navarangas*, both of equal size, and the whole temple stands on a platform, about three feet high. In front of the temple stands a plain *mahadvara* without a *gopura*. According to an inscription, now kept in the south-east corner of the inner *navaranga*, the temple was constructed in the year 1261 A.D. during the reign of the Hoysala king Veera Narasimha III by Gopala Dannayaka who also established an *agrahara* there. The outer *navaranga* taking the place of the *mukhamantapa*, is built of soap-stone pieces mixed with granite blocks. A well-carved doorway of the usual Hoysala type with engraved lintels leads into the original *navaranga* of nine squares. In the south cell is

enshrined a fine image of Venugopala, about five feet in height. The north cell, which is similar to the south one, houses a Lakshminarayana group. At the entrance of the *sukhanasi* of the west cell are kept an image of Ramanujacharya and another of Nammalvar. This cell contains the main image of Yogamadhava on a garuda pedestal.

The image is about nine feet high above the pedestal and represents Vishnu seated in *yogasana*, i.e., in a yogic posture. It has a fine *kirita*, neck-laces, garlands, arm-lets, bracelets and anklets and rings both on the fingers and the toes. The eyes of the figure, however, are wide open and looking forward and the lips appear to wear a mild smile. The image on the whole is a finely worked piece. Since this image of Yogamadhava is a rare one, it is of very great value. Outside the *mahadvara*, which is a plain structure, mostly of soap-stone is a large grained *garudagamba*, about 35 feet in height.

Turuvekere
temples

The two important temples at Turuvekere are those of Channigaraya and Shankareshvara. The Channigaraya temple is, like the one at Settikere, a simple but typical Hoysala structure entirely built of soap-stone; it has the usual *garbhagriha*, a closed *sukhanasi*, a *navaranga* of nine *ankanas* and an entrance porch. The temple stands on a plinth, three feet high, which is ornamented with the usual cornices following the contour of the temple. The image of Channakeshava, which is about five and a half feet high, has the usual attributes and the arch with the *Dashavatara* images. It is, unlike the usual Hoysala images, rather short and broad in the abdomen; the image is considered to be a comparatively poor specimen of the Hoysala sculpture. The Shankareshvara temple is similar in most respects to the Channigaraya temple. The *linga* in this temple is of polished black stone and about four feet high from the ground. The third temple worthy of notice at this place is that of Gangadhareshvara. It is an old structure belonging perhaps to the early 18th century. There are one or two points noteworthy in this temple. The colossal bull of black stone in this temple is a finely worked piece of sculpture and reminds us of the large bull on the Chamundi hill, though, of course, it is much smaller in size. It is made of hard black stone known generally as the Turuvekere-kallu quarried from Kadehalligudda, about seven miles south of Turuvekere. The *linga* in this temple is also peculiar. On its black head rises at the back an arch-like *jata* under which is seated, in *padmasana*, an image of the goddess Ganga.

Jain temple,
Nittur

An interesting structure at Nittur is a Jain temple known as the Shantishvara Basti. A fine ornate structure facing the road, it had originally a *garbhagriha*, a *sukhanasi* and a *navaranga* of nine squares. Later on, a small shrine of Padmavati was built,

about 10 feet to the north-east of the temple, and between the two was put up an open *mukhamantapa* with a small porch. All this was done in the Hoysala days. The temple has no platform but only a corniced basement which is not worked in its details. The pillars of the inner *mukhamantapa* have varied designs, i.e., a bell-shaped lotus of 16 petals, a lotus of eight petals with an intervening star point, a lotus of 32 petals, a six-pointed star, a 32-pointed star, etc. The inner *navaranga* has beautifully ornamented and dome-shaped ceilings of varied designs. The original image of Shantinatha is in the main cell.

The Lakshminarasimha temple at Doddadalivatta is a large structure in the Dravidian style with an extensive *prakara* and a lofty *mahadvara* surmounted by a *gopura*. To the right of the *prakara* is a choultry for accommodating and feeding the pilgrims during the annual car festival. Bullock carts can go inside the *mahadvara* and stand in the enclosure. Near the outer gate is a fine pond. The image, said to be an *udbhava-murti*, is a small round stone adorned with a crown.

Doddadalivatta
temple

The Venkataramana temple at Chiknayakanahalli is also built in the Dravidian style and is also a large structure. It stands on a raised terrace, like other Hoysala buildings, and is enclosed by a large *prakara* of which only the plinth is now left. The image of the god, about four feet high, is a good figure and behind it is an underground cell with a flight of steps. The pillars in the *navaranga* are sculptured on all sides, some of the sculptures being ingenious combinations of animals such as an elephant and a bull with one head and so on.

Venkataramana
temple

The Mallikarjuna temple at Pankajanahalli is an equally fine structure of Dravidian style, of large proportions, consisting of a *garbhagriha*, a *sukhanasi*, a *pradakshinapatha*, a *navaranga*, a porch, another hall on a lower level, a *nandi-mantapa* with a tower, a *mahadvara* and a *prakara*. The *linga* in this temple is a conglomeration of pebbles said to represent hundred and one *lingas*. The *mahadvara*, about 12 feet high, is a good piece of work, the pillars and doorways being well-executed. There is a fine lamp pillar in front, about two feet square at the bottom and about 40 feet in height, with a pavilion at the top.

Pankajanahalli
temple

The Channakeshava temple at Aralaguppe is a building constructed in the Hoysala style, consisting of a *garbhagriha*, a *sukhanasi* and a *navaranga* to which is attached an entrance porch with verandahs on both sides. On both sides of the entrance runs a rail parapet consisting of the usual six friezes, viz., (1) elephants, (2) horsemen, (3) scroll-works, (4) *pauranic* scenes, (5) seated Yakshas in niches and (6) a rail divided into panels by double columns containing various figures. Of the 47 male

Aralaguppe
temple

figures, 44 represent Vishnu and his various forms. It is interesting to note that about 15 images in this panel bear, on their pedestal, the signature of the artist Honoja, a name that has not been met with anywhere else. About 12 more bear only the initial 'Ho'. The *garbhagriha* is surmounted by a well-carved tower. Judging from the palacography of the signature giving the artist's name, the temple appears to have been built in the middle of the 13th century.

Rama temple,
Kadaba

The Rama temple at Kadaba is a large Dravidian structure with a *gopura* and a fine garuda pillar in front. The pillar is 2½ squares at the bottom and about 25 feet high and has an iron frame at the top for placing lamps. Though called the Rama temple, there is no figure of Rama in it at present. The temple has three cells standing in a line, the middle cell enshrining Janardana, the south cell Venugopala and the north Yoganasimha.

Siddhalinges-
vara temple,
Yedeyur

Lastly, the Siddhalingesvara temple at Yedeyur is a pretty large building constructed in the Dravidian style. It contains the *gaddige* or tomb of Tontada Siddhalinga, a great Veerashaiva teacher and author, who flourished at the close of the 15th century. He was a *swami* of the Murugi *Matha* and had a number of disciples. His spiritual greatness forms the subject matter of an inscription in the verandah to the right of the *mahadevara* which also records the construction of the *Matha*, i.e., the temple itself, by one Channaveerappa Wodeyar of Danivasa. To the right of the inscription stands a slab, about six feet high, carved with a figure of a seated image with a *linga* in the left hand, and a standing couple with folded hands, evidently representing Channaveerappa and his wife Parvatamma mentioned in the inscription as the donors of the *Matha*. The ceilings of the *mukhamantapa* and the hall on the lower level have painted on them scenes from the life of Siddhalinga and the 25 *leelas* or sports of Shiva with labels in Kannada in the form of explanatory notes. On the *gaddige* is a lump of *vibhuti* or sacred ashes in the form of a *linga* covered with a silver mask, above which is kept the processional image which is a metallic figure resembling the stone figure at the *mahadevara*. There are some interesting inscriptions on the temple jewels, vessels, bells, etc. The inscriptions on the bells tell us that the bells were presented by a Muhammadan Amildar during Tipu's rule.

Forts

There are a number of ancient forts in this district. The majority of them belong to the Hoysala period, some of them being re-constructed later by the Palayagars or Haidar Ali and Tipu of Mysore. The forts of Madhugiri, Midigeshi, Pavagada, Nidugal, Koratagere, Devarayanadurga, Channarayanadurga, Huliyardurga, Hutridurga and Sira are briefly described below.

The fort of Madhugiri, built on a hill consisting of one huge mass of rock, is considered to be one of the finest forts in South Mysore. Strongly fortified, Madhugiri must have been a formidable stronghold. There are several gates leading to the top of the hill, such as Antaralada-bagilu, Diddi-bagilu, the Mysore gate and so on. There are a number of *dones* or springs such as Naviladi-done on the north slope, Bhimana-done on the south slope, Chandra-done a little higher up and Navilu-done on the top. Several of these reservoirs are provided with steps built of bricks. It is said that the palace of the Palayagars was situated near the Chandra-done, above which the ascent of the hill is very steep for some distance.

Madhugiri Fort

On the top of the hill is situated the Gopalakrishna temple which is now empty. Near the temple are the granaries of ragi and the treasury. Grains of ragi are available even now for examination in the former. The treasury appears to have had rows of big pots buried upto the neck and close to the walls. Similar masonry structures with circular openings at the top are found at another place and these were meant for storing ghee and oil. These are called *kanajas* in Kannada. The view from the hill top defies description. A number of hills and tanks meet our gaze on all sides, the hills looking like little mounds and the tanks like small pools of water. Buchanan, writing in 1800, says in this connection: "The view of Madhugiri on approaching it from the east, is much finer than that of any hill-fort I have seen." Near the Bhimana-done, the descent to which is rather risky, is a fine figure of Hanuman with an inscription to its left informing us that the figure was consecrated and the *dona* constructed by the Maddagiri chief Mummadi Chikkappa Gowda in 1646. At some distance above the foot of the hill is a square basin with a small hole, on blowing into which a sound like that of moving water is heard. This is considered to be a secret arrangement for the water supply in the fortress. A stroke of lightening has split the rock to a considerable distance causing a narrow crack all-through. It has thrown down the brick parapet in some places.

The Midigeshi hill is said to have been fortified by a local chief named Naga Reddy, after whose wife the place is supposed to have been named. The fort walls are pierced by several gates leading to the top of the hill. On the hill are granaries of ragi and paddy, dome-like structures for storing ghee and oil, powder magazines and *dones* or springs. Here also, as in the Madhugiri fort, grains of ragi can be seen even now in the granaries, but the paddy *kanaja* has only a quantity of *husk*. Two of the *dones* are named Musare-done and Kannerammanna-done, the former situated on the top of the hill and the latter on the north slope. On the summit is a fine mosque with two minarets at the sides and ornamental parapet all round the roof. The building has flights of

Midigeshi Fort

steps on both the sides. Close to the mosque, there is a shrine dedicated to Hanuman.

Pavagada Fort

Both the town of Pavagada and the hill near it are beautifully fortified. The hill here, instead of being one mass of rock as in the case of Madhugiri and Midigeshi, is made up of a number of gigantic boulders, some of them being nearly 100 feet high, in its higher portion. There are as many as ten gates leading to the top. At a little distance from the foot is a structure called the Kammara-mantapa; higher up, a figure of Hanuman called Bettada-Anjaneya, a well-carved figure, about seven feet high, with a little monkey seated to the left eating something; further up, a circular spring called Koneri-dona and a *mantapa* known as Koneri-mantapa near which stands a dome-like structure for storing ghee. Ascending further, we find a well, now closed, from which water is said to have been drawn to the top of a boulder about 80 feet high. On the top of the hill is the Sultan-Bateri or Sultan's Battery, and to its west another *bateri* called Subbaraya's Bateri.

Besides the Koneri-dona already mentioned, the hill has several more *dones* known as Akkana-dona, Babaiyana-dona, Bhimana-dona and so on. The last is a fine reservoir with clear and deep water situated between two huge boulders. We have to descend some 70 steps to reach the water. This *dona* is supposed to be connected with another at the foot of the hill known as Kelagana-dona. A square slab containing a defaced Persian inscription, which was fitted into the cavity in the boulder to the right, is now kept in the Archaeological office. A spot is shown on the hill from where, it is said, condemned men were once hurled down to the bottom of the hill. Here also there are the usual granaries of ragi and paddy and powder magazines. The summit has an incomplete mosque which is said to have been built with the materials of a Gopalakrishna temple which once stood there. From an inscription discovered on the hill, we learn that the fortress was built in 1405 by Gopanna, a general under the Vijayanagara king Devaraya I.

Nidugal Fort

The hill near Nidugal has two or three distinct elevations. The ascent is very steep and difficult and there are no steps to help the climber. It takes nearly an hour and a half to reach the top. But when once there, one forgets all the fatigue caused by the climbing and enjoys one of the grandest feasts of the surrounding landscape, which consists of a number of hills and lakes as far as the eyes can reach. According to an inscription found on the Nidugal hill (numbered Pavagada 52 belonging to A.D. 1292), the hill was named Nidugal (lofty rock), because "it reached the skies" with its formidable peaks; and according to another inscription (numbered Pavagada 54 belonging to A.D. 1487), it was the most impregnable of all the hill-fortresses in the Karnataka country. In some of the inscriptions it is also called Kalanjana.

There are several lines of fortifications known as Kaleshvara-kote, Bhairavana-kote, Are-kote, Nageshvara-kote, etc., and a number of gates known as Matanurabagilu, Singarada-bagilu, Seemalayyana-diddi and so on. There are the usual structures like the granaries, powder magazines and *dones*; there are also ruins of a palace. On the top is a small temple of Basava, built, according to an inscription numbered Pavagada 42, in 1653 by the chief Hottenna-Nayaka. The temple is now in ruins. By the side of the shrine is an iron lamp with a shaft, about six feet, fixed on the rock, which is lighted once a year or oftener by the people of the surrounding villages in fulfilment of their vows. A little lower down is the Kalahastishvara temple which, according to an inscription numbered 46, had its *linga* set up by Rama and renovated by the Harati chief Timmanna Nayaka in 1670. At some distance from the temple are lying three pieces of old cannon, one of which, about 18 feet long, is called 'Yelu-makkala-tayi' or the mother of seven children. The palace has only a few walls now left. A portion scooped out at the top of a huge boulder with holes for steps is said to have served as a seat for the chiefs during their *darbars*. The ruined Nageshvara temple near a pond known as Hokkarane is a Hoysala building which, according to an inscription numbered Pavagada 53 dated about 1115, was founded during the reign of the Chalukya king Jagadekamalla II. This appears to be the oldest of the existing temples on the hill, though mention is made of a temple founded by Bidicholarasa of the Pallava family in an inscription of the 8th century (Pavagada 45). There is an underground canal supplying water to the Hokkarane mentioned above.

The Koratagere hill was once fortified, the remains of the fort-wall being visible here and there. At about the middle of the hill is situated the Gangadhareshvara temple consisting of three cells standing in a line with a hall in front, enshrining Gangadhareshvara, Parvati and Srinivasa. Near the temple is a large *dona* and a structure newly built for the accommodation of the visitors. The summit has a shrine of Basava to which the ascent is rather steep. A spot near one of the gates is pointed out as the *Tankasale* or mint of one of the former chiefs. It is said that gold coins once used to be picked up here and for this reason the removal of earth from this place is forbidden. Some boulders behind the hill known as Dalavayigundu are said to represent the heads of a Dalavayi or general and his followers who turned traitors to a Palayagar princess named Bayyamma. A pond near the Gokulada Anjaneya temple in the town, known as Bayyamma's pond, is said to have been built by this princess. Near this temple are to be found a number of *mastikals* or memorials of *satis*.

Devarayanadurga is a fortified hill situated in the midst of picturesque scenery. It consists of three elevations and seven

Devarayana-
durga Fort

gates leading to the top. On the lowest elevation are situated the village Malapattana and the Lakshminarasimha temple. Near a spring known as Ane-done or the elephant's spring are seen the remains of the tomb of an elephant, said to have been built by a former chief. The place, in fact, was originally known as Anebiddasari or the precipice where the elephant fell, then as Jadakanadurga after a chief named Jadaka and finally as Deva-
 rayanadurga subsequent to its capture by the Mysore king Chikka-Devaraja Wodeyar. On the slope of the hill is a pond said to be the source of the stream Mangali. Higher up is another small spring named Jaya-tirtha, representing the source of another stream Jaya. Both the streams unite at Irukasandra at the foot of the hill and form the Jayamangali. On the middle elevation are situated the Government Travellers' Bungalow and another bungalow owned by the missionaries. Here are a well and two springs, the latter known as Rama-tirtha and Dhanus-tirtha. Near at hand is a large cave with figures of Rama, Seeta and Lakshmana. There are also remains of dwelling houses and other buildings which once stood there. On the third elevation stands a temple of Lakshminarasimha; higher up above the temple is a small shrine of garuda; near it is a big boulder known as Divige-gundu or the lamp boulder on which an iron lamp with a long shaft is fixed. This lamp, lighted occasionally by the devotees in fulfilment of their vows, is said to be visible at Bangalore and several other distant places. In the rampart on the hill, a hole is pointed out as having been caused by a gun shot from the opposite hill known as Parangi-betta.

Channarayana- durga Fort

Another hill-fort is met with at Channarayanadurga, which is a fine mass of rock beautifully fortified by the Maddagiri chief Channappa Gowda about the middle of the 17th century. The hill has two elevations. On the lower are situated the Channigara and Ishvara temples and also a fine semi-circular *dome* with clear water. This besides, there are granaries and powder magazines. There are several gates leading to the higher elevation which is also fortified with walls built of bricks above and stones below. The ascent is very steep and there is no flight of steps.

Huliyurdurga Fort

The Huliyurdurga hill, which commands the village of the same name, is a stupendous mass of rock and has the peculiar appearance of an inverted cup. The hill is said to have been fortified by Kempe Gowda of Magadi. The ascent is rather difficult, there being no regular flight of steps but only slight depressions in the almost perpendicular rock to act as steps in some places. Here also, as in other *durgas*, are a number of springs, ruined houses, powder magazines, granaries, remains of a palace, the *darbar* hall, etc. Three of the major springs are named Chikkadevi-done, Akkatangiara-done and Enjalele-done. At

the second gateway from the foot is a shrine of Ganapati carved on a boulder. To the west of the hill is the Gopalakrishna temple with several ruined houses in its proximity.

Hutridurga derives its name from Hutri, a village situated about two miles from the foot of the hill. The village immediately at the foot of the hill is known as Santepete and that situated on the first elevation as Hutridurga. The hill has eight gateways from the foot to the summit, in addition to several outer gates known as Yeleyuru-bagilu, Balekatte-bagilu, Magadi-bagilu and so on. On the summit known as Sankara-kumbhi is situated a small Shankareshvara temple with a spring called Dodda-done or big spring in front of it. From the summit we get an extensive view of the surrounding landscape dotted by a large number of tanks and hills.

Lastly, we come to the Sira fort, which, unlike all the above forts, is a land fort surrounded by a moat on the outside. The first gateway, which is of the Palayagar period, is on the north side. The second gateway, called the Diddi-bagilu, is also a Hindu work, as can be observed from the octagonal and sixteen-fluted shafts of the black stone pillars and the wheel-moulding at the top. The brick and masonry battlements with holes for musketry and openings for cannon appear to have been added in the days of Haidar Ali and Tipu Sultan. The third gateway, with its Dravidian pillars, is also obviously Hindu in construction. An old building formerly used as the Taluk Kacheri is of stone and brick with a lily flower parapet in the Bijapur style. The neighbouring mounds contained the treasury and office rooms to the north-east, a brick-built pond to the south, a Hanuman temple to the south-east and dwelling houses to the west, all of which are now in ruins. Through a postern gate in the south of the fort-wall, we come to the palace site which was originally protected by a wide and deep moat and had a well in the south-west corner. Outside the fort on the north is the site of Chikkapete. The old town had outer mud fortifications, now almost completely ruined, and was surrounded by a moat.

As may be expected, all the major Muslim monuments in the district are to be found at Sira, which was the headquarters of a province first under the Mughals, then under the Bijapur kings and finally under Haidar Ali and Tipu Sultan. The Jumma Masjid and the Darga of Malik Rihan here are fine structures in the saracenic style. The former is said to have been built by Shaik Farid Saheb whose tomb, together with that of his brother Shaik Kabir Saheb and their sister Shehar Banu, is pointed out in the enclosure of the mosque. The date of construction is indicated in the chronogram *Baitul Makaddas* as 1108 Hijra (i.e., A.D. 1696). The darga is a square building with a big tomb with four

Muslim monu- ments

Notes on Chapter II

1. *Indian Science Congress*, 1954.
2. *M. Seshadri : Pre-historic and Proto-historic Mysore*, p. 15.
3. *Mysore Geological Department Records*, VIII, p. 72.
4. *Epigraphia Carnatica*, Vol. XVI, Tm. 78.
5. Lewis Rice who, in a way, discovered these plates and read them, tells us an interesting story. The priest of the *Matha*, he says, had made many efforts to get the copper-plates deciphered but without success. When at last Mr. Rice arrived on horse-back at the *Matha* and, taking the plates into his hands, began to read them, the priest was amazed and bewildered. He did not, says Rice, allow the plates to go for a moment out of his sight thinking that, at long last, some clue would be found to the hidden treasure, but actually the plate containing the donation proper was one of the plates that have been lost.
6. *Indian Antiquary*, Vol. XII, p. 11.
7. *Epigraphia Carnatica*, Vol. XII, Kg. 2.
8. *Epigraphia Carnatica*, Vol. XII, Mi. 76.
9. *Epigraphia Carnatica*, Vol. XII, Tp. 101.
10. *Epigraphia Carnatica*, Vol. XVI, Ck. 63.
11. *Epigraphia Carnatica*, Vol. XII, Intro, p. 10.
12. *The History and Culture of the Indian People*, Vol. VI, *The Delhi Sultanate*, p. 275.
13. *Mysore Archaeological Report*, 1910, p. 38.
Epigraphia Carnatica, Vol. XVI, p. 17.
14. *History of Mysore (1399-1799 A.D.)* by C. Hayavadana Rao, p. 233. See also *Epigraphia Carnatica*, Vol. III (1), Sr. 14 (1686), 11, 40-43, which enables us to determine the precise limits of the kingdom of Mysore in 1673.
15. *Epigraphia Carnatica*, Vol. IV, Chamarajanagar 92.
16. *Epigraphia Carnatica*, Vol. III, Seringapatam 151.
17. *Lt. Col. Mark Wilk's History of Mysore*, Vol. I, p. 106.
18. *Epigraphia Carnatica*, Vol. XII, Tp. 61.
19. *Epigraphia Carnatica*, Vol. XII, Kg. 49.
20. *Epigraphia Carnatica*, Vol. XII, Intro, p. 19.
21. *Epigraphia Carnatica*, Vol. XII, Mi. 16.

CHAPTER III

PEOPLE

THE population of the Tumkur district, according to the 1961 Population Census, was 13,67,402 out of which 6,99,191 were males and 6,68,211 were females, the ratio between the two sexes being 1,000 : 956. This total population is distributed over an area of 4,096 square miles or 10,609 square kilometres according to the figures of the Survey of India and 4,073.7 square miles or 10,550.9 square kilometres according to the State Survey, Settlement and Land Records Department*. In terms of area, Tumkur ranks eighth among the districts of the State. From the point of view of population also, the district ranks eighth, while in respect of density, the district, with its figure of 129 per square kilometre, has the ninth place in the State. Thus, a striking feature about the district is that it occupies roughly a middle position in points of size, population and density among the nineteen districts of the State. Its density is more than that of Chitradurga (101) and Chikmagalur (88), its neighbours in the north and west, and also higher than the State average of 123, but less than that of Hassan (131), its another neighbour in the west, and of Kolar (156), Bangalore (314) and Mandya (181), its neighbours in the east and south. It is also interesting to note that in 1921, after which the previous Mysore Gazetteer was written, Tumkur was one of those districts which had a lower density of population in comparison with the average density of population of the then Mysore State; but to-day it is one of the districts with a density of population higher than the State average. Density of population depends on various factors like the fertility of soil, rainfall, facilities for irrigation and climate of the district, its geographical location, means of communication and industrial development and also on historical reasons. It may be said that several of these factors have contributed to the higher density of population of the district.

*The small difference is due to the different methods employed by them in measuring the area.

Coming to the taluks, of the 10 taluks of the district, Sira is the largest, being 573.2 square miles or 1,484.6 square kilometres in area, followed by Pavagada (547.6 square miles or 1,418.3 square kilometres), Gubbi (475.1 square miles or 1,230.5 square kilometres), Madhugiri (423.9 square miles or 1,097.9 square kilometres), Chiknayakanahalli (418.5 square miles or 1,083.9 square kilometres), Tumkur (393.1 square miles or 1,018.1 square kilometres), Kunigal (380.5 square miles or 985.5 square kilometres), Tiptur (320.5 square miles or 830.1 square kilometres), Turuvekere (297.5 square miles or 770.6 square kilometres) and Koratagere (243.8 square miles or 631.4 square kilometres).

But oddly enough, according to the census of 1961, the biggest taluks are also the most thinly populated ones, the density of population of Sira and Pavagada being only 269 and 214 per square mile, respectively. The most thickly populated taluk in the district is Tumkur (554) followed, with a fairly large difference, by Kunigal (408), Koratagere (367), Madhugiri (363) and Tiptur (358). The remaining five taluks have a density of population less than 350, the most thinly populated taluk being Pavagada (214). The following table gives the taluk-wise distribution of population and the density of population of each taluk as in 1951 and 1961:—

Name of taluk	Population		Density	
	1951	1961	1951	1961
1	2	3	4	5
Tumkur	1,86,469	2,17,911	463	554
Madhugiri	1,31,042	1,53,793	310	363
Koratagere	78,710	89,383	307	367
Sira	1,25,932	1,54,004	216	269
Pavagada	95,579	1,17,196	183	214
Chiknayakanahalli	91,889	1,15,657	222	276
Gubbi	1,25,690	1,47,422	270	310
Tiptur	94,142	1,14,638	311	358
Turuvekere	86,467	1,02,325	283	344
Kunigal	1,35,433	1,55,073	354	408

The following table shows the decennial increase in the population of the district from 1901 to 1961:—

Year	Population	Decade increase	Percentage of decade increase
1	2	3	4
1901	6,71,953	..	..
1911	7,39,276	+67,323	10.02
1921	7,76,971	+37,695	5.10
1931	8,63,227	+86,256	11.10
1941	9,55,800	+92,582	10.73
1951	11,51,362	+1,95,553	20.46
1961	13,67,402	+2,16,040	18.76

From these figures, it is clear that there was a marked variation between 1901 and 1921 and again between 1931 and 1951. From 1901 to 1931, the overall growth percentage was 28.47, whereas during the next thirty years, it was as much as 58.41 and taking these sixty years as a whole, it is found that the population of the district has increased by 103.50 per cent. The following figures show the taluk-wise increase in population for the period from 1901 to 1961:—

Taluk	Population		Increase
	1901	1961	
1	2	3	4
Tumkur	1,07,513	2,17,911	1,10,398
Madhugiri	84,318	1,53,793	69,475
Koratagere	33,953	89,383	55,430
Sira	77,604	1,54,004	76,400
Pavagada	61,241	1,17,196	55,955
Chiknayakanahalli	51,286	1,15,657	64,371
Gubbi	87,468	1,47,422	59,954
Tiptur	54,354	1,14,638	60,284
Turuvekere	36,355	1,02,325	65,970
Kunigal	77,861	1,55,073	77,212
Total	6,71,953	13,67,402	6,95,449

The rate of increase during the period differs from taluk to taluk. While Turuvekere, Tumkur, Koratagere, Chiknayakanahalli and Tiptur taluks have added to the population to the extent of more than a 100 per cent, in the other five taluks, the growth has been less than a 100 per cent.

Urban and
Rural
Population

Of the total population of 11,51,362 of the district in 1951, 1,05,762 lived in towns and 10,45,600 lived in villages, the percentage of urban population to the total population being 9.2. According to the census of 1961, these figures were 13,67,402, 1,38,989 and 12,28,413 respectively and the percentage of the urban population to the total population was 10. The district is markedly rural in population, as is clear from a comparison of its figures with those of other districts and that of the State as a whole; the percentage of urban population in this district (i.e., 10) is the lowest in the State; the second and third lowest in this respect are Mandya and Hassan, their percentages of urban population to total population being 11 and 12 respectively; the State's average percentage of urban population to total population is 22. But from the point of view of the number of inhabited villages, the district ranks second, the first place being taken by Kolar which is smaller in area than Tumkur. The numbers of towns and inhabited villages in the district in 1951 and 1961 were as follows:—

	1951	1961	Variation
Towns ..	11	11	Nil
Villages ..	2,392	2,444	+52

The number of villages has increased in most of the districts in South Mysore during this period and Tumkur's increase (52) is the third highest in this area, the increase in Mysore and Hassan districts being 159 and 61 respectively. The total number of uninhabited villages in the district, according to the 1961 Census, was 281.

The following statement gives the number of occupied houses in urban and rural areas in the district as in 1951 and 1961:—

		Number of occupied houses		Variation
		1951	1961	
Urban ..		17,867	24,416	+6,749
Rural ..		1,96,683	2,28,148	+31,465

Thus, while the percentage of increase in the number of occupied houses in towns was as high as 38, that in the villages was only 16. If the above statement and the rise in the urban population indicate the progressive drift of population from the rural to the urban tracts in general, a study of the increase in

population of the towns in the district reveals the tendency of large towns to grow larger, naturally at the cost of villages which do not register increase of population to the same extent. However, the Tumkur district does not have any big city; nor does it have any Class I town (i.e., with a population of 1,00,000 or more), or even Class II town (i.e., with a population of 50,000 or more but not exceeding 99,999). There is only one Class III town (i.e., with a population of 20,000 or more but not exceeding 49,999), five Class IV towns (with a population of 10,000 or more but not exceeding 19,999), two Class V towns (with a population of 5,000 or more but not exceeding 9,999) and three Class VI towns (with a population below 5,000). The population figures of 1901 and 1961 for the towns of the Tumkur district are as under:—

Name of town	1901	1961	Increase
Tumkur ..	11,888	47,277	35,389
Tiptur ..	3,560	15,558	11,998
Sira ..	4,059	15,408	11,349
Kunigal ..	1,802	10,566	8,764
Chiknayakanahalli ..	6,118	10,375	4,257
Madhugiri ..	4,660	11,275	7,215
Gubbi ..	5,593	8,548	2,955
Pavagada ..	2,840	5,913	3,073
Y. N. Hoskote ..	1,946	4,790	2,844
Turuvekere ..	2,333	4,983	2,650
Koratagere ..	2,811	4,301	1,490

From this table, it can be seen that the population of the four larger towns has increased fourfold or more. While the most spectacular rise has been registered by Kunigal, the towns that have registered the lowest rise are Gubbi and Koratagere. The reasons for the continuous drift of population from villages to towns are many. Employment opportunities and educational facilities available in the towns constitute major factors, and this is particularly true of Tumkur and Tiptur in the district. Often, the land-holding families maintain two households, one in the village and another in some town, the latter being meant for the school and college-going children. Many of the non-cultivating owners of land, i.e., agricultural rent-receiving class and their dependents,

live in towns, a number of them engaging themselves in various kinds of urban business. The notion that town life is dependable and easy-going in contrast with the uncertainties and hardships of agricultural life is also responsible, to a certain extent, for the drift in population.

Sometimes, factions and party strifes in the villages also drive families to towns. In addition, there are the common attractions of town life such as impersonal living, cinemas and other means of entertainment, hotels and other modern amenities. But during very recent years, there has been some movement of population, however small it may be for the time being, towards the villages also and this is mainly due to the new Governmental policies towards land tenure, agricultural development and improvement of villages. The 'land to the tiller' movement and the measures for removing the system of 'absentee landlordism' are making many of the non-cultivating land-owners to go back to the villages, to safeguard their land, if for nothing else.

Movement of population

Emigration and immigration figures in the censuses are arrived at on the basis of the places of birth and the places of enumeration of the persons concerned. According to the 1951 Census, out of the total population of the district, i.e., 11,51,362, only 29 were born in countries in Asia beyond India, three in Europe and all the rest, i.e., 11,51,330 were born in India. Out of these 11,51,330, 25,552 persons were born in States other than the then Mysore State and were immigrants from those States. Of these immigrants, as many as 25,292 came from the then adjacent States of Madras, Bombay and Coorg, out of whom 24,878 came from the former Madras State alone. Of the other remoter States in India, the largest number of persons, 84, were from the former Hyderabad State, the next largest figure being 67 relating to persons from the former Rajasthan. Thirty persons came from the former Travancore-Cochin and 29 from the former Saurashtra.

As among the districts of the State, there was much give and take between Tumkur and Bangalore districts. According to the 1951 Census, the Tumkur district received from Bangalore district 19,576 persons and gave to that district 70,486 persons; from the other neighbouring districts of Kolar, Mandya, Chitradurga and Hassan, the Tumkur district took 5,571, 4,942, 5,357 and 6,822 persons, respectively. Naturally, the inter-district movement within the State is more pronounced in the rural tracts, while the immigrants from other States are more numerous in the urban than in the rural tracts as can be seen from the following table:—

District or State or Country where born	Enumerated	
	In Tumkur district (whole)	In Tumkur district (urban)
Bangalore	19,576	5,010
Kolar	5,571	1,202
Mandya	4,942	613
Chitradurga	5,357	887
Hassan	6,822	1,184
Madras (former)	24,878	648
Bombay (former)	357	238
Hyderabad (former)	84	52
Rajasthan (former)	67	63
Travancore-Cochin (former)	30	19
Saurashtra (former)	29	29
Asia	29	24
Europe	3	3

The 1961 Census has revealed the following important and interesting particulars of migration into the district:—

Where born	Enumerated in rural or urban area	Males	Females	Total
1	2	3	4	5
Outside the district but within the State.	R	14,656	34,139	48,795
	U	8,141	9,827	17,968
	Total	22,797	43,966	66,763
Andhra Pradesh	R	7,825	18,554	26,379
	U	1,452	1,800	3,252
	Total	9,277	20,354	29,631
Madras State	R	1,686	1,420	3,306
	U	1,289	1,180	2,469
	Total	3,175	2,600	5,775
Kerala State	R	344	92	436
	U	394	94	488
	Total	738	186	924

R=Rural U=Urban

In 1961, there were also residing in this district 56 persons born in countries in Asia beyond India and 26 persons born in countries in Europe.

Language

Of the 170 languages and dialects spoken in the State as mother-tongues, Tumkur district has returned, in the 1961 Census, only 36. Of these 36 mother-tongues, Kannada, the regional language, accounts for 79.22 per cent of the population. Telugu is the mother-tongue of 11.92 per cent and Urdu of 5.97 per cent of the people in the district. Tamil and Marathi are the mother-tongues of a little less than one per cent each. These five languages together account for about 99 per cent of the district's population. The following statement indicates the number of speakers of each of the 36 mother-tongues in the district :—

Sl. No.	Mother-tongue	Males	Females	Total
1.	Assamese ..	1	..	1
2.	Balabandhu ..	2	1	3
3.	Banjari ..	6,103	5,888	11,991
4.	Bengali ..	1	..	1
5.	Coorgi/Kodagu ..	1	11	12
6.	English ..	25	6	31
7.	Garhwali ..	1	..	1
8.	Gorkhali ..	1	..	1
9.	Gujarati ..	440	385	825
10.	Gurmukhi ..	1	..	1
11.	Hindi ..	757	645	1,402
12.	Hindustani ..	475	452	927
13.	Irula/Iruliga ..	18	9	27
14.	Jagannathi ..	65	64	129
15.	Kannada ..	5,54,368	5,28,362	10,82,730
16.	Koracha (a dialect of Kannada).	68	68	136
17.	Korama-Kannada (a dialect of Kannada).	192	181	373
18.	Kongar ..	3	1	4
19.	Konkani ..	99	64	163
20.	Korava ..	15	13	28
21.	Kshatriya-Marathi ..	3	4	7
22.	Mahajani ..	7	8	15
23.	Malayalam ..	641	200	841
24.	Marathi ..	5,917	5,933	11,850
25.	Marwari ..	37	94	131

Sl. No.	Mother-tongue	Males	Females	Total
26.	Nepali ..	8	1	9
27.	Pali ..	8	3	11
28.	Punjabi ..	5	6	11
29.	Rajasthani ..	9	8	17
30.	Sanskrit ..	2	2	4
31.	Saurashtra ..	1	1	2
32.	Sindhi ..	8	11	19
33.	Tamil ..	5,610	5,249	10,859
34.	Telugu ..	83,148	79,840	1,62,988
35.	Tulu ..	121	115	236
36.	Urdu ..	41,080	40,586	81,616

The generality of the persons whose mother-tongue is not Kannada are also conversant with it. The next important subsidiary language in the district is Telugu; out of the 10,82,730 persons, who returned Kannada as their mother-tongue in this district in 1961, 76,322 persons were bilingual and out of these 76,322 persons with Kannada as mother-tongue and speaking also some language subsidiary to Kannada, 48,880 persons knew Telugu as a second language.

SOCIAL LIFE

All the Hindu castes and communities in the district are governed by the Hindu Law, inheritance being universally in the male line. No other form of inheritance such as matriarchy is in vogue in the district. Evidence, however, of the existence at one time of mother-right is, according to Hayavadana Rao (Mysore Gazetteer, 1927, Vol. I, p. 181), traceable among several castes of the district. Under this system, descent was traced and property transmitted in the female line. Even now, among some castes, the family is often sought to be continued through a daughter who lives in her father's house.

The affiliation of a son-in-law in the family is also prevalent in some castes. Among a section of the Adi-Karnatakas, a resident son-in-law receives an equal share of his father-in-law's property with his brothers-in-law. A similar custom prevails among the Bedas, Bestas, Voddas, Gollas and a section of Vokkaligas. This is called 'Manevalatana' in Kannada and 'Illatom' in Telugu. According to this custom, when a man has no sons, a daughter is married to a man who agrees to become a member of the family and who, thereafter, resides with the father-in-law and inherits his estate for his children.

Joint family system

The joint family system is, no doubt, losing its hold on the society. The reasons for its decline are obviously several. If the individualistic and selfish tendency of the male members of the joint family and the inability of its female members to live under the same roof are the common and age-old reasons for the break-up of the joint families, the conditions of modern living and the pattern of present-day economy are also, to some extent, responsible for their gradual disappearance. This should not be taken to mean that the joint family system is entirely a thing of the past; there are a number of joint families still existing in the district. But it may be said that they have lost the spontaneity and are more or less forced to be joint families. Transfer of property through wills is sometimes taken as a sign of the weakening of joint family ties. But it does not seem to be true in all cases, for wills are often made due to the absence of legal heirs or on account of the desire of the head of the family to pass some of his property to others of his liking. Hardly about 300 wills are registered in a year in the district.

Marriage and morals

There are many restrictions on marriage among the generality of castes and tribes. A man must not marry outside the limits of his caste and if he is a member of a sub-caste, he may not marry outside the particular sub-caste. In the case of several castes, linguistic, territorial, religious and occupational differences generally prove effectual bars to inter-marriage. Again, in the same caste the rule that the bride and the bridegroom should not belong to the same *gotra* or sept still prevails. (*Sagotra* marriages are now permissible under the Hindu Marriage Act, 1955). As elsewhere in the State and outside, many of the exogamous groups among the Brahmins are generally eponymous, each group or *gotra* being supposed to consist of the descendants of one or other of the ancient *Rishis*. *Gotras* with similar names are found among a few other castes like Vaishya, Besta, Sale, etc. Many castes and even sub-castes have headmen of comparatively modern times as the reputed ancestors of their exogamous sections. This is the case among the Banjaras, Kadu Gollas, Agasas, Idigas, etc. Some groups are named after the places where the founders originally resided or are supposed to have resided. Traces of totemism, giving rise to exogamous septs, are also found among other castes as well, the totem being generally some plant, animal or some other inanimate object now or until recently held in reverence by the members of the sept.

Maternal uncle's place

Side by side with these restrictions on marriage, there exists a custom among many of the castes, which allows marriage between certain near relatives. Thus, 'cross-cousin' marriage is permitted among several communities in the district. It may be said that the practice for a man to ask for the hand of his sister's daughter either for himself or for his son is still common in the district.

Among certain castes, it is the right and duty of the maternal uncle to cut the post of *Kalli* (*Euphorbia tirukalli*) required for erecting the marriage booth. Among a section of the Adi-Karnatakas, the *tali* is tied to the bride by the maternal uncle. Among the Lingayats, a portion of the present made to the bride is given to the maternal uncle and another portion to the bride's sister. Among the Idigas and the Telugu Banajigas, the duty of tying the chaplet (*bhasinga*) to the bridegroom's forehead lies on the maternal uncle. Among some castes, the bride is brought to the marriage booth by her maternal uncle. Among the Madigas, the bride and the bridegroom are each lifted up by their respective maternal uncles, who circle round three times with them and upset a jug of water (kept close by) by kicking it. The couple is then carried inside the house and seated on the marriage dais. The maternal uncles are each presented with a turban, 12 betel leaves, 12 nuts, a cube of jaggery and some cash. This ceremony is called *binaga* or *serebidisuvudu*, i.e., 'release from bondage'. Especially among the Vaishyas, there has been a strong custom of asking for the hand of one's maternal uncle's daughter. The social outlook of the people is now changing owing to the modern conditions of living, and inter-sub-caste and inter-caste marriages, though few in number, are taking place and are not so much frowned upon as before. Formerly, a number of castes preferred child marriage or pre-puberty marriage to adult or post-puberty marriage. But in recent decades, due to social reform and legislation, this custom has gradually gone out of practice. Now, the usual marriageable age in the generality of the castes is round about 16 for girls and 20 to 25 for boys.

Among the Brahmins and those following them, the universal rule is to give away the bride as a gift to a suitable bridegroom. Formerly, there was practically no reference to any dowry. But in recent decades, with the increase in the cost of education and competition for well-educated and well-placed sons-in-law, the practice of paying large dowries to them came into existence. But at the same time, instances of enlightened bridegrooms who did not demand dowry or who refused to take dowry were also not wanting. This evil system, of late, had spread to some other communities as well. Payment of dowry has been now prohibited by legislation. However, the evil practice still persists to a certain extent.

Among certain other castes and tribes, it was the other way about, i.e., the bridegroom's party had to pay and this payment was called *tera*. The amount to be paid varied from Rs. 12 to Rs. 500. Many castes were content with the amount fixed by custom and did not arbitrarily raise it. The cases where the payment was excused were rather rare; instances where it was excused partly or wholly were: (1) where the bridegroom was the maternal uncle

of the bride, or his son, the usual amount was reduced by one half, or even excused altogether; (2) when a widow married her husband's younger brother, no amount was paid; (3) where the bride was a widow and the bridegroom a widower, then the amount was reduced by one half; and (4) when there was exchange of daughters between the marrying families, the *tera* was altogether excused on both sides. On the contrary, among certain castes, when a widower desired to marry a virgin he had to pay a higher amount, and this was in addition to the payment of *savati hana* or the co-wife's gold. Sometimes, if the amount to be paid was heavy, its payment was spread over several years. Occasionally, when the bridegroom was too poor to pay, he was allowed to work in his father-in-law's house, being fed and clothed by the latter; there was no specified period of service, but usually, as among the Voddas, the son-in-law served until he begot a female child and presented her to his brother-in-law. Now-a-days, in many castes, only the poor take the *tera* and among them also the custom is dying out.

Marriage ceremonies

Among the generality of castes, the marriage ceremonies used to be elaborate, and in all their details, lasted usually for five days. In the majority of cases, the marriage takes place at the bride's place. Among the Kadu Gollas, there is a peculiar custom according to which the marriage takes place outside the hamlet and those who attend the marriage enter their houses after taking a bath. The marriage ceremonies include among most castes various items, the chief of which are the *veelyada shastra* (betel leaf ceremony) which fixes the contract between the parties; the *devadruta* which invokes the blessings of God and the dead ancestors on the couple; the *chappara* (or the *elevasa*) which is the erecting of the marriage pandal; the *tali*-tying which turns the contract into a sacrament; the *dhare*, the pouring of milk into the joined hands of the couple; the *sasa*, the pouring of handfuls of rice by couples on the bride and the bridegroom; *bhuma*, the eating together by the newly married couple; the *nagavali*, the searching of two vessels containing red-coloured water; the *kankana-visarjana*, the untying of the wrist-bands from the hands of the couple, and finally the *gaddige* (or *simhasana*) *puje*, the worship of the throne. The binding portion of the marriage is invariably the tying of the *tali* followed by the *dhare*. Among the Banjaras, going round the milk post is the operative part of the ceremony.

There is practically no difference between the details of marriage among the Brahmins in this district and those in other parts of the State. The marriage takes place usually at the bride's residence and occasionally in a temple or a *matha*. After the arrival of the bridegroom at the bride's place, the important steps

of the ceremony are: *varapuje* or the honouring of the bridegroom by the bride's parents; *nandi*, which invokes the ancestors of the bridal couple; *kankana-dharana* symbolising the couple's entry into the marriage state; *akshata* or the throwing of a few grains of reddened rice by the couple on each other's head and also by the gathering over the couple, and tying of the *mangalasutra* followed by *lajahoma* and *saptapadi* which marks the completion of the marriage.

Amongst the Lingayats, generally, instead of fire, *pancha kalashas*, representing the five *gotrakaras* of the Lingayats, are set up. The marriage is performed mostly in the house of either of the parties or rarely in the *mathas*. All the details of the marriage ceremony, including the *varapuje*, take place after the *kalasha sthapana*. The most important part of the marriage ceremony is the tying of the *mangalasutra* by the bridegroom around the neck of the bride. The priest then invokes divine blessings and all the people present, who strew grains of reddened rice on the couple, also bless them.

The old ideas about caste and marriage are slowly losing their hold on the people. For instance, in many cases, at present the marriage ceremonies are greatly simplified. Instead of five days, the present-day marriages are completed in two or three days; but this should not be taken to mean that the expenses of marriage have come down in any way. On the contrary, it may be said that the marriage expenses have increased. Instances of performing marriage ceremonies in a 'grand style' by borrowing large sums of money are not wanting.

Muslim marriages are celebrated according to Islamic rites. Formal proposals for the marriage come from the bridegroom's father. Like the other communities in the district, Muslims also erect large pandals in front of the marriage house. On the day of marriage, the bridegroom arrives in a procession and is received by the bride's people. The *kazi* obtains the signatures of the bridegroom, the bride's father and two witnesses, one from each side. The proceedings are recorded. Then the *kazi* reads out the *nikha* and invokes the blessings of the Holy Prophets.

Muslim marriage

The Christians celebrate their marriages in the church. It is the duty of the parish priest or any other religious authority superior to the parish priest to conduct the marriage. After the marriage service is read, the bridegroom and the bride are asked as to whether both of them are agreeable to the union. The marriage is then solemnised.

Christian marriage

Marriage being a religious sacrament among the Hindus, divorce as such is not much in practice. Among some of the

divorce

castes, however, divorce is not difficult; according to the custom, it can be brought about at the instance of either party for infidelity on the part of the wife or incompatibility of temper between the parties or loss of caste by either party. A fine is usually paid to the caste by either party adjudged to be at fault. In either case, the wife has to give back to her husband the *tali* tied to her on the occasion of marriage, as also the jewels, if any, presented to her then, and also the *tera* amount and sometimes the marriage expenses incurred by the husband in case she re-marries. In some cases, the *tera* amount and the amount of the marriage expenses of the previous husband are collected from the man who marries her later. Such a union is called *kudike* in contrast with the regular marriage which is called *maduve*. The Hindu Marriage Act, 1955, has provided for divorce. Among the Muslims and Protestant Christians also, divorce is permitted. According to the 1951 Census, there were 1,864 and 3,860 divorced or separated men and women respectively in the district in that year.

Monogamy and
polygamy

Before the passing of the Hindu Marriage Act of 1955, polygamy was prevalent among the Hindus, though to a little extent. The special reasons that sanctioned a second wife were the failure of the first to bear a son or her affliction by an incurable disease or infirmity. However, sometimes, a sort of compulsory polygamy prevailed among certain castes, for example, the Banjaras, owing to the practice of expecting a man to marry his elder brother's widow. On the other hand, amongst most castes, polygamy was usually discouraged by levying a fine on the party guilty of it. Polygamy is forbidden for the Hindus under the Act referred to above. The Christians also follow monogamy, while, however, polygamy is prevalent among the Muslims.

Widow
re-marriage

Traditionally, in addition to the Brahmins, those who do not re-marry their widows are the Vaishyas, Kadu Gollas, Agasas, sections of the Idigas, Nayindas, Devangas and Kumbaras and the non-Lingayat Banajigas. Certain castes like the Ganigas and the Gollas and sections of the Vokkaligas stand in a middle position. If, among these castes, which generally discountenance widow re-marriage, a widow chooses to re-marry or live with a widower, she is allowed to do so and her children form a *salu* or line of their own. Among the Kadu Gollas, who traditionally believe that a woman on losing her husband becomes the bride of their tutelary deity, the feeling against re-marriage is intense, and the widow is allowed to continue to wear bangles and the *tali* as usual. Among the Lingayats, re-marriage of widows is permitted, but certain sections do not admit its sanctity.

In other castes, widow re-marriage is common and there is no restriction as to the number of times a widow can re-marry. Except among the Banjaras, a widow cannot marry her deceased

husband's brother. Among most castes, she cannot also marry any of the agnatic relations of her late husband. The restriction is further extended among a few other castes-like the Kurubas, Helavas, Bedas and sections of Adi-Karnatakas to all persons belonging to the exogamous sept of the husband. When a widow marries her late husband's younger brother, there is hardly any ceremony excepting that the new husband has to supply to his caste fellow-men betel and nut. In other cases, there is a brief ceremony on the occasion. Married women do not take part in it. The marriage takes place usually during the dark fortnight and often after sunset, in the presence of the assembled castemen. The bride bathes, puts on the new dress given to her by the new husband, who ties the *tali* to her, and the customary dinner follows.

Social evils like prostitution, traffic in women and gambling are prohibited by law; but all the same, these evils do exist to some extent, more in towns than in the rural parts. While a few vestiges of 'untouchability', which is forbidden by law, would be still found in some of the rural areas, it is no longer prevalent in the urban areas.

HOME LIFE

The houses in villages are built along narrow and irregular lanes and streets. Constructed usually of mud or sun-dried bricks, these dwellings are one-storeyed and low, generally with very few openings outwards except the main door. Larger houses have courtyards within, surrounded by verandahs. Some of the old houses, belonging to rich landlords, have wooden pillars and doorways elaborately carved. The houses of the poor consist of a couple of rooms with a small backyard. A raiyat's house is generally a long narrow room half of which is shared with the cattle at night. For roofing, the people of the upper classes use reinforced cement concrete or the red Mangalore tiles, while the poor thatch their huts with various kinds of grass. The people in between these two classes have houses with flat roofs covered with either stone slabs or mud. So far as the roofing material is concerned, the district may roughly be divided into three vertical belts:—(1) the western, consisting of Chiknayakana-halli and Tiptur taluks, (2) the central, comprising Kunigal, Turuvekere, Gubbi and Sira taluks and (3) the eastern, including Tumkur, Koratagere, Madhugiri and Pavagada taluks. There are more houses with tiled roofs than with flat roofs in the western taluks while the majority of houses in the eastern taluks have flat roofs. The largest number of houses with stone roofs are to be found in the central belt. The roofs of a majority of the houses in the urban areas of the district as a whole are tiled. In some of the houses with flat roofs, even the walls are built either

Dwellings

of cut-stone slabs or a combination of stone-slabs outside and mud or brick inside. The temporary huts erected by the labourers and the migrating families are called *gudlus* or *gudisalus*.

Formerly, many of the villages in the plainer parts of the district appear to have been fortified as were many of the hill-tops in some way or the other. Even now one can see the remains of the gateways, which were perhaps closed at night, or the remnants of a *hude* or a round tower loop-holed for musketry on the outskirts of some of the villages. Scenes of the remains of regular forts are also not uncommon. Some of the villages are surrounded with the remains of a strong hedge of either *kalli* (*Euphorbia tiru-kalli*) or *butali* (*Agave vivipara*). Each village has its own temple dedicated to Hanuman, Veerabhadra or Basava and also a shrine dedicated to the local goddess, who is generally a form of Shakti.

In towns, housing conditions are much better than in the villages. Almost all the municipal towns have now well-planned extensions in addition to the old, irregularly shaped townships. The layout of streets and their sanitation being under control in these towns, a great deal of improvement has been effected during the last two or three decades. Here too, the roads in the older parts are often narrow and irregular. The houses in the towns range from small insanitary dwellings of the poor classes of labourers to the well-designed and elegantly constructed bungalows of the rich. The houses of the poor are almost similar to those in the villages. The middle and the upper classes have sufficiently big houses, often with an upper storey; the majority of them are roofed with Mangalore tiles or with reinforced cement concrete. Larger towns like Tumkur have a number of lodging houses, rest houses and *chhatras* or choultries providing travellers with some of the modern facilities. As for general housing conditions, Tumkur district may be said to be one of those districts in the State which have tolerably good housing conditions. The 1961 Census revealed the following proportion of houses, according to the number of rooms occupied, per 1,000 of the households in the district:—

	No regular room	One room	Two rooms	Three rooms	Four rooms	Five rooms and more	Total
No. of houses	78	368	370	111	44	29	1,000

Furniture

Furniture, in the modern sense of the word, may be said to be practically non-existent in most of the rural houses. A chair or two and a table may be found in a few rural houses and a bench or two in the village hotels. But in the urban areas, the

demand for furniture has been continuously on the increase. It has almost become a necessity with some classes of people like lawyers, officers and businessmen. Traditional pieces of furniture are the dining boards (*manes*) and the swing-boards (*toogu-manchas*), the latter, however, fast going out of fashion. The more well-to-do have, in addition to the chairs and tables, sofas, wooden or steel cots, almirahs and cup-boards. In the shops and other establishments, now-a-days steel furniture is becoming more and more common.

"Dress generally varies with caste"—this was said about Dress forty years ago (C. Hayavadana Rao: *Mysore Gazetteer*, 1927, Vol. I, p. 418). But in the present day society, the dress hardly betrays the caste. The orthodox Hindu men of the older generation usually have their heads shaved except for the tuft at the crown. The *panche* or *dhoti*, a thin sheet of white cloth, covers the lower limbs. The elderly people wear the *dhoti* in the *katche* style, i.e., one end of it being gathered into folds in front and the other passed between the legs and tucked in at the waist behind; the others simply wrap a shorter *dhoti* round their waist. A shirt, half or full, covers the upper part and a piece of cloth known as *angavastra* is often thrown over the shoulders. While attending offices, elderly persons usually wear a turban called *peta* or *rumal* and a cotton, silk or woollen coat, either close-collared or open-collared. The *peta*, which is a long piece of cloth, tied in a triangular fashion, is the characteristic head-gear of the older generation in the former Mysore State and it is often lace-bordered. The *rumal*, which is a large square cloth, wound round the head less systematically and in slightly differing styles, is less worn now than in the past. The merchant classes dress more or less in the same manner.

Among the younger generation, the modern type of dress consisting of a pair of trousers and a shirt and a coat or a bush shirt has become common among all the communities. Boys wear a shirt and half or full trousers or pyjamas. Some of them wear a cap, white or coloured, when attending schools and colleges, while others prefer to be bare-headed. The Hassan cap, once in great vogue, has gone out of fashion. The dress of the cultivators consists of a *rumal*, a shirt and a short *dhoti*, while some of them wear also an *angavastra* and sometimes shorts, all made of cotton. To this is often added a *kambli* (blanket) in the cold weather.

Coming to the dress of women, one may say at the outset Women's dress that in common with the other districts of the Mysore State, women in this district are fully clothed. A tight-fitting short bodice called *kuppasa* is universally worn here. This covers the upper part of the body leaving the neck, throat and, to some extent, the arms bare. It is generally of a gay colour, or with

borders and gussets of contrasting colours. The *seere* or saree, a long sheet of cloth, of various colours and designs, is wrapped round the lower part of the body coming down to the ankles. One end of this is gathered into a large bunch of folds in front while the other, passing across the bosom, hangs freely over the left shoulder, or is taken over the right shoulder also so as to cover the upper part more fully. The latter end of the saree, among the generality of castes, is taken over the head, except among the Brahmins and some other castes. Among orthodox sections of some Brahmin sects, particularly among the Madhyas and Shrivaisnavas, the saree is worn in particular *katche* styles. The usual dress of the girls consists of a *langa* or skirt and a jacket, or occasionally a frock.

The dress of some Muslim men differs chiefly in cut and colour and in the wearing of long loose drawers. It is mostly the same as that worn by the Deccani Muslims in general. The orthodox Muslims shave their heads completely and grow beard. A skull cap is worn before the turban is tied round the head. The Muslim women wear either a saree in the general style described above, taking the free end of it over the head, or long loose drawers with long full-sleeved shirt, a coloured petticoat and bodice; especially in the urban areas, they observe *gosha*. The Indian Christians dress generally much like the Hindus.

Among others, the Lambanis are noted for their peculiar dress. The Lambani women's dress consists of a *langa* or gown of stout coarse print, a tartan petticoat and a mantle, often elaborately embroidered, which also covers the head and the upper part of the body. The hair is worn in ringlets of plaits hanging down each side of the face and decorated with small shells and silver ornaments. The arms and ankles are profusely covered with trinkets and bangles made of bones, brass or other materials. The dress of the older generation of men consists of a white or red turban and a pair of white breaches reaching a little below the knees, with a string of red silk tassels hanging by the right side from the waist-band, the bust above the waist being often uncovered. Now-a-days, the men's dress has changed and is similar to that of others, while the women have retained their old dress.

Ornaments

The passion for ornaments is universal. It is as strong to-day as in the past and if there is any change, it is only in the style. Every village has its goldsmith, who prepares different kinds of ornaments, and the urban areas have attracted many goldsmiths from South Kanara and some of the Tamil districts. Gold ornaments of to-day usually consist of ear-rings, nose-studs, necklaces, bangles and rings. Plaits and studs for the back of the head are also usual. Silver ornaments are more common among the poorer classes, these consisting of chains and heavy rings for the ankles

and loops or zones for the waist. Fashions have now changed, lightness and fineness being the order of the day.

As in other southern districts of the State, ragi (called *Food habits* *maruva* or *muduva* in Northern India) and rice form the staple foodgrains throughout the district. Ragi, which is by far the most important dry crop raised in the district, supplies, especially the working classes, with their main diet. It is reckoned as a most nourishing and sustaining food for people doing heavy manual work. It is ground into flour which is then dressed in various ways. The most common are a kind of pudding called *mudde* or *hittu*, and two kinds of cake, called *rotti* and *dose*, the latter usually fried in oil.

To some extent, food varies with caste, or more correctly, with class. The upper classes use more rice than ragi. The Brahmins are mainly rice-eaters. Boiled rice, called *kusabalu-akki*, is used largely by the poorer classes. Wheat is used rather rarely, on festive, ceremonial and other similar special occasions. It may be said that the use of rice and wheat is gradually increasing. The items of food do not differ much from those in other districts. The normal vegetarian meals consist of rice, ghee, *dhal*, one or two vegetables, pickles and curds or butter-milk. These are also the common items of hotel food in the district, often with the addition of *chapatis* and *happalas* (*poppods*). On festive occasions, these are supplemented by sweet and savoury dishes and fruits.

The adults among the higher classes have only two meals a day, one at mid-day and the other at night; but they are supplemented by tiffin, with coffee or tea in the morning and in the afternoon. Orthodox Brahmin widows do not take meals at night; instead they take light un-cooked food like parched rice and fruits. The working classes have generally three meals, breakfast in the morning, lunch at mid-day and a dinner at night. Breakfast in many households is now-a-days mostly in the form of tiffin with coffee.

The Brahmins, Lingayats, Vaishyas, Vishwakarmas, Jains, etc., are vegetarians. The majority of the others eat meat, poultry and fish. As elsewhere, beef is not eaten by the Hindus and pork by the Muslims. The Myasa Bedas do not eat fowls and the Pinjaris, a section of the Muslims, beef. The most popular beverage in the district is coffee; but the number of tea-drinkers is also gradually increasing. The use of aerated waters is generally confined to towns.

Largely, the poor classes take their food in platters made of leaves. This is also the case with many of the well-to-do families for 'reasons of cleanliness'. But generally speaking, leaves

are being fast replaced by plates. Some of the Lingayats, particularly those living in villages, use the *addanige*, a small three-legged wooden stool for placing the plate in which they take their food.

Festivals

The lives of the Hindus are enlivened by a great variety of festivals. While some important festivals are common to all the Hindu communities, others are sectarian in nature, the Brahmins claiming many more than the rest. Although these holidays are apparently religious in nature, they serve also social purposes to some extent. Many traditional holidays are not being now observed. The following is a chronological enumeration of some of the more important holidays observed by the different sections of Hindus of the district. *Ugadi* or more correctly *Yugadi*, the first day of Chaitra, is the new year day of the Shalivahana Shaka and is observed by all castes. The day is considered as one of the most auspicious days in the year. On this day, the priest reads out the new year's *panchanga* or the Hindu almanac. *Ramanavami*, the 9th day of Chaitra, is celebrated as the birthday of God Rama. *Hanuma Jayanti*, the birthday of Hanuman, is observed on the full moon day of Chaitra. *Basava Jayanti* falls on the third day of Vaishakha Shuddha (Rohini Nakshatra) and is one of the most sacred days for the Lingayats; it is celebrated on a wide scale with social functions and lectures on the life and teachings of Basaveshwara, and other programmes are also arranged. *Akshayatri*, the third lunar day of Vaishakha, is considered as one of the luckiest days of the year. Most of the cultivators start their spade work on this day, and in general, many people begin on this day anything new and important that they want to take up. *Narasimha Jayanti*, on the full moon day of Vaishakha, is observed by a section of the Brahmins as the birthday of God Narasimha. Though the 11th day of the bright half and the dark half of every month is considered as a fasting day, only few observe it; but *Ashadha Ekadashi*, the 11th day of the bright half of Ashadha, is observed by many. *Nagapanchami*, the fifth day of Shravana, is an occasion on which the serpent in the form of a stone image or an earthen image is worshipped. *Gokulashtami*, the 8th day of Shravana, is believed to be the birthday of God Krishna. Many Hindus observe this day as a day of fast and at midnight, when the Lord is believed to have been born, an idol of Him is worshipped; the whole night is often spent in singing devotional songs in praise of Krishna.

Ganesha Chaturthi, falling on the 4th day of the bright half of Bhadrapada, is another festival widely observed. This festival, which lasts usually for one, three, five or eleven days and during which Ganesha is worshipped as the god of learning and wisdom, is one of the most popular festivals. *Navaratri*, which begins from the first day of Ashvina, is known for the worship of Shakti

in her various forms—Saraswati, Durga, Chamundi, etc. The 10th day known as Dasara marks the end of the festival. *Navaratri* is one of the most important festivals for all the Kannada people and it has assumed great social importance as *Nadahabba*. After the formation of the new Mysore State, the Government decided to organise, on the occasion, various cultural programmes, including those of dance, drama, music and sports, in all the districts. A State Sports Festival is arranged from the village to the State level and the District Champions participate in the finals held in Mysore city during the Dasara festivities. *Deepavali* signifying a festival of lights, starts from the 13th day of the dark half of Ashvina and lasts for five days. This is one of the most colourful festivals observed by all Hindu communities and known to the children as the festival of crackers. In addition to its religious aspect, this festival also has some social importance and there is much give-and-take among near relatives on this occasion. *Makara Sankranti*, also called Bhogi, on the 4th lunar day of Pushya, marks the entry of the sun into capricorn. It is also one of the harvest festivals in which the newly harvested rice is cooked into a dish called *Huggi* or *Pongal*. There is also a distribution of a mixture of sesamum, sugar or gur and bits of copra on the occasion.

Mahashivaratri, on the eve of new moon day of Magha, is the most important festival for the devotees of Shiva. On this day, they observe a fast and worship Shiva at home or in a temple. The night is spent in singing devotional songs on Shiva. The next morning, the god is again worshipped and a feast is held. *Holi* or *Kamana-habba*, marking the death of Kama, is observed during the week ending with the full moon day of Phalguna, when people revel in songs and sprinkle *okali* (coloured water) on one another. In the houses, a cake and some other eatables are put into a special fire along with an effigy of Kama; the male members of the family walk round the fire three or four times as if at a funeral. There are also communal worships of Kama and bonfires at night, where the same is repeated on a larger scale. In addition, festivals of local deities like Mariamma are celebrated in the belief that this would help to ward off pestilences and the like.

Besides, the Hindus undertake *yatra*s or pilgrimages to places within the district (See under Fairs in this Chapter and Chapter XIX on Places of Interest) as also to places outside the district to worship deities like Ranganatha of Biligiri, Venkateshwara of Tirupati, Madeshwara of Madeshwara Hills, Srikantheshwara of Nanjangud, Sri Krishna of Udipi and Manjunatha of Dharmasthala, on certain specified days in the year. It is usual for some people to visit one of these places if they are cured of some disease or if they are blessed with a son, etc. Those

that can afford also visit places like Kashi, Rameshvaram and, less frequently, Kedarnath and Badrinath.

Muslim festivals

The chief Muslim festivals are the *Id-ul-Fitar* or breaking of the fast, which marks the conclusion of the *Ramzan*, and the *Id-ul-Zuha* or *Bakrid*, which is held on the ninth day of the month called *Zib-hajah*. *Bakrid* is perhaps the greatest of the Muslim festivals. The *Ramzan* falls in the eighth month of the Muslim year. During this period, the time for breaking the fast is from 2 to 5 A.M. *Muharram*, is observed by fasting and is continued for ten days till the day of Karbala in the month called *Muharram*. The *Shab-e-Barat* is observed on the fifteenth day of the month of Shaban. The *Bara-Wafat* is observed to commemorate the death of the Prophet and occurs in the month of Rabi-ul-Avval. The *Akhiri-Chahar-Shumba* or the last Wednesday of the month of Saffar is also observed as a festival. The *Milad-un-Nabi*, the Prophet's birth-day, is another important day celebrated.

Christian festivals

The Christians observe the New Year Day, Easter, the day of Resurrection, and Christmas, the birthday of the Christ. Besides, they also celebrate some festivals in honour of their several saints.

Communal life

The communal life of a people, as a whole, is expressed in the group-games, general means of recreation and communal festivals like *jatras*. The children in this district play a variety of indigenous and inexpensive games. Some of these are *chini-phani*, *killi-patti*, *mara-koti*, *ane-kirr*, *kuntata*, etc. Among girls, *kolata* is a common item of entertainment. This is played on a wide scale in a beautiful manner on festive occasions. Girls also play, both individually and in groups, *haggadata* or skipping over a rope. Other minor games of girls are played with pebbles, *yajjaga* (a kind of nut), tamarind seeds and dolls. Major Indian games for boys are *kho-kho* and *kabaddi*, which is called *hututu* in the northern parts of the State.

The youth in towns usually play foot-ball, cricket and hockey. Of the indoor games, the game of cards and carrom are the most popular ones. Some of the office-goers usually spend some time of their evenings in the clubs which are formed in almost all towns. In addition to these, there are also art, dramatic and other associations which help not only their members but also the public at large to relieve the monotony of life. In recent years, festivals like those of Ganesha and Dasara or *Nadahabba* have assumed added social and cultural importance; programmes of variety entertainments, public lectures and sports events are organised on those occasions.

The elders, particularly the orthodox ones, sometimes spend their evenings in listening to *puranas*, *kirtanas*, *bhajans*, etc.

These are mostly religious in character and vary according to communities. In the villages, an additional attraction is the singing of *lavanis*. At the village fairs, it is common for the *Dombars*, tumblers by profession, to exhibit their clever acrobatic feats. The strength, skill and agility displayed by them is much admired by the spectators. *Bayalata* or *Bayala Nataka* is a major form of recreation, particularly in the rural areas. This type of drama is staged often on festive and *jatra* days. The play is enacted on a platform erected in an open space. It starts late at night and continues till day-break. The themes are generally *paورانic* and are very popular among the villagers. But these older forms of recreation have largely gone out of fashion in towns, where their place is taken by the cinema, which, in the form of touring talkies, has now penetrated into the interior of the district also. The towns are often visited by theatrical companies also, which stage *paورانic* and social dramas and do fairly good business.

Men and women, urban and rural alike, are fond of *jatras* or fairs, which are held in many parts of the district. These are annual features, organised in honour of a deity of a local temple or a saint, and in many cases, the taking out of the idol in a car with procession forms an important part of them. In some places, cattle fairs are also held on these occasions which afford valuable opportunities for trade. A large number of *jatras* take place in this district and the most important, however, are the following, arranged according to taluks:—

Tumkur :

- (1) Car festival of Lakshmikanta, held at Tumkur about the month of January for one day.
- (2) Car festival of Gangadharaswami, held at Tumkur about the month of February for one day.
- (3) Shri Siddhalingeswara *jatra*, held at Siddhaganga about the month of February for ten days.
- (4) Shri Narasimhaswamy *jatra*, held at Devarayanadurga about the month of March for three days.
- (5) Car festival of Anjaneyaswami, held at Settihalli about the month of March for three days.
- (6) Car festival of Someshwara, held at Bellave about the month of March for three days.

Koratagere :

- (1) Shri Anjaneyaswami *jatra*, held at Kyamenahalli about the month of February or March for twelve days.
- (2) Shri Ahobala Narasimhaswami car festival, held at Doddasaggere about the month of March for five days.

Madhugiri :

- (1) Dandi Marammana *jatra*, held at Madhugiri about the month of February for ten days.
- (2) Shri Lakshminarasimhaswami *jatra*, held at Doddadativatta about the month of July for seven days.
- (3) Shri Lakshminarasimhaswami *jatra*, held at Garani about the month of April for seven days.
- (4) Shri Anjaneyaswami *jatra*, held at Gondihalli about the month of May for eight days.

Pavagada :

- (1) Shri Shanimahatmadevara *jatra*, held at Pavagada about January—February for six days.
- (2) Shri Subrahmanyeshwaraswami *jatra*, held at Nagalamadike about December—January for ten days.
- (3) Shri Siddheshwaraswami *jatra*, held at Hariharapura about the month of February for twelve days.

Sira :

- (1) Shri Bandi Ranganathaswami *jatra*, held at Tavarekere about the month of January for ten days.
- (2) Shri Ganga-Brahmeshwara *jatra*, held at Patnayakanahalli about the month of January for fifteen days.
- (3) Car festival of Narasimhaswamy, held at Seebi about the month of February for fifteen days.

Gubbi :

- (1) Shri Channabasaveshwaraswami *jatra*, held at Gubbi about February-March for seven days.
- (2) Ranganathaswami *jatra*, held at Hosakere about the month of March for ten to twelve days.
- (3) Shri Anjaneyaswami *jatra*, held at Kallur about the month of March for seven days.
- (4) Shri Kempammadevi *jatra*, held at Sagasandra about the month of March for seven days.

Kunigal :

- (1) Shri Siddhalingeswaraswami *jatra*, held at Yedeyur about the month of March for five days.
- (2) Kaggeri *jatra*, held at Kaggeri about the month of March for two days.
- (3) Haleyrurammana *jatra*, held at Haleyrur about the month of March for one day.
- (4) Hemagiriappana *jatra*, held at Hemagiri hill about the month of January for one day.

Turuvekere :

- (1) Shri Udussamma *jatra*, held at Turuvekere about the month of March for seven days.
- (2) Shri Mahadeshwaraswami *jatra*, held at Danayakanapura-Kaval about the month of November for seven days.
- (3) Shri Mahalingeshwaraswami *jatra*, held at Lokammanahalli about the month of February for seven days.
- (4) Shri Gangadhareshwaraswami *jatra*, held at Mallaghatta about the month of February for seven days.
- (5) Shri Honnadevamma *jatra*, held at Dandinashivara about the month of April for seven days.
- (6) Shri Kanathuramma *jatra*, held at Kanathur about the month of April for seven days.

Tiptur :

- (1) Shri Shankareswaraswami *jatra*, held at Karagodi about the month of March for three days.
- (2) Shri Narasimhaswami *jatra*, held at Hatgal about the month of March for four days.
- (3) Shri Kariammanadevara *jatra*, held at Peddihalli about the month of March.
- (4) Shri Gopalakrishnaswami *jatra*, held at Nonavinakere about the month of April for four days.
- (5) Shri Bidarammadevara *jatra*, held at Bidarammanagudi about the month of April for two days.

Chiknayakanahalli :

- (1) Haliyur Shri Anjaneyaswami *jatra*, held at Chiknayakanahalli about the month of April for seven days.
- (2) Shri Siddharameshwara Belpatri Vahanam, held at Yelanadu about the month of October for three days.
- (3) Shri Siddharameshwara Deepotsava, held at Godekere about the month of December for two days.
- (4) Shri Ranganathaswami *jatra*, held at Kerehalli about the month of April for seven days.

The following table gives the religion-wise distribution of the population of Tumkur district. The figures pertain to the 1961 Census.

Religion	Males	Females	Total
Buddhists	1	1	2
Christians	1,663	1,417	3,080
Hindus	6,53,747	6,23,565	12,77,312
Jains	1,533	1,366	2,899
Muslims	42,223	41,853	84,076
Sikhs	24	8	32
Religion not stated	2	2	4
District Total			13,67,402

Thus, out of the total population of the district, which was 13,67,402 in 1961, Hindus form a very large majority, their total number being 12,77,312. The next largest community is that of Muslims, who numbered 84,076. It is followed by the Christians, Jains and Sikhs. The Muslims are to be found in largest number in Tumkur taluk. But the Sira taluk, which was the capital of a Muslim province for a long time under the Bijapur Sultans and the Mughals, has comparatively a small number of Muslims, while Kunigal taluk, which is exactly at the other end of the district, has a large number of Muslims. Sira also has the smallest number of Jains who appear to be more concentrated in the eastern parts of the district, being most numerous in Madhugiri taluk. As for the Christians, they are mainly concentrated in the Tumkur, Sira, Tiptur and Turuvekere taluks. There were 2,32,684 persons belonging to the Scheduled Castes and only 402 persons belonging to the Scheduled Tribes in the district in 1961. Their rural and urban as also male and female break-ups were as follows :—

Scheduled Castes

		Males	Females	Total
Rural	..	1,13,817	1,07,556	2,21,373
Urban	..	5,962	5,349	11,311
Total	..	1,19,779	1,12,905	2,32,684

Scheduled Tribes

Rural	..	211	176	387
Urban	..	7	8	15
Total	..	218	184	402

The percentage of the Scheduled Castes population to the total population of the district was 17.02, which was well above the State average of 13.22, while the corresponding percentages for the Scheduled Tribes were only 0.03 and 0.81 respectively.

The following have been recognised as Scheduled Castes in the district: Adi-Andhra, Adi-Dravida, Adi-Karnataka, Banjara or Lambani, Bovi, Dakkaliga, Ganti Chore, Handi Jogi, Kepmari, Koracha, Korama, Machala, Mochi, Sillekayatha and Sudugadu Sidda, while the recognised Scheduled Tribes are as follows: Gowdalu, Hakkipikki, Hasalaru, Iruliga, Jenu-Kuruba, Kadu-Kuruba, Malaikudi, Maleru and Soligaru.

The term 'Hindu' is rather wide in its connotation and includes many traditional faiths. The two dominant religious faiths coming under Hinduism in the Mysore State may be said to be Brahmanism belonging to the *Vaidika* school and Veerashaivism, which, while having many points in common with that school, differs from it in many others. Brahmanism is represented, for instance, by the various sects of Brahmins and Veerashaivism by a number of castes, wholly or partly professing the Veerashaiva or Lingayat faith. The term 'Lingayat' is sometimes taken to denote a caste*, but it would be more correct to treat it as indicating a faith or a way of life. It is a general designation for many castes, the members of which wear traditionally a *linga* on their bodies.

Amongst the Brahmins, all the three important sects are represented in the district, i.e., Smarta, Madhva and Shri-vaishnava. The Smarta Brahmins derive their name from *Smriti*, the code of revealed or traditional law. They worship the triad of Brahma, Shiva and Vishnu under the mystic syllable 'Om' and, while admitting all of them to be equal, worship Shiva as their chief deity. Philosophically, they hold the monotheistic Vedanta doctrine of *Advaita* or non-dualism; the supreme soul, called Brahman, is only the existing being, the whole universe, including both matter and spirit, being an appearance created by the Brahman with the help of *Maya*. The founder of the Smarta sect is Shankaracharya. The distinctive mark of an orthodox Smarta Brahmin is a parallel horizontal line of pounded sandalwood or three horizontal lines of holy ashes (*vibhuti*) on the forehead.

The Madhvas derive their name from Madhvacharya, the founder of the sect, who lived in South Kanara about the thirteenth century. They worship both Vishnu and Shiva, but more particularly the former. They profess the doctrine of *Dvaita* or dualism. By this is meant the distinction between the independent Supreme Being (Paramatman) and the dependent principle of life (jivatman). There are, according to this school of thought, five real and eternal distinctions (*Panchabhedas*), namely, (i) between God and the individual, (ii) between God and matter, (iii) between one soul and another, (iv) between the soul and matter and (v) between one particle of matter and another. Orthodox Madhva Brahmins usually have two vertical lines of sandalwood paste in the centre of the forehead and a black perpendicular line from the junction of the eye-brows to the top of the forehead with a dot in the centre.

*and so is the Brahmin and, therefore, both of these have been included in the section on 'Castes and Communities' also for describing certain other aspects of the sects.

The Shrivaisnava Brahmins, also called Iyengars, are worshippers of Vishnu as identified with his consort, Lakshmi or Shri, and hence their name. The founder of this sect was Ramanujacharya, who lived in the Chola and Hoysala territories about the eleventh century A.D., and after him the Shrivaisnavas are also called Ramanujas in some parts of India. Their creed is called the *Vishishtadvaita*, which differs from the *Dvaita* in attributing both form and qualities to the Supreme Being. *Vishishtadvaita* reconciled devotion to a personal God with the philosophy of *Vedanta* by affirming that the soul, though of the same substance as God, can obtain bliss not in absorption but in existence with Him. In Mysore State, their *Guru* is the Parakalaswami of Melkote. There are two principal subdivisions amongst them, Tengalai (Southern) and Vadagalai, (Northern). The distinction between the two groups arose from a dispute about doctrinal points formulated about four centuries back by Manavala Nathamuni on the Tengalai side and Vedanta Deshikar on the Vadagalai side. There are some differences in social observances also. The orthodox Shrivaisnavas usually have a *nama* in the form of a trident, the central line being yellow or red and the two outer ones white. The Tengalais continue the central line of the trident in white for some distance down the nose. Three of the five original settlements of the Shrivaisnava Brahmins in the Mysore State, called the Panchagramas, are in the Tumkur district. They are Kadaba in Gubbi taluk, Mayasandra in Turuvekere taluk and Nonavinakere in Tiptur taluk, the other two being Nuggihalli in Channarayapatna taluk in the Hassan district and Bindiganavale in Nagamangala taluk in the Mandya district. Of all these, Kadaba is said to be the chief settlement.

Veerashaivism

Veerashaivism, as a faith separate from original Shaivism, was largely built on the writings and teachings of Basaveshwara, who lived in the twelfth century, and other Shivasharanas. The most important features of the Lingayat religion are what are known collectively as Ashtavaranas and Shatsthalas. Ashtavaranas or the eight environments or coverings comprise the aids to faith and protection against sin and evil; they are: (1) obedience to a *guru*, (2) worship of *linga*, an emblem of Shiva, (3) reverence to the *Jangamas* or priests, (4) use of *vibhuti* or holy ashes, (5) wearing of *rudraksha* (seeds of *Cleocarpus ganitrus*), (6) use of *padodaka* or holy water, (7) eating of *prasada* or consecrated food and (8) *mantra* or the uttering of *panchakshara*, the five-syllabled formula 'Namah Shivaya'. Some of these details are to be found in Brahmanism also. Shatsthalas may be popularly described as the six stages of approximation towards union with Shiva; they are: (1) *bhakta*, (2) *mahesha*, (3) *prasadin*, (4) *pranalingin*, (5) *sharana* and (6) *aikya*, the last meaning absorption with God. There are three degrees of manifestation of the deity, sometimes described as the *Bhava-linga* corresponding to the spirit, *Prana-linga*

corresponding to the life or subtle body and *Iakta-linga* corresponding to the material body or material *linga*.

A form of popular religion is what is known as animism or spirit worship. This essentially consists of firstly a belief in the existence of spirits, secondly of a fear of the evils which they inflict and thirdly their propitiation through offerings. The spirits worshipped are many and usually take the form of goddesses who are referred to as 'mothers'. Among the most common goddesses of this type are Mariamma, Durgamma, Yellamma, Gangamma, Matangamma and Kalamma. Each village has its own goddess known as *Grama-devata*. While some of these 'Ammas' are associated with epidemics like cholera and small-pox, e.g., Mari, the goddess of small-pox, the function of the *Grama-devatas* is often to protect her devotees from such epidemics and calamities. This faith has its votaries among the higher classes also. There is no priesthood attached to it; nor those who act as priests belong to any hereditary class. Ordinarily, the head of the family or that of the community officiates. Sacrifice was considered a fundamental doctrine of this cult. But now animal sacrifices have almost become things of the past, even ordinary animal sacrifice being to-day a rare event.

The Jains are spread throughout India and they are most numerous in Western India including Mysore. Among the Jains, there are largely two sects—Digambara (clad in space) and Shwetambara (clad in white). The Jains in Mysore belong mainly to the former division. The *Yatis* who cover themselves with a yellow robe form the religious order, the common people being called the *Shravakas*. Their great teachers, called Tirthankaras, of whom there are 24 in all, are the chief objects of Jaina reverence. Their philosophical tenet is designated as *Syadvada* as we can neither affirm nor deny anything absolutely. *Dharma* is virtue and *Ahimsa* is the highest virtue. They believe in the doctrine of *Nirvana*, i.e., cessation from rebirth and a state of beautiful rest. The moral code of the Jains is expressed in five *Mahavratas* or great duties; these are: refraining from injury to life, truth, honesty, chastity and freedom from worldly desires. There are four *dharma*s or merits: liberality, gentleness, piety and penance. There are three kinds of restraints: of the mind, of the tongue and of the person. To these are added a number of minor instructions or prohibitions. The Jains have their own priests. *Upanayana* and other *samskaras* are also performed by them. They cremate their dead.

The essential Muslim beliefs are six in number: (1) in one God, Allah, (2) in angels, (3) in the Koran, (4) in the Prophets of Allah, (5) in judgment, paradise and hell and (6) in the divine decrees. The five primary duties called "the five pillars of Islam"

Islam" are: (1) repetition of the creed, *Kalimah*, every day, (2) prayer, (3) alms-giving, (4) fasting during the month of Ramzan and (5) pilgrimage to Mecca. Apart from Ramzan, the other principal feasts are the *Bakrid* and the *Shab-e-Barat*. The main divisions of Muslims found in this district are Saiyad, Sheikh, Mughal, Pathan and Pinjari. While the Saiyads claim a descent from the Prophet, the next three claim to be of Arab, Mughal and Pathan origins, respectively. The name 'Pinjari' denotes the traditional occupation of the section, i.e., cotton cleaning, and the Pinjaris, like several other Muslim classes, are converts or of mixed descent.

Christianity

The Christians, both the Catholics and the Protestants, like the Muslims, are strict monotheists. There are both Catholics and Protestants in the district. The former are the earlier entrants in this district than the latter. It is said that Sira had a Catholic Church in 1770. Gubbi was made a residence of a Wesleyan Missionary in 1837. The Catholics believe in Father, Son and the Holy Ghost as comprising one Supreme. They owe their allegiance to the Holy Church founded by Jesus Christ and entrusted to Peter, the first Vicar (the Pope). His Holiness the Pope, who resides in the Vatican city, is the supreme religious head of the Catholics. The Protestants follow the teachings of Jesus Christ as the Lord and Saviour and have faith in His death, resurrection and ascension. They believe in His second coming and judgment. Also, they profess faith in the Holy Trinity, Nicene creed and Apostles' creed.

Castes and Communities

The scope of this section does not envisage a detailed description of each caste or community in the district. We confine ourselves here mainly to a general and brief discussion of the traditional social structure, customs and religious beliefs of many of the castes and communities.

Adi-Karnataka

The Adi-Karnatakas are the chief agricultural labourers in the district. A section of them was known as 'Holeya'. Many of them are also cultivators and village watchmen. Some of them have taken to a variety of other occupations. The caste is divided into several territorial and occupational sub-divisions which do not inter-marry. Divorce is more or less easy. Widow re-marriage is permitted. The dead are usually buried. In the matter of inheritance, the Hindu Law, modified by custom, is followed. Sons divide the paternal property equally; but the youngest son has the privilege of selecting his share first. Widows and unmarried daughters are entitled to maintenance. The members of the caste generally live together. They are worshippers of both Shiva and Vishnu. Many of the *gurus* of the Shaiva group belong to the Lingayat faith, while some of those of the Vaishnava

group are Satanis. The people of the caste, as a whole, also worship a number of village goddesses. (See also under 'Madiga').

The Agasas or washermen are a functional community. Their remuneration is paid usually in the form of grains by the cultivators and in cash by others. They are also employed as torch-bearers on marriage and other ceremonial occasions. Some of the Agasas follow agriculture and other professions. Among them widow remarriage is allowed, subject to the condition that the husband is also a widower. Divorce is not allowed for any reason other than adultery or loss of caste. The divorced woman may marry another man by *kudike* form of marriage. They worship Bhoomadeva or *Ubbe*, i.e., the steam arising from the cauldron in which they boil the clothes, besides the main Hindu deities. They usually bury their dead. The Dhobis, a sub-division of the caste, appear to be immigrants from Orissa. They are Vaishnavites and occasionally engage Brahmins as their priests. They cremate their dead and perform *shraddhas*. Agasa or Madivala

Banajigas have been traditionally traders, their name being derived from the word *vanijya*, meaning trade. Many of them have now taken to agriculture and other occupations. Tumkur is one of the districts in which this community is larger than elsewhere. The Banajiga community is divided into three distinct groups, Panchama Banajigas, Jaina Banajigas and Telugu Banajigas, who generally do not inter-marry. The Panchama Banajigas are all Lingayats. Divorce and widow remarriage are prohibited among the Banajigas. The Telugu Banajigas are either Shaivites or Vaishnavites, these groups also being mutually exogamic.

See under Lambani.

Banjara

The Bedas are more concentrated in the northern and eastern taluks of the district. They are also called Nayakas or Nayaka-makkalu and sometimes they call themselves as Palayagars. From the fact that Valmiki, the author of the Ramayana, is described as a Bada, the Bedas also claim that they belong to Valmiki-mata. It is said that Kannappanayanar, one of the 63 great devotees of Shiva, was a Bada. Their traditional occupations have been hunting and military service. But many of them have now taken to agriculture. Some of them are also employed as revenue and police peons; the village watchmen in various parts belong to this class. Many of the Bedas were soldiers in the armies of the old Vijayanagara kingdom and under the Palayagars and Haidar Ali. They are Vaishnavites and worship all the Hindu deities. Widow re-marriage is usually not allowed. The Bada caste is divided into several endogamous groups: (1) Uru Bedas or Chinna Boyis, (2) Myasa Bedas or Pedda Boyis, (3) Beda

Ureme Bedas, (4) Monda Bedas, etc. As the first of these lived in the villages proper, they were called 'Uru' Bedas; they form by far the largest division of the caste. The Myasa Bedas are not so numerous in this district as in the Chitradurga district. They live largely outside the villages, in temporary huts. They do not eat fowl or pork. It is an interesting sub-division in that its members present a strange and unique jumble of customs not usually found among other Hindu castes. These customs seem to have been adopted by them when some of them were included in the armies of Haidar Ali. Another peculiarity about them is that they scrupulously avoid liquor of every kind, so much so that they do not even use materials connected with the date palm, even for building purposes. The Uru Bedas bury their dead, whereas cremation prevails amongst the Myasa Bedas.

Besta

The Bestas are also called as Gangemakkalu, Gangaputras or Gangekuladavaru. Though fishing has been their traditional occupation, a great many now follow lime-burning, cultivation and other occupations, these differences acting as bars to inter-marriage among them. The caste is divided into several exogamous sects which appear to be totemistic in origin. There are both Shaivas and Vaishnavas among them. There are two religious mendicant orders within the caste, called Jogis who are Shaivites, and Dasaris who are Vaishnavites. Widow re-marriage and divorce are allowed. The dead are usually buried.

Bovi

See under Vodda.

Brahmin

As already mentioned, there are Shaivites, Vaishnavites and Shrivaishnavites (also called as Smartas, Madhvas and Ramanujas, respectively) among the Brahmins of the district. Inter-marriage amongst them is not common though not altogether absent. All the Brahmins, whether Shaivites or Vaishnavites, have, according to the Sutras, to go through sixteen *Samskaras* or rites, the most important of which are: (1) *Garbhadana* or foetus-laying ceremony known as *Shobhana* in the regional language; it is a rite for the consummation of marriage; (2) *Pumsavana* or worship for securing the birth of a male child, performed at the end of the third month of pregnancy; (3) *Seemanta* performed either in the fifth, seventh or ninth month of pregnancy with a view to warding off evils from foetus; (4) *Jatakarma* done immediately after the birth of the child before the naval cord is cut; (5) *Namakarana* or naming of the child, on the 12th day after birth; (6) *Nishkramana* or taking the child out of the house and to a temple in the third month; (7) *Ammaprashana* or feeding the child for the first time with solid food; (8) *Chaula* or *Chudakarma* or the ceremony of tonsure, i.e., shaving the head, except for one lock which is the *chuda* or crest; (9) *Upanayana* or investiture with the sacred thread, to be done in the 8th year, but now usually done much later, and (10) *Vivaha* or

marriage. All Brahmins perform annual *Shraddha* in honour of the dead. They are expected to perform everyday the *Sandhya* services, the *Pancha-Mahayajnas* comprising *Brahma-yajna*, *Deva-yajna*, *Pitru-yajna*, *Bhuta-yajna* and *Manushya-yajna*, *Devapuja*, *Tarpana*, etc. Usually, in every-day-life, only the head of the family performs the ceremonial worship, his wife assisting him. In the evening, only the *Mangalarati* or the waving of the sacred flame is performed. The initiated boys are expected to perform *Sandhya* services thrice a day. The married ladies worship the *Tulasi* plant.

See under Besta.

Gangakula

According to the 1931 Census, the Tumkur district had the largest number of Gollas in the erstwhile Mysore State. The Gollas have been traditionally cowherds and dairymen; but at present many of them are agriculturists. They are also called 'Yadavas'. Among them, there are two main exogamic divisions, Uru Gollas and Kadu Gollas. Their original language appears to have been Telugu, but now they have adopted Kannada as their own language. The Uru Gollas are divided into many endogamous units, one of them being Bokkasa or Bigamudre, who were, in former times, the guards of the treasury. Even now, the persons who open and lock the Government treasury and handle the money boxes are often known as Gollas. *Manevalatana* adoption is in vogue. The Gollas are usually Vaishnavites; a few of them become *dasas* and lead a mendicant life. The Kadu Gollas say that they are immigrants from Delhi and its neighbourhood. They speak Kannada and are divided into three endogamous sects which are again divided into different exogamous sects known after animals, plants and other inanimate objects. Among both Uru and Kadu Gollas widow re-marriage is not permitted, while divorce is allowed. The dead are usually buried.

Golla or Yadava

Idigas are said to be of Telugu origin, which language some of them still speak. Their traditional occupation has been toddy-drawing; but now many of them follow agriculture, trade and other occupations. Some of them are also land owners. They worship all the Hindu deities. Among them widow remarriage is permitted and they bury their dead.

Idiga

See under Vaishya.

Komati

The Kunchitigas are also called Kunchati Vokkalu. They appear to be a section of immigrant Kurubas who took to agriculture (*Mysore Gazetteer*, Vol. I, 1927, p. 247). Many of them have now taken to a variety of occupations. Tumkur is one of the districts where they are to be found in large numbers. A section of them is Lingayat by faith. There is another section which has

Kunchitiga

accepted the Shrivaishnava faith. Widow remarriage is generally not allowed; but the widows who remarry start a different *salu* or line. Divorce is allowed only in case of adultery. The section known as Mullu-jana worships both Shiva and Vishnu; the Vaishnava group worships Shri or Lakshmi by preference; the Lingayat section, of course, worships Shiva. But the caste as a whole has a number of family gods and goddesses. The dead are usually buried.

Kuruba

The Kurubas have been traditionally a caste of shepherds and blanket-weavers; a large number of them now follow agriculture and other occupations. The caste is divided into three endogamous divisions, Halu, Ande and Jadi or Kambli. Each of the three divisions is further sub-divided into several exogamous sects named after plants, trees, animals, etc., which are of totemic origin. Some of them have accepted the Lingayat faith. Widow remarriage and divorce are allowed. The dead are usually buried. The caste is well organised, being divided territorially, the head of each section being known as a *Gowda*. Shaivism is professed by many and the people of the caste in general worship Bircdevaaru.

Lambani

Lambanis or Banjaras may be classed among the gypsies of India. They are of good stature and fair-complexion. They are of a brachycephalous race, with oval face, black or brown eyes and straight nose. Theirs is a peculiar Indo-Aryan dialect which has borrowed from various languages. They live in detached clusters or huts called *Tandas* which are mainly pitched away from the villages and usually on high grounds. Their traditional occupation was the transport of grain and other produce by means of herds of pack-bullocks, especially in the hilly and forest tracts which are difficult of access. Due to the change in the mode of transport, they were thrown out of the profession and some of them took to committing of thefts and other offences. But now they have become a settled people and working as labourers of various kinds. The Lambanis have *gosayis* or *gosavis* as their priests. The Lambani out-castes comprise a sub-division called 'Dhalya', who are their drum-beaters and live in detached habitations. Among the Lambanis, post-puberty marriage has been in vogue. Widow remarriage is allowed and it is also customary for divorced women to marry again under the *kudike* form of marriage, which also obtains among some other castes. The Lambanis are Vaishnavites, their principal deity being Krishna. They also worship the goddess Banashankari.

**Lingayat or
Veerashaiva**

The Lingayats are also known as Veerashaivas and Shiva-charas. As has been already stated, the term 'Lingayat' does not denote any particular caste. A number of castes came under the influence of Veerashaivism at one time or another. In many of the castes, sections of

them profess the Lingayat faith. Lingayats do not perform *yajnas* and annual *shraddhas*; nor do they observe the *pancha sutakas* or five impurities. They follow a simplified system of daily and special ceremonies. The daily ceremonies consist chiefly of *Shivapuja* or *Lingapuja* or the worship of Shiva, in the form of *linga*, while the special ceremonies consist of what are known as *Dasha-samskaras* or ten rites, some of them being common with the Brahmanic rites. The Veerashaiva householder has also to observe five *Acharas* in his daily life, namely, *Lingachara*, *Sadachara*, *Bhaktachara*, *Shivachara* and *Ganachara*, more or less similar in their object to the *Pancha-mahayajnas* of the *Vaidika* householder. The Lingayats have their own *gurus* and priests called *Viraktas* and *Jangamas*. The *Virakta swamis* live in *mathas* and lead a solitary and spiritual life and are highly venerated. Many of the Lingayats in this district are the adherents of the celebrated *matha* at Siddhaganga, near Tumkur. The Veerashaivas are found engaged in many occupations—agriculture, trade, commerce, public administration and other services and various professions.

The Madigas sometimes call themselves as Matangas, i.e., Madiga descendants of Matanga Rishi. A section among them is also known as Jambavas, i.e., descendants of Jambava, one of the chief allies of Rama. The Madigas or the Holeyas or together are called Adi-Karnatakas. The Madigas claim to be the children of Matangi. There was formerly a Matanga dynasty in the Kannada country and the Madigas are believed by some to be the descendants of those people who were once connected with those rulers. Tumkur is one of the districts of the State in which the people of this caste are in large number. Though, by tradition, the Madigas are the workers in leather, a very few of them actually follow that profession now. About a third of them are cultivators and many others are agricultural and other labourers. A few of them are also village servants and musicians. They speak Kannada or Telugu, and the Kannada and Telugu sections do not generally inter-marry. Each of these groups is divided into three endogamous divisions known as 'Tanige Buvvadavaru' meaning the eating dish division, the 'Hedige Buvvadavaru' or the basket division and the 'Mora Buvvadavaru' or the winnow section. The last of these is further divided into two sub-sects—one of single winnow and the other of double winnows. This division is based on the manner in which the bride and the bridegroom eat the 'Buvva' (the common marriage meal).

There is also another division known as the Jambava. The members of the Jambava section form the *gurus* of the Madigas. They have their own *mathas* in some places. They wear a *linga* and mark their forehead with holy ashes and sandal paste. The Jambavas marry girls from the other Madigas after subjecting

them to a 'purificatory' ceremony, but they do not generally give their girls in marriage to the other Madigas. The Jambavas are said to be immigrants from Cuddapah and some of them speak Telugu. The Madigas also pay reverence to Haralayya, a disciple of Basaveshwara, as their patron saint. The various divisions have, in turn, many exogamous septs known after animals, plants and other inanimate objects, several of them being totemic in nature. Infant marriage was held in high esteem in the old days, but there was no bar against adult marriage. Divorce and widow re-marriage are allowed. The dead are usually buried. They worship village deities such as Mariamma, Morasamma and Matangamma, the caste goddesses. They have priests of their own called Tappattigas who are the *pujaris* in their temples. Some Madigas profess the Vaishnavite religion. As a caste, the Madigas are well organised under *Kattemanes*, each with a head called *Dodda Yajamana* and a deputy called the *Chikka Yajamana*.

Neygi

Neygi is the common occupational name of several of the castes traditionally engaged in handloom weaving. The following are the main sub-divisions :—

(a) *Bilimaggas* (literally meaning 'white looms') are engaged in the weaving of white muslin and other cloths. Some of them are Lingayats and the two sections do not generally inter-marry. The caste comprises several endogamous divisions. Infant marriage was once in high esteem. Widow re-marriage is allowed, and the dead are buried.

(b) *Devanga* consists of two main linguistic sub-divisions, Kannada and Telugu, which do not inter-marry. The Kannada section has several further sub-divisions, some of which are Lingayats. In some places, widow re-marriage is allowed, but divorce is not recognised. The dead are usually buried. Both Shiva and Vishnu are worshipped, but their caste goddess in general is Chaudeshwari.

(c) *Khatris* is a caste of immigrant silk weavers. They are Shaivites in religion and speak an Indo-Aryan dialect.

(d) *Patvegar* or *Pattegar* is another class of immigrant weavers. They also speak an Indo-Aryan dialect which is akin to Gujarati and Hindi, and worship all the Hindu deities, especially Shakti. The Patvegars and the Khatrias have some of their customs in common, but they do not inter-marry.

(e) *Sale* caste is divided into Padmasale, Pattusale and Sankusale. The Pattusales profess the Lingayat faith, while the Padmasales are Vaishnavites, but the caste deity in general is Chaudeshwari. Neither widow re-marriage nor divorce is permitted. The dead are cremated or buried according to the faith followed.

(f) *Sanigar* is a class of immigrant weavers from the northern districts. They are all Lingayats.

(g) *Togata* is a Telugu caste of weavers. They are Vaishnavites by faith and also worship Chaudeshwari as the caste goddess.

Panchala or Vishwakarma is also a collective name of the artisan castes of goldsmiths, blacksmiths, copper or brass-smiths, sculptors and carpenters. The names of the sub-divisions are Akkasale, Kammara, Kanchugara, Shilpi and Badagi, respectively. They claim descent from Vishwakarma, the architect of gods, and have their own priests. They have five *gotras* and many *upagotras*. They inter-marry, except occasionally in urban areas where the goldsmiths remain aloof from the blacksmiths. There are both Shaivas and Vaishnavas among them. Widow remarriage and divorce are not permitted and the dead are generally cremated.

Uppara is traditionally a caste of earth-salt workers; but its chief callings at present are cultivation and labour. Many of them are also brick-layers in towns and some are lime-kiln burners. The caste has two linguistic divisions, Kannada and Telugu, who do not inter-marry. Each of these is further sub-divided into exogamous septs of totemic origin. Widow remarriage and divorce are allowed. The dead are usually buried. They are Vaishnavites by faith, their caste deity being Channakeshava. They worship also the village deities.

Vaishyas or Komatis are mostly found in towns and large trade centres. They are also known as the Nagartas. There are three main groups among the Vaishyas, which practically constitute three different castes. They are Gavara, Tuppada and Traivarnika, the majority of the Vaishyas in the State belonging to the first group, which is so called after Gauri, consort of Shiva. The caste contains two main divisions, Vaishnava and Lingayat, worshipping mainly Vishnu and Shiva respectively; but the chief objects of their reverence are the god Nagareshvara and the goddess Kanyaka Parameshvari. They are, again, divided into five endogamous and many exogamous groups. Most of them are merchants, jewellers and bankers. In many of their customs, they follow the Brahmins. A peculiar custom of this caste is the obligation of a boy to marry his maternal uncle's daughter. The Bheri division amongst them speaks Telugu and the rest mostly Kannada. In inheritance, they follow the Hindu Law, but at the time of partition, an extra share is generally allowed to the eldest brother.

Vodda or Bovi has been a caste of earth-workers, well-sinkers, tank-diggers and stone-dressers, fairly well represented in the

Tumkur district. The Voddas are divided into three endogamous divisions, namely, Kallu or Uru or Bandi Voddas, Mannu or Bayalu or Deshada Voddas and Uppu Voddas. Each of these sub-divisions is divided into numerous exogamous totemic septs. Widow re-marriage and divorce are allowed. They worship Venkatesh-wara of the Tirupati hills.

Vokkaliga

'Vokkaliga' is the general name given to the cultivating castes. Traditionally, it is an occupational name. In recent decades, they have taken up a variety of other occupations also and have progressed in several fields. Among those several castes, which are distinct, inter-marriage has not been in vogue. The three principal divisions of the traditional cultivators found in this district are the Morasu Vokkaligas, the Nonabas and the Reddis. Though the Morasu Vokkaligas form considerably a large group, yet they are among themselves a homogeneous community, which not only restricts marital relations within itself, but also contains a few sub-groups which are endogamous. They are most commonly called Morasu Vokkalu and less frequently Hosadevara Vokkalu. The Morasu Vokkalu are confined to some of the eastern districts of the State. The now obsolete practice of cutting off two fingers of a woman was a peculiar custom in this caste; and those who followed it formed a distinct endogamous group. There are a few endogamous and many exogamous divisions amongst the Morasu Vokkalus. The exogamous divisions, called *kulas* or *bedagus*, are of totemic origin, being named after some animal, plant or other object. Widow re-marriage has not been in vogue, while divorce is permitted; but a divorced woman may not marry again. The Morasu Vokkaligas have a well-defined caste organisation. The whole caste is divided into separate groups, known as *Kattemanes*, each of them being presided over by a headman called *Yajamana* or *Gauda*. Several *Kattemanes* together form a *Nadu* or a territorial division, presided over by a *Desayi-Gauda* or *Bhumi-Gauda*. There are two such *Desayi Gaudas*, one at the head of the Kannada section and the other at the head of the Telugu section, the headquarters of the former being Muduvadi in the Kolar district. The offices of the *Gaudas* are all hereditary and descend in the male line. The Morasu Vokkaligas worship Shiva in the name of Bhairadevaru or Bandidevaru. The chief place of this deity is Setti-betta, a hill in the Kolar taluk of the Kolar district. The celebration of the feast of Hosadevaru, literally meaning new god, by women is a unique institution of this caste. Some observe this only once in a year during Deepavali, while others also celebrate it on the occasion of Yugadi. The common mode of disposing of the dead in this caste has been burial; but, of late, some are resorting to cremation.

The Nonabas are Lingayats by faith. The name 'Nonaba' is derived from Nalambavadi, an ancient kingdom which covered principally Tumkur and Chitradurga districts. The Reddis are largely a caste of Telugu-speaking agriculturists. Among them, there are two main divisions, Lingayat and non-Lingayat, each of which is further divided into a number of endogamous and exogamous units. The Kamma Reddis and Velnati Reddis are Vaishnavas and the Lingayat Reddis worship Shiva, while among others, there are both Shaivas and Vaishnavas. In general, deities of both the faiths are worshipped by all. The re-marriage of widows is said to be permitted customarily only among the Lingayat Reddis. Traditionally, widows, who are not allowed to re-marry, discontinue wearing the bodice, bangles, toe and nose rings, jewels with pearls and silk cloth, from the date of the death of their husbands. Kamma widows retain their ear ornaments and dress in white cloth. The caste is organised through *Kattemanes*, presided over by *Yajamanas*.

Caste government of some kind or the other was universal in the past; its powers and jurisdiction have now been mostly taken away from them and given to the civil courts. At present, the caste tribunals usually consider only questions relating to marriage, food, admission of outsiders into the caste and like matters. Their hold on these matters too is, of course, becoming less and less.

These tribunals are of two kinds: One of them is presided over by the *Swamis* of the recognised *Mathas* belonging to different sects. The other sort of caste tribunal is the headmen of the caste resident in many of the villages, who decide the disputes as they arise. The office of the headman is hereditary, and his jurisdiction is known as *Kattemane*. He is usually assisted by deputies (as among the Bedas) or by assessors (called *Buddhivantas*) in his work (as among the Voddas).

The dead are either buried or cremated. Cremation is universal among the Brahmins, Vaishyas and Banjaras. The priestly section among the Helavas and Vaishnavite Nagartas also burn their dead. Occasionally, aged men among sections of the Adi-Karnatakas are cremated. Those dying from contaminating diseases and pregnant women are also usually cremated.

Among some castes like the Uppara, Vodda, Madiga, Agasa, Telugu Banajiga and a few others, the body is disposed of by what is known as *Kallu Seve* (stone-service). This consists of the body being placed on suitable ground and being heaped over with stones so as to form a mound. The generality of castes bury their dead with the head turned to the south. Amongst the

Funerals

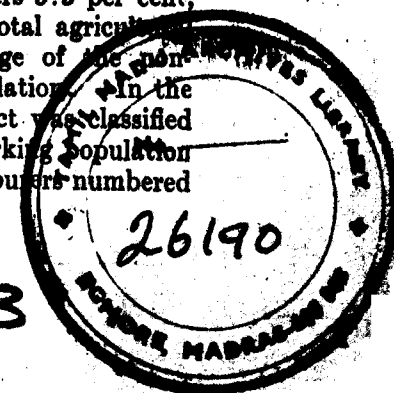
Muslims, the dead are buried in the sleeping posture on the back with the face towards Mecca. The Christians also bury their dead in the sleeping posture. The Lingayats and those who have come under their influence, bury their dead in the sitting posture. The Lingayat-Devangas, however, bury in the lying posture. On the other hand, the Vaishnavite sections of Adi-Karnatakas bury their dead in the sitting posture.

CHAPTER IV

AGRICULTURE AND IRRIGATION

THE total geographical area of the district is 26,11,134 acres, of which a net area of 12,00,458 acres was sown with crops during 1965-66 and an area of 1,77,784 acres of land was current fallow and 1,44,610 acres were other fallow land. The area sown with crops is proportionately more in Tumkur, Tiptur, Pavagada, Sira and Gubbi taluks. Madhugiri, Pavagada and Chiknayakanahalli taluks have a fairly larger proportion of cultivable waste than the other taluks. A total extent of 1,08,172 acres is forest area, mostly of scrub jungles. The forest areas are proportionately larger in Sira, Gubbi, Pavagada, Kunigal and Chiknayakanahalli taluks than in others. A proportionately low percentage of forests is found in Tiptur, Tumkur and Turuvekere taluks.

The population of the district can be grouped into two distinct categories, viz., agricultural and non-agricultural. The 1951 Census divided each of these two main groups into four sub-groups. Owner-cultivators, tenant-cultivators, cultivating labourers and non-cultivating owners came under the first group, while the non-agricultural population consisted of those engaged in production other than cultivation, commerce, transport and other services. For purposes of this chapter, only the agricultural population is taken into account. The percentage of agricultural population in the district is far more than the percentage of non-agricultural population, the chief occupation of the people of the district being agriculture. The percentage distribution of agricultural population for the four sub-groups was—owner cultivators 71.5 per cent, tenant-cultivators 8.5 per cent, cultivating labourers 5.5 per cent, and non-cultivating labourers 3.1 per cent, the total agricultural population being 88.6 per cent. The percentage of the non-agricultural population was 16.4 to the total population. In the 1961 Census, the working population of the district was classified under nine broad categories. Out of the total working population of 6,88,515, the cultivators and the agricultural labourers numbered 4,87,472 and 61,482 respectively.



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Size of
holdings

As per the Mysore Tenancy Agricultural Land Laws Committee Report (1958), the distribution of land-holdings according to size-groups of area owned in the district was as follows:—

Size of holding	No. of holdings	Area in acres
Below 5 acres	81,500	1,95,000
5 to 10 acres	35,000	2,45,000
10 to 15 acres	12,800	1,40,000
15 to 30 acres	12,200	2,53,000
30 to 60 acres	4,200	1,67,000
60 to 100 acres	800	61,000
100 to 200 acres	300	42,000
200 and above	100	33,000

The above figures show that a sizeable portion of the cultivated area consisted of uneconomic units held by a majority of cultivators. The average holding per head of the population in the district comes very near an acre.

Land
utilisation

Seasonal conditions have been the main factor causing fluctuation in the acreages under cultivation. Out of a total geographical area of 26,11,134 acres in the district, the extent of land put to agricultural use was 12,00,458 acres in 1965-66, forming less than half of the total land area. In 1912-13, the net area sown with crops was 9,58,626 acres and during 1959-60 it was 12,40,180 acres. From time immemorial, Tumkur district has occupied a pre-eminent place in dry crop cultivation. Agricultural practices in the area still largely conform to a traditional type depending on the rains. The following table indicates the cultivated and un-cultivated areas in the district during 1959-60 and 1965-66:—

1959-60					
Cultivable area in acres					
Taluk	Net area sown	Forests	Permanent pastures	Cultivable waste	Area sown more than once
Tumkur	1,41,597	10,174	34,837	3,979	5,330
Koratagere	55,000	8,836	25,198	9,203	5,550
Madhugiri	1,03,825	6,837	41,482	13,841	5,000
Pavagada	1,59,278	14,618	40,500	8,988	6,386
Sira	1,86,735	24,544	57,963	16,668	26,996
Chiknayakanahalli	1,10,986	20,370	74,358	12,315	6,000
Turuvekere	90,403	1,383	42,341	6,964	1,975
Tiptur	99,880	816	25,800	5,616	2,768
Kunigal	1,03,791	14,840	87,862	85,476	3,225
Amruthur	45,447	532	15,116	..	..
Gubbi	1,49,238	25,751	78,705	22,502	1,596
Total	12,40,180	1,28,906	5,06,146	2,44,138	33,456

Un-cultivable area in acres

Taluk	Current fallows	Other fallows	Land put to non-agricultural use	Barren and un-cultivable land
1	2	3	4	5
Tumkur	20,988	3,431	14,243	23,528
Koratagere	15,272	..	..	46,902
Madhugiri	23,895	6,975	14,256	7,641
Pavagada	36,532	8,108	18,344	13,228
Sira	46,438	2,070	26,096	15,769
Chiknayakanahalli	21,320	8,893	13,472	7,050
Turuvekere	19,888	10,830	14,001	26,740
Tiptur	13,226	..	12,875	6,059
Kunigal	20,605	4,939	15,042	1,415
Amruthur	5,426	..	1,000	16,137
Gubbi	33,570	..	..	..
Total	2,57,152	45,246	1,29,329	1,67,499

1965-66

Cultivable area in acres				
Taluk	Net area sown	Forests	Permanent pastures	Cultivable waste
1	2	3	4	5
Tumkur	1,34,390	2,043	25,469	4,560
Koratagere	82,617	7,612	26,548	6,272
Madhugiri	1,12,812	8,108	45,390	45,202
Pavagada	1,63,405	14,517	33,766	68,547
Sira	1,35,576	13,472	60,304	21,693
Chiknayakanahalli	1,25,911	20,348	14,650	48,998
Turuvekere	1,00,598	1,383	43,241	5,733
Tiptur	1,10,562	1,470	30,178	3,320
Kunigal	95,246	14,340	56,520	13,857
Gubbi	1,39,341	24,906	42,293	15,133
Total	12,00,458	1,08,172	3,78,359	2,33,315

Taluk	Un-cultivable area in acres			
	Current fallows	Other fallows	Land put to non-agricultural use	Barren and un-cultivable land
1	2	3	4	5
Tumkur ..	28,865	16,596	25,123	11,739
Koratagere ..	12,420	2,920	8,988	7,692
Madhugiri ..	13,003	2,010	1,834	43,445
Pavagada ..	11,335	14,263	14,783	14,143
Sira ..	45,000	23,692	29,072	47,435
Chiknayakanahalli ..	14,618	12,800	16,379	19,110
Turuvekere ..	4,823	18,984	11,245	1,002
Tiptur ..	3,440	850	16,589	12,051
Kunigal ..	21,725	14,894	12,055	12,970
Gubbi ..	22,555	7,601	26,412	32,013
Total ..	1,77,784	1,44,610	1,62,480	2,01,600

According to the above figures supplied by the District Statistical Office, Tumkur, there was a total of 2,33,315 acres of cultivable waste in the district during 1965-66. In order to reclaim the culturable waste, the State Government is giving several incentives, such as, financial assistance, facilities of bulldozers and tractors. (Particulars of financial assistance are given in Chapter VI, Banking, Trade and Commerce).

Agricultural meteorology

Tumkur district is situated between 12° 45' and 14° 20' north latitude and 76° 20' and 77° 31' east longitude. The district receives a major portion of the rains from the south-west monsoon which sets in usually by the end of May. The north-east monsoon sets in by the end of September and continues till the end of November. The cold season is generally free of rain. The normal average rainfall of the district is 27.08 inches or 687.9 millimetres. The normal average rainfall in different taluks is as follows :—

Pavagada and Sira ..	Between 20 and 22 inches
Koratagere, Tiptur and Madhugiri ..	Between 22 and 25 inches
Chiknayakanahalli and Turuvekere.	Between 25 and 26 inches
Gubbi and Kunigal ..	Between 28 and 31 inches

The cold weather rains falling from December to March are scanty and not much needed for the standing crops. But they are useful in one respect, that is, to keep up the pasture supply of the area. The hot weather rains called mango showers, falling in April and May, are of the 'accidental' kind coming in heavy short storms from the east. These rains are very important to cultivators, as a copious fall replenishes all the tanks and enables the agriculturists to prepare the land for the following south-west monsoon rains. The south-west monsoon showers, during the period from June to September, are very essential for the tillers. The steady drizzling and persevering rains of the season make the soil productive. The north-east monsoon rains, occurring during October and November, are specially important for filling the tanks and providing a storage of water to last for the lean months.

The agricultural seasons in the district are reckoned in the traditional way and are comprised within the periods of the south-west and north-east monsoons. The weather in the district is at no time of the year so cold as to preclude agricultural operations, and provided there is sufficient supply of water for irrigation, crops can be raised all the year round. As a matter of fact, those lands, which are under well irrigation or under the larger tanks, are found to be under some crop or the other throughout the year. The traditional agricultural seasons are mainly two and the produce is called *Karthika fasal* and *Vaishakha fasal* according to the time of harvest. *Karthika* falls about October and November or early December and *Vaishakha* about April and May or early June. The cultivators depend on their own calendar, which is regulated by the rains which fall under each of the *nakshatras* or lunar asterisms.

The agricultural year, which begins about April, is divided into 27 rainfall periods called after the lunar asterisms, each period being of a fortnight's duration. Each asterism is further divided into four quarters called *pada*. The names of these asterisms and the dates corresponding to them are as follows: *Ashvini*—April 14 to 27; *Bharani*—April 28 to May 10; *Krithika*—May 11 to 24; *Rohini*—May 25 to June 7; *Mrigashira*—June 8 to June 21; *Aridra*—June 22 to July 5; *Punarvasu*—July 6 to 20; *Pushya*—July 21 to August 2; *Ashlesha*—August 3 to 15; *Makha*—August 16 to 30; *Purvaphalgun*—August 31 to September 11; *Uttaraphalgun*—September 12 to 28; *Hasta*—September 29 to October 11; *Chitra*—October 12 to 24; *Swati*—October 25 to November 5; *Vaishakha*—November 6 to 19; *Anuradha*—November 20 to December 2; *Jyestha*—December 3 to 16; *Mula*—December 17 to 29; *Purvashadha*—December 30 to January 10; *Uttarashadha*—January 11 to 23; *Shravana*—January 24 to February 5; *Dhanishta*—February 6 to 18; *Satabhisha*—February 19 to March 3; *Purvabhadra*—March 4 to 17; *Uttarabhadra*—March 18 to 31 and *Revati*—April 1 to 13.

The *Bharani* rain, which falls about the last week of April and early May, is considered to prognosticate good agricultural seasons throughout the year. The rains from *Mrigashira* (June 8 to August 15) to *Ashlesha* fall usually in the sowing season for food-grains in the earlier part, and horsegram in the later. *Swati* and *Vaishakha* rains (October and November) mark the close of the rainy season. *Anuradha* to *Mula* (November-December) is the harvest time when only dew falls on the fields. During this season, the future rains are supposed to be engendered in the womb of the clouds. Sugarcane is planted in *Purvabhadra* and *Uttarabhadra* (December-January). In general practice, however, the following well-marked seasons are observed:—

1. The *kar* or early *mungar* season, which is the earliest, beginning in the months of April and May.
2. The *hain* season or *mungar*, beginning in July.
3. The *hingar*, commencing in September and October.

These terms are generally used in respect of dry crops. In Tumkur district, the *hain* or *mungar* crop forms the only crop of the season, as it is harvested too late for growing a *hingar* crop. The *hingar* crop may either follow a *mungar* or *kar* crop or be the only crop of the year. In the case of paddy lands, the seasons are called *karthika* and *vaishakha*, the former being the monsoon crop, i.e., sown from July onwards and harvested in December, and the latter, sown from December onwards and harvested in April and May. In recent years, two seasons for paddy are particularly noted, viz., *kharif* and *rabi*. The *kharif* season begins in June and ends in December, while the *rabi* season begins in December and continues till April.

Forests

Out of a total geographical area of 26,11,184 acres, an extent of only 1,08,172 acres of land was under forests in 1965-66. During the First Plan period, an extent of 565 acres was afforested at a cost of Rs. 15,696. During the Second Plan period, soil conservation work by afforestation was done in an area of 4,856 acres at a cost of Rs. 2,94,235 and the rehabilitation of degraded forests was done over an area of 2,459 acres at a cost of Rs. 1,91,668. New plantations were also raised over an area of 170 acres at an expenditure of Rs. 10,066 and planting of agaves was done over a total length of six miles and three furlongs. A sum of Rs. 8.90 lakhs was allotted to the district under the Third Plan for the implementation of several schemes, such as, rehabilitation of degraded forests, development of minor forest produce, grazing and pasture improvement, cashewnut development, soil conservation by afforestation, agave planting, etc.

IRRIGATION

The area under irrigation during 1967, according to the agricultural statistics of the district, was 1,67,036 acres, including the *atchkat* under Marconahalli reservoir. The break-up of this net area is as follows: Area irrigated by channels 17,862, by tanks 99,656, by wells 45,042 and from other sources 4,476 acres. The irrigated area shows variations from year to year, depending on the availability of seasonal rains. While during 1913-14 the total area under irrigation was stated to be 1,78,006 acres, in 1958-59 the total irrigated area was 1,26,612 acres, and in 1960-61, it was 1,58,627 acres. According to the District Statistical Office, the area under irrigation during 1965-66 was only 1,08,000 acres. But in 1967, it was considerably more, i.e., 1,67,036 acres. As the year 1965-66 was a bad year from the point of view of rains, the extent of the area under irrigation had fallen. But due to good rains in the later half of 1966, all the tanks in the district got filled up and the normal *atchkat* was utilised for growing crops. The irrigational facilities in the district are utilised for growing crops like paddy, irrigated ragi, irrigated groundnut, sugarcane, chillies and arecanut. The paddy acreage is more in Tumkur, Pavagada, Gubbi, Tiptur and Kunigal taluks, while irrigated ragi is grown more in Pavagada and Madhugiri taluks. Sugarcane crop is grown largely in Kunigal taluk, making use of the Marconahalli and Mangala reservoirs.

During the First Plan period, six medium irrigation works, Plan schemes viz., (1) construction of a new tank at Honnamachanahalli, (2) laying of the right-bank channel to the Marconahalli reservoir, (3) construction of the left-bank channel of Sanaba pick-up, (4) opening of a feeder channel to Bukkapatna tank, (5) construction of a new tank at Irakasandra and (6) formation of a new tank at Sannaikanahalli were taken up. Of these irrigational works, the first three were completed during the First Plan period, and the remaining three were carried over and completed in the Second Plan period. Also during the First Plan period, 261 minor irrigation works were taken up and all of them were completed; 30,407 acres of old and 4,100 acres of new *atchkats* were benefited by these works.

During the Second Plan period, 600 minor irrigation works were taken up and, of these, 167 works were completed. A total of 13,533 acres, comprising both old and new *atchkats*, were benefited from these works. The construction of the Mangala reservoir across the Nagini river near Tigalarapalya in Kunigal taluk, estimated to cost Rs. 13.7 lakhs, was taken up. The work of this project was continued in the Third Plan period and completed. It has a command area of 1,300 acres.

During the Third Five-Year Plan period, several schemes were executed under the minor irrigation programme. A sum of Rs. 118.60 lakhs was allocated on this account. The particulars of these schemes and the financial allocation made in respect of each category of schemes are indicated in the following statement :

Particulars of Schemes	Financial Allocation (Rs. in lakhs)
Construction of new tanks ..	4.80
Restoration of tanks including breached tanks. ..	43.50
Desilting of tanks ..	0.60
Percolation tanks ..	1.00
Construction of new anicuts, pick-ups and bhandaras. ..	3.32
Opening up of feeder channels to existing tanks. ..	0.80
Improvement to existing anicuts, pick-ups, bhandaras and channels. ..	0.60
Spill-over schemes ..	4.38
Sinking of new irrigation wells ..	17.50
Well-boring scheme ..	2.00
Supply of electric pumpsets ..	33.50
(to irrigate 3,625 acres)	
Supply of diesel pumpsets ..	1.10
Extension of power line ..	5.50

The first four of these schemes relate to storage works and the next four to diversion works while the last five schemes pertain to irrigation by wells. The well-boring scheme for irrigation purposes was a new one in the Third Plan period. Before that, well-boring activities were restricted to provision of drinking-water facilities only. The scheme was entrusted to the agricultural engineering section of the State Agricultural Department to help the cultivators in putting up test-bores for digging irrigation wells and to augment the water supply of the existing wells by deepening them.

Irrigation tanks

During 1966-67, a total number of 1,281 tanks provided the major water resources for agricultural operations in the district. There were eight tanks, each having an *atchkat* of more than 1,000 acres. A total of 918 tanks had an *atchkat* of less than 100 acres each. The total area irrigated under these tanks was 66,015 acres during 1965-66. This command area increased to 99,656 acres in 1966-67 because of good rains in that year. The *atchkat* or command area of each tank increases or decreases according to

rainfall variations. When the tanks are constructed, the approximate *atchkat* is determined on the actual average rainfall in the area. The details furnished in one of the following tables, i.e., for the year 1965-66, gives the command area in each taluk. Kunigal taluk has the largest *atchkat* under tanks, as the two large irrigation reservoirs in the district, viz., the Marconahalli and Mangala reservoirs are constructed in that taluk. Sira taluk comes next followed by Koratagere and Tumkur taluks.

Area under irrigation in Tumkur district as in 1913-14 (in acres)

Under rivers ..	3,664
Under tanks ..	1,21,899
Under channels ..	3,662
Under tank channels ..	1,583
Under wells ..	43,057
Under springs or talapariges ..	4,141
Total area under irrigation ..	1,78,008

Area under irrigation in Tumkur district as in 1959-60 (in acres and guntas)

Taluk	Total area irrigated	By channels	By tanks	By wells	By other sources
1	2	3	4	5	6
	A. G.	A. G.	A. G.	A. G.	A. G.
Tumkur ..	18,394-14	..	16,768-04	1,536-18	89-32
Gubbi ..	16,220-00	..	15,500-00	630-00	90-00
Kunigal ..	12,161-00	..	9,435-00	347-00	2,319-00
Tiptur ..	7,280-00	..	7,090-00	180-00	..
Turuvekere ..	7,984-04	..	7,642-04	342-00	..
Chiknayakanahalli ..	2,807-00	..	2,606-00	201-00	..
Madhugiri ..	19,572-00	..	14,479-04	2,913-00	2,180-00
Sira ..	13,581-13	..	8,085-13	4,600-00	..
Koratagere ..	9,900-29	721-24	8,085-10	1,500-00	315-19
Pavagada ..	18,712-00	..	7,533-00	11,129-00	..
Total ..	1,26,612-20	721-24	97,223-35	23,377-18	5,008-11

Sources of irrigation in Tumkur district as in 1960-61

Sl. No.	Name of taluk	Sources and command areas (in acres)						No. of tanks	No. of wells	No. of oil engines	Electric pumps	Mades
		Channels	Tanks	Wells	Total	7	8					
1	2	3	4	5	6	7	8	9	10	11		
1.	Tumkur	..	20,899	2,500	23,399	171	410	16	140	18		
2.	Koratagere	..	1,417	8,065	11,152	97	480	6	275	150		
3.	Madhugiri	..	2,180	11,050	4,500	118	3,200	18	500	..		
4.	Pavagada	..	763	7,533	11,129	150	3,403	70	332	..		
5.	Sira	..	..	14,540	7,500	91	1,380	40	661	..		
6.	Chiknayakanahalli	..	..	..	11,298	137	150	27	102	60		
7.	Turuvetere	..	..	7,778	306	59	45	9	8	13		
8.	Tiptur	..	..	4,500	220	153	18	4	10	12		
9.	Kunigal } Amruthur }	..	2,880 16,000	7,905 4,000	144 ..	57 61	125 ..	2 ..	16 ..	8 ..		
10.	Gabbi	..	..	9,851	..	148	300	10	10	..		
Total		23,240	1,07,439	27,948	1,58,627	1,242	9,541	202	2,054	261		

Area under irrigation in Tumkur district as in 1965-66 (in acres and guntas)

Taluk	Channels			Tanks			Wells			Other sources			Total
	1	2	3	4	5	6	7	8	9	10	11	12	13
Tumkur	..	..	10,587-33	2,914-36	..	..	2,914-36	..	..	..	..	13,503-29	
Gabbi	..	..	810-00	1,940-00	..	..	1,940-00	224-00	..	..	..	2,974-00	
Chiknayakanahalli	..	..	230-00	420-00	..	..	420-00	..	..	..	..	650-00	
Kunigal	..	..	15,356-00	436-00	..	..	436-00	188-00	..	..	..	15,980-00	
Turuvetere	..	..	3,793-00	694-00	..	..	694-00	318-00	..	..	..	4,795-00	
Koratagere	..	..	10,800-00	3,380-00	..	..	3,380-00	420-00	..	..	..	15,423-00	
Sira	..	..	11,000-00	5,600-00	..	..	5,600-00	145-00	..	..	..	16,795-00	
Madhugiri	..	..	..	10,687-00	..	..	10,687-00	..	..	..	..	10,687-00	
Pavagada	..	..	7,939-00	13,640-00	..	..	13,640-00	..	..	..	..	21,579-00	
Tiptur	..	..	5,500-00	185-00	..	..	185-00	..	..	..	..	5,685-00	
Total		873-00	66,015-33	39,896-36	1,295-00	..	1,08,070-29						

Particulars of Irrigation tanks and wells in Tumkur district as in 1966-67

Taluk	Number of Tanks						Number of Wells				
	Atchkat of more than 1,000 acres	Atchkat between 500-1,000 acres	Atchkat between 250-500 acres	Atchkat between 150 and 200 acres	Atchkat less than 100 acres	Total No. of tanks	Old wells in use	No. of wells dug through National Extension Service	No. of wells dug with the aid of Land Development Bank	Total number of wells	
1	2	3	4	5	6	7	8	9	10	11	
Tumkur	1	9	18	23	138	189	1,562	763	214	2,539	
Koratagere	1	3	3	11	84	102	1,344	378	15	1,737	
Madhugiri	..	..	9	8	106	123	3,892	208	Not available	4,100	
Pavagada	..	2	8	24	30	64	2,784	719	103	3,606	
Sira	..	7	33	45	110	195	4,233	767	135	5,135	
Chiknayakanahalli	1	2	7	13	73	96	157	50	14	221	
Gubbi	1	3	5	19	88	116	1,384	476	107	1,967	
Tiptur	..	..	1	45	107	153	126	179	15	320	
Turuvekere	..	4	18	13	42	77	120	287	Not available	407	
Kunigal	4	6	11	5	140	166	910	173	143	1,226	
Total	8	36	113	206	918	1,281	16,512	4,000	746	21,258	

The following list gives the names of almost all the important major tanks in the several taluks of the district :—

Gubbi : Gubbi, Amanikere, Nittur, Kadaba, Chandrashekhara-pura, Kallur, Mookanahalli, Pattana, Belavatta, Mavinahalli, Changavi and Ankasandra ; **Sira :** Kallambella, Yeliyur, Lakshmi-sagara, Chikkasandra, Brahmasandra, Borasandra, Magodu, Doddagahara, Bhoopasandra, Changavara, Sira-Doddakere, Sira-Chikkakere, Ramalingapura, Bukkapatna and Chirathahalli ; **Koratagere :** Agrahara, Thumbadi and G. Gollahalli ; **Chiknayakanahalli :** Chiknayakanahalli tank, Settikere, Thimmalapura, Boranakanive, Doddannagere and Gopalapura ; **Turuvekere :** Malla-ghatta Amanikere and Turuvekere Amanikere ; **Kunigal :** Amruthur (Doddakere and Chikkakere), Kodigehalli, Hosahalli, Holalagudda, Kaggere, Sankanapura Anicut, Jainagara, Hosakere, Sanaba, Kailara, Kuppe, Banavara, Marconahalli Reservoir, Kadasettihalli, Bisanale, Kunigal Amanikere, Begur, Kottigere and Deepambudhi ; **Madhugiri :** Mallenahalli, Midigeshi, Bedatur, Bidarakere, Reddihalli ; and **Tiptur :** Nonavinakere, Echenoor, Soorgurkere and Ganganaghatta.

Out of a total cropped area of 12,00,458 acres (1965-66) in the district, 1,08,000 acres of land was under wet cultivation. An extent of 10,92,458 acres was under dry crops. There are no perennial rivers in the district ; the Jayamangali, Shimsha, Nagini and Suvarnamukhi rivers flow only during the rainy season and they are considerably made use of for irrigation. A number of tanks, reservoirs and pick-ups have been constructed across these streams.

Among the reservoirs in the district, the Marconahalli dam across the river Shimsha is the biggest. This is constructed very near Amruthur in Kunigal taluk. The project work was completed in 1939 at a cost of Rs. 29 lakhs. The *atchkat* provided under the anicut is 11,000 acres. The capacity of the waterspread equals 8,890 units. This is a composite dam. Two volute syphons of eight feet diameter each are installed in the masonry portion of the dam with a discharging capacity of 2,000 cusecs each. The reservoir is maintained by the State Public Works Department.

The Boranakanive reservoir in Chiknayakanahalli taluk was constructed as a famine relief work at a cost of Rs. 2,20,000 across the Suvarnamukhi river. The work was commenced in May 1888 and completed in October 1892. The capacity of the reservoir is 3,682 units, while the *atchkat* under it is 1,400 acres. The water distribution is done by controlled *Madubois*.

The Sankanapura anicut was constructed across the Nagini river in Kunigal taluk in 1901. A feeder channel from the anicut

is taken to feed the series of tanks in and around Amruthur. The *atchkat* under the anicut extends to 600 acres.

The Deepambudhi tank is one of the oldest tanks in the district and has some historical and mythological associations. It was constructed by Magadi Kempegowda.

Mangala Reservoir

A new reservoir has been constructed across the Nagini river near Mangala in Kunigal taluk. The cost of this project, the work on which was commenced in 1960, came to about Rs. 13.7 lakhs. The reservoir is designed to irrigate a total area of 1,300 acres.

Due to deforestation and cultivation of slopy lands without due consideration to prevention of soil erosion, many tanks in the district are getting heavily silted up. It is estimated that at least 50 per cent of the silt was deposited during the last decade. A few silt dams and erosion-preventing bunds have been constructed.

Irrigation, with the help of electric and diesel pumpsets, is popular in Madhugiri, Koratagere, Pavagada, Sira and Tumkur taluks. The number of electric pumpsets used in irrigation in the district was 10,178 in 1966-67.

Appliances

Appliances for the baling of water for irrigation from wells are of two kinds, i.e., those suited for manual power and those suited for bullocks. The first is the familiar *picota* which is a long lever mounted on a central vertical fulcrum. One end of the lever is suitably weighted and the other end carries the water bucket tied to a long bamboo. The weight at the rear end is heavy enough to be of help to the man to raise the full bucket and is, at the same time, not too heavy when the empty bucket is lowered. In order to further assist the man at the bucket, ropes are also tied on one or both sides of the central pivot, at which a second man pulls, now the one and now the other, as the bucket is raised or lowered. The *kapile* lift is of the second type and is adopted for bullock power. The buckets hold from 30 to 50 gallons of water. The bucket is made out of leather and is circular in shape with a wide and long leather hose stitched on to the bottom.

Water Table.—The water-level in the wells in the district varies in different localities, the average depth being 25 to 30 feet. In river basins, water is found at a depth of only 10 feet.

Soil conservation

As soil conservation has assumed importance, several schemes have been proposed to conserve the soil and moisture. Contour bunding, the maintenance of bunds, land utilisation, survey of waste lands, reclamation of alkaline and acid soils, afforestation and planting of hedges in areas vulnerable to soil erosion are some of

the important measures pursued in the district. The contour bunds, constructed on catchment basis at suitable distances from ridge to valley, not only save soil from erosion but also help to conserve moisture received during the monsoons. In 1966-67, the area covered by contour-bunding and other measures implemented under the scheme was 56,550 acres, the talukwise break-up being as follows :—

Taluk	Area bunded (in acres)	
Koratagere	..	2,799
Madhugiri	..	16,368
Pavagada	..	1,162
Tumkur	..	9,147
Gubbi	..	4,420
Sira	..	19,395
Turuvekere	..	709
Chiknayakanahalli	..	1,094
Tiptur	..	456
Kunigal	..	..
Total	..	56,550

The State Government have recently decided to launch an integrated scheme in Tumkur, Koratagere and Gubbi taluks in the district at a total cost of about Rs. 1.23 crores. Under this scheme, 1,550 irrigation wells will be sunk in these three taluks and an equal number of pumpsets will be installed, besides levelling of land wherever necessary. For this purpose, the State Government have decided to float special development debentures. Ten per cent of the debentures would be borne by the State Government, while the remaining amount would be made up through Agricultural Refinance Corporation.

AGRICULTURE

The soils in the district are generally hard and poor with the exception of lands irrigated by tanks, *nalas* and spring channels, which are fertile. Pasture land is abundant but poor, except in the Amrit Mahal Kavals. The red soil, which is known as the *ragi* soil, is common in the southern and western taluks and black soil is found to some extent in the northern taluks, while sandy soil is common in the eastern tracts. The nature of the soil has been categorised according to the pattern obtaining in different areas. Red, gravelly, sandy, clay loam, black soil, sandy loam, sandy clay, clay and alkaline soils are found in the district. The approximate extent of each variety of soil is indicated below :—

The red soil is found in the taluks of Tumkur (1,18,362 acres), Madhugiri (50,000 acres), Pavagada (20,000 acres), Tiptur

(1,00,060 acres), Turuvekere (54,200 acres), Kunigal (65,250 acres) and Gubbi (2,00,000 acres). In Tumkur, Kunigal and Sira taluks, the soils are red loams, fairly deep (2 to 5 feet) and are underlaid with murram. They are well drained but poor in lime and bases.

The gravelly soil is located in the taluks of Tumkur (24,176 acres), Sira (4,200 acres), Tiptur (25,000 acres), Turuvekere (15,000 acres), Kunigal (23,367 acres), Gubbi (80,000 acres) and Chiknayakanahalli (71,920 acres), while the sandy soil is found in the taluks of Koratagere (200 acres), Sira (11,000 acres), Turuvekere (10,000 acres), Kunigal (8,387 acres), Gubbi (10,000 acres) and Chiknayakanahalli (40,500 acres).

Madhugiri (8,000 acres), Pavagada (85,000 acres), Sira (3,55,444 acres) and Turuvekere (10,500 acres) taluks have clay loam, while the red loam soil is to be found in the taluks of Tumkur (30,036 acres), Koratagere (10,000 acres), Turuvekere (75,489 acres) and Chiknayakanahalli (60,130 acres).

The black soil, suitable mostly for cotton crop, is found in the taluks of Madhugiri (25,000 acres), Sira (8,000 acres), Pavagada (450 acres), Tiptur (2,500 acres), Turuvekere (1,500 acres), Gubbi (5,200 acres) and Chiknayakanahalli (6,080 acres). The sandy loam soil is found in Tumkur (61,100 acres), Koratagere (20,000 acres), Pavagada (25,692 acres), Sira (5,000 acres) and Tiptur (39,500 acres) taluks.

Clay soil is abundant in the taluks of Tumkur (20,000 acres), Koratagere (3,000 acres), Pavagada (9,400 acres), Tiptur (22,000 acres), Turuvekere (16,000 acres) and Gubbi (1,000 acres), while alkaline soil is confined only to Koratagere taluk extending to 2,000 acres.

The red and red loamy soils possess good drainage and are generally considered suitable to grow a wide variety of crops with manuring and proper irrigation. These soils occur in regions of medium rainfall ranging from 25 inches to 60 inches. The crops raised in these soils are varied, comprising almost all crops, with the exception of plantation crops like coffee and cardamom. The black soils are rich in bases and have a high water-holding capacity. The rainfall in these tracts is generally lower than in other parts, and farming is of the dry type. Black soils are particularly suited for rain-fed crops like short staple cotton, groundnut, jowar and tur.

Principal crops

The following table gives the acreages under principal crops in the district for the years 1961-62 to 1966-67 :—

Area under different crops in Tumkur district from 1961-62 to 1966-67 (in acres)

Crop	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67
1	2	3	4	5	6	7
Ragi-Dry	4,24,667	4,38,376	4,43,574	4,48,208	4,07,110	4,41,712
Ragi-Irrigated	35,979	40,691	40,000	41,044	30,400	20,905
Paddy-Kharif	21,831	93,967	44,324	91,750	64,131	75,548
Paddy-Summer	98,127	35,978	85,498	42,041	20,393	63,941
Jowar-Kharif	80,777	82,982	79,663	85,919	70,901	58,432
Jowar-Rabi	2,016	2,630	1,912	2,000	566	Not available
Total cereals	7,98,919	8,24,942	6,50,013	8,05,803	6,67,253	9,00,764
Total pulses	2,00,229	2,03,636	3,79,923	2,07,944	1,90,951	2,53,292
Groundnut	90,765	1,03,851	1,07,348	1,07,679	89,788	1,31,994
Sugarcane	4,712	4,217	4,426	5,310	2,951	7,682
Chillies	13,354	13,964	11,718	12,644	9,363	10,741
Coconut	75,914	76,396	76,567	77,422	81,200	84,252
Areca nut	7,440	7,391	7,900	8,118	8,300	8,437

Ragi

Ragi (*Eleusine coracana*) is a major food crop grown extensively in the district. This crop occupies roughly one-third of the whole cultivated area of the district. Ragi crop has many good features which mark it off sharply from the other foodgrains. It is one of the hardiest crops, well suited for dry farming. It can grow under conditions of very low rainfall and can withstand severe drought, reviving again with vigour after a good shower of rain. The grain is of a great nutritive value and is considered very sustaining to people doing hard physical work. Ragi is largely grown as a dry crop in the district. This crop is remarkably free from pests and diseases. Ragi grain can be stored for long periods without damage, provided it is stored in places and receptacles not subject to damp or wetting by water. Its straw is a valuable fodder, highly favoured both for working and milking animals. Ragi is grown as a dry crop in regions where the rainfall ranges from 20 to 35 inches. The yield of ragi under dry cultivation is correlated with the total rainfall in the five months from July to November.

The red and light-red ashy-coloured loams and sandy loam soils are most suited for the ragi crop. Ragi does well generally on the better class of soils, free from stone and gravel, of good depth and well prepared. Rough stony and gravelly land is not utilised for the cultivation of this grain. The root system in the plant is remarkably extensive, though somewhat shallow, and only good soils possess the proper texture and the moisture holding capacity required for this crop. In Tumkur, the red ragi soils are predominant. They are characterised by depth and uniformity in colour and texture. They are mostly underlaid by unweathered whitish clayey material, the decomposed product of the gneisses and granites, which are the main rocks in the area. Even in light ashy coloured and somewhat sandy types of soils, the red soils are found to underlie them as sub-soils. During the rainy months, water penetrates to a depth of six feet and more and the soils become almost saturated. The water-holding capacity of the soils is not very high and amounts to roughly 21 per cent. They retain the moisture with considerable tenacity, and even when the top six inches are quite dry in the hot weather, with as little as two per cent moisture, the lower layers retain moisture upto 12 per cent. When dry and in the hot weather, they set very hard and ploughing becomes difficult.

If, however, the soils are ploughed up immediately after the harvest, then the moisture in the lower layers is retained upto 17 per cent as against 12 per cent in the unploughed fields. Soils under cultivation show a sharp difference in colour between soil and sub-soil. In chemical composition, they are characterised by a rather low content of plant foods. The minimum nitrogen content is 0.08 per cent, phosphoric acid from traces to 0.09 per cent, potash from 0.14 per cent to 0.47 per cent and lime from 0.2 to

0.4 per cent. It is, therefore, obvious that good crops can be grown only with liberal manuring. The composition of some of the soils show clay ranging from 7 to 10 per cent, silt from 10.7 to 13.4 per cent, sand from 58.3 per cent to 70.4 per cent and gravel from 7.5 to 14.6 per cent.

The main ragi-sowing season is normally the middle or early part of July. If there is a lack of timely and sufficient rains, the sowing season is put off till the end of August. This is the latest season for sowing dry land ragi. The ragi crops grown in this season are called *hain* and they take a longer time to mature and they generally give a better yield. The dry-farming methods of cultivation of ragi adopted in different taluks of the district are all well designed to conserve rain water and soil moisture so as to reduce, as far as possible, the risks of crop failure. For example, the practice of ploughing the dry fields immediately after harvest is universal in tracts where crops are harvested early and further rains permit of such ploughing. By this method, not only is the soil moisture conserved against the drying action of the following hot weather, but also the soil is left in such a condition as to soak up without loss by surface drainage. Wherever the nature of the soil allows of such ploughing after harvest, it is adopted in the belief that such ploughing almost amounts to the application of manure. Where the soil is too hard to take the plough, the heavy-bladed harrow is used so that the surface is left with a loose soil mulch on it. Ploughing and tilling are repeated many times to obtain a good tilth before sowing, to prevent weed growth and to conserve moisture after every rainfall. The seed is invariably sown in rows for facilitating thorough interculture. Thorough weed removal is done so as to reduce the drain on the soil moisture and to utilise it for the growth of the crop. The seed is often sown mixed with manure so that the seedlings obtain a good start. If the soil is loose and blowing, then it is firmed up or slightly compacted after sowing so as to bring up the moisture to the germinating seeds, by passing a wooden log drawn by bullocks round and round over the field. Crust-formation on the sprouting seed is broken up and loss of moisture is prevented. There is, furthermore, the system of mixed cropping, which is very general, and in which a pulse crop like *togari* or *avare* is sown along with ragi. By this practice, the best use is made of the rainfall. If the rains are unfavourable for ragi, they often benefit the *avare* or the *togari* crop and *vice versa* so that at least one of the crops is obtained even with a poor or untimely rainfall and a total crop failure is prevented. In recent years, due to the propaganda and demonstrations conducted by the Department of Agriculture, the cultivators are raising ragi nurseries, wherever there are facilities, and transplanting the seedlings. This has proved to be advantageous to the cultivators.

Mixed crops

The first ploughing takes place immediately after the harvest of the previous crop. A good proportion of the crop grown in the main *hain* season is raised without any definite rotation. The practice of growing mixed crops of ragi and *avare*, i.e., a cereal and a legume, which is very general, probably avoids the need for a definite system of rotation which may otherwise be necessary. In recent years, owing to the popularity of the groundnut crop, it has become the practice to rotate ragi with groundnut. It is also usual to sow an early crop of gingelly, fodder jowar or greengram and follow it with horsegram in the first two cases and with fodder jowar in the third case and then sow ragi in the following year. In this way, two minor crops are grown in one year and the major crop, i.e., ragi, is grown in the following year. Very often, owing to the delay in the rains, the sowing season for *hain* ragi is missed or if *hain* ragi is sown and becomes dried up for want of rains, then a crop of horsegram or a minor grain crop like *baragu* is raised in the late rains and is followed in the next year by ragi.

In the preparation of the field for ragi cultivation, if the soil becomes too hard to take the plough, a shallow stirring is given by means of a heavy *kunte* (bladed harrow) or a disc harrow. In view of the decided advantage, which the ploughing or stirring of the soil during this season affords to the succeeding crop of ragi, this practice is strongly recommended by the agricultural authorities. If the land is thus ploughed or stirred, the ploughing proper can begin with the very first shower of rain. Otherwise, a good soaking rain will have to be awaited and the ploughing could be commenced only thereafter. With every succeeding rain, the ploughing is repeated or, in the alternative, the *kunte* is worked. By these means, the field is stirred completely to the depth required, and in case the improved plough is used, the soil is also inverted and the roots of weeds are cut and exposed to the sun. The clods are broken and the weeds freed from them and brought to the surface. The further working with the toothed harrow, gathers the weeds which are then burnt. Manure is then spread and mixed either by ploughing again or by working a cultivator.

Manuring

As ragi is the main food crop in the area, the ragi fields are manured to the fullest capacity and are further supplemented in various ways, such as, by the supply of silt from tanks, of fresh red soil from spots considered fertile and of earth from old village sites and mounds, which have considerable manurial value, and lastly by the penning of sheep. The penning of sheep, which is a common practice in Tumkur district, is a favourite form of manuring both for dry land crops and for valuable irrigated crops like sugarcane, tobacco, etc. The amount of cattle manure applied may vary from 15 to 20 cart-loads per acre, which are supplemented by another 10 to 15 cart-loads of silt or red earth. Cattle manure is applied not only when the soil is being prepared, but in certain

areas, it is also used mixed with the seed and applied in furrows at sowing time. Artificial manure and oil-cake are also applied at a later stage when the process of inter-cultivation comes to an end. The use of artificial manure is hindered by the consideration that in the case of dry land ragi, the rainfall may turn out to be poor and thus render the costly manuring infructuous. In view of the very low organic matter in the ragi soils and the great need for enhancing it so as to make the soils more receptive and retentive of moisture, the question of growing a green manure crop and ploughing it in has been studied. It has been found that it is possible to grow a sufficient quantity of some green manure crop, like sunn-hemp, or one of the pulse crops, if these can be sown early enough. This can be done only if the soils had been ploughed after the harvest of the preceding crop. In that case, a green manure crop can be sown in April or early in May, so that it may attain a moderately sufficient growth to be ploughed in the month of July. In 1966-67, 150 quintals of sunn-hemp seeds, 10 quintals of sesbania seeds and 100 kilograms of glyricidia were distributed for raising green manure crops in the district; besides, in the departmental nurseries, 75,000 seedlings of glyricidia were raised and distributed. It has been found that an interval of about two weeks is required before the green material disintegrates in the soil. As ragi can be sown almost upto the end of July or even upto the first week of August, it will often be possible to adopt this practice of growing a green manure and ploughing it in for dry land ragi.

Ragi is sown broadcast or in rows through seed drills or in shallow furrows or may be transplanted. By far the commonest method in the district is to sow it in rows through drills or in shallow furrows. Seed-drills are made in more than one size, having different tines; some sow in 12 rows, some in six rows and some others only in three rows. In the latter two cases, the rows are much wider apart than the former, viz., about ten inches as against five or six inches of the twelve-tine types. After the sowing is finished, a brush harrow made by tying together a number of leafy branches in a flat layer of about six feet in length, is dragged over the field to cover the seed and to smoothen the surface. Seeds are also covered by working a light-bladed *kunte*. If the soil is somewhat wet and the drill is likely to be clogged, then seeds are sown broadcast even where drill-sowing is the practice. Elsewhere, the seed is sown broadcast as a regular practice and covered by a shallow ploughing. The mixed crop is then sown by a *saddle* tied behind a plough and drawn at regular distances of about six feet from each other. The seed thus sown is covered by ploughing another furrow adjacent to the drilled furrow or by pushing the earth into the furrow by the feet. In these areas, the sowing of the ragi seed is followed by compacting the surface, for which purpose a herd of sheep is driven round and round all over the fields.

Another interesting method pursued is to sow ragi mixed with cattle manure. For this purpose, furrows are drawn by means of a three-tined drill with the seed bowl and seed tubes removed. Seed ragi is mixed with cattle manure at the rate of about one kilogram of seed to a cart-load of manure, which is, of course, in a dry and powdery form fit for such mixing and sowing. The mixture is filled into a large basket tied to the waist of the person sowing the seed and from this it is taken out and strewn into the furrows in large handfuls. The field is then worked with a light-bladed harrow and the seed covered. A variation of this practice is to put the mixture at regular intervals in the field instead of in continuous rows as above. The field is worked, lengthwise and breadthwise, with one of the above furrow-making drills, and at the intersections of these furrows, a large handful of the mixture is put in, and the field then worked with a light-bladed *kunte* for covering the seed.

Raising of seedlings

The seed rate for ragi is now about five to eight kilograms per acre. A fairly large quantity is used principally to guard against non-germination owing to lack of moisture in the soil or the poor quality of the seed. Ragi seed sprouts readily without any dormant period. In fact, grains are sometimes seen to sprout even in the earheads if harvest is greatly delayed and a heavy rain should fall at the time. Germination becomes poor as the grain becomes old and also depending upon the methods of storage adopted. Ragi is transplanted under dry cultivation also. Much of the *hain* ragi is raised by this method. Seedlings are raised in special nurseries, using two to three kilograms of seeds to transplant an acre, and thinnings from broadcast or drill-sown fields are also made use of for transplantation. Fields for transplanting ragi seedlings are prepared for a longer time than when seeds are sown, and the transplanting is done after the rains have well set in and the soils moistened to a good depth. After the field is well prepared, furrows are drawn length-wise and breadth-wise—in the chessboard fashion—by working a cultivator with two tines or the furrow-openers of a three-tined seed drill, length-wise and across the field. At the intersections of the furrows, one or two seedlings are planted and some cattle manure is also applied. At the same time, all blanks in the sown fields are filled with transplanted seedlings. With transplanted ragi, mixed crops of *avare* or *togari* are seldom sown.

The main-season ragi begins to grow from the beginning of October and is fully in earheads in about a fortnight thereafter. The earheads mature and become ready for harvest in about 40 days, and the actual harvest, beginning from the middle of November, may continue upto the middle of December depending upon the variety and the month in which the crop was sown. The crop usually takes about five to five and a half months to mature.

Harvesting is done by means of ordinary sickles, and the plants are cut close to the ground so as not to waste any of the straw which is considered very valuable. The sheaves are tied and put in large field stacks temporarily or carted straightaway to be stacked on the threshing floors. It remains in the stack for a month or two until the dewy season is over and the weather regularly warms up about the middle of February. By this time, all the mixed crops are also harvested and the threshing begins. The mixed crops like *avare* and *togari* and the minor crops like horsegram, niger and gingelly are all threshed first and ragi is taken up last. The threshing of the ragi is done in one of three ways, viz., by beating out the grains with sticks, by treading out the grains under the feet of oxen, which are driven in a team round and round over the sheaves spread on the ground, and lastly, by working a stone roller over the sheaves.

The first method is both slow and laborious and requires a good deal of manual labour; it is suited only to a small farm. The sheaves are well dried in the sun and are put out until about 1 or 2 O'clock in the afternoon. They are then spread thin and the earheads are beaten by long bamboo sticks. In the course of three and a half hours, two men usually thresh out 125 to 150 lbs. of grain. The second, the treading method, is the most common method and until the introduction of the stone-threshing roller, it was the only method in use. About six to eight oxen are tied abreast in a team and are made to walk round and round over a thick layer of well-dried sheaves, which are spread circularly on the threshing floor around a central post, to which the animal in the team nearest to the central post is loosely tied. After the threshing, there is always a small proportion of earheads left unthreshed which has to be beaten out. A team of ten animals form a unit and thresh about 1,200 to 1,500 lbs. of grain in a day. The stone roller is simpler and needs only one pair of bullocks. It will also turn out in a day the same amount of work, i.e., about 1,200 to 1,500 lbs. of grain. The straw obtained from the cattle-threshing is softer and better relished by livestock than the straw from the roller-threshing. The threshing of the ragi is more difficult than that of rice or of jowar as the grains are held much more firmly in the glumes and require considerable pressure.

The yield of dry land ragi, in fairly good seasons and under modern methods of cultivation, will be about 1,500 lbs. per acre, but, on an average, it will seldom amount to more than about 900 lbs. under the traditional method of cultivation. The straw of ragi is regarded as a highly nutritious fodder and is carefully conserved by piling up in large well-built stacks. About a ton of straw is expected generally from an acre.

Preservation of grains

Formerly, it was usual to preserve ragi in ordinary earthen receptacles like other grains and, to a much larger extent, underground in large pits excavated in suitable places. The chief requirement for such pits is that they should be on dry and high ground, with no chance for any water to percolate inside. They are dug in the shape of a huge pot with a narrow neck and may be seven to eight feet deep, sufficient to hold 2,000 to 3,000 seers or 2 to 2½ tons of grain. The neck is narrow, about 18 to 24 inches in diameter, just enough to allow a thin person to climb down. Before filling the pit with the grains, the walls and floor of the pit are smoothened and plastered with cowdung paste, and are lined with loose straw or with long straw twist. The pit is then filled with grain, the neck is well plugged with straw and covered over with a heavy stone slab and then with earth in the shape of a small and inconspicuous mound. If water does not enter the pit and it remains quite dry, the ragi in it lasts for a number of years. But if moisture gets in, then the ragi grains undergo fermentative changes which result in the formation of ptomaine poison. The practice of storing ragi in such pits is, however, rapidly dying out as it is now not stored for such long periods and as the ordinary gunny bags serve this purpose equally well. Bulk storage in good metallic or earthenware bins or in suitable store-rooms or wicker-bins are also now adopted.

Varieties

The varieties of ragi grown in Tumkur district are known by a number of local names. The following are the main varieties:—

<i>Hullubili</i>	..	Green open type
<i>Guddabili</i>	..	Green compact
<i>Karigidda</i>	..	Violet compact
<i>Jenumudde</i>	..	Green open
<i>Madayanagiri</i>	..	Violet open
<i>Hasarukambi</i>	..	Green open
<i>Doddaragi</i>	..	Green open
<i>Biliragi</i>	..	Green open
<i>Balepatte</i>	..	Green open
<i>Karimurakalu</i>	..	Green open
<i>Majjige ragi</i>	..	Green open
<i>Rudrajade</i>	..	Violet compact
<i>Jade Shankara</i>	..	Green compact

A strain, which is now generally grown, is H-22, a selection from *Madayanagiri* ragi. It is a long duration variety with open-type earhead, best suited to the Tumkur area. The RO-870 is a short duration variety giving a heavy yield and hard grain. This has close earheads and is drought-resistant. This variety is newly introduced in selected areas in the district. The K-1 ragi is also a short duration variety with close earheads. This gives a good yield and is specially grown under tank *atchkats*. Kaveri and ES-11 varieties are also becoming popular.

Ragi, for food, is ground into flour and then used cooked either as a pudding or as a porridge. It has been found that the protein content of ragi is of the type known as biologically complete as in the case of milk. The ragi grain can be malted and used as a nourishing form of beverage. For this purpose, the grain is first soaked in water for 36 to 48 hours and then spread out on the floor and allowed to germinate over a period of seven days. After germination, the grain is dried in the sun and then roasted over a low fire and ground into flour.

Of late, improved agricultural practices have helped the ragi-growing farmers to raise more from their fields. After sustained research and experimentation, the Department of Agriculture has evolved a package of practices, which, if followed in right earnest, gives a better yield and healthy grains. As ragi is a very important crop, occupying a major portion of the cultivated area in the district, new methods of farming are being popularised and a brief description of these methods is given in the following paragraphs.

Improved practices

With a view to securing a good tilth of the fields for cultivation of both dry land and irrigated ragi crops, the field is ploughed two or three times with an iron plough for a depth of about six inches. After the ploughing, the land is levelled, using the *halube*. Manuring is done with about 10 cart-loads of farmyard manure or compost per acre. The application of modern fertilisers is then resorted to. Ammonium sulphate, at the rate of 75 kgs. per acre, together with 60 kgs. of superphosphate and 20 kgs. of muriate of potash, is applied. The manurial process begins before sowing or before transplantation. A portion of modern fertilisers is applied at this stage and repeated after 35 or 40 days of sowing. The manure application depends on the soil-moisture.

Improved ragi seeds are now being largely used as a result of persistent propaganda by the Agricultural Department. The H-22 variety is sown in June-July and the duration of this variety is 135 to 140 days. The duration of E.S-11, another improved variety, is 110 to 120 days and this is also sown in June-July. The 'Kaveri', yet another improved variety, is sown in irrigated areas, the duration of this variety being 135 to 140 days. If seeds are broadcast (as is generally the practice among the ragi-growing cultivators), the seed-rate adopted is four to five kgs. per acre. In the process of transplantation, two kgs. of improved seeds are sown in a selected plot of about 25×4 feet called *madi*. Fifteen *madis* are required to transplant an acre of ragi land.

As a measure of plant protection, insecticides like Agrosan, Ceresan or Captan are used. The ragi seeds are immersed in these chemicals before sowing so as to prevent plant diseases. The sowing is done in rows, nine inches apart. Two to three plants are transplanted in each pit. Fifteen to twenty days after

sowing, *kuntas* are used. The harvesting is done after the earheads become ripe. The average crop yield, with this improved method, is 600 to 700 kilograms per acre.

In recent years, the acreage under ragi has considerably increased in Tumkur district. In 1959-60, the total acreage under ragi was 3,18,128 while in 1966-67, it had increased to 4,41,712 acres. Normally, the production is large enough not only to meet the local consumption, but also to leave enough surplus for export. The following table gives the acreage extent of ragi in the ten taluks of the district for the years 1959-60 and 1966-67 :—

Taluk	1959-60 Acreage	1966-67 Acreage	
		Kharif	Summer
Tumkur ..	47,561	87,319	+ 1,800
Koratagere ..	25,000	30,000	+ 1,000
Madhugiri ..	34,500	19,880	+ 9,810
Pavagada ..	1,100	19,400	+ 2,000
Sira ..	22,237	27,030	+ 3,000
Chiknayakanahalli ..	36,950	46,181	+ 85
Turuvekere ..	32,025	51,628	Not available
Tiptur ..	46,215	39,540	+ 460
Kunigal ..	66,440	52,314	+ 1,000
Gubbi ..	6,100	68,500	+ 1,750
Total ..	3,18,128	4,41,712	+ 20,905

From the above table, it is seen that the taluks of Tumkur, Gubbi, Kunigal and Turuvekere have a higher acreage when compared to other taluks.

Rice (*Oryza sativa*)—unhusked rice or paddy—(Kannada name : *Bhatta*) is grown in all the taluks of the district. The total acreage under paddy cultivation in the entire district during 1959-60 was 1,10,472 and this increased to 1,38,789 acres in 1966-67. This is the most important crop next to ragi and is mainly grown under tanks and canals. The paddy strains used in the district are S-317, S-661, S-749, S-718, S-1092, S-705, Ch-45, Ch-10, Ch-2, SR-26 B, T-65 and T.N-1. Tumkur district is particularly noted for the cultivation of paddy during summer months. There are a number of major tanks scattered all over the district. These tanks receive their major supply of water during the north-east monsoon period and hence sufficient quantities of water are available for paddy cultivation. An extent of 63,243 acres was brought under paddy cultivation during the summer months of 1966-67. The

rice plant belongs to the natural order of gramineae and is a tufted aquatic grass. The root system is fibrous and generally consists of two whorls, of which one is a primary set which is permanent and springs from the first node. From the same spot, successive whorls of roots develop which, though appear to spring from one node, are really derived from separate nodes which are so close to each other as to appear one and the same node. Though the roots develop under water, they require considerable aeration for proper development.

The *kharif* season for paddy cultivation begins in the district during June, July or August and ends in November, December or January. The *rabi* or summer season begins during January or February and ends in May, June or July.

The usual method of growing paddy is to transplant seedlings from a seed-bed. The field is ploughed soon after the last harvest ; it is then watered and green manure crop is trampled in. Then the field gets another round of ploughing. The bunds are trimmed and the puddle is levelled. Into this puddle, seedlings, about 22 to 30 days old, are transplanted in bunches, containing two to four plants at intervals of about a span. Water is let in slowly till the yellow of the transplanted seedlings changes into green. The field is continuously irrigated till about 10 to 15 days prior to harvest, when water is completely stopped. The crop is then harvested and threshed. Transplanting

In the traditional method of cultivation, usually five to six ploughings are given by the country plough. Then the levelling is done by using a plank harrow. Inter-culturing is done by hand-weeding. Two to three thousand lbs. of *honge* (*Pongamia glabra*) leaf and six to eight cart-loads of farmyard manure are applied per acre. The sowing is done by the broadcast method, the seed rate being 75 lbs. per acre. In the improved method, three to four ploughings are done by using the mould-board plough. Two to three harrowings are done by the cultivator and the paddy puddler. By way of manure application, a green manure crop of either horsegram, sunn-hemp, sesbania or daincha is grown and ploughed in. In addition to this, 15 kgs. of phosphate, 10 kgs. of nitrogenous compound and 15 kgs. of potash are also applied at the time of planting. Another 10 kgs. of nitrogenous compound are applied as top-dressing at the time of weeding.

The *punaji* or dry cultivation of paddy is resorted to in several parts of the district. The variety grown under this practice is called *Barabhatta*. The land is ploughed twice or thrice during the early rains till about June. When the field gets the adequate moisture after the showers, the seed grain is sown broadcast or harrowed in the wooden *halube*. The crop receives practically little attention for the next two months and then water is let in. Punaji cultivation

Varieties

The varieties of rice cultivated in the district are many. It is possible that several of them, which are known by different names—mostly local—are really one and the same, but even making allowance for this fact, rice is unique in respect of its large number of varieties. These varieties can be divided according to the season to which they are suited and they can be divided also according to the quality of the starch in them. There are also the trade distinctions, of course, for instance, medium and fine varieties of rice, which are descriptive of the shape and the size of the rice grain. There are again the red and white varieties classified according to the colour of the husked rice. The plants in the field too show marked differences in the height of growth, in the tillering capacity, in the strength of the stems, in the size of the panicles and the number of grains therein, in their ability to shed their grain, in the proportion of grain to straw, in the yielding capacity, in the proportion of rice to paddy and so on. In a large number of varieties, the grains possess awns. These are very long in some and short in others and rudimentary in still others. In some varieties, the paleae at the base of the grains are developed so much that they resemble wings and the grains are accordingly described as 'winged'.

Fine rice of the red coloured varieties are fancied as more tasteful than the white sort of the same variety. An important feature in which the varieties differ is their ability to shed the grains. In some varieties, the grains break off from their rachis very readily. The more readily a variety sheds its grains, the greater is the loss of grains in the field or on the way to the threshing floor. Some varieties are very bad in this respect, while others are either only moderately so, or more or less hard to thresh. Some of the good varieties, which are grown in the hot season, are very prone to shed their grains and this greatly neutralises the other advantages they possess, such as, earliness of season and fineness of grain.

Harvesting

The harvesting of paddy commences as soon as the field dries, after draining off the water, and becomes fit enough for the labourers to walk about. Harvesting is generally begun when the grain is quite ripe, but there is much to be said in favour of harvesting at an earlier stage and thus allowing the completion of the ripening to take place in the stack. After the crop is harvested, it is allowed to lie on the fields for some time—upto three days—and then brought over to the threshing floor. The threshing work is taken up immediately thereafter, or the sheaves are put up in stacks and taken up for threshing after about 10 days when all the crop has been harvested. The threshing is carried out by beating the earheads on an inclined plank or a bench or a stone. The grains separate with great ease, though in many cases a small proportion is left over in the straw. Such straw is taken up for a second threshing to get the grain that has been left over. This

second threshing is by means of trampling out the grain under the feet of cattle. The grain is then winnowed to remove chaff or empty grains.

Empty grains are produced as a result of the flowers of the rice not having been fertilised owing to a spell of cold weather, or to a shower of rain having interfered with the fertilisation. The pollen is not shed in the former case at the proper time and in the latter case, it is washed off, either of which results in the grain not setting. The winnowing is done by pouring the grain out of a basket or tray, held overhead and letting the wind blow off the chaff and dust as the grain falls to the floor, and further, by frequently fanning the heap on the ground vigorously. The heavy grain collects straight below the winnowing tray, while the chaff and the lighter grains around the periphery of the heap, far or near.

The yield of paddy per acre varies a great deal with the varieties and the season in which they are grown, not to speak of the soil manuring, irrigation and general excellence of the cultivation methods. The highest yields may go up to 40 quintals per acre, but generally only about 20 to 25 quintals of paddy are obtained in the best of tracts. On fertile tank-irrigated lands, 15 to 20 quintals are usually expected, while in the channel areas, the yield may be put down between 12 to 15 quintals. Several areas in Tumkur, Madhugiri and Koratagere taluks account for 15 to 20 quintals per acre. In Pavagada, the average yield is 18 to 20 quintals. In other taluks, however, the yield is only 10 to 12 quintals. The rice straw is an important fodder. However, it is considered much less nutritious than the ragi straw.

The grain is stored only in the unhusked condition and, for this purpose, it has to be well dried before being put in storage. There is considerable difference between the weight of the grain after the harvest and its weight after drying for storage, and this loss in weight may amount from 10 to 15 per cent. Several methods of storage are followed, and various types of storage receptacles can be seen. The grain is merely heaped in large rooms, well protected from sparrows and vermin. Tall circular wicker bins, well-plastered over with mud, are erected on elevated platforms for storage of grains. Substantial wooden stores, made of heavy planks like huge boxes with legs, and with bottoms well above the ground and covered with flat heavy wooden planks with a trap door for pouring in the grain and with an aperture for drawing off the paddy near the floor of the structure, are common in the better class of households. The storage of paddy over long periods greatly improves the cooking quality of the rice. The new rice is difficult to cook in the proper way as it generally gets into a pasty condition, whereas the rice from paddy stored for about six months or more, cooks well. The fresh rice contains an active

enzyme, which passes into a dormant stage after a certain period of storage. In the new rice, the proportion of amylose to amylopectin is stated to be 1:4, whereas in the old rice, the amylose proportion becomes very much reduced. The starch content in the rice also appears to be altered in some way by storage, as it is found that the starch of the old rice is more easily digested than the starch of the new rice.

The following table gives the extent of acreage under paddy cultivation in the various taluks of the district in 1959-60 and 1966-67:—

Taluk	Acreage 1959-60	Acreage	
		Kharif 1966-67	Summer 1966-67
Tumkur ..	9,589	15,000	+ 8,600
Koratagera ..	9,100	4,500	+ 5,000
Madhugiri ..	20,950	3,227	+ 6,503
Pavagada ..	5,840	6,120	+ 7,640
Sira ..	8,602	8,500	+ 4,200
Chiknayakanahalli ..	4,112	3,722	+ 1,620
Turuvekere ..	6,400	3,557	+ 1,028
Tiptur ..	5,336	5,100	+ 5,650
Kunigal ..	28,678	13,822	+ 16,000
Gubbi ..	11,865	12,000	+ 7,000
Total ..	1,10,472	75,548	+ 63,241

The Kunigal taluk accounts for 29,822 acres in view of the canal system under the Marconahalli reservoir built across the Shimsha river. The acreage depends, to a considerable extent, on the seasonal conditions of particular years. The cost of cultivation has been worked out, and the average in the district comes to about Rs. 500 per acre.

Japanese
method

The Japanese method of cultivation of paddy has been successfully introduced in the area. It has become popular with the cultivators and, as a result of this new technique, introduced in the State in 1953, it has been possible to increase the yield of paddy per acre to one-and-a-half times or even twice the former yield. As against an yield of 1,600 to 2,000 lbs. of paddy per acre in the traditional method, the yield under the Japanese method has gone up to 3,000 to 4,000 lbs. per acre. There are a few cultivators who have grown even upto 10,000 lbs. by following this improved method. Besides the higher yield obtained under this method, another advantage, in the form of reduced seed-rate and consequent

saving of the paddy grain, has also been secured. The cultivators used to have a seed-rate ranging from 25 to 50 seers per acre (50 to 100 lbs.) under the traditional method. In the Japanese method, the seed-rate never exceeds eight to ten seers (16 to 20 lbs.). There are many instances wherein some of the master-farmers have used a minimum seed-rate of 10-lbs. only. This reveals that a larger quantum of paddy grain was unnecessarily put into the soil and wasted under the traditional method. The reduced seed-rate in the Japanese method has caught the imagination of cultivators. The other indirect benefit accruing to the cultivators after the introduction of the new technique, was that it gave them an impetus to turn to the improved agricultural practices like the use of chemical fertilisers, crop protection measures and inter-culturing in the fields. This is indeed a good sign of agricultural improvement.

With a view to bringing more and more paddy lands under the Japanese method in the district, the State Government have sanctioned a special staff. Besides this special technical staff, there was already the staff of the National Extension Service, ready to help the cultivators to adopt these improved methods. The more important factors relating to the Japanese method are the selection and use of good and improved seeds, dressing of the seeds with fungicides, growing of strong and healthy seedlings, application of manures and fertilisers in the required quantities, transplanting seedlings in rows, good weeding and inter-culturing and the protection of crops against pests and diseases. The nursery plot required to raise seedlings for an acre of land is about two guntas. The plot is ploughed, levelled and divided into beds of eight feet length and four feet width, leaving a space of one foot between each bed. The length of the bed may vary from eight feet to 25 feet depending upon the length of the nursery plot. The beds are covered with a thin layer of wood-ash. The paddy seed is sown very thin on these beds. After sowing, the seeds are covered well with earth or manure. Care is taken to see that the beds are fully wet during the first week of sowing. During the second and third weeks water is let in. In the course of 21 days after sowing, the seedlings become ready for planting. The transplanting is completed when the seedlings are 21 to 28 days old.

The field for planting paddy under the Japanese method is ploughed well with the application of eight to ten cart-loads of green manure. At the time of transplantation, 50 kgs. of ammonium sulphate, 95 kgs. of superphosphate and 25 kgs. of potash per acre are applied. After a month, another 50 kgs. of ammonium sulphate are given as top-dressing. In this method, line planting is an important feature and is in contrast with the old method, where the plantings are done at random. Planting, with two to three seedlings, in lines with definite spacing from plant to

plant has been recommended. The planting in line facilitates easy inter-culturing. The spacing between row to row is nine inches to ten inches. The seedlings are planted erect 5"×6" apart in rows. The recommended spacing for Taichung varieties is 6"×4". The new method is encouraged both for *kharif* and *rabi* seasons. The taluks of Tumkur and Kunigal have proportionately more acreage under the new method. The table given below indicates the acreage under this method during the period from 1959-60 to 1965-66 :—

Year			Acreage
1959-60	..	..	28,869
1960-61	..	..	25,077
1961-62	..	..	26,287
1962-63	..	..	30,742
1963-64	..	..	28,975
1964-65	..	..	36,402
1965-66	..	..	11,225

Kharif and Rabi campaigns In order to help grow more paddy, the State Government initiated special campaigns both for *kharif* and *rabi* crops. The District Agricultural authorities did intense propaganda work in the countryside asking the cultivators to adopt improved methods and grow more paddy, making full use of the technical help offered. During 1966-67, the campaigns were continued in all the taluks of the district. The following table indicates the targets and achievements of the acreages brought under the improved methods both for the *kharif* and *rabi* seasons, during that year :—

Taluk		Kharif		Rabi	
		Target	Achievement	Target	Achievement
		(acres)	(acres)	(acres)	(acres)
Tumkur	..	12,210	8,600	3,300	2,350
Pavagada	..	..	..	..	..
Sira	..	3,000	1,400	4,000	4,500
Chiknayakanahalli	..	1,100	300	..	2,000
Turuvekere	..	2,100	2,100	3,000	2,750
Gubbi	..	2,000	474	1,920	2,220
Koratagere	..	2,000	2,000	..	..
Madhugiri	..	4,554	2,538	7,500	6,085
Tiptur	..	5,100	4,490	1,500	1,427
Kunigal	..	7,290	5,600	4,070	3,644

In most of the taluks of the district, Taiwan strains popularly known as Taichung varieties, were introduced as an experimental measure. These new strains have become now quite popular in all the taluks. They are short duration strains capable of planting in both *kharif* and summer seasons. The strains are best suited to fields with well-drained and non-alkaline soils. The fertiliser way to grow more paddy has also become popular. Several trials were conducted in this regard and, in practically all the trials, the application of nitrogenous compound increased the yields. The application of 1½ maunds of ammonium sulphate or 20 lbs. of nitrogenous compound per acre increased the yield of paddy by 4.5 maunds per acre. Two-and-a-half maunds of ammonium sulphate or 40 lbs. of nitrogenous compound per acre increased the yield by 6.6 maunds. Good increase in yields are also obtained with phosphates, especially on soils which are deficient in phosphorus.

The recommended paddy varieties for the *karthika* crop are: Improved S-661 (Coimbatore *Sanna*), SR-26-B, S-317 (*Halubbulu*) and Ch-2 (Chaina variety). The duration of all these varieties is 115 to 160 days. *For summer paddy, S-317 and Ch-2 varieties are used. Plant protection is particularly important in respect of paddy crop. In order to prevent pests and diseases, insecticides are sprayed 15 days after transplantation. The average yield obtained under these new practices is 1,400 to 1,500 kgs. per acre.

Taichung-65 Paddy.—Taichung-65, a high-yielding paddy strain, is used for intensification of paddy cultivation. Taichung varieties are suitable for both *kharif* and summer seasons. For the *kharif* crop, the Taichung strain is sown sometime before the middle of July and for the summer crop, sowing is done from about January 15th to February 15th. The paddy field is ploughed three times with an iron plough. Afterwards, four cart-loads of green manure and ten cart-loads of farmyard manure are applied. The transplantation of Taichung varieties is done in fields submerged in about an inch of water. The planting is done in rows, six inches apart. The one-inch submersion is maintained for ten days after transplantation. Afterwards, the water is drained. The field is again watered, with two to three inches of water, after 60 days of transplantation. Manuring is done twice. The duration of the Taichung varieties is 120 to 130 days. The yield of paddy per acre is about 25 to 30 quintals.

Taichung Native-1.—The Taichung Native-1 variety is particularly suitable to Pavagada, Sira, Madhugiri and Koratagere taluks. The paddy field for this strain is ploughed well, three to four times, with mould-board iron plough. Four cart-loads of green manure and ten cart-loads of farmyard manure are applied per acre. Line planting is advised; the field is submerged in three

inches of water. Manurial application is the same as for Tai-chung-65 variety. The yield from this variety is 25 to 30 quintals per acre.

Jowar

Jowar (*Sorghum vulgare*)—Kannada name: *Jola*.—Jowar is one of the popular dry-land foodgrains grown in some taluks of the district. Its suitability to tracts of low rainfall and its ability to withstand considerable drought, make it an ideal crop for cultivation in the area. It is comparatively a quick-growing crop and gives not only good yields of grain, but also large quantities of fodder. The existence of several varieties of this grain suited to different seasons, for growing both as a dry crop and under irrigation, either for purposes solely of fodder or of both fodder and grain, greatly widens the scope for its cultivation. The *sorghum* is a crop suited mostly to plains, though in the Mysore plateau, it grows even at an elevation of about 3,000 feet. The average temperature required during the growing season ranges from 80 degrees to 90 degrees Fahrenheit, but many varieties can even stand a minimum temperature of about 60 degrees Fahrenheit and a maximum temperature of about 105 degrees Fahrenheit. They mature, however, with a much smaller amount of rainfall than ragi, about 10 to 15 inches, from sowing to harvest, being sufficient. It cannot be grown as a dry crop if the annual rainfall is very low in which case it will have to be raised under irrigation.

Soils

Jowar crop is not confined only to the black cotton soil, but is grown, to a certain extent, on other types of soils also, such as, the red, ashy grey, light red, etc. Except on stony, gravelly or very rough soils, it is grown on a wide variety of soils, both heavy and light alluvial loams, and even on sandy soils. The best crops are grown, however, on the clay loams, either red or black, and if under irrigation, with adequate drainage. On low-lying fields and dry tank-beds, the crop attains a luxuriant growth, but if water is stagnant or the moisture does not drain off soon, the crop becomes sickly and gives only a poor yield.

In the Tumkur district, Jowar is raised as a *mungar* crop; the sowing commences in May, June or July, and the crops are harvested in September, October or November. In the preparatory cultivation, traditionally, one or two harrowings are given by the *heggunte* or one or two ploughings by the ordinary country plough. Sowing is done with the help of a country plough followed by a *nudde* (three-tined seed drill). It is sown in lines, nine inches apart, and the seed-rate is about four to five kgs. per acre.

Features of the plant

Jowar belongs to the natural order of graminæ; it is a tall annual grass, with a robust solid pithy cylindrical stem, and attains a height of 10 or even 15 feet, according to the soil types and the variety grown. The stem may be thick, about one to two-and-a-half inches in diameter, or thin, about only half an inch in diameter,

or even less, if sown very thick. The root system is fibrous and profuse, and some of the lower nodes send out roots which are mostly serial; they also sometimes reach the ground and function as true roots. The leaves are about two to three-and-a-half feet long and from one to three inches broad, with a conspicuous midrib, which is white in colour in contrast with the green of the blade, and are smooth except at the margins which are rough. The flowers open from the top of the panicle and extend downward gradually, taking about eight days for completion. The glumes are four in number; the grains are formed clear of the glumes. In certain types, however, the glume encloses the seed either completely or to a large extent.

Unlike the other straws, jowar fodder has to be cut into pieces before it can be fed to cattle. It is usual to cut it into lengths of a foot or a foot-and-a-half by ordinary long-handed, large and curved knives or by local types of chaff-cutters, which have straight blades with a long handle, working up and down like a nut-cracker. Owing to its coarseness, the fodder is usually softened by soaking in water before it is fed; but even then a good portion of the stems is rejected by the animals.

Jowar is eaten by breaking the grain and cooking it in the same way as rice or by grinding it into flour and preparing unleavened bread out of it. To a small extent, it is eaten parched; some varieties yield jowar which can be converted into popped grain. Such grain, after popping, is eaten as it is or ground into flour. The varieties, which lend themselves to popping, are those with the open branched earheads and not those with the compact heads.

Jowar also can be malted. The malt is prepared by steeping the grain in water overnight and then draining the water out and keeping the grain moist and heaped up until sprouting begins and the radicles are plainly visible. The grains are then spread out to dry, rubbed free of the radicles and then roasted and ground into flour.

The *mungar jola* or *kharif jowar* is sown in all taluks of the district and a total of 58,432 acres was under this crop in 1966-67. Of this, a large extent of 35,100 acres was in Pavagada and Sira taluks. The following table indicates the acreage under jowar cultivation in the ten taluks of the district in 1959-60 and 1966-67:—

Taluk		Acreage 1959-60	Acreage 1966-67
Tumkur	.. ..	2,777	..
Koratagere	.. ..	1,900	1,920
Madhugiri	.. ..	6,255	3,635
Pavagada	.. ..	22,130	13,500
Sira	.. ..	2,400	21,600
Chiknayakanahalli	.. ..	5,701	7,519
Turuvekere	.. ..	2,500	..
Tiptur	.. ..	3,620	3,988
Kunigal	.. ..	3,500	..
Gubbi	.. ..	5,000	6,270
Total	.. ..	55,783	58,432

The cost of cultivation of this crop comes to about Rs. 120 to Rs. 150 per acre.

Hybrid Jowar

Cultivation of hybrid jowar has become popular in the district in recent years. The C.S.II-1, which is a high-yielding variety, is mostly used for sowing. Moist fields are not suitable for hybrid varieties. This kind of jowar is raised in the *khari* as well as summer seasons. The field is ploughed three to four times with an iron plough and levelled well with a *heggunte*. Before using the *heggunte*, about ten cart-loads of compost are applied per acre. Modern fertilisers, at the rate of 60 kgs. of ammonium sulphate, 125 kgs. of superphosphate and 35 kgs. of murate of potash, are also applied. The manuring is repeated after 20 to 25 days. The sowing is done in lines, 18 inches apart. Interculturing is done once in 15 or 30 days. Water is let in every 10 days. The hybrid jowar is ready for harvest within 115 days of sowing. The average yield is about 25 to 30 quintals per acre. In irrigated areas, the sowing is done in June.

Hybrid Maize

Hybrid maize of the Deccan variety is raised on red sandy soils and also on black sandy soils. The field is ploughed three to four times with an iron plough for a depth of six inches. Compost is applied at the rate of ten cartloads per acre; modern fertilisers are also used. The seed-rate for the Deccan variety is six to six and-a-half kgs. per acre. The sowing is done in rows, 10 to 12 inches apart, and at a depth of one to one-and-a-half inches. Inter-culturing is done after 15 to 30 days of sowing and water is let in once in seven days or so. The duration of this crop is 110 to 120 days and it gives an yield of about 30 to 35 quintals per acre.

Haraka (*Panicum semiverticulatum*) is easily the coarsest among the foodgrains and also remarkably drought-resistant. It is relegated to rough gravelly and stony soils, high upland soils or the red, ashy grey and light red type soils. Even in adverse seasonal conditions, the crop survives on these soils and yields a type of coarse grain and straw, low both in quality and quantity. The crop occupies the field for six months, a period longer than that of any other dry-land grain. Only one crop is raised in a year and it is followed, in the next year, with horsegram or castor. The field intended for *haraka* cultivation is ploughed several times, between May and July after heavy rains, and is prepared well as for the better class of grains. The grain is sown broadcast after a good rain, about the end of July. It is also sown in rows either in drills or in plough furrows. The seed-rate is about five to six kgs. per acre. In the preparatory stage, only one or two harrowings are given by a *heggunte*. Generally, no manure is applied. Two to three inter-culturings are also done by a *hede-kunte*. The average yield of this crop per acre is about 200 kgs. *Haraka* belongs to the genus *panicum* and is quite distinct from the other cereals. It is a smooth annual grass, growing somewhat erect, attaining a height of 18 inches to two feet. The leaves are stiff and thick adding to the erect appearance of the plants. Both the stems and leaves are suffused deep red, especially when conditions are very dry. The grain is recommended as a substitute for rice to patients suffering from diabetes.

In Tumkur district, the taluks of Pavagada and Sira account for large acreages under this crop. A total acreage of 68,195 was under this crop in the district in 1966-67. The cost of cultivation per acre varies from Rs. 40 to Rs. 60. The table given below indicates the talukwise acreage under *haraka* in the district in 1959-60 and 1966-67 :—

Taluk		Acreage 1959-60	Acreage 1966-67
Tumkur	.. ..	350	1,700
Koratagere	.. ..	1,200	1,940
Madhugiri	.. ..	1,250	5,471
Pavagada	.. ..	10,819	39,530
Sira	.. ..	14,375	12,000
Chiknayakanahalli	.. ..	250	1,015
Turuvekere	.. ..	144	4,900
Tiptur	.. ..	3,050	3,600
Kunigal	.. ..	3,400	..
Gubbi	.. ..	10,000	39
Total	.. ..	44,888	68,195

Navane

Navane (Setaria italica).—Pavagada, Madhugiri and Sira taluks are particularly noted for the cultivation of this minor dry-land foodgrain, which comes to maturity within a period of about a hundred days. The ordinary red loams are best suited and, under normal rainfall, very good crops are raised on such soils. The crop is either grown pure without a mixed crop or as a subsidiary mixed crop with ragi. On red soils, *avare* is sown as a mixed crop with *navane*. It is usually followed by jowar or *sajje* in the next year. When *navane* is grown pure, it is generally followed by ragi or jowar. The preparatory cultivation methods are generally the same as practised for *haraka*. No ploughing is done before the seeds are sown; only one or two harrowings are given by a *heggunte*. Generally, manure is not applied. The seed is sown in lines, nine inches apart, by using the three-lined seed drill. Two to three inter-culturings are done by a *hedakunte*. The average yield of this crop per acre comes to about 200 kgs. The *navane* grain is cooked and eaten like rice. It is also made into sweet puddings and porridge.

The following table shows the extent of acreage in respect of *navane* in the various taluks of the district for 1959-60 and 1966-67:—

Taluk		Acreage 1959-60	Acreage 1966-67
Tumkur	.. ..	500	280
Koratagere	.. ..	1,000	1,200
Madhugiri	.. ..	100	11,400
Pavagada	.. ..	15,050	10,700
Sira	.. ..	15,800	7,000
Chiknayakanahalli	.. ..	62	951
Turuvekere	.. ..	94	258
Tiptur	.. ..	850	3,650
Kunigal	.. ..	200	..
Gubbi	.. ..	8,416	278
Total	.. ..	42,762	35,885

The cost of cultivation is not expensive. It comes to about Rs. 20 to Rs. 40 per acre.

Horsegram

Horsegram (*Dolichos biflorus*)—Kannada name: *Husuli*.—Horsegram is extensively grown in almost all the taluks of the district. The total area under this crop in the district in 1959-67 was 1,28,028 acres. The Chiknayakanahalli, Tiptur, Gubbi and Tumkur taluks have large acreages under horsegram. It is grown as a dry crop almost invariably and under conditions of only a moderate rainfall not exceeding 35 inches. It is raised over a

wide range of soils. There is almost no type of soil, excepting the bad alkaline soil, on which it is not sown. It is a kind of preparatory crop of which two or three crops are taken before the land is put under ragi, jowar or other grain crops. Most of the surplus land of the cultivator, which he cannot prepare sufficiently well in time for ragi, is put under horsegram. This crop is sown in rows and is also broadcast. In the first method, it is sown in plough-furrows, about nine inches apart, and covered by the adjacent furrow, or through the jowar seed-drill and covered by working the light-bladed harrow. For broadcasting, the field is divided into long narrow strips, of about ten feet width, by means of plough furrows. Seeds are sown broadcast in the strips successively, and the sowing is followed by ploughing so as to cover the seed. Where the crop is sown in rows, the field is inter-cultured once.

In many places, horsegram is sown with a mixed crop of niger, which is sown in rows, about three to six feet apart, simultaneously with horsegram. The crop is always sown thick, a seed rate of 10 to 12 kgs. being common. The harvesting is done by pulling out the plants. They are removed to the threshing floor, stacked for a week and then threshed by being trampled under the feet of oxen or with the threshing stone roller. A good crop of horsegram yields about two to two-and-a-half quintals per acre; but, however, the yields are generally low in the district, owing to the poor attention the crop receives and the belated sowings. The produce requires a great deal of cleaning by means of winnowing and sifting in order to remove the seeds of the various weeds. Harvesting

Horsegram is the poor man's pulse crop and is eaten both boiled and fried. In contrast with the other pulses, horsegram is not converted into split pulse. It is largely used as a food for horses and cattle. The following table shows the acreages in respect of horsegram in several taluks of the district for the years 1959-60 and 1966-67:—

Taluk		Acreage 1959-60	Acreage 1966-67
Tumkur	.. ..	10,537	15,000
Koratagere	.. ..	9,000	9,500
Madhugiri	.. ..	..	10,991
Pavagada	.. ..	23,690	6,000
Sira	.. ..	23,828	10,500
Chiknayakanahalli	.. ..	13,306	19,500
Turuvekere	.. ..	2,255	4,554
Tiptur	.. ..	250	19,459
Kunigal	.. ..	6,600	13,544
Gubbi	.. ..	22,200	19,000
Total	.. ..	1,11,666	1,28,028

Avare

Avare (*Dolichos lablab*) is one of the important field beans, very largely grown in the district. In the dietary of the working classes in Tumkur district, whose staple food is ragi, this bean is quite often an ingredient, and it supplies the protein supplement to the ragi grain. It is cultivated almost entirely as a dry crop, in regions where the rainfall ranges from 25 to 35 inches. It is grown, almost invariably, as a mixed crop, the main crop being ragi. The preparation of the field for the ragi crop, applies to this crop also. This crop is sown along with ragi in the months of June—July. The sowing is carried out either simultaneously with ragi, in which case it is sown through a single furrow seed-drill, the saddle being tied behind the twelve-tined ragi drill, or is sown separately after ragi has been sown broadcast, being dropped into plough furrows drawn about six feet apart. The crop shares, during its growth, the same inter-culturing, weeding and thinning operations which are carried out for the ragi crop. Its growth is only moderate during the time the ragi crop occupies the ground, but soon after ragi is harvested, it grows quickly, and flowering commences very soon thereafter, generally about the middle of November.

The *avare* plant is a semi-climbing low bush and, under conditions of good rainfall, covers the whole ground between the rows. The flowers are borne on a straight upright stalk, often a foot high, on which they open successively. The pods are gathered both in the green and ripe stages. Large quantities of green pods are gathered and sold as vegetable; the seeds are removed from the pods, cooked and eaten like green peas. The pulse from the dry pod is eaten both fried or boiled and salted; generally, it is the split pulse that is cooked and eaten. A considerable quantity of the pulse is sold in the form of *dhal* or split pulse, as in the case of *togari dhal*. The statement given below shows the taluk-wise acreage of *avare* in the district for 1959-60 and 1966-67 :—

Taluk		Acreage 1959-60	Acreage 1966-67
Tumkur	.. ..	806	3,000
Koratagere	.. ..	3,800	1,557
Madhugiri	.. ..	500	2,299
Pavagada	.. ..	423	2,060
Sira	.. ..	230	12,050
Chiknayakanahalli	.. ..	2,500	5,000
Turuvekere	.. ..	8,000	2,984
Tiptur	.. ..	16,000	4,540
Kunigal	.. ..	986	..
Gubbi	.. ..	3,600	2,429
Total	.. ..	36,844	35,919

The average yield of *avare* in the district varies from place to place. In some places, the yield is only about 50 kgs. per acre and in other places, it comes to about one-and-a-half to two quintals. The cost of cultivation comes to about Rs. 25 per acre.

Tur (*Cajanus indicus*)—Kannada name: *Togari*.—*Tur*, sometimes called also as redgram, is an important crop, which forms usually a part of the daily dietary of the households in this part of the country. The crop is grown mixed with ragi, jowar or *sajje* in rows, about six feet apart, the space between the rows being occupied by the cereal crop. The seeds are dropped into plough furrows either by hand or through a one-furrow seed drill and covered by a harrow or merely with the feet, as the sowing goes on. Sown in this way, about 4 lbs. of seed are used for an acre.

Sowing takes place from May to July, the early sowing being with the *kar* ragi or early season jowar, and the later sowing with the main season ragi or jowar. After the plants show up above the surface, hand-weeding, inter-culturing and other operations are carried out. The plants are considerably thinned out, so that they may stand about 12 to 18 inches apart in the rows. The growth of the plants are slow until the cereal crops are harvested and removed. The yield of *tur* ranges between 200 to 300 kgs. per acre when grown as a mixed crop. If grown pure, it may go up to about three to four quintals per acre.

Tur is converted into *dhal* or split pulse, with the husks removed, before it is sold for consumption. The boiling quality of the *dhal* is an important characteristic which decides the price of the article. Those varieties, which boil or soften quickly with a large portion of the constituents, diffusing into the water in which they are boiled, are considered to be the best and those which are poor in this respect and are slow in softening and diffusing, are ranked lower. The varieties in which the *dhal* is thick, small and almost rounded, are preferred to those in which it is thin, flattish and somewhat larger in size. Sometimes, the *dhal* is cooked and eaten as it is, but more often, in combination with other ingredients in the shape of curried soup and other dishes. It is an important protein food of the people of the district.

The acreage under cultivation of *tur* in the district in 1959-60 and 1966-67 is indicated in the following table :—

Taluk			Acreage 1959-60	Acreage 1966-67
Tumkur	..	..	1,078	1,800
Koratagere	..	..	500	900
Madhugiri	..	..	90	..
Pavagada	..	..	3,000	3,620
Sira	..	..	640	1,500
Chiknayakanahalli	..	..	160	6,702
Turuvekere	..	..	200	2,038
Tiptur	..	..	354	5,082
Kunigal	..	..	1,218	..
Gubbi	..	..	1,000	2,714
Total			8,240	23,656

Groundnut

Groundnut (*Arachis hypogaea*)—Kannada name: *Kadale-kayi*.—This oilseed is grown in all the taluks of the district, extending to an area of 1,31,994 acres, Pavagada, Madhugiri and Sira taluks alone accounting for nearly 1,11,137 acres in 1966-67. The following table shows the taluk-wise acreage under groundnut cultivation in the district in 1959-60 and 1966-67 :—

Taluk			Acreage 1959-60	Acreage 1966-67
Tumkur	..	..	3,380	3,084
Koratagere	..	..	8,000	10,000
Madhugiri	..	..	16,500	26,757
Pavagada	..	..	28,000	58,690
Sira	..	..	18,500	25,890
Chiknayakanahalli	..	..	1,048	1,000
Turuvekere	..	..	853	358
Tiptur	..	..	271	65
Kunigal	..	..	2,600	800
Gubbi	..	..	5,360	5,550
Total			84,512	1,31,994

Groundnut is cultivated in the district as a dry-land crop. It is sown in the better class soils, the light red and ashy coloured loams being preferred. Even stiffer loams tend to foster its growth. The sowing season commences usually in May, June or July and

the crop is ready for harvest during September, October or November. In the preparatory stage, three to four ploughings are given by the country plough and one to two ploughings by the mould-board. Five to six cartloads of farmyard manure are applied per acre. The sowing is done in plough furrows, nine inches apart. Three to four inter-culturings are done till the crop comes to the flowering stage. After a period of three-and-a-half to five-and-a-half months, the leaves become yellowish and begin to dry. The crop is now ready for harvest.

The improved methods adopted in the cultivation of ground-nut have given increased yields, i.e., 500 to 600 kgs. per acre under rainfed conditions and 800 to 1,000 kgs. under irrigation. The improved varieties in use in the district are HG-7 for rainfed areas and TMV-2 and Spanish improved varieties for irrigated areas. The duration of all these varieties is from 100 to 140 days. Improved methods

In the preparatory stage, the field is ploughed twice or thrice with an iron plough, for a depth of five to six inches. The cultivator is used to level up the field. Before the actual sowing, eight to ten cart-loads of farmyard manure or compost per acre are applied. In irrigated fields, ten to fifteen cartloads of farmyard manure per acre are used, or modern fertilisers at the rate of 25 kgs. of ammonium sulphate, 65 kgs. of super-phosphate and 10 kgs. of muriate of potash per acre are applied. For the irrigated crop, the application of super-phosphate is increased. The seed-rate employed is about 25 to 35 kgs. per acre.

For the irrigated varieties, water is let in once in every 10 days. Altogether, water is let in eight to ten times during the duration of the crop. The *kunte* is used after 15 to 20 days of the actual sowing. This prevents the growth of weeds. Line-planting is done as a rule. The yield per acre, for rainfed crops, is five to six quintals per acre and for irrigated crops eight to ten quintals per acre.

Sugarcane (*Saccharum officinarum*)—Kannada name: *Sugarcane* *Kabbu*.—Sugarcane is grown in several parts of the district, except in Chiknayakanahalli and Tiptur taluks. The acreage under sugarcane cultivation is higher in Kunigal, Sira and Madhugiri taluks. The total area under this crop in 1966-67 was 7,682 acres. The following table indicates the extent of acreage in the several taluks of the district for 1959-60 and 1966-67 :—

Taluk		Acreage 1959-60	Acreage 1966-67
Tumkur	.. ..	93	187
Koratagere	.. ..	250	255
Madhugiri	.. ..	1,200	537
Pavagada	.. ..	20	100
Sira	.. ..	..	1,000
Chiknayakanahalli	.. ..	..	..
Turuvekere	.. ..	79	80
Tiptur	.. ..	..	40
Kunigal	.. ..	4,132	5,270
Gubbi	.. ..	3,000	213
Total	.. ..	8,774	7,682

The soils suited for sugarcane cultivation are the light-coloured brown or reddish loams, of at least some three feet in depth, and underlaid suitably for drainage. In great many places, the sugarcane soils are dark rich clay loams such as are to be found under tank irrigation. But these soils have usually to be improved by the addition of sand and red earth annually or at longer intervals. Moreover, they require, by reason of their situation as well as texture, considerable drainage.

The planting season for sugarcane is, more or less, uniform throughout the district. There are two seasons, one commencing during January or February and the other in June, July or August. The second planting is of minor importance compared with the first. The canes planted in the main season, *vis.*, January or February, get the full advantage of the monsoon rains during their growth and develop an extensive root system. With the cessation of rains, they grow rapidly and become mature enough for harvesting and milling. The second season, on the other hand, does not enjoy the same advantages, as the crop requires heavy irrigation during the period of its rapid growth.

Varieties

The old indigenous varieties of cane grown in Tumkur district are soft, which can be easily milled in the wooden mills, and are also soft enough to be used as chewing cane. This variety is called *Rasadali*, of which there are two types, one thick and another thin. It is a very soft cane, with a greenish yellow rind, matures in ten months, has a sucrose content of 16 per cent, gives a light coloured jaggery and yields moderately well. It requires ample irrigation

and manuring and cannot stand dry conditions. A later introduction is the cane called *Pattapatti* (*i.e.*, striped), which is said to have been brought from Vellore. This is a slightly harder cane than the *Rasadali*, with a rind striped yellow and red longitudinally. It grows vigorously, tillers well, grows much taller than the *Rasadali*, is somewhat top-heavy, gives rich juice with a sucrose content of about 22 per cent, takes 12 months to mature, yields a good quality of jaggery, requires heavy watering and manuring and gives a high yield of about 40 tons per acre. In recent years, H.M. 320 and C.O-419 canes, which are well-suited to the district, have been introduced. The H.M-320 cane is noted for its high yield and superior out-turn of sugar. The CO-419 is a thick cane, growing erect with a good tillering and a remarkably high yielding capacity, ranging from 55 to 60 tons an acre. It is very adaptive to varying conditions of soil and soil moisture and stands even flooded conditions.

During the preparatory stage of cultivation, three to four ploughings are given by the mould-board plough, followed by one to two harrowings. Ten to 20 cartloads of farmyard manure, 50 lbs. of phosphate and 50 lbs. of nitrogenous compound are applied at the time of planting. Another 50 lbs. of nitrogenous compound are applied after three months. Sowing is done in ridges and furrows, three feet apart. The seed-rate generally varies from place to place, but it is usual to plant 10,000 three-budded sets per acre.

Cultivation
methods

When the cane becomes ripe for harvesting and milling, the appearance of the leaves as also the cane slightly changes; the succulent tender green of the leaves changes slightly into a dry, yellowish and ripe tint. When the cane crop is considered mature, it is usual to confirm it by means of a trial-boiling, for which canes enough for one charge are cut, milled and boiled and the ripeness of the cane judged by the quality of the jaggery it makes. If good and hard jaggery is made without difficulty, then general harvesting is taken up. Canes for milling are cut down close to the ground and are stripped off the dry leaves.

Coconut production has always been very important in this district because of the extent of acreage and quality of the nuts. The Tumkur district has an extensive acreage under this crop. The Tiptur, Chiknayakanahalli and Turuvekere taluks have large areas under coconut and the nuts gathered from these gardens are relished throughout the State. Out of a total acreage of 84,252 (1966-67) in the entire district, the three taluks of Tiptur, Chiknayakanahalli and Turuvekere account for 67,313 acres. The table

Coconut

given below shows the talukwise acreage of coconut cultivation in the district in 1959-60 and 1966-67 :—

Taluk		Acreage 1959-60	Acreage 1966-67
Tumkur	.. ..	262	1,630
Koratagere	.. ..	150	227
Madhugiri	.. ..	158	932
Pavagada	.. ..	55	560
Sira	.. ..	1,467	6,000
Chiknayakanahalli	.. ..	19,984	25,223
Turuvekere	.. ..	11,600	14,275
Tiptur	.. ..	24,697	27,815
Kunigal	.. ..	339	..
Gubbi	.. ..	4,905	7,590
Total	.. ..	63,617	84,252

Soils

The coconut palm is a perennial tree grown as a permanent garden or plantation crop. In all parts of the district and in other parts of the State, where the palm flourishes, it provides not only food and drink to the inhabitants but also forms a useful ingredient in many cooked dishes. The soils suited to the coconut palm are sandy loams, light sandy soils and the river valley soils. Where, however, the soil is mixed with easily crumbling rocks and rock debris, the palm thrives exceedingly well. Experiments have been conducted in the Mysore Government Farm at Babboor near Hiriyur in Chitradurga district to prove that the palm grows well in rock debris. In the tract, where this farm is situated, the soils are mostly of this nature.

Water needs

The gardens are raised only where irrigation facilities exist, such as, irrigation tanks and canals or wells. In fact, the underground moisture is really much more important for coconut than even the rainfall. Tracts, where a good deal of flood water flows during the rains and thoroughly soaks the soil, possess very good coconut gardens, even though the rainfall is much below 25 inches, as the soil moisture in those tracts is conserved by proper methods of cultivation. Many of the planted areas are broad shallow valleys which form drainage lines for the rainfall of the tract. Other gardens are situated along the banks of shallow streams, which are too small for the monsoon rains, and therefore, overflow the almost level banks for considerable distances, the water standing for several days and depositing fertile silt as well. In the shallow valleys, it is usual to hold up the rain water for some days by erecting low earthen bunds across, with a small weir for

the surplus, so that water can stand for some days in the garden and saturate the soil to great depths. The soils of such gardens are fertile red loams with enough sand for proper drainage and sufficient clay to absorb and retain the moisture. The necessity for ensuring moisture in the ground, limits coconut gardens to flat or only slightly sloping situations.

Coconut plantations are largely plantations of coconut trees only. But it is usual, to a small extent, to lay out mixed gardens in which coconuts are grown along with arecanuts, jack fruit and mangoes. Although this kind of cropping has advantages to the small owner, especially in reducing risks due to failure of crops or low prices for any particular crop and also in providing him with something like a succession of crops throughout the year, this practice is considered as detrimental to the proper growth of coconut palms. The shade and proximity of the other trees interfere with the normal growth and productivity of the coconut trees, which would then grow thin and slant away from large trees and bear only a small number of nuts.

Coconut seedlings for planting are of two classes according to the age of the seedling. They are either in the stage when the seed-nut remains entire and attached to the growing shoot or when they have passed this stage, the seed-nut has decayed away and the seedling has established itself on its own root system. In the first case, the seedlings are about one year old and in the latter, they are older. On the whole, the advantage is on the side of planting young seedlings, which, in addition, cost only about a fourth or even less of the price of the older seedlings. The coconut is a cross-pollinated plant and trees cannot breed true to the parent. Nevertheless, when the seed-nuts come from gardens where the bulk of the trees are of one type, there is a greater chance of the trees proving to be similar to the parent type. Seed-nuts are harvested from bunches which ripen after the main picking season, i.e., about the month of October. The selected bunches are allowed to remain on the trees until two or three of them begin to drop, when the whole bunch is harvested.

The nuts are allowed to dry for about a month or two, but not to the extent as not to have any water in the nut. The coconuts should, if shaken, indicate that a little water is present. The ground for the nursery is well dug, roots and stems are removed and the earth piled into the form of an elevated bed, about 18 inches high and five feet broad, and the length depending upon the number of seed-nuts to be planted. The planting of the nursery is usually done in the month of March or later on in August. September. The beds are watered regularly every three days and oftener if the soil looks dry. The bed is kept free from weeds. From about the sixth month, the shoots begin to appear, and if

the plants are not uniform, then the germination is delayed and irregular. Seed-nuts planted about the end of September show, for instance, a germination of about 60 per cent towards the end of April and the remainder come up slowly in the subsequent months.

Plantings

Before planting the seedlings out in their permanent places, arrangements are made for ensuring irrigation water, which is necessary for watering the plants, especially during the hot weather. If tanks and canals are not anywhere nearby, then wells are dug for baling out water. The ground intended for the coconut garden is prepared by clearing and levelling and digging out white-ant nests, if any. The land is then given two ploughings during the early rains and then pits are dug, about three feet square and two or three feet deep. The distances between the pits are varied. The coconut plants are remarkable for the way they seek the light and bend away if there is any tree vegetation, which shuts out the light, and they suffer as much from the shade or obstruction of a neighbouring coconut tree. A distance of about 24 feet each way is considered to be the closest permissible limit. Large areas of coconuts are grown without irrigation; in such areas, the distance is about 33 to 36 feet, planting some 40 trees in an acre. In the Tumkur area, the garden is divided into rows, ten cubits in width, having on one side an elevated channel for the supply of water and, on the other side, a canal to carry off what is superfluous. In the dry-land plantations of Tiptur and Chiknayakanahalli taluks, the seedlings are planted at distances of 36 feet each way. More than 40 trees per acre are seldom planted.

The plants have to be regularly watered every day in the early stages and later on, once in two or three days throughout the hot weather and in between the rains also if the soil should need it. The soil round the plants has to be frequently stirred and a close watch kept against white-ants, rhinoceros beetle and cut-worms, which should be removed when the slightest trace is noticed.

Bearing of nuts

The trees begin to bear flowers in about seven years from planting. This may be deemed somewhat early for the average plantation. Generally, the bearing of nuts begins about the tenth year, and delays thereafter should be attributed to poor cultivation or setbacks due to other causes. The first inflorescences usually shed all their flowers and no nuts are borne; but subsequent ones begin to bear nuts. From about five years after the trees begin to bear, the trees are said to be in full bearing. In about 12 to 15 years generally, the trees must be yielding full crops. There is great variation in the number of bunches of nuts a tree may carry. One inflorescence per month or twelve in the year is a good average and at least ten are seen on even ordinary trees.

Though the inflorescences appear only successively, they follow quickly one after the other in the months of February and March when some six or seven inflorescences may appear.

From July onwards, another set of inflorescences appears which are fewer and open at longer intervals. The number of inflorescences is no sure index of the number of nuts that may be gathered. In good years, there is a strikingly large setting of fruits and the bunches bear a heavy crop. The number of nuts in a bunch is generally in inverse proportion to the size of the nuts which the tree bears. They are small in number in the case of very large nuts and *vice versa*. On the Government Farm at Babboor, the largest number picked in a year off a single tree was 250 nuts of average size, but growers point out to individual specimens in their gardens known to produce over 300 nuts in a year. Such bearing is not unusual especially on trees near the dwelling houses and close to cattle stalls where they receive the sullage of the house and washings from the cattle stalls. These large yields demonstrate incidentally the effect of manuring and watering on the yield. It has been found that the yield in any particular year is governed, as far as rainfall is concerned, by the rainfall of that year and of the preceding year. It takes, therefore, fully two years before the effect of the favourable rainfall can be felt and noticed on the crop yield.

Coconuts begin to be harvested in about eight months after the female flowers are fertilised. They are then sold as husked coconuts for the numerous domestic, religious and ceremonial uses to which they are put. At about the same stage too, are picked nuts for the preparation of the copra. For this purpose, the husked nuts are broken into two and put out to dry in the sun. A little drying makes it possible for the meat or kernel inside to be detached from the shell by a little levering and this is then put out to dry in the sun or, when the season is rainy, it is dried under artificial heat. The husk at this stage is also in a fit condition for being used for coir-making purposes. There is also another stage at which the nuts are harvested and that is at the dead ripe stage when the nuts begin to drop from the trees.

The harvesting of coconuts is sometimes concentrated in two periods, one in the month of October and another about April and May, when all the bunches, which are in a more or less fit stage to gather, are cut, although they may not all be in one and the same stage of ripeness. More generally, however, the practice is to harvest about six times in the year as and when the nuts ripen and become ready. If harvested regularly once a month as and when the nuts ripen, the months of March, April, May and June will give, between them, about 50 to 60 per cent of the year's produce, the remainder being spread over the other months. Coconuts

are gathered by pickers who climb the trees, test the fruits, cut the ripe bunches and then let them down along ropes or merely drop them on to the ground. If the trees have not grown taller than 25 feet or so, nuts are often gathered from the ground itself by the use of a long bamboo pole with a knife fastened at the end.

Varieties

There are several varieties among the coconuts grown in the district. Differences are seen firstly in the colour of the coconuts, which are green, brown or dark brown. In each of these colour-groups, striking differences exist in the size of the fruits, which may be distinguished as large, medium and small. The large coconuts may be as much as three times the size of the small nuts. The size of the coconut may not correspond to the size of the nut inside or of the thickness of the meat; the latter may be larger and thicker in the medium and small varieties than in the large-sized coconuts. A tree, which bears a large number of medium-sized fruits per bunch, is preferable to the one which bears only a few and showy fruits per bunch. Differences are seen again in the thickness of the meat, which may vary from one-third of an inch to one inch. The meat differs in hardness and in the oil content. Though hard and firm in most varieties, in the butter coconuts it is soft, even though dry.

There are also differences in the sweetness of the water in the fruit. Some are specially distinguished for this quality and are often much sought after. One such variety, which is grown in the Tumkur district, is the 'Gangapani' coconut. This is a green longish type of nut favoured for the sake of its sweet water. In addition to varieties already referred to, the 'king' coconuts are esteemed for the sweetness of the water in them. Coconuts grown in this district are noted for their size, sweet water content and the possibilities of converting them into copra, which has a ready market in the northern parts of India. Tiptur has become the largest centre of coconut trade in the district and large quantities of copra are exported from there to several parts of India.

The coconut is used for two important purposes, viz., for use as an edible product and for the preparation of oil. As an edible product, it forms an ingredient of numerous Indian dishes. In fact, there is hardly an Indian dish, which it does not improve. It is an article which is consumed often even in the poorest households. It is the ordinary ripe coconut which is used for this purpose generally, but the dry copra is also used. It is, however, as a source of oil that it finds its commercial and industrial use. But the bulk of the copra production of Tumkur district is exported for edible purposes. Moreover, the nuts produced in the district are more known for their sweetness of meat than for oil content.

Coconuts are noted for yet another important commercial product, viz., coir. In fact, the coconut may be regarded as a

fibre-yielding crop quite as much as an oil-yielding crop. It will also not be inappropriate to regard the coconut as a food crop. The fibre of the coconut (called coir) is largely made use of for cordage of all kinds. The fibre is specially suited for this purpose as it does not decay or perish by use in salt water.

Tumkur district is one of the main coconut producing districts in the State. In order to help the further development of coconut plantations, a whole-time Assistant Coconut Development Officer is stationed at Tumkur. As a measure of intensification in this field, two nurseries have been established, one at Gubbi and the other at Tiptur, which distribute seedlings to interested planters. There are proposals to establish new coconut farms in the other taluks also. With a view to stepping up production of coconuts, a scheme for providing long-term loans to coconut cultivators, through the Agricultural Refinance Corporation, has been approved. This scheme will bring in an additional area of 1,200 acres under coconut cultivation over a period of three years from the date of commencement of the programme. Long-term loans will be canalised through the Central Land Development Bank to meet the initial expenditure like fencing, preparation of land, purchase of fertilisers and manures, planting materials, etc., to the cultivators bringing new areas under this crop.

Coconut development scheme

Among other crops in the district, castor occupied 26,637 acres, arecanut 8,437 acres, chillies 10,741 acres, tobacco 6,889 acres, bengalgram 3,946 acres and cotton 2,200 acres in 1966-67.

Fruit crops are grown in almost all the taluks in the district, and mostly plantains, mangoes and grapes are raised. Mangoes are grown in all the taluks of the district, the total area under this crop in 1965-66 being 5,500 acres. Plantains are also raised in all the taluks, especially in Tumkur, Kunigal, Chiknayakanahalli and Gubbi taluks. The total area under plantain cultivation in the district came to 2,274 acres in 1966-67.

Fruit crops

Vegetable crops like onions and potatoes are also grown in the district, but the extent is not very significant. A total area of 1,448 acres was planted with onions and 101 acres with potatoes in 1966-67. The total acreage under fruits and vegetables in the district was 11,987 during the year.

The Mysore Horticultural Society, which was started as early as in 1912, has opened branches in the taluk headquarters of the district to propagate the great need to grow more fruits and vegetables. The society affords facilities to the members by way of providing technical advice and supply of plants and seeds. Under a fruit development scheme, new orchards have been established in selected areas and old orchards have been rejuvenated. Financial

and technical assistance have been provided in order to increase the fruit production. Under a vegetable development scheme, technical guidance and good seeds have been provided. A new scheme has been under way in the district to intensify vegetable and fruit production. Under this scheme, plants and seeds are supplied at 50 per cent concessional rates to the growers.

Mulberry, which is an important commercial crop, occupied 2,475 acres in the district in 1966-67. (See Chapter V for particulars).

Progress of
scientific
agriculture

There was a belief that agriculture was not a paying proposition. At one time, the cultivator was satisfied with what he raised from his fields, because the produce was sufficient for his needs. But with the rise in population and aspirations for a better standard of living, what was being produced was found to be far short of the requirements. This necessitated the campaigns to grow more food, and various incentives are being given to the farmers to adopt improved methods and to make use of the results of agricultural research.

Manurial
resources

As the district has a large acreage under coconut and arecanut cultivation, growing of green manure crop with super-phosphates was not in practice in the district. The cultivators of the district have now understood the advantages and benefits of growing green manure crops, particularly in the coconut-growing areas. As such, there is a great demand in recent years for getting green manure seeds. It was estimated that in 1966-67, 56,130 acres were under green manure crops in the district.

Compost and farmyard manure are extensively used by the cultivators in the district. The compost is prepared both in urban and rural areas. The State Government have been offering incentives by way of subsidies to encourage the cultivators to purchase and transport compost from various places. The following table gives particulars relating to the production and use of local manures in the district from 1961-62 to 1966-67:—

Particulars	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67
Production of rural compost in tonnes.	61,195	84,512	81,514	46,909	52,016	1,23,424
Production of urban compost in tonnes.	9,046	9,272	9,149	9,432	7,376	8,067
Payment of transport subsidy in rupees.	10,242	9,990	12,567	..	4,599	16,114

Particulars	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67
Green manure seeds distributed in quintals—						
(1) Sesbania ..	0.48	10	15	13.48	28.80	10
(2) Glyricidia ..	0.00	..	1.10	3.30	7.81	2
(3) Sunn-hemp ..	31.60	165	556	237.20	83	150
(4) Others ..	0.36	2	..	..	34.60	1
Seedlings and cuttings distributed in numbers.	2,25,000	1,30,000	1,30,645	10,11,258	37,500	2,10,200
Area covered by green manure crops in acres.	15,835	42,533	27,977	17,072	5,243	56,130

A wide use of organic manures like farmyard manure, green manure and compost is necessary to maintain the soil in good condition and balance. As the policy of stepping up of food production is being pursued, the supply of organic manures could not cope with the demand and it became increasingly necessary to use inorganic or chemical manures. One advantage of the use of chemical fertilisers is their solubility in water so that the nutrients in them are easily available for the growth of the plants. Of the three varieties of chemical fertilisers, viz., nitrogenous, phosphatic and potassic, nitrogenous fertilisers are the best. Phosphates are used for growing of pulses; potash is employed wherever the soil is poor in potassium.

Use of chemical
fertilisers

In the nitrogenous variety, there are a number of fertilisers like ammonium sulphate, sodium nitrate, calcium nitrate, potassium nitrate, ammonium nitrate, ammonium chloride, calcium cyanamide, urea and ammonium sulphate nitrate.

In the category of phosphatic fertilisers, super-phosphate is widely used. Ammoniated super-phosphate is also used. All kinds of wood ashes supply potash in the form of potassium carbonate. Mixtures are used as primary plant food. The rate of application of a fertiliser depends on the intensity of cultivation and the cost of the fertiliser. For field crops, 150 to 500 pounds of a chemical fertiliser per acre are applied. For vegetable and root crops, the rate varies from 200 to 500 pounds per acre. The

following table indicates the quantities of different kinds of fertilisers used in Tumkur district from 1961-62 to 1966-67 :—

(In metric tonnes)

Category of fertiliser	1961-62	1962-63	1963-64	1964-65	1965-66	1966-67
1	2	3	4	5	6	7
Nitrogenous fertilisers.	2,361	2,274	3,649	4,756	3,633	6,177
Phosphatic fertilisers.	1,575	1,985	3,056	2,412	1,867	2,144
Potassic fertilisers	344	72	67	644	297	220
Mixtures ..	350	550	690	437	843	1,467
Total ..	4,630	4,881	7,462	8,249	6,750	10,008

Much headway has been made in popularising improved methods of agriculture. But old methods of cultivation still hold the field to a considerable extent in the district. Several schemes to grow more food were in operation during the Plan periods. Use of local manurial resources has been stepped up in all the taluks. Land reclamation and settlement schemes are put in operation wherever there is need; tractors and bulldozers are given on hire basis for cultivation and also to reclaim waste lands. An organisation has been set up in the district to render ready help to the cultivators in respect of installation, servicing and repairs of oil engines, pumpsets and other machines owned by farmers.

Implements

Both old-time and modern agricultural implements are in use in the district. The old implements are the wooden plough, *koorige* (seed-drill) and *heggunte*. Among the improved implements, the K.M. Plough, K.M. Cultivator and the Eureka and Gurjar ploughs are popular. Paddy-puddlers and paddy-weeders were unknown in the district until recently. Due to intensive demonstration of these useful implements, the cultivators have now understood their advantages. These improved implements have now become popular. Paddy-weeder, mumty, spade, *guddali*, *pikasi* and sickle are in use for weeding, digging, puddling and harvesting operations. Harrows, cultivators, puddlers, green-manure trawlers and seed-drills are becoming common. In the paddy-growing areas, now hand-weeders are put to use for the removal of weeds. Due to the increased attention paid in respect of plant protection practices, the cultivators either themselves own or hire sprayers. Green manure trawlers are used for incorporating green manure into the soil.

Tractors and bulldozers.—There are 59 tractors, four power-tillers and three bulldozers in the district owned by individual cultivators and the Department of Agriculture. According to statistics furnished by the District Agricultural Office, a total area of 8,000 acres was ploughed by tractors in 1966-67. The bulldozers were active for 2,008 hours.

Ploughs.—Wooden country ploughs are greatly in use in the district. The number of iron ploughs is gradually increasing. The following list furnishes the number of ploughs in the various taluks of the district in 1959-60 and 1966-67 :—

Taluk	1959-60		1966-67	
	Wooden ploughs	Wooden ploughs	Iron ploughs	
Tumkur	..	24,764	24,000	160
Koratagere	..	10,508	8,792	3,000
Madhugiri	..	18,175	17,628	N.A.
Pavagada	..	11,530	13,541	N.A.
Sira	..	16,700	17,902	N.A.
Chiknayakanahalli	..	13,050	15,873	904
Tiptur	..	13,914	13,500	3,000
Turuvekere	..	13,120	15,840	932
Gubbi	..	15,232	27,920	1,185
Kunigal	..	18,100	24,133	4,429
Amruthur	..	18,703		
Total ..		1,74,596	1,79,129	13,610

N.A. = Not Available.

Carts.—In 1967, there were, in all, 58,751 country carts put to agricultural use in the district, spread over as follows: Tumkur 8,750, Koratagere 2,778, Madhugiri 4,000, Pavagada 4,033, Sira 4,003, Chiknayakanahalli 6,482, Turuvekere 5,366, Tiptur 6,250, Kunigal 7,764 and Gubbi 9,325, while in 1959, the total number of such carts in the district was about 48,000.

Cane-crushers.—There were, in 1967, 649 cane-crushers in the various taluks of the district as follows: Tumkur 140, Koratagere 10, Madhugiri 95, Sira 7, Turuvekere 14, Tiptur 15, Kunigal 283 and Gubbi 65.

Seed multi-
plication and
distribution

Three seed farms are located in the district, one at Hirehalli, one at Ungra and the other at Mathighatta. They are managed by two Agricultural Demonstrators and for purposes of management they are called Seed Farm Managers. Particular attention is given by the department for the production of quality seeds. The nucleus seed is produced in small quantities at the Agricultural Research Station under the close supervision of research workers, and the raised seed is supplied to seed farms for bulk production of the foundation seed. This foundation seed is further supplied to the registered seed-growers in the taluks for large-scale production, under the close supervision of the department. Special attention has been paid by the department for the production of quality seeds of paddy, ragi, groundnut and castor in the district. The quality seedlings of arecanut and coconut raised on the research farms of the State are supplied to the cultivators at a concessional rate.

During 1966-67, paddy seeds of the improved variety were supplied to the extent of 2,013 quintals. Besides, 1,355 quintals of improved ragi seeds and 114 quintals of groundnut seeds were also distributed to the farmers. Several new schemes were formulated on a campaign basis for development of various crops in the district. The groundnut scheme was inaugurated on 1st April 1955 with necessary sanction to continue it as long as necessary. The object of this scheme was to replace the local inferior varieties by good and improved seeds. By practising the cultivation of these new varieties, the yield of groundnut has increased from one to one-and-a-half pallas per acre as against half-a-palla by the old method; H.G-7, H.G-8, H.G-10 and Spanish improved varieties have become quite popular. The improved seeds are largely used in Tumkur, Pavagada, Koratagere and Madhugiri taluks. A total of 114 quintals of these improved seeds was distributed in 1967. The oilseed extension scheme, which was inaugurated in July 1958, is being continued.

Pests and
diseases

The paddy crop in the district, raised under irrigation, is commonly attacked by caseworm, stem-borer, thrips and blast. Aphis and the leaf-eating caterpillar are not uncommon. The stem-borer is a menace from about July to October. During 1966-67, the area infested with pests and diseases in the district in respect of paddy was 16,117 acres. By timely plant protection measures, a total area of 11,000 acres was brought under control. The scientific remedies pursued vary in different localities. Spraying of contact insecticides like Parathion, Diazinon, Endrin or B.H.C. compound is common. A large number of the cultivators are alive to the need to pursue timely plant protection measures. Caseworm was subjected to elimination by planting calotropis along the bunds of paddy fields. The traditional kerosene treatment was pursued everywhere. The thrips were controlled by

dusting five per cent B.H.C. or spraying any of the well-known contact insecticides. The blast, known familiarly as *benki-roga*, is a fungus disease often caused by excessive application of nitrogenous fertilisers, later planting, infection from the previous crop and by humid cloudy weather. The disease is controlled by a prior seed treatment with Agrosan G.N. or Ceresan. Spraying with Bordeaux mixture or with any copper fungicide also controls the disease. Spraying in nursery stage and early on transplanting with Folidol or Basudin is also being practised to control the pest of stem-borer.

The two major pests of ragi in the district are the ragi cut-worm and the caterpillar. The cut-worm attacks the plant during the nursery and flowering stage. The caterpillar lodges itself on the plant and eats away the leaves making the plant to wilt. The shoots are also affected. For the *kharif* ragi, attack by hairy caterpillars is common. They feed on leaves and shoots. The treatment adopted is spraying of Endrin, Diazinon, Parathion, B.H.C. and D.D.T. compounds.

When compared to other staple crops, ragi is remarkably less subject to infestations. The 'flea beetle' is one of the pests which is common in the ragi-growing area. It sucks the milk of the grain and thereby causes the wilt of the plants. Usually, June and July are the months when the plant is infested by this pest. The treatment recommended in this case is Hexidol spraying, about 15 lbs. per acre. The 'ragi blast' is particularly troublesome during the period from June to September. Similar to the paddy blast, the disease makes the ragi plant wither. The affected plants are treated with Bordeaux mixture.

The shoot-borer or the leaf-webber is another insect which attacks the stem and thereby causes a slow death of the plant. It lodges itself inside the stem and after its attack, the foliage withers. If the stem is cut, the borer can be seen. The usual treatment for this is spraying of any one of the insecticides.

Coconut, which is the major garden crop in the district, is often infested by rhinoceros beetle, *Anabe roga*, bleeding disease and rats. To avoid infestation by the rhinoceros beetle, planting of *Kalli* (*Euphorbia tirukalli*) near the affected tree is recommended. It was also suggested by the plant protection experts to have the compost pits far away from the coconut garden. The insects are removed by using hooks and the eaten holes are plugged with a mixture of B.H.C. (5 per cent) salt and sand. The cultivators of coconut gardens are advised to apply three to five lbs. of sulphur dust to the trees affected by *Anabe roga* and also other trees round about, as a control and preventive measure. It is also recommended to remove the seriously affected trees and burn them.

Coconut pests

The rats, which play havoc in the coconut gardens, are destroyed by using zinc phosphate bait, cynogas-dusting and plugging the rat holes.

Areca crop is infested by *Anabe roga*, *Hidimundige-roga* and 'yellow disease'. Sulphur dust, at the rate of about half to one pound, is applied to each infected tree. Experiments are going on about effective remedial measures to control the *Hidimundige-roga*. The groundnut crop in the district is severely attacked by *Surali-poochy* and also by 'Tikka' disease. Dusting and spraying methods are adopted to check this infestation. B.H.C. (5 per cent) dusting and spraying of contact insecticides are usually recommended.

**Intensive
Agricultural
Area
Programme**

As a measure of intensification of agricultural production in the district and with a view to popularising improved practices in respect of paddy, ragi and groundnut, an Intensive Agricultural Area Programme was introduced in the district from 1st April 1966. In order to carry out this crash programme effectively, sufficient propaganda was done among the cultivators about the methods to be adopted to get more out of the land.

During 1966-67, along with the Intensive Agricultural Area Programme, a High-Yielding Varieties Programme for paddy, hybrid jowar and hybrid maize was also launched. The programme was introduced in the *kharif* season. As the expected pre-monsoon showers did not materialise, sowings for ragi, groundnut and paddy were delayed by a month. From August 1966, the district had heavy rains from the south-west monsoon and the irrigational tanks were full by about September 1966, except at Nagalamadike in Pavagada taluk and Hulikunte in Sira taluk. The average rainfall during the year (1966-67) was from 600 to 700 mm. This favourable seasonal condition helped the execution of the programme.

Rotation of crops.—The cultivators followed the rotational methods which gave them good results. The dry-land ragi crop was followed by groundnut or jowar or *navane* or horsegram. The jowar crop was followed by groundnut or ragi or minor millets. The groundnut crop was followed by ragi or other minor millets. The paddy crop was followed by ragi or groundnut, while the irrigated ragi crop was followed by ragi or groundnut.

**Helpful
measures**

In order to show to the cultivators actually the advantages of intensive agricultural practices, the District Agricultural Staff conducted demonstrations in selected fields under paddy, ragi and groundnut crops; during 1966-67, 70, 106 and 12 demonstrations were held respectively for these three crops. About 10,000 copies of booklets explaining the improved methods were also distributed. Improved seeds form the mainstay for intensification of agriculture. For paddy, 240 registered seed-growers were selected in an area of

490 acres. In respect of ragi, 210 seed-growers were chosen in an area of 427 acres. The seed distribution was done according to a schedule. A total of 2,013 kgs. of paddy seeds, 1,355 kgs. of ragi seeds and 114 kgs. of groundnut seeds were distributed in 1966-67.

Application of modern chemical fertilisers has assumed considerable importance for intensification of agriculture. Ammonium sulphate, urea and other fertilisers were distributed in all the taluks for the purpose. Modern fertilisers have been stored for ready release whenever needed by the cultivators. The stock position as on 1st April 1967 was 5,932 metric tonnes.

The intensification programme requires adequate funds. In order to help the needy cultivators, large amounts of loans have been issued both under the Intensive Agricultural Area Programme and the High-Yielding Varieties Programme. During 1966-67, loans amounting to Rs. 16,08,261 were issued for the *kharif* season and Rs. 2,34,660 for the *rabi* season under the Intensive Agricultural Area Programme. In addition, a sum of Rs. 1,20,054 was advanced under the High-Yielding Varieties Programme of the *rabi* season.

Maximisation of agricultural production depends much on the adoption of improved practices. In order to achieve the best possible results under intensification of farming, improved methods have been employed in the district. Green manure leaves like *honge*, neem, etc., have been used in the preparation of paddy fields. Growing of green manure crops in the paddy fields and coconut gardens is also being attended to. Sunn-hemp is grown as an *alkkali* crop in agricultural lands. The use of improved seeds, as recommended by the Department of Agriculture, is also increasing in the district. The cultivators have begun to realise the importance of using improved agricultural implements such as iron ploughs, cultivators, seed drills and rotary-weeders. There is also a considerable demand for modern fertilisers for growing paddy, ragi, groundnut and sugarcane crops. Transplantation of ragi in rows is being done according to expert advice. Interculturing and the modern plant protection methods have also helped the cultivators to a great extent.

There are Farmers' Forums at the taluk-levels which are helping the cultivators to understand the new techniques of farming. The District Forum, which is affiliated to the Mysore State Farmers' Forum, besides undertaking propaganda work, also trains selected farmers in the improved practices. It holds meetings, seminars and exhibitions for the benefit of the farmers. In 1966-67, there were 415 active members and 21 life-members on the rolls of the District-Forum.

Statements showing the results achieved under the Intensive Agricultural Area Programme and the High-Yielding Varieties Programme in the district in 1966-67 and during the *kharif* season of 1967-68 as also the amounts of loans advanced under the programmes during the year 1966-67 have been given below:—

Blockwise acreage covered under the Intensive Agricultural Area Programme in Tumkur district in 1966-67.

PADDY				
Block			Target	Achievement
(In acres)				
Tumkur-I	..	..	2,100	1,045
Tumkur-II	..	..	1,300	1,300
Koratagere	..	..	2,000	2,030
Madhugiri	..	..	2,440	2,250
Kodigenahalli	..	..	3,500	3,400
Pavagada	..	..	4,000	1,500
Sira	..	..	1,500	1,000
Patnayakanahalli	..	..	1,000	550
Chiknayakanahalli	..	..	500	..
Tiptur-I	..	..	500	..
Tiptur-II	..	..	1,900	..
Gubbi	..	..	1,920	2,020
Turuvekere	..	..	500	370
Kunigal	..	..	1,600	550
Amruthur	..	..	4,000	..
Total	..	..	28,760	15,965

RAGI				
Tumkur-I	..	..	600	25
Koratagere and Madhugiri	..	..	200	98
Kodigenahalli	..	..	2,050	225
Pavagada	..	..	4,550	1,500
Tiptur-I	..	..	25	..
Tiptur-II	..	..	180	180
Gubbi	..	..	580	198
Turuvekere	..	..	125	90
Kunigal	..	..	640	30
Amruthur	..	..	1,000	..
Total	..	..	9,950	2,346

GROUNDNUT

Block			Target	Achievement
(In acres)				
Koratagere	..	..	250	405
Madhugiri and Kodigenahalli	..	..	200	335
Pavagada	..	..	250	350
Sira	..	..	400	400
Patnayakanahalli	..	..	50	..
Tiptur-II	..	..	..	..
Total	..	..	1,150	1,490

Statement showing targets and achievements under the Intensive Agricultural Area Programme in Tumkur district during the kharif season of 1967-68 (in acres)

Block	Paddy			Ragi			Groundnut	
	Target	Achievement		Target	Achievement		Target	Achievement
1	2	3	4	5	6	7		
Tumkur-I	..	4,000	3,025	18,000	6,022	1,150	200	325
Tumkur-II	..	2,000	2,498	15,000	7,550	600	..	4,332
Koratagere	..	2,250	2,200	2,400	2,000	4,400	..	3,674
Madhugiri	..	1,100	2,431	7,800	4,185	4,500	..	1,815
Kodigenahalli	..	1,100	1,412	8,800	2,340	4,500	..	3,900
Paragada	..	2,900	1,024	4,000	2,210	11,500	..	256
Sira	..	2,200	1,503	9,600	1,647	10,000	..	..
Patnayakanahalli	..	2,200	282	17,400	11,857	350	..	..
Chiknayakanahalli	..	2,300	1,000	17,900	18,000	350	..	1,006
Tururkere	..	4,200	2,700	28,900	18,645	2,200	..	..
Gubbi	..	2,350	2,931	16,000	10,085	50	..	..
Tiptur-I	..	..	..	..	..	..	..	..
Tiptur-II	..	2,750	2,265	13,000	10,335	..	..	..
Kanigal	..	5,250	2,020	10,600	8,500	750	..	30
Amruthur	..	..	..	..	..	..	..	..
Total	..	32,300	24,291	1,67,400	1,04,279	40,000	16,000	..

Statement indicating the results achieved under the High-Yielding Varieties Programme in Tumkur district in 1966-67

Crop	Target acreage for 1966-67			Achievement in acres during 1966-67			Additional yield of grains in metric tonnes		
	Kharif	Summer	Total	Kharif	Summer	Total	Kharif	Summer	Total
1	2	3	4	5	6	7	8	9	10
Taichung-65 Paddy	..	5,650	5,650	273	4,465	4,738	273	4,465	4,738
Taichung Native-I Paddy	..	1,000	1,000	13	797	810	13	797	810
Hybrid Jowar	..	1,380	1,380	88	315	403	172	630	802
Hybrid Maize	..	555	555	164	288	452	410	720	1,130
Total	..	8,585	8,585	538	5,865	6,403	868	6,612	7,480

Average achievements under the High-Yielding Varieties Programme in Tumkur district during the Kharif season of 1967-68

Name of Block	Paddy				Teichung Native-1				Hybrid Jowar				Hybrid Maize			
	Teichung-65		Achievement		Target		Achievement		Target		Achievement		Target		Achievement	
	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement	Target	Achievement
1	2	3	4	5	6	7	8	9								
Tumkur-I	150	58			5	4		111					100	100		
Tumkur-II	100	27		3	5	4		103					100	100		
Koratagere	300	140		6	5	6		500					100	100		
Madhugiri	250	119		94	5	7		56					100	100		
Kodigenahalli	150	35			5	12		60					100	100		
Pavagada	300	16		10	40	20		40					100	100		
Sira	300	104		33	40	10		27					200	200		
Patanayakanahalli													100	100		
Gubbi	200	30			5	8		103					100	100		
Chiknayakanahalli	200	6		1	10	13		43					100	100		
Tiptur-I	200	62			10	36		103					200	200		
Tiptur-II																
Turuvekere	200	60			5	26		40					100	100		
Kunigal	200	32			10	11		61					100	100		
Ananthapur	200	23			5	10		185					100	100		
Total	2,850	712		147	180	172		1,434					1,500	1,500		

Statement showing amounts of short-term loans advanced to cultivators by the State Government during the Kharif and Rabi seasons of 1966-67 under the Intensive Agricultural Area Programme.

Taluk	Kharif		Total
	Rs.	Rs.	Rs.
Tumkur	2,81,768	3,150	2,84,918
Koratagere	87,515	31,950	1,19,465
Madhugiri	1,11,044	61,810	1,72,854
Pavagada	68,330	8,590	76,920
Sira	1,84,826	18,840	1,98,666
Chiknayakanahalli	96,936	20,932	1,17,868
Turuvekere	1,21,052	61,825	1,82,877
Tiptur	3,20,628	8,793	3,29,421
Gubbi	1,48,193	4,410	1,52,603
Kunigal	2,37,974	19,360	2,57,334
Total	16,08,261	2,34,660	18,42,921

Certain areas in the district are always vulnerable for scarcity brought about by periodic droughts. In order to help rehabilitate and improve such areas in the State, the Central Government requested the State Government, in May 1962, to prepare a well-thought out plan so that the areas may get proper attention. They also suggested that the work may be taken up, in the first instance, on a pilot basis for a period of three years. After assessing the achievements of the pilot schemes, it was visualised that a further large-scale development programme may be undertaken. This pilot scheme was to include soil conservation measures, irrigation work and diversification of agriculture. In 1963, it was decided to undertake the pilot projects in the taluks of Madhugiri and Pavagada, as these two taluks were typically backward taluks in the district. Accordingly, a committee of officers was constituted with the Deputy Commissioner of the district as the Chairman. The district authorities were asked to implement a comprehensive scheme for the development of agriculture and to pay particular attention to diversification of agriculture in those areas.

Hitherto, in the scarcity regions, the traditional pattern of Governmental assistance during drought and periods of scarcity has been one of offering doles and providing employment to the needy population. Such works do not create permanent assets and the money spent on scarcity works often became wasteful expenditure

Special
Long-term
Programme

as no provision could be made for their maintenance year after year. Therefore, there was a great need to undertake measures which, in course of time, would prevent conditions of scarcity from arising. It was felt that the ultimate objective should be that in spite of certain natural factors, which are adverse to the development of such areas, a sufficient number of positive factors should be created, making use of the existing conditions to the best advantage, which would eventually result in the elimination of scarcity.

As such areas have scanty rainfall, it was considered quite essential that every effort should be made to ensure sufficient water for agricultural operations. This was sought to be achieved by the construction of minor irrigation works, such as tanks and wells, and also by contour bunding, wherever possible. Introduction of rational cropping was also decided upon. This was essential for achieving the maximum benefit from irrigation. As already stated, the development of backward areas fell mainly under (1) land improvement, (2) minor irrigation and (3) diversification of agriculture. For the improvement of land, the utilisation of tractor and bulldozer services at appropriate places became quite necessary. This method brought under cultivation lands which were formerly lying fallow.

The areas affected by scarcity conditions in Tumkur district consist of the following hoblies: Sira, Kallambella, Bukkapatna, Hulikunte, Badavanahalli, Ittigadibbanahalli, Honnavalli, Huliya, Handanakere and Urdagere. The extent of area and population affected by scarcity conditions in the district are as follows:—

<i>Taluk</i>	<i>Area in square miles</i>	<i>Population</i>
Madhugiri	.. 422	1,53,824
Sira	.. 584	1,53,983
Koratagere	.. 256	89,386
Pavagada	.. 523	1,17,138
Gubbi	.. 466	1,47,150

The allocation of funds for carrying out the Special Long-Term Programme for the development of backward areas in this district has been fixed at Rs. 1,331.37 lakhs. The time that would be required to complete the schemes would depend on several factors, such as the availability of funds, trained personnel and materials. Some schemes like those relating to fisheries, sericulture and irrigation wells can be completed in a short time, while those relating to contour-bunding and minor irrigation works may take a longer time. It is estimated that completion of the entire scheme for the development of the backward areas may take about 25 to 30 years.

An agricultural colony, called the Marconahalli Agricultural Colony, was started in 1942 in the Marconahalli Reservoir channel area near Yedavani in Kunigal taluk in order to help landless educated persons and young farmers to settle themselves to achieve best results from agricultural pursuits. In the early stages, 20 candidates were selected and out of them, 11 persons got the required training. During the year 1947, six persons were taken as colonists and during the next year, three more persons were trained. Since then, an average number of four persons are being given the facility to settle down there. Under the scheme, 229 acres of wet land, 91 acres of dry and 16 acres of garden lands have been set apart for the colonists.

Marconahalli
Agricultural
Colony

Since the great famine of 1877-78, there have been bad years occurring now and then in the district. The distress was acute in 1891-92, 1908-09 and 1923-24 calling for instant relief operations. Whenever *mungar* rains fail, the cultivators have to postpone their farming operations indefinitely. Especially, the north-east monsoon is a veritable gamble and one cannot be sure of its onset. If the winter rains fail, which is often the case in the district, the tanks get much depleted. In 1904-05, the situation became critical because of failure of rains and this gravity was intensified in 1905-06 as the south-west monsoon also failed. The north-east monsoon in the succeeding year was most disappointing. The distress in 1908-09 was more acute than in 1891-92 as it extended over a very large area. The distress was particularly severe in Kunigal, Gubbi, Turuvekere, Tiptur and Pavagada taluks.

Floods and
famines

In recent years, due to improvements in transport and communications, sufferings from famine or scarcity conditions have been mitigated since foodgrains can be speedily brought and sent to even remote areas. Drought conditions are quite common, especially in the Madhugiri sub-division, because of monsoon failures. It has been said that in the areas that are subject to chronic scarcity conditions, in a cycle of five years, two years are of scarcity and another year of famine or near-famine. Intensive efforts are now being made, as stated earlier, to solve this difficult problem on a permanent basis. Any large spell of drought condition will naturally affect severely the food production. If scarcity occurs, relief works are started according to the needs of the tract and gruel centres are immediately set up to feed the hungry. Sinking of irrigation wells is one of the permanent measures undertaken to relieve the scarcity. During 1968 also, there were widespread scarcity conditions in the district. To alleviate the sufferings of the people, the State Government took up 1,203 scarcity relief works in the district at a cost of about Rs. 25 lakhs, thereby providing employment to about 35,590 persons. There is no threat of floods in the district. The streams and rivers, which may be full during the

rainy season, get dry for the other several months. Even during the rainy period, these streams do not ordinarily burst their banks.

ANIMAL HUSBANDRY

In the sphere of farming and in meeting the nutritional needs of the people, to a considerable extent, the livestock play a prominent role. A large number of cultivators keep, as a rule, a pair of bullocks, a few cows and a couple of buffaloes. The farmer's social status in the rural areas is still judged, to a certain extent, by the number of cattle he maintains. Most of the field work like ploughing, drawing water from the wells, threshing the grain and carrying the produce from place to place is done by cattle.

Early history

It is said that one of the viceroys of Vijayanagara brought to Srirangapattana some families of professional cattle-breeders belonging to the Hallikar community along with some superior breeds of cattle, which later came to be known after them as the 'Hallikar' breed. These cattle formed the nucleus of the famous breeds of draft cattle in the erstwhile Mysore State, including Tumkur district. This may also be regarded as the starting point for the establishment of the nucleus of Amrit Mahal cattle, which was the name given to them subsequently by Tipu Sultan.

In the days of the Vijayanagara viceroys, the Animal Husbandry Department was called the *Karuhatti* establishment. The Wodeyars of Mysore improved the breed of cattle by assigning extensive pasture lands (*kavals*) for ranching them, in different parts of the State. It was at the time of Chikka-Devaraja Wodeyar that the cattle establishment obtained priority as one of the development departments of the Government, and it came to be known as *Benne Chavadi*. The cattle were also said to have been branded with the initials of the ruler and also their years of birth. Haidar Ali made extensive use of these cattle, especially the bullocks, as beasts of burden in his campaigns against other rulers, taking into consideration the stamina and speed with which these cattle stood the strain of war transport. It is said that he had maintained about 60,000 bullocks in different parts of the State.

The cattle department was firmly established during the time of Tipu Sultan and its name was changed from *Benne Chavadi* to Amrit Mahal Department. However, the department came to be neglected after 1799. Till 1896-97, the department was being administered by a Military Assistant to the Government, assisted by a separate technical officer. In August 1897, the Government sanctioned the appointment of a Superintendent for the department, which was made a subordinate branch under the control and direction of the military department of the Government. In

1915-16, the control and direction of the department was transferred to the Chief Commandant of Mysore State troops. In 1923, it was transferred to the Department of Agriculture and later on it was merged with the Civil Veterinary Department, which had been set up under the Department of Agriculture. Subsequently, it formed a part of the independent Department of Animal Husbandry created in the year 1944.

Statistics in respect of livestock prior to 1911 are not available. However, in the Tumkur District Handbook published by the Government in 1915, some figures of the livestock population have been given. Those figures, which pertain to the year 1913-14, are as given below:—

Bulls and bullocks	..	..	2,09,609
Cows	..	..	1,72,878
Male buffaloes	..	..	11,596
Female buffaloes	..	..	53,287
Young stock (Calves and buffalo calves)	..	..	1,36,944
Sheep	..	..	5,95,904
Goats	..	..	3,32,202
Horses	..	..	2,634

According to the livestock census taken in 1961, there were 6,47,780 cattle, 1,62,533 buffaloes, 7,66,675 sheep, 2,88,897 goats, 1,725 horses and 25,284 other livestock in the district. As against this, there were 6,13,345 cattle, 1,52,638 buffaloes, 7,23,499 sheep, 2,55,557 goats, 3,823 horses and 24,117 other livestock in the district as per the livestock census conducted by the Department of Animal Husbandry and Veterinary Services in 1966. (See also Appendix for more details).

The predominant breed of cattle found in Tumkur district is the *Hallikar* breed, already referred to above, though cross-bred and nondescript varieties are not uncommon. Though there are no cattle-breeding farms in the district, the Animal Husbandry and Veterinary Services Department has undertaken various measures to improve the existing breeds of cattle in the district. Mass castration of all scrub bulls is done and stud-bulls of improved breeds are supplied free to selected breeders in the community development blocks. *Taccavi* loans are granted to cattle breeders for obtaining pure-bred cows. With a view to encouraging them to maintain good breed of bull calves, a calf subsidy of ten rupees per month is given to a select few till the calves attain maturity. In order to encourage the preservation of green fodder during summer months, the cultivators are asked to construct silage pits and are given a token grant of ten rupees per pit. Besides, other schemes of fodder development such as supply of chaff-cutters to prevent

wastage of fodder, laying of pasture demonstration plots for introducing improved varieties of grass and growing of leguminous fodder crops are also implemented in the district.

Artificial insemination

Steps have been taken to upgrade the local nondescript cattle by artificial insemination with the semen of stud-bulls of superior breeds. For this purpose, an Artificial Insemination Centre has been established at Tumkur with a number of sub-centres all over the district. This centre, which was started in the year 1952 at the Tumkur Veterinary Hospital, receives semen of superior breeds, such as Jersey bulls and Murrah buffaloes, from the National Dairy Research Institute, Bangalore, and distributes the same among the several sub-centres in the district. During 1967-68, 211 male and 257 female calves were born in the district out of artificial insemination, as against 149 and 186 respectively in 1966-67.

In addition, there is a Key Village Centre at Kunigal, with five sub-units, which has taken up intensive animal husbandry activities in the villages round-about, within a radius of ten miles. The activities of this centre include artificial insemination of cattle, castration of scrub bulls, milk recording, fodder cultivation, organisation of co-operative units for the sale of cattle feed, disposal of milk and milk products, prevention and control of cattle diseases, treatment for sterility and minor ailments. The Key Village Scheme was started in the year 1957.

Sheep-breeding

The breed of sheep generally found in the district is the mutton type, but the local nondescript breed is also not uncommon. The standard of the local breed is generally poor compared to the modern breeds. The total number of sheep in the district in 1966 was over 7.23 lakhs. With a view to improving the breed of local stock of sheep, a number of stud rams have been supplied to the sheep breeders in the district under the successive Five-Year Plans. A Sheep-Breeders' Association has been functioning in the district at Tumkur since 1947. In 1960, the Association had about 210 members and this number had increased to over 1,000 by 1967. The members of the Association are encouraged to rear good breeds of sheep. The sheep are sheared twice a year and the wool is collected by the Association and woven into blankets. The blankets are supplied to the members or, if they so desire, their equivalent cost is paid to them. There is a proposal to start a wool weavers' co-operative society under the auspices of the Association so as to provide marketing and other facilities to its members. There is a stockman and three shearers attached to the Association, which is being actively assisted by the department.

Poultry farming

The total number of poultry in the district, as per the livestock census of 1961, was 5,98,849. This number registered a slight fall in 1966, in that there were 5,52,078 poultry in the district during that year, as disclosed by the livestock census figures of 1966.

With a view to developing poultry farming in the district, a Poultry Extension Centre was established at Tumkur during 1960-61. The centre obtains day-old chicks of superior breed from the Regional Poultry Farm, Hessarghatta, and rears them upto the breedable age. Then, they are supplied to the poultry-farmers in the district through the community development blocks. During 1967-68, about 4,000 birds were thus distributed by this centre, the popular breeds being the White Leghorn and the Rhode Island Red. Hatching eggs are also made available to the poultry breeders both in the urban and rural areas of the district, while table eggs are supplied to the local hospital and the general public. A Veterinary Assistant Surgeon is in charge of this centre, assisted by a Poultry Assistant and two attendants.

A number of young and enthusiastic farmers in the district have been given training at the Hessarghatta Poultry Farm in modern methods of rearing and managing poultry. Many of these trained youngmen have already started small poultry units in their villages which serve as demonstration centres. There is also a Taluk Poultry Farmers' Co-operative Society at Tumkur. It advances materials worth about Rs. 1,000 to poultry farmers in the taluk by way of loans. The Church of South India, a private organisation, is also running a poultry farm at Tumkur.

The veterinary section of the Animal Husbandry Department deals both with the treatment and prevention of cattle diseases. There were, in all, one Veterinary Hospital, eleven Veterinary Dispensaries, 33 Rural Veterinary Dispensaries, six Key Village Scheme Units, one Sheep-Breeders' Association and one Poultry Extension Centre in the district as at the end of August 1968. A statement showing the location and other particulars of these institutions is given at the end of this chapter.

The animal diseases generally prevalent in the district are Black Quarter, Anthrax, Haemorrhagic Septicaemia, Sheep-pox, Foot and Mouth Disease, Ranikhet and Parasitic Diarrhoea. Among non-contagious diseases, respiratory, digestive, generative and surgical are more common. Non-contagious diseases do not pose a serious problem and are easily tackled by qualified personnel of the department in the veterinary institutions and by visiting the villages. But the contagious diseases are not so easy to combat since they occur in an epidemic form. Efforts have, however, been made in recent years to control these diseases both by preventive and curative measures and some success has been achieved in this respect also.

During 1966-67, a total of 1,455 livestock had been attacked by various contagious diseases in the district, of which 1,439 livestock had died. As against this, during the subsequent year, i.e.,

Veterinary
services

1967-68, the attacks and deaths of livestock were 2,193 and 2,184 respectively. These included 364 cases of Black Quarter, 97 cases of Haemorrhagic Septicaemia, 32 cases of Anthrax, 147 cases of Sheep-pox, 219 cases of Ranikhet and 85 cases of Parasitic Diarrhoea. There was, however, no out-break of Rinderpest in the district during the year. The Department took necessary steps to control these diseases by resorting to large-scale inoculations of livestock in the affected areas, as also by performing surgical operations and dosing the animals with phenovis and carbon tetrochloride, wherever necessary. In all, about 2.40 lakhs of livestock were thus treated during the year (1967-68) in the various veterinary institutions in the district. This also included about 10,280 cases treated by the veterinarians by visiting the villages personally. The following table indicates the number of livestock treated against various diseases in the district during the years 1965-66, 1966-67 and 1967-68 :—

Sl. No.	Disease	1965-66	1966-67	1967-68
1.	Rinderpest	5,741	50,884	..
2.	Haemorrhagic Septi- caemia	28,817	15,014	20,980
3.	Black Quarter	80,864	10,236	62,267
4.	Anthrax	12,568	12,376	5,001
5.	Sheep-pox	37,773	40,088	54,404
6.	Fowl-pox	707	..	1,735
7.	Ranikhet	70,781	39,282	52,028
8.	Pigeon-pox	340	2,285	..
9.	Parasitic Diarrhoea	26,470	28,517	18,742

As stated earlier, castration of scrub bulls, with a view to checking the breeding of nondescript cattle, forms an important item of work of the department. During 1967-68, a total of 67,578 scrub bulls and buffaloes were castrated in the district, both in the veterinary institutions and by visiting the villages. As against this, the number of animals castrated during 1966-67 and 1965-66 were 54,382 and 49,633 respectively.

Cattle fairs and shows

Tumkur district is noted for cattle fairs and rallies. The fair season begins in November and closes by April. One-day cattle shows are regularly held in all the taluk centres during the *Gosamvardhana* Week celebrations and prizes are awarded to the best cattle breeders. A *Hallikar* Breeding Bull Show is held at Gubbi every year and it is unique in the history of animal husbandry activities in the district. Important cattle fairs are held in Siddhaganga Matha, Seebi in Sira taluk, Yedeyur in

Kunigal taluk, Kyamenahalli in Koratagere taluk, Nagalamadike and Hariharapura in Pavagada taluk, Tavarekere and Patnayakanahalli in Sira taluk, Gubbi, Kallur and Chelur in Gubbi taluk and at Madhugiri, Turuvekere and Mathighatta.

During 1967-68, in all, 25 cattle fairs and shows were held in the district at various places. A total number of about 2,51,350 cattle had been brought to these fairs. The Department of Animal Husbandry and Veterinary Services organised temporary veterinary dispensaries, with the necessary staff, drugs and instruments, at these places during such fairs so as to provide necessary veterinary facilities to the cattle gathered there. Educative propaganda about the need to make use of the results of animal husbandry research is done during these cattle fairs and shows by means of exhibiting improved cattle, exhibition of pictures of good breeds and charts, lectures and the like.

A sum of Rs. 4.77 lakhs had been provided towards the expansion and development of animal husbandry activities in the district during the Third Plan period. The schemes included provision of more veterinary facilities, poultry development and opening of more Artificial Insemination Centres.

Mysore State was the pioneer in establishing a horse-breeding centre, and the starting of such a farm at Kunigal in this district gave a lead to other States in India. This Stud Farm is the oldest in India and the stock bred on this farm have earned a well-deserved name not only in this country but also in some foreign countries. The performances of some of this farm-bred young-stock compare well with those of foreign breeds. Several of the horses bred on the Kunigal Farm have come out as the best in the various turfs by setting up records. The vast area surrounding the farm is well suited for breeding quality horses. The soil all around Kunigal is rich for growing fodder and sufficient water facilities are also available. The climate is salubrious all the year round.

The farm is situated very near the taluk headquarters town of Kunigal and has an area of 350 acres, divided into 25 paddocks of different sizes where plenty of nourishing grasses are available. Nearby there are two large tanks, viz., Kunigal Amanikere and Begur Amanikere. In the *atchkat* area, improved varieties of grasses suitable for horse-feeding are grown. In addition to the tank *atchkat* fodder areas, the Herur *Kaval*, having an extent of 70 acres, also serves as a fodder reserve. The layout of the Stud Farm follows the pattern obtaining in Western countries. The paddocks, stables, etc., are all well maintained.

Primarily, this Stud Farm was started to breed good horses intended solely for the Indian Army. The stallions then in use

Government
Stud Farm,
Kunigal

were Arab and the mares were purely country-bred; the result was a failure. It was only in 1886 that the first thorough-bred English stallion named 'Pero Gomez' was imported and introduced on the Kunigal Farm with the object of breeding horses for the turf as also to remount breeding. In the beginning, control over the farm was exercised by the central administration from Delhi. Men like Colonel Hay, General Stewart, Colonel McIntire and others took great interest in firmly establishing this farm as a centre of horse-breeding. The progress of the farm and the fame it achieved was, to a large extent, due to the keen interest evinced by the royal house of Mysore. His Highness the late Sri Krishnaraja Wodeyar took great interest in the day-to-day development of the farm. Several races and horse-shows were conducted annually on the farm for nearly 20 years in order to improve horse-breeding.

The farm was being maintained for nearly three decades by the Mysore Military Department. In 1948, its control and management were transferred to the State Animal Husbandry Department. The question of maintaining the farm on a self-supporting basis had been a problem over the decades. The chief cause for the heavy expenditure and low income of the farm was the low birth rate and infertility among mares. In 1948, when the farm came under the control of the Animal Husbandry Department, the cost of management was considerably reduced and it was possible to make the venture almost self-supporting. This was due largely to the adoption of scientific methods in overcoming sterility among mares and thereby increasing the percentage of births. Further, the adherence to the principles of breeding hygiene, proper exercising of livestock, timely feeding on balanced diet and provision of nutritious fodder in sufficient quantities had all been responsible for better results and increased income.

The Kunigal Farm is the only farm in India which has had the reputation of possessing and maintaining many high class reputed stock. In this connection, it would be of interest to note that during the period 1946-54, the great stallion 'Kimberley' was on this farm. He was in great demand and the number of private mares covered during the period was at its peak. The stallion was responsible to get the farm a net income of Rs. 7 lakhs during his stay. Since 1956, there has been, however, a fall in the number of boarders in the farm as their owners preferred to withdraw and transfer their mares to other studs where better stallions were available.

The Stud Farm has an advisory committee consisting of five non-officials. The farm has facilities to accommodate 80 mares. At present (1968), there are 25 Government-owned mares and five private mares owned by the Bangalore and Calcutta Turf Clubs.

There are also three thorough-bred stallions of outstanding quality and pedigree in the farm. Thus, there are, in all, 55 horses in the Stud Farm including yearlings and other young stock of good quality. The yearlings are auctioned at Bombay annually under the Royal Western India Turf Club rules. The receipts and expenditure of the farm for the year 1960-61 was Rs. 1.64 lakhs and Rs. 1.40 lakhs respectively. As against this, a budget provision of Rs. 2.53 lakhs has been made for meeting the expenditure on this farm during 1968-69. The Government have recently decided to entrust the management of the farm to the Bangalore Turf Club on a lease-rent of Rs. 55,000 per annum, for a period of five years, with the object of encouraging breeding of race horses.

FISHERIES

The tanks in the district are divided into major and minor **Fishery** tanks and the approximate water-spread of the major tanks is **resources** 84,402 acres and that of minor tanks is 28,035 acres. In addition to this, there are big reservoirs like Marconahalli and Boranakanive which have a water-spread capacity of 8,890 and 3,082 units respectively. Among the major tanks, Kadaba, Mallaghatta, Chandrashekharapura, Kallur, Nittur, Maidala, Thumbadi, Mavathur, Turuvekere and Kunigal-doddakere are perennial tanks which have good potentialities for development of fisheries.

A list of important fishes found in the district with their scientific and common names are furnished below:—

Scientific name		Kannada name
Carp		
Barbus carnaticus	..	Gende
Barbus sarana	..	Hetteparki
Cirrhinia fulungi	..	Arja
Chela spp	..	Bilchi
Catla catla	..	Katla
Cat Fishes		
Callichrous bimaculatus	..	Godhle
Wallago attu	..	Bale-meenu
Mystus vittatus	..	Meesegirlu
Murrels		
Ophiocephalus marulius	..	Hoomeenu
Ophiocephalus striatus	..	Kutohu
Ophiocephalus punctatus	..	Korava
Miscellaneous		
Mastacembelus armatus	..	Havu-meenu
Notopterus notopterus	..	Chavale
Basbora spp	..	Saalu
Palaemon serratus (Prawns)	..	Seegadi

Fishing methods

Water areas suitable for fish culture are being stocked with quick-growing varieties of fishes, i.e., Catla, Rohu and Mrigal. Fishing is done by means of drag nets, gill nets, prawn nets, long line and plunge baskets. Fishing with improved gears is demonstrated by departmental fishing units.

Drag nets.—These nets are used in tanks. The net is rectangular in shape and mostly made of cotton. The mesh size of the net varies from $\frac{1}{2}$ inch to 1 inch and the length of the net, from 80 feet to 100 feet and breadth from 8 feet to 10 feet.

Gill nets.—These are commonly used for fishing in the reservoirs and tanks. In the gill net, the fish gets gilled in the mesh of the net when trying to swim through. The nets are rectangular in shape and they are made of hemp or cotton yarn. The length of the net varies from 100 feet to 200 feet and depth from 10 to 15 feet with floats and sinkers. The mesh size varies from 2 inches to 5 inches (stretched). The nets are laid either in the night or early hours of the morning for being collected after sun rise. Most of the bigger fishes such as carps and cat fishes are caught in these nets.

Prawn nets.—In shape, a prawn net is more or less like a cone. The wider end is opened and kept in position by a set of three poles, of which one is about six feet in length and the second is slightly longer than 6 feet, the extra length serving as a handle. The third is at the base and is about four feet in length. At the apex of the cone is an opening, which leads into a long cylindrical linen bag. The net is pushed in shallow water with the wide mouth directed forwards. The water is filtered through the net and the prawns and small size fish are driven into the linen bag, the fish being removed now and then by detaching the bag from the net. The weeds are prevented from entering the net by a triangular and wide meshed screen tied to the mouth of the net.

Long line.—The line consists of a coir cord, varying from 200 feet to 300 feet in length; short and strong cotton threads, to the free ends of which hooks are tied, are attached to the coir cord at intervals of about 2 feet to 3 feet. The baits offered are mostly frogs, small live fish and earthworms. The long lines are operated both in shallow and deeper waters.

Conservation

The auction sale of fishery rights of tanks and issue of licences to exploit fisheries of reservoirs are regulated by the Fisheries Department so as to conserve the fishery in the various water-spreads of the district.

The most important fishing community in the district is that of Besthas, who live in villages situated around big tanks and reservoirs. A fairly good population of fishermen is found at

Gubbi, Chandrashekarapura, Kunigal, Amruthur, Kadaba, Kallur, Belavatte and Nittur. Generally, as fishing in this district cannot be done throughout the year, fishermen do not entirely depend upon fishing for their livelihood. Many of them have taken to agriculture and some also work as labourers.

In the Marconahalli reservoir, which has a water-spread of 8,890 units, fingerlings of quick-growing food fishes such as Catla, Rohu and Mrigal are being stocked every year. A deep water fishing unit is operating in the reservoir for demonstration in the use of improved gear. Here, nylon gill nets with a mesh size varying from $2\frac{1}{2}$ inches to 4 inches and each net having a length of 120 feet and a breadth of about 100 feet are being operated.

In order to develop the fisheries in a phased manner, the Directorate of Fisheries in Mysore has created two separate divisions in the district with headquarters at Tumkur and Gubbi. The former division was established in 1957-58 and the latter in 1959-60. Under the technical guidance of these divisions, the major tanks and reservoirs in the district are being exploited by improved methods of fishing. The principles of co-operative effort have been also applied in the sphere of fisheries by the establishment of a Fishermen's Co-operative Society at Gubbi. This Society has been formed to encourage and augment fishery activities and also to improve the socio-economic conditions of the fishermen. Financial help, in the form of short-term and long-term loans, is provided to fishermen to clear off their old debts and to buy their own crafts and tackles.

During the Third Five-Year Plan period, a total outlay of Rs. 1.76 lakhs had been fixed for fisheries development in the district. The development schemes included supply of fishery requisites to fishermen, fish-seed production, rearing and distribution, fisheries education and training and assistance to private fish farmers. An intensive development scheme was also introduced in the Turuvekere Community Development Block during the period in order to exploit fully the fisheries resources in the tanks of the area. Carp fry was imported from outside and stocked in several selected watersheds in the block. Fishery requisites were also supplied to fishermen on subsidised basis.

In addition to this intensification scheme, an Applied Nutrition Programme has also been introduced in the district for bringing about 150 acres of more water area under fish-culture by intensive stocking of quick-growing varieties like major as well as common carps, for exploiting selected tanks in each established feeding centre, for helping the supply of fish food to nursing mothers and school-going children and for granting subsidies to village panchayats for proper renovation of tanks. The total fish-catch in the district in 1965-66 was estimated at 3,810 metric tonnes.

**List of Animal Husbandry and Veterinary Institutions in Tumkur district
as on 31st August 1968.**

<i>Sl. No.</i>	<i>Name of town or village where located</i>	<i>Name of taluk</i>	<i>Type of institution</i>
1	2	3	4
1.	Tumkur town	.. District head-quarters.	Veterinary Hospital and A.I. Main Centre.
2.	Nagavalli	.. Tumkur	R.V.D. and A.I. Sub-Centre
3.	Seethakal	.. do	R.V.D.
4.	Siddhaganga Matha	.. do	R.V.D. and A.I. Sub-Centre
5.	Urdagere	.. do	R.V.D.
6.	Tumkur town	.. do	Poultry Extension Centre
7.	Tumkur town	.. do	Sheep Breeders' Association
8.	Gubbi town	.. Gubbi	Vety. Dis. and A.I. Sub-Centre
9.	Hagalvadi	.. do	R.V.D.
10.	Kadaba	.. do	R.V.D.
11.	Mavinahalli	.. do	R.V.D.
12.	Hosakere	.. do	R.V.D.
13.	Bidare	.. do	R.V.D.
14.	Chiknayakanahalli town	Chiknayakanahalli.	Vety. Dis. and A.I. Sub-Centre
15.	Huliyar	.. do	R.V.D.
16.	Thimmanahalli	.. do	R.V.D. and A.I. Sub-Centre
17.	Mathighatta	.. do	R.V.D.
18.	Handanakere	.. do	R.V.D.
19.	Tiptur town	.. Tiptur	Vety. Dis. and A.I. Sub-Centre
20.	Nonavinakere	.. do	R.V.D.
21.	Biligere	.. do	Vety. Dis. and A.I. Sub-Centre
22.	Turuvekere town	.. Turuvekere	Vety. Dis. and A.I. Sub-Centre
23.	Mayasandra	.. do	R.V.D. and A.I. Sub-Centre
24.	Thandaga	.. do	R.V.D.
25.	Dandinashivara	.. do	R.V.D. and A.I. Sub-Centre
26.	Kunigal town	.. Kunigal	Vety. Dis. and K.V.S. Centre
27.	Huliyurdurga	.. do	R.V.D.
28.	Ujjani	.. do	R.V.D.
29.	Yedeyur	.. do	R.V.D. and A.I. Sub-Centre
30.	Kunigal town	.. do	K.V.S. Main Centre
31.	Yeliyur	.. do	A.I. Sub-Centre
32.	Kaggere	.. do	A.I. Sub-Centre
33.	Santhemavathur	.. do	A.I. Sub-Centre

1	2	3	4
34.	Santhepet	.. do	A.I. Sub-Centre
35.	Yediyur	.. do	A.I. Sub-Centre
36.	Amruthur	.. do	Vety. Dis. and A.I. Sub-Centre
37.	Koratagere town	.. Koratagere	Vety. Dis. and A.I. Sub-Centre
38.	Thovinakere	.. do	R.V.D. and A.I. Sub-Centre
39.	Kyamenahalli	.. do	R.V.D.
40.	Theetha	.. do	R.V.D.
41.	Madhugiri town	.. Madhugiri	Vety. Dis. and A.I. Sub-Centre
42.	Byalya	.. do	R.V.D.
43.	Kodigenahalli	.. do	R.V.D. and A.I. Sub-Centre
44.	Badavanahalli	.. do	R.V.D. and A.I. Sub-Centre
45.	Neralekere	.. do	R.V.D.
46.	Sira town	.. Sira	Vety. Dis. and A.I. Sub-Centre
47.	Kallambella	.. do	R.V.D.
48.	Tavarekere	.. do	R.V.D.
49.	Bargur	.. do	R.V.D.
50.	Bukkapatna	.. do	R.V.D. and A.I. Sub-Centre
51.	Pavagada	.. Pavagada	Vety. Dis. and A.I. Sub-Centre
52.	Y. N. Hoskote	.. do	R.V.D.
53.	Kondethimmanahalli	.. do	R.V.D.

A.I. Sub-Centre = Artificial Insemination Sub-Centre.

R.V.D. = Rural Veterinary Dispensary.

K.V.S. = Key Village Scheme.

Vety. Dis. = Veterinary Dispensary.

CHAPTER V

INDUSTRIES

Old-time
Industries

THERE is no authentic record in the district of the existence of large industries in the ancient days or during the mediaeval period, except for the discovery of some ancient workings for gold in Ajjenahalli and Bellara villages. Obviously, the absence of fuel propulsion or power production in the ancient days prevented the exploitation of available raw-materials to manufacture finished products. Mainly, indigenous industries of a cottage type seem to have flourished in the district, their prosperity depending, by and large, on the needs of the local population. Weaving was the prominent cottage industry giving employment to many. A large number of handlooms existed in several parts of the district. The Chiknayakanahalli *ujju kambli* had attained a very high standard. Next to the woollen industry, *duppaties* or bed-sheets were woven in several parts of Tumkur district. This was a purely cottage industry and the manufactured articles found a ready market locally.

Next in importance came pottery, carpentry, extraction of oil and manufacture of oil-cakes. Comb-making was yet another industry for which Tumkur was famous for a long time. The manufacture of glass bangles worn on the wrists by ladies was pursued in Koratagere and Pavagada. These bangles had the same reputation as the Julupalya bangles of Kolar district. Carpentry, as practised by village craftsmen, existed from old days. The carpenters manufactured agricultural implements and also bullock-carts for the use of the cultivators. A number of country-cart making units flourished in the Tiptur area. The indigenous oilseed-pressing *ganas*, engaged in the milling of copra for extracting oil, were found in large numbers, also in the area around Tiptur.

Prior to the introduction of fuel propulsion, the Wesleyan Mission Workshop at Tumkur, which manufactured good furniture, marked the beginning of the factory-type industrial establishment in the district. In and around Tumkur, slate pencils were also manufactured on a small scale. Brass utensils

were made at Seethakal and Urdagere and strong tape in a few villages. To a small extent, dyes were prepared at Koratagere. Sira was once famous for the manufacture of country-shoes, which, in recent years, has been very much on the decline because of the import of footwear from other places. Kunigal taluk is chiefly noted for its silk industry. Mulberry growing, silk-worm rearing and silk-reeling are carried on in many places in the taluk. Pig iron for the use of agricultural implements was produced once in small quantities at Davanada-Hosahalli in Chiknayakanahalli taluk.

The hydro-electric power produced at the Shivasamudram Generating Station under the Cauvery Power Scheme was extended to Tumkur in 1929, and the town was electrified on the 12th May 1929. The extension of power facilities to other important places in the district had perforce to wait till the inauguration of the Mahatma Gandhi Hydro-Electric Works at Jog and the laying of a high tension power line from Bhadravathi to Bangalore through Tumkur district. But the needs of Tiptur, an important commercial place to the west of Tumkur, demanded the priority attention of the Electricity Department, and it was decided to extend the Tumkur line to Tiptur in 1940. Thus, Tiptur was electrified on 23rd August 1940 and this region was attached to Hassan Power and Lighting. Later on, after the commissioning of the Jog Generating Station, power was extended to other parts in the district. Nonavinakere and Turuvekere were electrified in 1951 and 1952, respectively. Chiknayakanahalli was electrified in 1953. With the resumption of prospecting in the Bellara Gold Mines, power was extended to that place in 1953. Kunigal, an important horse-breeding centre, was electrified in 1939 from the Cauvery Power Scheme. The eastern regions of the district were not neglected either; Koratagere and Madhugiri were electrified in 1949 and Pavagada in 1951. Gubbi was electrified in 1954. In the same year, the Kyatsandra village near Tumkur was also electrified.

Tumkur, at the beginning, was only a sub-division for purposes of electrical power development, attached to the Chikballapur Electrical Division. In view of the growth of several small-scale industries and the increased demand for power in the district, a separate electrical division was formed with Tumkur as headquarters on 1st January 1958. The division was placed under the charge of an Executive Engineer, with two Assistant Engineers, one at the headquarters and the other at Tiptur. Subsequently, another Assistant Engineer was posted to Sira. Thus, there are now (1967) two electrical maintenance sub-divisions under the Tumkur Division, one at Tiptur and another at Sira, each under the charge of an Assistant Engineer. In addition, two more Assistant Engineers, with the necessary staff, have been recently

Power
development

posted to Kunigal and Tumkur to look after exclusively new construction works in respect of rural electrification and power supply to irrigation pumpsets in the district. There is another Assistant Engineer at Tumkur who is in charge of investigation of new schemes.

Due to the rapid progress in electrification and the increase in the developmental activities of the Electricity Board in the district, as well as in the adjoining areas, a separate Electrical Circle, covering Tumkur, Kolar Gold Fields and Chikballapur electrical divisions, was formed in September 1965, headed by a Superintending Engineer (Electrical) with his headquarters at Tumkur.

At the end of the Second Five-Year Plan period, there were three step-down stations in the district, one each at Tumkur, Tiptur and Sira. There were, in all, 12,953 domestic and commercial lighting installations, 143 heating circuits and 2,779 irrigation pumpsets (run by electrical power). The total number of villages and towns electrified was 495. The electrification programme in the district was intensified during the Third Five-Year Plan and considerable progress was achieved in all directions. Three more step-down stations were established—one each at Madhugiri, Ammasandra and Pavagada; many more villages and towns were electrified and a large number of irrigation pumpsets were serviced. The important 220 kV transmission line from Shimoga to Bangalore, which passes very near Tumkur town and which runs further to the Madras State border as an inter-State link, was constructed. Another inter-State link transmission line at Vittalapura near Pavagada was also constructed during this period. A sum of about Rs. 78 lakhs had been provided for all these power development works in the district in the Third Plan. The following figures indicate the physical targets achieved in this regard upto the end of 1966-67 (including the Third Plan period) in the district :—

Step-down Stations.—The following were the six step-down stations and their capacity in kVA :—

1. Tumkur	..	6,250 kVA
2. Tiptur	..	1,500 kVA
3. Sira	..	4,000 kVA
4. Madhugiri	..	2,000 kVA
5. Ammasandra	..	7,000 kVA
6. Pavagada	..	2,000 kVA

Electrical Installations.—The following were the various kinds of installations in service and their number in the district :—

(a) Domestic and commercial lighting installations	..	26,397
(b) Heating installations	..	397

(c) High tension power installations (for industries, etc.)	..	1,280
(d) Irrigation pumpsets serviced	..	8,640*
(e) Number of villages electrified	..	644*

Rural Electrification.—Supply of power to as many villages as possible every year is an accepted objective of the Government. The following statement shows the number of villages electrified and the number of irrigation pumpsets serviced in the district so far (i.e., upto the end of August 1967) yearwise :—

Year		Villages electrified	Pumpsets serviced
Prior to 1959-60	..	464	2,322
During 1959-60	..	28	384
" 1960-61	..	7	353
" 1961-62	..	10	482
" 1962-63	..	16	363
" 1963-64	..	10	873
" 1964-65	..	44	950
" 1965-66	..	24	1,112
" 1966-67	..	27	1,264
Upto end of August 1967	..	14	537
Total	..	644	8,640

According to a tentative programme drawn up, 150 more villages were to be electrified and 3,800 more irrigation pumpsets were to be serviced in the district in the next five years at a cost of about Rs. 144 lakhs.

The Bellara Gold-Mining Block, situated about 95 miles north-west of Bangalore, lies amidst the area of a thickly wooded deciduous forest of Kammara trees (*Hardwickia binata*) in the district. It is 19 miles to the west of Sira, on the Sira-Huliyar road. Actually, the mine is about a mile north of the forty-third milestone on this road and can be reached easily from that spot through a connecting road which has been constructed for that purpose. The auriferous formation of this region consists of a massive basic igneous rock (locally called grey trap)—bouldery being for the most part or somewhat crushed and rudely schisted at places—penetrated by several quartz reefs of various dimensions exposed here and there as disconnected runs. Most of these reefs are found to be gold-bearing.

Bellara Gold Mines

* Upto the end of August 1967

Early history

The gold-bearing reefs of this area, as in all other auriferous tracts in Mysore, had been worked to some extent by ancient miners. In 1897 or 1898, the State Geological Department discovered in this region some of those ancient workings. About the same time, one Mr. R. H. Morris, finding a few more of such workings, obtained a licence to prospect over an area of nine square miles. He transferred his interests, soon after, to the Indian Mines Development Syndicate Ltd., which took over the licence from him and conducted, in the early years of this century, some extensive underground investigations on two of the most promising reefs in the region.

Commencing their work in 1902 on the eastern reef, exposed prominently on the slope of a small hill, the Syndicate sunk three shafts to various depths and had driven levels at depths of 180, 230 and 330 feet from the surface. After considerable exploration of this reef, which they called the Bellara Reef, the work was, however, discontinued at the end of 1905.

At the foot of the hill, about $1\frac{1}{2}$ furlongs west of this reef, another reef was located by the Syndicate after a considerable amount of exploration and prospecting. On this reef, which they called the Tank Reef, ten shafts were sunk altogether over a length of some 2,000 feet, six of the shafts being in a line north and south, and the rest on the sides parallel to them. The shafts were sunk to varying depths, the deepest being a little more than 400 feet. Several levels had been driven at various intervals, to varying distances, from the different shafts and also a few winzes had been sunk connecting the different levels.

These extensive operations, conducted over some four or five years, had disclosed that the western reef (Tank Reef) varied in width from two or three inches to $2\frac{1}{2}$ feet and in gold value from a mere trace to about three ounces per ton with occasional richer shoots. It was estimated that a few thousand tons of quartz could be taken from this reef at an average of nine dwts. per ton; but still, the total tonnage of such quartz was considered insufficient for large-scale operations and the gold value of the reef in depth at some of the spots tested, was also considered too poor to tempt further extensive explorations beyond. Hence, the Syndicate abandoned the mine finally after several years of trial.

A couple of hundred tons of quartz, which had been taken out during the course of these operations, had been left stacked at the shaft-heads, being considered perhaps as unprofitable for treatment. Some of the local people, who were aware of the existence of this gold quartz, took advantage of the situation of the stacks in the midst of the jungle, far from inhabited villages, and started extracting gold surreptitiously. No one is quite sure for how long this

clandestine practice was carried on, but the culprits were, however, caught in January 1941. The concentrates recovered from them, on assaying in the chemical laboratory of the Geological Department, indicated very rich values varying from 90 to 500 ounces of gold per ton. Since it was more or less impracticable to prevent altogether such underhand and unlawful extractions by ordinary vigilance in that forest-covered area, the Geological Department took up, in 1943, the extraction of gold by washing the powdered pieces of quartz, and also the mine debris and soil nearby, in specially constructed washing cradles.

While this work was going on, it came to the notice of the Government that a small section of the workings on the Tank Reef contained a fairly rich zone which was believed to yield about 2,000 tons of auriferous quartz of an average grade of 11 dwts. per ton. On the strength of this information and after a careful consideration of all aspects, the Government of Mysore decided to have the area thoroughly investigated. In May 1944, they sanctioned the proposal of the Director of Geology to recover the available gold from this known reserve of 2,000 tons of auriferous quartz, at an estimated initial cost of Rs. 1.70 lakhs, and also to conduct further large-scale intensive investigations on the reef to ascertain its suitability or otherwise for commercial exploitation.

The work of the Indian Mines Development Syndicate had indicated that the Tank Reef formed a thin vein of auriferous quartz of an average width of about two feet, traceable for a length of over 2,000 feet north and south. The reef, with a pronounced westerly dip, seemed to have been followed for over 400 feet in depth, beyond which it had not been traced. In July 1944, almost the central portion of the reef was selected for mining operations. In accordance with the sanctioned programme for extracting gold from the proved reserve of 2,000 tons of quartz in this selected portion, the Geological Department started its operations with the clearing and reconditioning of the three of the old shafts which the Indian Mines Development Syndicate had sunk in this section and which, from disuse, had collapsed and partially filled with debris. The work was concentrated on thoroughly renovating these three shafts and 4,000 tons of quartz of an average estimated yield of about 10 dwts. of gold per ton were obtained, from which 300 to 320 ozs. (about 800 *tolas*) of gold were secured.

Further mining
operations

A revised scheme for intensive operations was then formulated; but there was considerable delay in getting the necessary machinery and other equipment. Consequently, the milling and extraction of gold was not started. However, from washing the debris in the mined areas and from hand-pounding small pieces of rich quartz and panning and amalgamating the concentrates, about 464 ozs. (1,160 *tolas*) of crude sponge gold were recovered till

1st October 1946. Out of this, 820 ozs. (800 *tolas*) were got refined which yielded 285 ozs. (713½ *tolas*) of pure gold. The purified gold, sold locally in different lots, fetched, in all, Rs. 73,050. The remaining crude sponge gold brought in another about Rs. 25,000. It was thus found encouraging to have further explorations and the future of the mines seemed bright.

It was not until 1951 that active work was carried on and the required machinery and equipment were secured. In that year machinery worth about Rs. 40,000 was secured and a number of buildings were put up; there were 207 persons on the employment roll of the mines; 3,826 tons of ore were treated and the sponge gold obtained was 402 *tolas* which realised Rs. 49,468. In 1952, there were 208 persons working in the mines and the ore production amounted to 3,285 tons, from which 827 *tolas* of gold were extracted and sold for Rs. 75,596.

Closure of operations

In 1953, several developmental schemes were drawn up and further mining operations were undertaken. But during this period, the production of ore was not encouraging and it was found that any further exploration would entail a heavy loss. Therefore, the Bellara Gold Mining Advisory Committee requested Messrs. John Taylor and Sons Ltd., of the Kolar Gold Fields to study the mining area to find out whether future workings would be profitable. Their report was also not encouraging and, therefore, in 1954 it was decided to close down the mining operations. The machinery, vehicles, buildings, stores and other properties of the mines worth over Rs. 11.27 lakhs were disposed of to several Government departments and some more of the properties, connected with water supply, electricity and buildings, worth over Rs. 4.44 lakhs were transferred, free of cost, to the Mysore State Adult Education Council. By 1956, the buildings on the mines were handed over to the Education and Public Works Departments, and thus, the gold mining operations which began in a hopeful atmosphere earlier had to be closed down subsequently as uneconomical.

Minerals

Tumkur district has considerable mineral wealth. Among the important minerals available in the district are manganese, iron ore, gold ore, limestone, corundum, granite, silver sand, quartz, soapstone and china clay. The manganese deposits occur mixed with limestone near Doddaguni in the district. Though correct figures regarding the quantum of manganese ore deposits in the district are not available, it is estimated that the deposits may be to the extent of about 100 million metric tonnes. The ore is exploited by private mine-owners and is exported to foreign countries. Large deposits of limestone, containing 49 per cent calcium oxide and 2.80 per cent magnesia, are reported to occur at Voblapura, and it is estimated that the deposits of this mineral in

Tumkur and Chitradurga districts are to the extent of about five crore tons. The limestone deposits in the district are being exploited for the manufacture of cement by the Mysore Cements Ltd., at Ammasandra. There are rich deposits of iron ore in this district. About 35 million tons of iron ore, containing 58 to 62 per cent iron, are estimated to be available in various parts of the district as follows:—

1. Karekurchi area	..	5 million tons
2. Abbigegudda region	..	27 million tons
3. Janehar region	..	3 million tons

There are 38 mining leases current in this district. The mineral-wise distribution of the same is shown below:—

Minerals	No. of mining leases.	
1. Iron ore	..	8
2. Manganese	..	7
3. Iron and Manganese	..	17
4. Clay	..	2
5. Soapstone	..	1
6. Limestone	..	3

As already stated, gold was being mined in the district at Bellara and Ajjenahalli in Chiknayakanahalli taluk in the olden days. It is said that the ancient workings for gold found at these places are about 2,000 years old. It is estimated that about 2½ lakh tons of ore would be available in the Bellara deposits. However, on account of the low gold content of the ore, large-scale exploitation of these deposits is considered to be uneconomical as already mentioned. Corundum deposits are spread over a length of about 40 miles in Koratagere and Pavagada taluks. Only a small quantity of this mineral is being used in the State for industrial purposes. Quartz is reported to occur to the west of Koratagere and some other places and the total deposits in the district are estimated to be of the order of about 10,000 tons. Glass-sand, to the extent of about 25,000 tons, is reported to be available in Gubbi, Tiptur and Chiknayakanahalli taluks. There is china clay in abundance in the district, but it is being used only for manufacture of tiles and bricks. The clay available in Sira and Chiknayakanahalli taluks is of a high grade and is quite suitable for manufacture of roof and floor tiles. Soapstone and ochres are also available in the district. Extensive deposits of dolomite also occur near Voblapura in the district. Details of production of the different minerals in the district with their value are given in the table appended at the end of the chapter.

LARGE-SCALE INDUSTRIES

Till recently, there was no large-scale industry in Tumkur district and it was only in 1960 that a large-scale cement factory was established at Ammasandra in Turuvekere taluk by Messrs. Mysore Cements Limited. There are also no medium-scale industries in the district and even the one that was established a few years ago, viz., the Parshwanatha Rice and Oil Mills, on the Sira road in Tumkur town, has not been functioning for some time past. But there are many small-scale industrial units in the district, especially in places like Tumkur and Tiptur, which are engaged in the manufacture of agricultural implements and builders' hardware, in automobile body-building and repairs, in wood working, carpentry and blacksmithy, in making bricks and tiles, in manufacturing soaps and beedies and in rice-milling and oil production, etc. There are also quite a number of cottage and village industries dispersed throughout the district, which provide both full-time and part-time occupation to a sizable number of rural population. A brief account of these small-scale, village and cottage industries is given elsewhere in the chapter.

Cement
manufacture

Cement, like steel, is to-day an essential material for building construction. As is well known, the cement industry is playing a very important role in the various development programmes of the country. The extent of utilisation of cement reflects the developmental activities of a nation. Thus, in these days of planning, when cement and steel are the essential commodities for building construction, cement manufacture is vital to the economy of a region, and the district of Tumkur which, hitherto, had no large-scale industries, came to have a large-scale cement factory at Ammasandra recently.

The cement factory is located just one mile north-east of Ammasandra Railway Station, which is seven miles away from Turuvekere, and one mile from Dandinashivara, which is a hobli headquarters in Turuvekere taluk. The factory is located in a vast *maidan* area, having to its north and north-east (four miles away from the factory but quite visible) the Hatyal range of hills as a fine and picturesque background. The State Government have granted 185 acres and 12 guntas of land for locating the factory and other buildings.

The scientific location of industrial units is an essential adjunct of industrial efficiency. The optimum of production may vary with different localities due to the advantages which one locality may possess over another. Thus, a region better equipped with resources in power, raw-materials, labour and transport may easily be a centre of industrial concentration. While deciding the question of setting up the cement factory at Ammasandra, these

points were critically examined. As regards transport facilities, the site is close to Ammasandra Railway Station, which is on the Bangalore—Poona main line. About three miles north of the factory site, runs the Bangalore—Honnavar highway and this has added to the transport facility. The cement factory has been provided with railway sidings from the Ammasandra Railway Station which is very close. The railway siding was opened in September 1961. In view of the expansion of the factory, this siding is being expanded considerably. This area is mainly agricultural, but the agricultural labour is not fully employed all the time and as such, there is easy availability of abundant labour. The strength of labour in the factory in 1967 was about 700. Just near the factory, the main electric power line from Jog to Bangalore runs, and the Government have established a step-down station to supply power to the factory.

The main raw material of this industry is limestone, which is available in plenty in the locality. It was found by the Mysore Geological Department as early as 1948-49 that deposits of limestone suited for cement manufacture existed at Voblapura in Tumkur district which is very near the factory-site. Detailed examination of the surrounding places, including the nearby hill ranges, has shown the existence of very large quantities of high calcium limestone needed for cement manufacture. Physical and chemical tests have shown that the limestone is suitable for the manufacture of portland cement. The other raw-materials like clay and sand are also available. Gypsum of the required quality is available in sufficient quantities at an economic price from the neighbouring State of Madras. As for coal, it is obtained from the coal fields of West Bengal, Bihar and Madhya Pradesh. Ample quantity of power is supplied by the Mysore State Electricity Board and water is also available nearby. Thus, it is seen that the present site is ideally suited for the production of cement.

The original intention of the State Government was to set up a cement factory at Ammasandra as a State-owned concern. But it was subsequently assigned to private enterprise as the Planning Commission indicated that cement factories should, as far as possible, be developed in the private sector. At this time, Shri P. K. Sarangapani Mudaliar, a mine-owner of the State, came forward to undertake this venture. An industrial licence was obtained in July 1959 and in November of the same year, the consent of the Central Government was also received for the issue of capital. The company was incorporated on 13th May 1958 and obtained its Certificate of Entitlement to commence business on 12th October 1959. The inauguration ceremony was held on 27th November 1960 and on the same day, the foundation-stone of the administrative block of the company was also laid. The first

Raw materials

Mysore Cements
Limited

cement plant of the factory, with a production capacity of one lakh tonnes of cement per annum, started production in October 1962.

Technical assistance

The company originally entered into an agreement with the renowned Kaiser Engineers Overseas Corporation of the United States of America for engineering assistance in the design and construction of the plant. That foreign organisation also participated in the equity share capital of the company. From 1st September 1964, the managerial and secretarial responsibility of the company was taken over by Messrs. Kaisers from Shri P. K. Sarangapani Mudaliar who withdrew from the business. In January 1966, Messrs. Kaisers handed over the management of the company to Messrs. Birla Brothers who expanded the capacity of the cement factory to two lakh tonnes per annum. This capacity is now being further expanded to a total of four lakh tonnes per annum with the help of Messrs. Birla Consultants (Private) Limited.

Capital structure

The authorised capital of the company is rupees three crores and the total issued and paid-up capital works up to Rs. 1.80 crores. Of this amount, the State Government has participated financially to the extent of Rs. 15 lakhs. The United States Export Import Bank (which administers the United States Public Law 480 rupee funds in India) has granted a loan of Rs. 55 lakhs to the company. The United States Agency for International Development has also granted a loan of Rs. 82.50 lakhs and the Industrial Credit and Investment Corporation of India Rs. 64.33 lakhs.

Machinery

The first cement plant of the capacity of one lakh tonnes was supplied by Messrs. Klockner-Humboldt-Deutz of West Germany, while the electrical equipment was supplied by Messrs. Allgemeine Elektrizitäts Gesellschaft (A. E. G.) of West Germany. The second plant, which started production in February 1966, is also of similar type and capacity. Since then, the company has gone ahead with a further expansion programme and orders had been placed for another dry process plant of the capacity of two lakh tonnes with Messrs. ACC-Vickers-Babcock Ltd., Durgapur. After the installation of this plant by the end of 1968, the production of cement would go up to four lakh tonnes per annum. The Mysore Cements Company is at present manufacturing 'portland cement' and is considering the possibility of undertaking the manufacture of other products associated with cement.

Process of manufacture

After trial production tests carried out by Messrs. Kaiser Engineers Overseas Corporation, the Board of Directors of the company chose to adopt the 'dry process' for the factory instead of the 'wet-process'. Preliminary studies conducted indicated that with the 'dry process', the company would be able to realise

savings in costs of production, since this process involves lesser fuel consumption. In addition, the dry process is economical in its requirements of water and is also otherwise suitable for the conditions in which the factory operates. In recent years, dry process plants have become increasingly popular in West Asia, where economy in fuel and water consumption is important. The process of cement manufacture is comparatively simple. The basic raw materials like limestone and clay or other calciferous and siliceous materials in pre-determined proportions are ground very fine either in water or dry state and passed through calcination process, i.e., burnt in kilns to produce clinker, which is ground with gypsum upto a fineness of 170 Mesh and then packed in gunny bags. The machinery used for this purpose is designed to deal with raw materials by way of crushing, grinding, burning, milling into powder and packing into bags.

SMALL-SCALE INDUSTRIES

As stated earlier, Tumkur district has, since early days, been famous for a few small-scale and cottage industries, like oil extraction, pottery, carpentry, comb-making and handloom-weaving. But, by and large, there was not much industrial development in the district until recently, and whatever industries that had come up, mainly related to the processing of agricultural produce and the like. In 1962-63, the Small Industries Service Institute of the Government of India conducted a survey on the industrial development potentialities of the district. In 1963-64, another survey was conducted by the Department of Industries and Commerce of the Government of Mysore, through its Rural Industries Project office located at Tumkur, to study the possibilities of industrial development in the areas, viz., Tumkur and Gubbi taluks, covered by the Rural Industries Project. According to these reports, attempts had been made in the district to start only such industries as were based on the available local agricultural raw materials. Though Tumkur is nearer to Bangalore, the State capital, and though there is no dearth of either mineral resources or commercial enterprise, the industrial bias as such was not perceptible in the district and capital was shy to venture on the establishment of bigger industries till recently. However, with the various incentives and assistance offered by the Government, there has been considerable improvement in the establishment and development of small-scale and village industries in the district in recent years.

According to the surveys* conducted by the Small Industries Service Institute, Bangalore, and the Rural Industries Project,

* (1) Report on Industrial Development Potentialities of Tumkur District, Small Industries Service Institute, Bangalore, 1962.

(2) Report on the Survey of Possibilities of Industrial Development of the Rural Industries Project, Tumkur-Gubbi, 1963.

Tumkur, referred to above, there were, in all, 164 small-scale industrial units in Tumkur district in 1963-64, employing, on an average, 2,225 persons daily. Their capital investment was estimated at about Rs. 80.72 lakhs, with an annual estimated production worth about Rs. 183.54 lakhs. Of these, the oil and rice mill industry alone accounted for about 41 per cent of the total investment and 74 per cent of the total production. A brief account of the several small-scale industrial units working in the district (in 1963-64) is given in the following paragraphs.

Oil and Rice Mills

There were 41 oil and rice mills in the district, of which 23 were oil mills, 11 were rice mills and 7 were composite mills engaged both in hulling of rice and crushing of oilseeds. Of the 41 mills, 14 were at Tumkur, 11 at Tiptur, 7 at Gubbi and the remaining 9 units at other places in the district. Almost all the oil mills at Tiptur were engaged in crushing only copra, while the remaining oil mills crushed groundnut and castor seeds. The oil and rice mill industry in the district provided employment to about 450 persons. The total annual production of oil was of the order of 1,300 metric tonnes valued at Rs. 65 lakhs and the quantity of rice hulled was about 4,000 metric tonnes valued at Rs. 40 lakhs. About 75 per cent of the oil extracted in the district is exported to other places.

Before the introduction of oil mills, oil was being produced by means of only *ganas*; the persons connected with oil-pressing are called *ganigaru*. Even now, the *ganas* are in use. According to a survey conducted by the Marketing Department some time ago, there were over 420 village *ganas* in Tumkur district.

Process of oil manufacture

Groundnut is one of the most important commercial crops in the district. Next in importance is coconut. Castor is also grown in the district to a considerable extent. It is the production of these oilseeds that has given much scope to the oil industry in the district. Coconut oil is not produced on a very large scale in the district; there were nine mills in Tiptur engaged in the extraction of oil from copra. Copra of an inferior quality called *kantu* is crushed into oil and is used in the manufacture of soap and also as hair oil. The best variety of copra is used for crushing oil required for edible purposes, but the quantity so pressed is small. The methods and process of production of oil for edible purposes, for soap manufacture and also for use as hair oil is the same. Generally, power-driven rotaries are employed for crushing copra into oil. Before feeding the rotary, the copra is cut into small pieces and filled into a tin of 16 seers' capacity and poured into the rotary. The capacity of each charge is 48 lbs., and to complete one charge, it requires about an hour. It has been estimated that for every 100 lbs. of copra, 57 lbs. of oil are obtained. Village *ganas* are also used for crushing copra into oil. The percentage of

oil obtained in village *ganas* is comparatively less than that obtained in rotaries.

There were 11 saw mills and seven wood working units in the district in 1964. Of these saw mills, five were at Tumkur, two at Tiptur and one each at Kunigal, Gubbi, Madhugiri and Kallur. While the saw mills were engaged in sawing of timber on job basis, the wood working units were engaged in the manufacture of furniture, carts, wooden toys and the like. They had together invested a capital of about Rs. 4.92 lakhs and had employed about 90 persons. The total annual average production of these units was valued at Rs. 10 lakhs. The wood required for the saw mills and for the manufacture of carts, furniture, etc., is obtained from Shimoga and Mysore districts. The carts manufactured in the district are known for their quality and durability and, as such, find ready market both within and outside the district. The number of saw mills and wood-based industries in the district had increased to 29 by the end of 1967.

Easy availability of improved agricultural implements is an essential factor for the development of agriculture. There were 10 units in Tumkur district manufacturing agricultural implements in 1964. Of these, six were in Tumkur town and the remaining four were in other parts of the district. Out of these units, the Lazar Workshop in Tumkur town seems to be the earliest having been established in 1930. The Aryan Industries and Engineering Works was started in 1946 and the remaining units came into being after 1950. Of these, the Shiva Industries, which was established in 1956 to manufacture improved agricultural implements, was the biggest. Of the units started later, three were in the co-operative sector, viz., the Kunigal Taluk Agricultural Produce Marketing Society Ltd., Kunigal, and the Smithy Workers' Craft Co-operative Societies at Mallaghatta and Resala. Of these, the Society at Kunigal was the largest, with a membership of 950 and a share capital of Rs. 1.51 lakhs. It had a production capacity of Rs. two lakhs worth of agricultural implements per year. The implements manufactured by these and other units included ploughs, weeders, seed drums, mixers, trolleys, tractor parts, cultivators, manure trawlers, wheel barrows, paddy weeders and the like.

The total estimated capital investment of these ten units was Rs. 6.73 lakhs and the value of their average annual production was about Rs. 5.45 lakhs. They had together employed about 140 persons. The requirements of almost all agricultural implements in the district are met by these local units. A part of the local production is also being sent outside the district. On account of the modern methods of cultivation that are being

pursued by an increasing number of agriculturists and the provision of more and better irrigation facilities, the demand for improved agricultural implements is generally on the increase. Consequently the number of units making agricultural implements in the district had gone up to 26 by the end of 1967.

Automobile body-building

The number of small-scale industrial units engaged in automobile body-building and repairs in the district was nine in 1964, of which, seven were located at Tumkur and two at Madhugiri. The concentration of these units at Tumkur may be attributed to the heavy vehicular traffic in the town on account of its being situated on the Bangalore—Poona road and also on account of its being the district headquarters and a centre of trade and commerce as well. While two of these units were exclusively engaged in body-building of automobiles, the other units were engaged in auto-repairs and servicing works. Again, only two of the units were organised on modern lines. The total capital investment of these nine units was estimated at about three lakhs of rupees, while their annual turn-over was of the order of about Rs. nine lakhs. They had provided employment to about 120 persons.

Printing Presses

Tumkur district had, in 1964, 33 printing presses, located in the district and almost all the taluk headquarters. There were 14 of them in Tumkur town, four at Tiptur, three each at Sira, Madhugiri and Kunigal, two each at Gubbi and Turuvekere and one each at Pavagada and Chiknayakanahalli. Most of them were engaged in job works. Four of the units also undertook printing of text books. The types and printing paper required by this industry are obtained from Bangalore. The capital invested in this industry in the district was estimated at about Rs. 5.5 lakhs and the annual output at Rs. two lakhs. The industry provided employment to about 120 persons.

Match Industry

There were two match factories in the district, one in Tumkur and the other at Tiptur, employing, in all, 76 persons in 1964. They had invested a capital of about Rs. 52,500 and produced matches worth about Rs. 1.5 lakhs annually. The soft-wood required for veneers is obtained from the forests in Shimoga district, while the chemicals are imported from outside. By 1967, the number of match factories in the district had increased to three.

Carpentry and Blacksmithy

There were, in 1964, six carpentry-cum-blacksmithy units in the district, which were run on small-scale industry basis. All these units were concentrated at Tiptur. They had invested a capital of about Rs. 15,000, the average annual production being worth about Rs. 1.20 lakhs. They had employed, in all, 76 persons.

There were three small-scale industrial units in the district in 1964, engaged in the manufacture of domestic utensils. All the units were, however, located in Tumkur town. The total capital investment of these units was about Rs. 83,000, while they produced utensils worth about Rs. 1.10 lakhs per annum. They had together employed about 25 persons. By the end of 1967, the number of units manufacturing domestic utensils, including other non-ferrous metal industries, had increased to 18.

There were four units manufacturing washing soaps on a small-scale in the district in 1964, and of these, three units were located in Tumkur town itself and the other at Tiptur. The total capital investment of these concerns amounted to Rs. 2.02 lakhs and there were about 60 persons on their employment rolls. The raw materials required for this industry are caustic soda and coconut and other oils; the former is imported from Bombay and the latter is locally procured from the oil mills and, to some extent, from outside the district. It was estimated that soaps worth about 13 lakhs of rupees were produced by these units annually. About 40 per cent of the total production was exported outside the district, while the rest was consumed within the district. By the end of 1967, the number of soap-making units in the district had increased to six.

The only concern in the district manufacturing bolts, nuts, rivets and insulator pins is the Aryan Forge Factory at Tumkur. This unit, which was established in 1959, had invested a capital of about Rs. 1.55 lakhs and had employed about a dozen persons. The iron and steel requirements of the factory are obtained from the Mysore Iron and Steel Works, Bhadravathi, and the production capacity of this unit was about 110 metric tonnes per annum.

Manufacture of tiles is another industry which is carried on on a small scale in Tumkur town. There were six bricks and tiles factories in the district in 1964 and all of them were located in Tumkur town itself. Of these, the Standard Brick and Tile Company, which is a subsidiary concern of the Standard Brick and Tile Company at Yelahanka near Bangalore, was the largest. The main reason for the location of this industry at Tumkur may be attributed to the availability of a suitable type of natural clay round about Tumkur, cheap and abundant firewood (from Devarayanadurga forest) and cheap labour. The clay required for the manufacture of tiles is plastic and smooth and has a mixture of dull colours of ash, grey and amber. The raw clay is moulded and compounded well, layer by layer, sprinkling water whenever necessary and removing stones and other hard impurities. Then, this is fed to the de-airing pug mill to make the clay a compact mass, free from air cavities. The out-coming stiff clay from the pug mill is cut to slices, each slice just sufficient for a

single tile. The clay slice is then fed to the mould and pressed by hand-operated press. The excess of clay coming out from the sides of the mould is cut and removed by means of a smoothing flat wooden blade. This raw tile is then transferred from the mould to the wooden base and from there it is carried away and set on the racks for natural drying under absolute shade. It has been estimated that with the help of a hand-operated press with seven workers, about 2,500 tiles can be produced per day of eight hours.

The tiles, after complete natural drying, are fixed in the kiln. The kiln takes about six hours to work up the heat, eight hours for heating up, eight hours for firing and two days for cooling. The tile factories in Tumkur manufacture 'Mangalore pattern' roofing tiles; besides, ridges, ventilators, hollow bricks, cable covers, wirecut bricks and other allied products are also manufactured. It has been estimated that bricks and tiles worth about Rs. 18 lakhs are produced by the six units in the district annually. The total investment of all these units was estimated at about Rs. 14 lakhs and about 400 persons had been employed by them. This industry works in full strength and capacity for about six to seven months in a year when there is good sun shine and almost the entire production is consumed within the district.

Beedi manufac-
ture

There were 13 organised beedi-making units in the district in 1964, of which, five were at Tumkur, six at Sira and one each at Madhugiri and Kytandra. In making beedies, *tembhuri* (tupra) leaves are used for the cover. The veins are removed before the leaves are cut into rectangular pieces. Tobacco powder is put in one of the corners of each piece, which is then rolled into a tapering shape on the palm of the left hand. It is then tied with a string, the mouth of which is closed by pressing the edges, and the bottom end is pressed, but not entirely closed. The total capital investment of the beedi industry in the district was estimated at Rs. four lakhs, the value of production being of the order of about Rs. 16 lakhs. The industry provided employment to about 800 persons in the organised sector. Beedi manufacture is undertaken also on cottage industry basis at several places in the district.

Slate pencils

Tumkur town had two slate pencil units belonging to private manufacturers in 1964. They were located just outside the town. According to the survey conducted by the Small Industries Service Institute, the total investment of these two units was about Rs. 10,000, while the value of their annual production was estimated at Rs. 15,000. There were, in all, 25 persons working in these units. 'Tumkur Balapa', as it is locally called, has, for long, kept its reputation for quality. This industry is said to be in existence in the district for over a century. The clay required

for making slate pencils is brought from the clay deposits found in some parts of the district, thoroughly cleaned and cast in prepared moulds, after which they are heated in a furnace. These pencils have a ready market within the district itself and small quantities are also exported to other districts.

There were, in Tumkur town, two ribbon manufacturing units in 1964, engaged in producing art silk ribbons. There were 27 persons on the employment roll of these units. Their total capital investment was about Rs. 42,000, while the average annual production of ribbons was of the value of Rs. 75,000. The ribbons produced by these units have a ready market both within and outside the district.

Ribbon
manufacture

Among the other small-scale industries in the district in 1964, were two units manufacturing builders' hardware, two units manufacturing scissors, two tyre-retreading units, two general engineering units, three footwear-making units, two wire-drawing units, one unit for assembly of radios and amplifiers and one unit for making cement-concrete products. These units had together invested a capital of about Rs. 1.50 lakhs and their average annual production was worth about Rs. 1.36 lakhs. They had employed, in all, about 60 persons.

Other Small-
scale Industries

As a result of the various financial, technical and training facilities provided by the Government for the development of industries, the number of small-scale industries in the district has considerably increased in recent years, especially during the Third Five-Year Plan period. This is evident from the fact that by the end of 1967, the total number of registered small-scale industries alone stood at 257 as against 164 units, both registered and unregistered, in 1963-64. The following is the categorywise number of registered small-scale industrial units in the district as at the end of 1967 :—

Sl. No.	Category of units	Number of units
1.	Consumer industries	33
2.	Saw Mills and wood-based industries	29
3.	Confectionery (including food products)	28
4.	Agricultural implements	26
5.	General engineering	19
6.	Domestic utensils (non-ferrous metals)	18
7.	Coir and coir products	15
8.	Auto-parts manufacture	8
9.	Dairy farming	7
10.	Rice, Flour and Oil Mills	6
11.	Soap manufacture	6

Sl. No.	Category of units	Number of units
12.	Coffee roasting and grinding	6
13.	Electrical goods manufacture	6
14.	Agarbathi manufacture	6
15.	Printing presses	5
16.	Plastic and nylon industries	5
17.	Brick and tile industries	3
18.	Ready-made garments	3
19.	Cycle-parts manufacture	3
20.	Varnish, French-polish and pomades	3
21.	Frame works	3
22.	Match industries	3
23.	Wire-drawing units	2
24.	Tobacco curing	2
25.	Areca nut processing	2
26.	Tamarind-seed powdering	2
27.	Cement-based industry	1
28.	Activated charcoal manufacture	1
29.	Slate pencil manufacture	1
30.	Hosiery unit	1
31.	Dye-house unit	1
32.	Educational aids manufacture	1
33.	Footwear manufacture	1
34.	Beedi manufacture	1
Total		257

VILLAGE AND COTTAGE INDUSTRIES

According to the survey conducted by the Rural Industries Project, Tumkur, there are about 20 different types of village and cottage industries in the district. Among the more important of these categories of industries, mention may be made of handloom-weaving, pottery, leather-stitching, carpentry and smithy, oilseed-pressing by *ganas* and making of coir products. During 1963-64, there were about 11,780 village and cottage industries units in the district, providing employment, either full-time or part-time, to about 24,800 persons. Their total capital investment was estimated at Rs. 45.5 lakhs while the value of their total annual production was about Rs. 110 lakhs. In addition, tailoring, gold-smithy and sericulture are also carried on extensively in the district.

Handloom
weaving

Handloom-weaving is an important occupation of a considerable number of families in the rural areas of the district. It is learnt that there are more than 9,000 registered handlooms in the district,

of which about 33 per cent are engaged in cotton-weaving, 25 per cent in silk-weaving and 42 per cent in woollen-weaving. While the cotton-weaving industry has provided employment to about 3,000 families, the silk-weaving industry has about 1,500 families working in it. The woollen-weaving industry has provided whole-time employment to about 1,700 persons and part-time employment to about 5,000 persons. Nearly 80 per cent of these handlooms have been brought into the co-operative fold. In this connection, it may be pointed out that the handloom sector accounts for more than 50 per cent of the total production in the entire village and cottage industries sector in the district.

Though the cotton handloom-weaving industry is scattered all over the district, it is mainly concentrated in Halepalya in Tiptur taluk, Gubbi, Kallur and Somalapura in Gubbi taluk, Mavinakere in Turuvekere taluk and Y. N. Hoskote and Gangasagara in Pavagada taluk. There are about 3,000 families, belonging mainly to the Devanga community, engaged in this industry. In 1964, there were 3,170 registered cotton looms in the district, of which 2,416 were in the co-operative fold. Sarees in counts of 20s, 30s and 40s, *chaddars*, bedsheets and *dhoties* are the important items produced in the handloom sector. However, about 80 per cent of the products are accounted for by sarees of lower counts. Turuvekere taluk is noted for its cotton checks.

Generally, fly-shuttle pitlooms are used. Pitlooms of the antiquated throw-shuttle type are also used to a small extent in certain places. Dobbies are used according to the type of weaving. Frame looms, take-up motion attachments and pedal looms are very rare.

The raw materials required for the cotton handloom-weaving industry are cotton yarn, art silk and silk for borders, colours and chemicals. These materials are mainly obtained from Bangalore. About 25 to 30 per cent of the requirements of the handlooms in the co-operative sector are obtained through the Apex Cotton Handloom Society at Bangalore and the balance by direct purchases through the usual trade channels. It is estimated that cotton fabrics worth about Rs. 12 lakhs are produced annually by the cotton handlooms in the district.

There were 18 cotton handloom weavers' co-operative societies in the district in 1967 with a total membership of 2,757 and a loomage of 2,807. Their total paid-up share capital was about Rs. 47,000. The following statement indicates the location, membership and loomage of each society :—

Sl. No.	Name and location of the society	No. of members	Number of looms
1	2	3	4
1.	Cotton Weavers' Co-operative Society, Tumkur ..	323	143
2.	Cotton Weavers' Co-operative Society, Gubbi ..	135	140
3.	Cotton Weavers' Co-operative Society, Halepalya, Tiptur taluk.	323	486
4.	Cotton Weavers' Co-operative Society, Akkalapura (Yangalammanahalli), Madhugiri taluk.	75	73
5.	Cotton Weavers' Co-operative Society, Y. N. Hoskote, Pavagada taluk.	463	317
6.	Cotton Weavers' Co-operative Society, Somalapura, Gubbi taluk.	51	50
7.	Cotton Weavers' Co-operative Society, Kallur, Gubbi taluk.	250	120
8.	Cotton Weavers' Co-operative Society, Chiknayakanahalli.	314	314
9.	Cotton Weavers' Co-operative Society, Kunigal town.	62	100
10.	Cotton Weavers' Co-operative Society, Ittigadibbanahalli, Madhugiri taluk.	80	175
11.	Cotton Weavers' Co-operative Society, Gangasagara, Pavagada taluk.	119	230
12.	Cotton Weavers' Co-operative Society, Muniyur, Turuvekere taluk.	122	127
13.	Cotton Weavers' Co-operative Society, Mavinakere, Turuvekere taluk.	62	123
14.	Cotton Weavers' Co-operative Society, Gummanaghata, Pavagada taluk.	73	75
15.	Cotton Weavers' Co-operative Society, Hosur, Pavagada taluk.	48	49
16.	Cotton Weavers' Co-operative Society, Inturayanahalli, Pavagada taluk.	50	55
17.	Cotton Weavers' Co-operative Society, Somapura (Hosahalli), Koratagere taluk.	147	190
18.	Cotton Weavers' Co-operative Society, Pavagada	60	50
Total ..		2,757	2,807

The cotton weavers' co-operative societies at Y.N. Hoskote and Somalapura have a dye-house each, for the establishment of

which they were given a loan of Rs. 1,800 and Rs. 1,500 respectively. Besides, 12 of the societies have been given working capital loans to the extent of Rs. 1,96,300, and three of the societies, share capital loans of Rs. 9,667. For the development of Khadi industry in the district, the Mysore State Khadi and Village Industries Board has also given financial assistance to the extent of Rs. 2,56,841, both in the form of loans and grants, to two other societies in the district, viz., the District Khadi Gramodyoga Co-operative Society, Tumkur, and the Rural Industrial Co-operative Society, Turuvekere. The bulk of the assistance, i.e., Rs. 2,45,966 is given to the society at Tumkur.

The wool-weaving industry has been in existence in Tumkur district since early times. It is on record that there were 1,822 looms in the district in 1893. It is mostly carried on as a seasonal industry, providing a subsidiary occupation to about 5,000 Kurubas, whose main occupation is agriculture. However, in some of the places, this industry is carried on as the main occupation throughout the year, providing employment to about 1,700 persons. Wool-weaving is extensively carried on in Sira, Madhugiri, Chiknayakanahalli and Pavagada taluks and, to a certain extent, in Gubbi and Tiptur taluks. This industry is mostly concentrated in places like Chiknayakanahalli, Bevinahalli, Hagalvadi, Ittigadibbanahalli, Y. N. Hoskote and Ganganaghata. In 1964, there were 3,762 woollen handlooms in the district, of which 2,886 looms were in the co-operative sector. Woollen blankets of a coarse type (*kamblies*), which are in demand in plantation areas, are manufactured. The total capital investment in this industry is estimated at about Rs. four lakhs, while the value of the total annual production is put at about Rs. 9.50 lakhs.

Sheep, the source of supply of raw wool, are found in almost all the taluks of the district. According to the livestock census of 1966, the total number of sheep in the district was 7,23,499. Sheep thrive well in the district on account of the favourable climate and abundance of pasture lands. The Mysore breed of sheep is known to be a good woolly breed, superior to many other breeds in the rest of India. The sheep gives an average clipping of about one pound per year in two clippings. Clippings are done twice a year, once in January and again before the onset of the rainy season, i.e., by June. It is believed that the winter (January) clipping gives a slightly greater quantity of wool than the June clipping. In Hoskote in Pavagada taluk, a flock of 100 sheep gives an average of two maunds of wool (the local maund for weighing of wool at Hoskote is of 1176 *tolas*).

Before shearing, the sheep are washed in a pond on the morning of the day of shearing and are allowed to dry. Then, the shearing is done by means of an implement resembling a large pair of

scissors. After shearing, the wool is collected and cleaned. This process is done by means of a bow or *billu*, as it is locally called. The next process is that of rolling the wool into slivers and then spinning it into yarn. This work is usually done by women at home. The instrument used for spinning the wool is the same as that used for spinning cotton (*charka*). After spinning, warping is done. The yarn is next removed and taken on for the sizing process and then on to the loom. The loom on which the *kumbli*s are woven, is of the simple old type throw-shuttle pit-loom. At the end of the loom, where the weaver sits, one rod of the warp is fixed to the big beam of the loom and the other rod is fixed to a peg at the other end. The weaver sits at the base of the loom and weaves. The shortest width woven is 18 inches and the broadest 72 inches.

There were 17 woollen weavers' co-operative societies in the district in 1967, with a total membership of 3,376 and a loomage of 3,907. The total paid-up share capital of these societies was about Rs. 64,000. Particulars showing the location, membership and loomage of each of these societies are given below :—

Sl. No.	Name and location of society	No. of members	No. of looms
1	2	3	4
1.	Woollen Weavers' Co-operative Society, Bevinahalli, Sira taluk.	224	342
2.	Woollen Weavers' Co-operative Society, Y. N. Hoskote, Pavagada taluk.	428	275
3.	Woollen Weavers' Co-operative Society, Chiknayakanahalli.	478	850
4.	Woollen Weavers' Co-operative Society, Hagalvadi, Gubbi taluk.	218	300
5.	Woollen Weavers' Co-operative Society, Ittigadibbanahalli, Madhugiri taluk.	321	380
6.	Woollen Weavers' Co-operative Society, Sira town.	147	150
7.	Woollen Weavers' Co-operative Society, Dwaranakunte, Sira taluk.	127	127
8.	Woollen Weavers' Co-operative Society, Kodigenahalli, Tiptur taluk.	115	115
9.	Woollen Weavers' Co-operative Society, Ganganaghatta, Tiptur taluk.	249	280
10.	Woollen Weavers' Co-operative Society, Venkatapura, Pavagada taluk.	108	180

1	2	3	4
11.	Woollen Weavers' Co-operative Society, Pavagada town.	157	100
12.	Woollen Weavers' Co-operative Society, Yelanadu, Chiknayakanahalli taluk.	63	100
13.	Woollen Weavers' Co-operative Society, Baragur, Sira taluk.	223	190
14.	Woollen Weavers' Co-operative Society, Kama-gondanahalli, Sira taluk.	283	283
15.	Woollen Weavers' Co-operative Society, Chirthahalli, Sira taluk.	125	130
16.	Woollen Weavers' Co-operative Society, Arasapura, Koratagere taluk.	75	80
17.	Woollen Weavers' Co-operative Society, Shivana-halli, Kunigal taluk.	37	45
Total ..		3,376	3,907

Of these, the societies at Bevinahalli, Chiknayakanahalli, Baragur and Chirthahalli have been given loans to the tune of Rs. 65,540 for establishing dye-houses. Besides, 15 of the societies have been given also working capital loans aggregating to Rs. 3,59,882 and six of them share capital loans amounting to Rs. 67,500. Worksheds have been provided to five societies at a total cost of Rs. 25,540 and six more societies have been supplied with carding machines at a cost of Rs. 1,200 each. Moreover, the societies at Venkatapura and Baragur have been provided with housing colonies, by providing them with financial assistance amounting to Rs. 1,38,000 and Rs. 1,22,400 respectively in the form of loans and grants. The Khadi and Village Industries Board has also extended financial assistance to the tune of Rs. 2,10,401 to four of these societies.

The silk handloom-weaving industry has been playing an **important role**, contributing about 30 per cent of the entire production in the cottage industries sector. This industry is mainly concentrated in Gubbi, Kallur and Chelur in Gubbi taluk, Halepalya, Kotanayakanahalli and Nonavinakere in Tiptur taluk, Chiknayakanahalli and Kadenahalli in Chiknayakanahalli taluk, Krishnapura in Pavagada taluk and, to some extent, in Tumkur town. In 1964, there were 2,249 registered silk looms in the district, of which 1,774 looms had been brought under the co-operative fold. Only pitlooms with fly-shuttle and fitted with jacquards were in use. Of late, a few looms are engaged in weaving of art silk sarees, using both imported and indigenous yarn. However, the silk handloom production consists mainly

of pure silk sarees with lace borders. To some extent, the raw materials, viz., dyed silk yarn and gold thread (*jari*) required by the industry are supplied by the Apex Silk Society at Bangalore, while the balance is purchased from the traders at Bangalore. The capital investment in this industry, as in 1964, was estimated at Rs. 16.75 lakhs, while the total annual production of pure silk sarees was worth about Rs. 36 lakhs. About 85 per cent of the production was marketed at Bangalore and the balance within the district.

In 1967, there were 15 silk handloom weavers' co-operative societies in the district, with a total membership of 1,822 and a loomage of 2,389 as shown below :—

Sl. No.	Name and location of society	No. of members	No. of looms
1	2	3	4
1.	Silk Weavers' Co-operative Society, Tumkur ..	11	80
2.	.. Dandinashivara, Turuvekere taluk ..	55	80
3.	.. Muniyur, Turuvekere taluk ..	109	150
4.	.. Kallur, Gubbi taluk ..	159	159
5.	.. Kallur, Gubbi taluk ..	473	660
6.	.. Chelur, Gubbi taluk ..	59	95
7.	.. Kotanayakanahalli, Tiptur taluk ..	106	135
8.	.. Nonavinakere, Tiptur taluk ..	115	140
9.	.. Chiknayakanahalli ..	134	150
10.	.. Halepalya, Tiptur taluk ..	224	280
11.	.. Gubbi town ..	101	125
12.	.. Mavinakere, Turuvekere taluk ..	62	70
13.	.. Krishnapura, Pavagada taluk ..	62	73
14.	.. Kadenahalli, Chiknayakanahalli taluk ..	50	112
15.	.. Annapura, Tiptur taluk ..	102	80
Total ..		1,822	2,389

Thirteen of these societies had been given working capital loans aggregating to Rs. 1,73,000 and 12 of them share capital loans amounting to Rs. 46,888.

Three Sales Emporia, one each at Tumkur, Tiptur and Madhugiri, have been established in the district for the purpose of marketing the handloom fabrics produced by the handloom weavers' co-operative societies, as also the handicrafts produced by the other craft co-operative societies. They also serve as publicity and propaganda media for these products and help to promote their sales.

The power-loom scheme was first introduced in the district in 1959-60 and, at the beginning, there were only 74 power-looms in the district. But gradually, the number increased in the subsequent years. In 1964, there were about 400 power-looms in the district, of which as many as 300 were at Halepalya in Tiptur taluk; 86 power-looms were in the co-operative sector. Cotton fabrics worth about Rs. 17.5 lakhs were produced annually in the district by these power-looms, employing about 600 persons. By 1967, the number of power-looms in the district had increased to about 500. There were two Power-loom Weavers' Co-operative Societies in the district.

Sericulture is practised mainly as a cottage industry by about 20,000 people in the district. It is one of the oldest industries in the district and is traced to the time of Haidar Ali and Tipu Sultan. The seasonal conditions, the nature of the soil, the location of the villages separated from one another by hillocks and the skill of the local people in rearing silk worms are the factors which make this a seed area. The silk worm race here which is called the 'pure Mysore race', is widely reared in the district, especially in Kunigal, Tumkur, Gubbi and Turuvekere taluks. This race is local in character and is said to thrive in all parts of the district, except, perhaps, Pavagada taluk. The 'pure Mysore race' silk worms are disease-resistant and are, therefore, considered to be the best. After a long and sustained research, it was found necessary to confine these special race of silk worms to Tumkur district and some of the taluks of Bangalore and Mandya districts, so as to evolve the best qualities of silk-worm race for the growth and promotion of silk industry in the entire State.

The cocoons of the 'pure Mysore race' are largely used for seed purposes. In the process of evolving the best of silk worms, the female moths of the 'pure Mysore race' are crossed by the male moths of the foreign variety, which are being reared for purposes of cross-breeding. The combination of the 'pure Mysore race' and the 'imported races' has resulted in the production of high yielding quality cocoons. It may be safely said that the success of the sericulture industry in the rest of the State depends, to a considerable extent, upon the supply of good seeds from this district. Kunigal taluk, in particular, occupies a pride of place as a seed area for the production of Mysore seed cocoons.

The total extent under mulberry cultivation in the district in 1961 was about 2,100 acres. By 1967, this acreage had in-

creased to about 2,475, and of this, Kunigal taluk alone had 2,148 acres as could be seen from the following table :—

Taluk	Acreage					
	Dry		Wet		Total	
	Acres	Guntas	Acres	Guntas	Acres	Guntas
1	2	3	4	5	6	7
Kunigal ..	1,462	35	686	01	2,148	36
Tumkur ..	191	31	30	36	222	27
Gubbi ..	75	17	13	21	88	38
Turuvekere ..	12	04	1	30	13	34

There are about 4,990 families engaged in this industry in the district and the average extent of land per family set apart for mulberry cultivation works out to about half-an-acre. Generally, an agriculturist sets apart a portion of his land for growing mulberry (which is the food for the silk worms) for rearing silk worms. The income derived from the sale of these cocoons goes a long way in improving his economic condition. Besides, the litter of the silk worms provides fodder to the cattle and also serves as manure.

In 1956-57, about 25.94 crores of cocoons were produced in the district. Since then, there has been a gradual increase in the production of cocoons, which stood at 28.65 crores in 1960-61 and at 34.91 crores in 1966-67. The following statement indicates the production of cocoons, their disposal and the distribution of disease-free layings during the period from 1962-63 to 1966-67 :—

Year	Cocoons produced	(Figures in lakhs)		
		Disposal		Disease-free layings distributed
		For seed purposes	For reeling purposes	
1	2	3	4	5
1962-63	.. 2,883.70	1,474.00	1,409.70	18.14
1963-64	.. 3,042.06	1,560.25	1,481.81	22.91
1964-65	.. 3,233.45	1,694.67	1,538.78	22.22
1965-66	.. 2,999.30	1,580.58	1,418.72	22.12
1966-67	.. 3,491.05	1,727.32	1,763.72	25.01

There are two Government Silk Farms in the district, viz., the Government Silk Farm at Kunigal and the Government Basic Seed Farm at Bilidevalaya in Kunigal taluk. The number of cocoons produced at these farms during the period from 1962-63 to 1966-67 was as follows :—

Year	Government Basic Seed Farm, Bilidevalaya.	Government Silk Farm, Kunigal.
1962-63	.. 16.31 lakhs	1.40 lakhs
1963-64	.. 21.70 lakhs	2.18 lakhs
1964-65	.. 15.12 lakhs	3.26 lakhs
1965-66	.. 20.17 lakhs	4.42 lakhs
1966-67	.. 24.55 lakhs	5.27 lakhs

There are also five Government Grainages and five Cocoon Markets in the district located at Kunigal, Santhemavathur, Huli-yurdurga, Hebbur and Kempanahalli. The requirements of silk-worm eggs of the sericulturists of the district are entirely met by the Government Grainages, while the cocoons required for the production of layings are made available from the Government Silk Farms and selected rearers. The nucleus seed centre in the Kunigal Silk Farm prepares the nucleus seeds required for rearing purposes. This Farm is also engaged in improving the seeds by selective breeding.

Out of the total production of seed cocoons in the district, nearly 50 to 55 per cent is used for seed purposes and the rest is utilised for reeling purposes. There are 48 licensed reelers in the district, and they have to use only the pure Mysore seed cocoons for reeling. To provide assistance to the sericulturists in securing silk worm eggs required by them from time to time and to give them technical guidance in the cultivation of mulberry and the rearing of silk worm, the Government have established 24 ranges, each in charge of a Range Officer. The average number of villages included in a range is about 18, located within about a radius of five miles from the headquarters of the Range Officer. He inspects the crops at every stage during the course of rearing and guides the sericulturists in conducting, rearing and getting successful crops.

The Mysore Silk Worm Seed and Cocoon (Regulation of Production, Supply and Distribution) Act, 1959, is in force in the sericultural area of Tumkur district. But even before the introduction of this Act, the provisions of the then existing Silk Worm Seed Control of Distribution Act, 1952, was in force in this area from 1954. According to the provisions of the Act of 1959, all the silk worm-rearers are licensed and they are prohibited from rearing any race other than the 'pure Mysore race'. They are

required to obtain their requirements of silk worm eggs of 'pure Mysore race', only from Government grainages established in the area. The rearers have to dispose of the seed cocoons produced by them only to the licensed seed-preparers and the cocoons, which are not required for seed purposes, should be disposed of through the Government cocoon markets, only to the licensed silk reelers for reeling purposes.

Development schemes

With a view to developing the silk industry in this area, the following development schemes were taken up during the Second Five-Year Plan period :—

- (1) Establishment of a Basic Seed Farm at Bilidevalaya in Kunigal taluk;
- (2) Providing financial assistance to seed-rearers for sinking wells; and
- (3) Supply of improved appliances to sericulturists at subsidised rates.

The Basic Seed Farm at Bilidevalaya was established in 1959-60 in an area of about 25 acres at an expenditure of Rs. 3,45,370. Under the scheme for providing financial assistance to seed-rearers for sinking wells, a sum of Rs. 41,250 was granted for sinking 102 wells. About 5,800 improved *chandrikes* or mountages were supplied to 1,160 sericulturists at a total cost of Rs. 36,187. Under the Third Five-Year Plan, seven development schemes, costing, in all, about 19 lakhs of rupees, were taken up in the district. The schemes included, among other things, establishment of *chawki* rearing centres, starting of multivoltine seed cocoon stations to conduct cellular rearing and assistance to sericulturists for construction of rearing houses.

Carpentry and Blacksmithy

Carpentry and blacksmithy units of cottage type are found all over the district. It is learnt that there were about 1,440 such units in the district in 1964, providing employment to about 2,190 persons. Of these, 190 units were engaged both in carpentry and smithy, 422 units exclusively in carpentry and 627 units in blacksmithy only. The total capital investment of these units was estimated at Rs. 6.80 lakhs, while their total annual production was worth about Rs. 16.6 lakhs. Of this, more than 60 per cent was accounted for by the carpentry units alone. The smithy units undertake mainly the manufacture and repair of agricultural implements and re-tying of cart-wheels. The village carpenters mostly produce the common-type building fixtures like doors, windows and roofing materials, as also agricultural implements like wooden ploughs, etc. A few units also undertake the manufacture of furniture. In this connection, it may be mentioned that the manufacture of carts is a specialised item of work practised by some carpentry units in the district, especially

in Gubbi taluk. It is estimated that at Gubbi and in the neighbouring villages alone about 1,500 carts are manufactured annually and sold both within and outside the district.

The workers in these industries generally use old type of tools and implements. Though they are keen to replace them by improved kinds, it has not been possible for them to do so for want of financial and other facilities. To obviate these difficulties, seven industrial craft co-operative societies have been established in the district. They have a total membership of about 430. Two of the smithy societies and one carpentry society have been given financial assistance by the Government as follows :

	Loan	Grant	Total
	Rs.	Rs.	Rs.
1. Smithy Craft Co-operative Society Ltd., Mallaghatta	1,54,634	3,933	1,58,567
2. Smithy Workers' Craft Co-operative Society Ltd., Resala	1,50,884	3,572	1,54,456
3. Carpentry and Cart Manufacturing Society Ltd., Gubbi.	30,954	705	31,659

Besides, the Mysore State Khadi and Village Industries Board, through its District Office at Tumkur, has also extended financial assistance to the following four carpentry and smithy co-operative societies in the district :—

	Loan	Grant	Total
	Rs.	Rs.	Rs.
1. Harijan Industrial Co-operative Society Ltd., Byalya, Madhugiri taluk.	3,875	2,200	5,875
2. Carpentry and Blacksmithy Co-operative Society Ltd., Boranapalya, Gubbi taluk.	2,500	3,500	6,000
3. Carpentry and Blacksmithy Co-operative Society Ltd., Turuvekere	4,937	3,500	8,437
4. Carpentry and Blacksmithy Co-operative Society Ltd., Devaroor, Tumkur taluk.	14,050	7,450	21,500

The village pottery is a hereditary profession practised mainly by the Kumbar community. In Tumkur district, this industry is mostly concentrated in the taluks of Tumkur, Gubbi, Turuvekere, Tiptur, Madhugiri and Koratagere. In the urban areas, this industry is carried on as a full-time occupation, while in

the rural parts, it forms a subsidiary occupation. There are about 450 pottery units in the district, in which about 860 workers are engaged. The capital investment in this industry is estimated at Rs. 1.60 lakhs, while the value of the total annual production of pottery is put at Rs. 3.60 lakhs.

The pottery units are generally located in the vicinity of big tanks. Clay, which is the most important raw material required by the potters, is mostly obtained from tank-beds, free of cost; in a few cases, it is obtained from private lands after making some nominal payments. Fuel required for burning is gathered from nearby scrubs and also obtained on payment basis. The products manufactured are mostly pots for daily use, chimney and water pipes, country tiles and storage pots. These articles are produced on the traditional potter's wheel and burnt in country kilns.

In 1967, there were seven Potters' Industrial Craft Co-operative Societies in the district, with a membership of more than 400. The Mysore State Khadi and Village Industries Board has given financial assistance, in the form of both loans and grants, to these societies as shown below:—

Name of the Society	Loan		Total
	Rs.	Rs.	Rs.
1. Malleshwara Swamy Potters' Craft Co-operative Society Ltd., Madhugiri	2,000	..	2,000
2. Siddheshwara Swamy Potters' Craft Co-operative Society Ltd., Baraka, Koratagere taluk.	3,760	700	4,460
3. Bidare Potters' Craft Co-operative Society Ltd., Bidare, Gubbi taluk.	7,500	1,000	8,500
4. Kumbeswara Kumbarara Kaigarika Sahakara Sangha Ltd., Rayasetti-halli, Tiptur taluk.	4,395	520	4,915
5. Byreshwara Swamy Potters' Craft Co-operative Society Ltd., Goni-Tumkur, Turuvekere taluk.	2,400	400	2,800
6. Multi-purpose Industrial Co-operative Society Ltd., N.R. Pura, Tumkur	17,250	2,500	19,750
7. Kumbeshwara Kumbarara Kaigarika Sahakara Sangha Ltd., Handanakere, Chiknayakanahalli taluk.	3,855	980	4,835

Village Oil Industry

The village oil *gana* industry is found to exist mostly in the areas where the non-edible oilseeds like *honge*, *hippe*, *castor*, etc., are extensively grown. This industry is carried on mainly in

Pavagada, Madhugiri, Gubbi, Tumkur and Chiknayakanahalli taluks. Among the important centres of this industry, mention may be made of Pavagada, Y.N. Hoskote, Madhugiri, Mayasandra, Kamagondanahalli, Devarahalli, Bukkapatna and Chik-konahalli. There are nearly 220 village oil *gana* units in the district consisting of about 420 *ganas* and about 450 persons are engaged in this industry. The total capital investment of these units is estimated at Rs. 1.60 lakhs, while their total annual production of oil is said to be worth about Rs. three lakhs.

Mostly, stone-*ganas*, run by a single bullock or a pair of bullocks, are in use in the district. Efforts are, however, being made to popularise the Wardha-type *ganas*. Since the major oilseeds like groundnut, castor and copra are mostly consumed by the oil mills in the district, the village oil *ganas* generally use non-edible oilseeds in addition to limited quantities of edible oilseeds like *huchellu*, *achellu*, etc. The non-edible oils produced by these units are made use of by the villagers for lighting purposes. By and large, this is a seasonal industry which is carried on for about 5—8 months in a year.

There are nine Oil Gana Industrial Co-operative Societies in the district, at Kamagondanahalli, Baragur and Bukkapatna in Sira taluk, Gubbi and Devarahalli in Gubbi taluk, Chikkonahalli in Kunigal taluk, Turuvekere, Tiptur and Chiknayakanahalli. Besides, seven other co-operative societies have also taken up this industry in addition to their other activities. The Mysore State Khadi and Village Industries Board has given financial assistance to these societies to the tune of Rs. 1,11,146 for their working capital, purchase and storage of oilseeds, purchase of improved *ganas* and for construction of workshops. The assistance is in the form of both loans and grants.

It is estimated that annually about 81,000 raw hides and three lakhs of raw skins are available in the district. But there are no organised tanneries in the district to utilise these hides and skins nor is leather-tanning carried on on a large scale. However, tanning is done in a crude way in some places, utilising just about 10 per cent of the total production. The remaining 90 per cent of hides and skins are collected by the traders in village shandies and are sent to Bangalore for processing. The process of tanning adopted in the district is vegetable tanning, using wattle barks and myrobalans. Heggere in Tumkur taluk and Hulikunte in Koratagere taluk are the main tanning centres. Leather-stitching is practised by the *Mochis* in both urban and rural areas. There are about 660 cobblers in the district depending upon this industry and mostly engaged in the manufacture and repair of chappals and shoes. The capital investment in this industry is about Rs. 40,000, while the value of the total annual production is estimated at about Rs. 2.7 lakhs.

Leather
Tanning and
Stitching

There are two Leather Industrial Craft Co-operative Societies in the district, one at Heggere and the other at Hulikunte. Besides, there is also a Cobblers' Co-operative Society at Pavagada. The first two societies have been helped financially by the Mysore State Khadi and Village Industries Board to the extent of about Rs. 12,000 mostly in the form of grants, while the Cobblers' Co-operative Society, Pavagada, has been given a financial assistance of Rs. 31,659 by the Government, including a grant of Rs. 705. There is another Leather Workers' Co-operative Society at Byalya in Madhugiri taluk, which, along with the large-sized co-operative society at Palavalli in Pavagada taluk, is also rendering assistance to cobblers for increasing their production.

Mat and Basket Weaving

The mat-weaving industry is mainly concentrated in Sira taluk and is largely a subsidiary occupation of the Lambani community. There are also some units in Turuvekere and Gubbi taluks. In all, there are about 170 mat-weaving units in the district, providing employment to over 300 persons and producing mats worth about Rs. 30,000 annually.

The basket-making industry is carried on mainly in Tumkur, Turuvekere and Gubbi taluks. There are also a few units in Sira and Kunigal taluks. This industry is practised mainly by the members of the Medar community. Bamboo, the main raw material required for this industry, is mostly obtained from Shimoga district. The main items of production include articles such as winnows, sieves, vegetable and fruit baskets. A special type of mango baskets, which are manufactured at Kyatsandra, are in good demand both inside and outside the district. There are more than 150 basket-making units in the district, providing employment to about 300 persons. The total annual production of these units is estimated to be worth about Rs. 2.80 lakhs.

There are five Bamboo and Mat-Weavers' Craft Co-operative Societies in the district. Of these, the following three societies, with a total membership of 276, have been given financial assistance to the tune of Rs. 80,281 by the Handicrafts Board for the development of the industry :—

<i>Name of Society</i>	<i>Loan</i>	<i>Grant</i>	<i>Total</i>
	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
1. Mat Weavers' Craft Co-operative Society Ltd., Manangi, Sira taluk.	26,666	25,000	51,666
2. Bamboo Workers' Craft Co-operative Society Ltd., Kyatsandra, Tumkur taluk.	14,280	9,835	24,115
3. Bamboo Workers' Craft Co-operative Society Ltd., Koratagere.	3,800	700	4,500

There is extensive cultivation of coconut in Tumkur district and this has facilitated the establishment of some Coir Production Units in the district. This industry is carried on mainly in Tiptur, Turuvekere, Gubbi and Chiknayakanahalli taluks. There are nearly 100 Coir Production Units in the district, employing about 400 persons. (Some of these units, about 15 in number, have registered themselves as small-scale industries). The total annual production of these units is said to be worth about Rs. 50,000.

The fibre, made of green or dried coconut husk, is mostly used for preparing ropes, which find market both in rural and urban areas. The process of preparing coir from coconut husk is a simple one. The husk taken out from the coconuts is kept in water tanks or pits or water canals for four to five months till it completely decays so as to enable the removal of fibre from the skin of the husk. Then it is beaten with heavy wooden or iron mallets, and the fibre is separated. It is then dried in the sun for a few hours and the coir thus produced is used in the manufacture of rope. The turn-out expected from husks of 100 coconuts is about 17 lbs. of coir. Out of this coir, ropes of different sizes are prepared and are sold in nearby shandies. Recently, efforts have been made, through co-operative organisations, to introduce improved techniques of production, as also to manufacture new products, such as, foot-rugs and floor-mats. There are three Coir Craft Co-operative Societies in the district, one each at Huliya, Turuvekere and Tiptur, with a total membership of about 300. These societies have introduced improved types of rope-making machines. The Coir Board has assisted these societies financially as shown below :

	<i>Loan</i>	<i>Grant</i>	<i>Total</i>
	<i>Rs.</i>	<i>Rs.</i>	<i>Rs.</i>
1. Coir Co-operative Society Ltd., Huliya	18,100	7,200	25,300
2. Coir Co-operative Society Ltd., Turuvekere	11,100	8,870	19,970
3. Coir Co-operative Society Ltd., Tiptur	5,400	3,210	8,610

There are also two mechanised coir industry units in the district, one at Kenchaghatta in Tiptur taluk and another at Huliya in Chiknayakanahalli taluk, run by the State Industries Department. During 1966-67, they produced coir products worth Rs. 35,653.

Two places, namely, Sataghatta and Seethakal in Tumkur taluk, were once famous for the manufacture of copper and brass vessels. Now, this industry is carried on mainly in Sataghatta, Brass and Copperware Industry

Gundalapalya and Tumkur town. In Sataghatta alone, there are 28 families engaged in this industry. In all, there are 42 units in Tumkur taluk, employing about 160 persons. The total capital investment of these units is estimated at Rs. 1.20 lakhs, while their total annual production is worth about Rs. three lakhs.

The raw materials required for this industry, viz., copper and brass, are obtained from Bangalore. The finished products are sold both within and outside the district. A Brass Workers' Co-operative Society has been organised at Sataghatta with a membership of about 120. The society has been given a financial assistance of Rs. 46,770 (Rs. 45,000 as loan and Rs. 1,770 as grant) by the Government.

Wooden Combs

In the past, Tumkur was famous for its wooden hair-combs. But the manufacture of the same has declined in recent years due to importation of modern hair-combs. However, about 100 families in Tumkur town are still engaged in this industry. For making wooden combs, well-sized, slightly rectangular wooden pieces are prepared and polished. The pieces have a tapered surface, the ends being sharper. In the sharper edges, teeth are cut. Nice varieties of combs out of sandal wood and black wood are also manufactured. The price of an ordinary comb is about 10 paise, but that of the better variety is about 20 to 30 paise. These combs are sold locally, and the villagers of the area still prefer these combs to the imported ones.

Limestone burning

There are large limestone deposits in Tumkur district. Limestones of softer variety are obtained from the mining areas and used for the manufacture of slacked lime. This industry is carried on mainly in Chiknayakanahalli, Kunigal, Turuvekere and Tumkur taluks. The limestones are burnt in country kilns, and there are more than 130 limestone burning units in the district, employing about 200 persons. The total annual production of these units is worth about Rs. 5.40 lakhs. There is good demand for slacked lime in Bangalore and, as such, about 30 per cent of the production is marketed at Bangalore and the rest is consumed within the district. An industrial co-operative society for the workers engaged in this industry has been organised at Tumkur, to which the Khadi and Village Industries Board has given a financial assistance of Rs. 3,000.

Tailoring

The tailoring industry is mostly concentrated in urban areas, hobli headquarters and bigger villages. It is estimated that there are about 1,200 tailoring units in the district, providing employment to about 1,600 persons. In most cases, the sewing machines are owned by the tailors, and in a few cases, they are hired from cloth-shop owners. The tailors are especially busy during marriage and certain festive seasons. But, at other times, some of them do not

have full-time work. Therefore, efforts are being made to organise co-operative societies for tailors in some important centers for the manufacture of ready-made garments so as to provide them employment throughout the year.

According to a survey of village industries conducted by the State Department of Industries and Commerce sometime back, there were over 600 goldsmiths in the rural areas of the district. They were engaged in the manufacture of small gold ornaments like ear and nose-rings, gold and stone-studded rings, *thalies* used in marriages, wristlets and bangles, etc. But after the enforcement of the Gold Control Order, a number of goldsmiths were considerably affected. With a view to rehabilitating them, six Goldsmiths' Industrial Co-operative Societies have been organised in the district, and they have been provided with alternative employment in these societies. The industrial activities undertaken by the societies include wood works, engineering works, making of steel furniture and agricultural implements, and the like. These societies, which have a total membership of about 530, have been given financial assistance by the Government to the tune of Rs. 3,22,550. Particulars of the financial assistance given and the membership of each of these societies are as given below:—

Sl. No.	Name of society	No. of members	Financial assistance given (in Rs.)
1	2	3	4
1.	Vishwakarma Kushala Kaigarika Sahakara Sangha Ltd., Tumkur.	166	58,000
2.	Swarnakarara Kushala Kaigarika Sahakara Sangha Ltd., Tumkur.	40	63,500
3.	Vishwakarma Kushala Kaigarika Sahakara Sangha Ltd., Chiknayakanahalli.	53	50,500
4.	" " Gubbi	73	60,500
5.	" " Turuvekere	122	46,000
6.	" " Tiptur	77	46,000

Besides the financial assistance given to these societies, a number of individual goldsmiths have also been assisted financially in order to enable them to start cottage industries and petty shops. Educational concessions have been given to their children. Training facilities and employment assistance are also provided to them.

Bee-keeping Industry

Apiculture is also pursued in some villages in the district as a cottage industry. There are two apiculture or bee-keeping centres in the district, one at Tumkur and the other at Gubbi. There is also a Bee-keepers' Industrial Co-operative Society at Tumkur. The Mysore State Khadi and Village Industries Board has helped this society financially to the extent of Rs. 9,710 (Rs. 7,710 as grant and Rs. 2,000 as loan). This industry is concentrated mostly in Tumkur and Gubbi taluks. In 1967-68, there were, in all, 916 bee-hive boxes in the district, of which nearly 50 per cent i.e., 425 boxes, were in Tumkur taluk, followed by Gubbi taluk, which had 119 boxes. Similarly, of the total number of 312 bee-keepers in the district, these two taluks alone had nearly 200 bee-keepers. The total production of honey by all the bee-hives in the district in 1967-68 was about 9,200 kilograms.

Other Village Industries

Among the other village industries that are functioning in the district, mention may be made of non-edible oil soap manufacture, hand-pounding of paddy, manufacture of *gur* and *khandasari* and *neera* and palm-*gur*. There are five co-operative institutions in the district, which have taken up manufacture of non-edible oil soaps, one each at Tumkur, Madhugiri, Devarahalli and Thyagatur in Gubbi taluk and Mayasandra in Turuvekere taluk. These societies have been financially assisted by the Mysore State Khadi and Village Industries Board to the extent of Rs. 1.31 lakhs, of which a sum of Rs. 91,588 was in the form of loan and the balance in the form of grant. Similarly, there are also four co-operative units engaged in hand-pounding of paddy, two units each in the manufacture of *gur* and *khandasari* and *neera* and palm-*gur*, one hand-made paper unit and one fibre unit, all of which have also been given financial assistance by the Khadi and Village Industries Board, to the extent of Rs. 1.24 lakhs, in the form of both loans and grants.

Rural Industrialisation Scheme

The Rural Industrialisation Scheme, as sponsored by the late Dr. M. Visvesvaraya, was introduced in Tumkur district in 1954-55. It was the declared objective of the scheme to make the rural people to take the initiative of establishing and developing small industries and, as far as possible, depend upon themselves without looking for external aid. For this purpose, the district was divided into group-circles, taking density of population as the main consideration. The people constituting each group area were more or less responsible for their own earning and welfare. Every one in the unit area had his share of work under the scheme. The most important thing in the scheme was the selection of a particular industry or industries, which would be best suited to the area and which would give a fair return. After obtaining requisite funds, equipment, tools and raw materials, the scheme was put into operation.

At the commencement of the Second Five-Year Plan, i.e., in 1956, the scheme in the district comprised 51 Hobli Rural Industrial Co-operative Societies, and the work was handled by Village Development Committees. The total loans issued to the members of these societies for various rural industries amounted to Rs. 4,59,120. The industries for which loans were advanced were carpentry, smithy, pottery, brick-making, sheep-rearing, poultry-farming, pig rearing, cotton weaving, mat weaving, oil *ganas* and leather industry. In addition to the above, eight craft societies were organised during the early part of the Second Five-Year Plan. The amount of loans and grants given by the Government to these societies amounted to Rs. 5,30,193 and Rs. 19,480 respectively. Besides, there were also 17 cotton, 15 woollen, and 7 silk weavers' co-operative societies functioning in the district at that time.

As it was decided to amalgamate all the Hobli Rural Industrial Co-operative Societies into Taluk Rural Industrial Co-operative Societies at the taluk level, 10 Taluk Rural Industrial Co-operative Societies were formed with effect from the 1st April 1958. The Taluk Rural Industrial Co-operative Societies had a membership of about 25,900 and a paid-up share capital of Rs. 3,64,204. These societies still continue to function and provide credit facilities for development of rural industries. But the Rural Industrialisation Scheme, as such, was merged with the activities of the Industries and Commerce Department with effect from 1st January 1960.

Upto 1960, there was no single unit office at the district-level representing the Industries and Commerce Department as a whole. There was a Superintendent for implementing the rural industrial schemes of the district and another Superintendent for implementing the textile schemes. In January 1960, after the re-organisation of the Industries and Commerce Department, a combined district agency, headed by an Assistant Director of Industries and Commerce, was set up in the district.

In the sphere of village and small-scale industries, about 25 schemes, costing nearly 14.42 lakhs of rupees, were undertaken in the district during the Third Plan period. These schemes included granting of rebate on sales of handloom cloth, setting up of dye-houses, supply of improved appliances, construction of common worksheds, training of weavers and other artisans, share-capital contribution to weavers' societies, development of handicrafts through establishment of craft co-operative societies, granting of financial assistance to coir co-operative societies, etc. Efforts were made to introduce scientific and systematic methods of working the indigenous village industries. Besides extending financial facilities to several rural industries, technical assistance

was also rendered, wherever necessary, and efforts were also made to find spare-time occupations for the agriculturists who have no full-time work throughout the year.

Rural Industries Project

With a view to developing village and small-scale industries in semi-urban and rural areas, mainly based on local resources and skill, so as to provide increased employment opportunities and income and bring about a more balanced and diversified rural economy, the Central Planning Commission recommended the establishment of Rural Industries Projects in all the States. On the basis of these recommendations, the Government of Mysore established two such projects in the State in 1962-63 for the intensive development of rural industries in Tumkur—Gubbi and Dharwar—Hubli areas. The Rural Industries Projects are entirely financed by the Government of India. In addition, there are other sources of finance available for these projects, viz., funds from the State Plan and All-India Boards, loans and credits from financial and co-operative institutions and under the State Aid to Industries Act. The main functions of the Rural Industries Projects are: (1) disseminating industrial information useful for starting industries, (2) introduction of improved types of tools and equipment in traditional industries, (3) imparting training to artisans through recognised institutions in modern methods of production and technology, (4) starting of common facility centres for artisans and (5) extending financial assistance to industrialists for starting new industries or expanding the existing ones.

The Tumkur—Gubbi Project area consists of five blocks comprising 743 villages. It covers the entire revenue taluks of Tumkur and Gubbi, with an area of 869 square miles and a population of about 3.65 lakhs. The project authorities have conducted a survey of the existing village and small-scale industries in the project area, as also of the possibilities of starting new industries based on demand, availability of raw materials, etc. The survey has revealed the possibilities of setting up several agro-based and other industries in these two taluks.

The Small Industries Service Institute, Bangalore, in co-operation with the State Department of Industries and Commerce, the National Small Industries Corporation and other organisations, conducted a 'Group Industrial Extension Service' in the project area in 1965. A group of technical officers of these organisations visited all centres of industrial importance in the project area, contacted the local entrepreneurs and advised them about the possibilities of starting suitable small industries and also apprised them of the various types of incentives and assistance that are being given by the Government and other institutions. Demonstrations on the new techniques and use of modern

machinery and implements were conducted, and on-the-spot technical assistance was rendered wherever necessary. As a result of these activities, the following industries have been started in the project area: (1) manufacture of agricultural implements, (2) wood industries, (3) general engineering, (4) foundries, (5) confectionery, (6) manufacture of cosmetics, (7) dairy and (8) poultry farming.

Establishment of ten common facility centres for artisans engaged in blacksmithy, carpentry, brass and copperware manufacture, wool-weaving, pottery and coir manufacture, repairing and servicing of oil engines, electric motors and pumpsets has been taken up under the project in places where there is some concentration of these industries. The centres are being established either through the respective industrial craft co-operative societies or through the respective Taluk Development Boards of the two taluks. Besides, three schemes, one for dairy farming, another for poultry farming and the third for starting of a training-cum-production centre for manufacture of ready-made garments, have also been taken up through the respective co-operatives. Some of these schemes have already been implemented and others are in various stages of progress. Upto the middle of 1967-68, a sum of Rs. 5.52 lakhs for establishing common facility centres and another sum of Rs. 1.82 lakhs for the other schemes had been sanctioned. Of these, a sum of Rs. 1.97 lakhs and Rs. 0.66 lakh had been spent for the two categories of schemes during the same period.

In addition, a sum of Rs. 1,22,750 has been sanctioned under the project for supply of tools and equipment to artisans in the project area, through the District Industrial Co-operative Bank, Tumkur. Upto the middle of 1967-68, the Bank had purchased tools and equipment worth Rs. 1,02,179 and the same were being supplied to about 250 artisans, such as, carpenters, washermen, barbers, cobblers and blacksmiths in the project area. During the period from 1963-64 to 1966-67, an amount of Rs. 7.825 lakhs was also sanctioned under the project for advancing loans to 150 individuals and 13 industrial craft co-operative societies in the two taluks. Of this sum, upto the middle of 1967-68, a sum of Rs. 5.475 lakhs had been disbursed among several individuals and societies through the District Industrial Co-operative Bank.

An Information Centre has been attached to the Rural Industries Project office at Tumkur for the benefit of the entrepreneurs and others interested in starting industries. The centre has been provided with demonstration equipment, a library and a reading room.

Home
Industrial
activities

The Department of Industries and Commerce is also giving grants-in-aid to various institutions in the district for undertaking rural arts and crafts activities, such as, tailoring, embroidery, knitting, rattan work, mat-weaving, cloth-weaving, etc. Besides, equipment like sewing machines, weaving looms are also supplied to some of the institutions. Technical assistance, if required by the institutions, is also provided. There are about 20 *Mahila Samajas* in the district. Of these, the following 12 *Mahila Samajas* received grants-in-aid for the purpose from the Department of Industries and Commerce in 1967-68, as shown below :—

Sl. No.	Name of Mahila Samaja	Maintenance grant given during 1967-68 (in Rs.)
1	2	3
1.	Akkamahadevi Samaja, Tumkur	1,000
2.	Mahila Samaja, Tumkur	2,218*
3.	Bharati Stree Samaja, Tumkur	922
4.	Kasturba Mahila Samaja, Hirehalli	1,000
5.	Indira Mahila Samaja, Kyatsandra	1,000
6.	Sharada Mahila Samaja, Turuvekere	1,000
7.	Mahila Samaja, Mayasandra	1,000
8.	Mahila Samaja, Madhugiri	1,000
9.	Mahila Samaja, Holavanahalli	1,000
10.	Sarvodaya Mahila Samaja, Kadaba	1,000
11.	Mahila Samaja, Koratageri	1,000
12.	Akkana-Balaga Mahila Samaja, Tumkur	1,000

* Includes a building grant of Rs. 1,218.

The community development blocks in the district also provide financial assistance for the development of rural arts and crafts. In the annual budget of every block, a certain amount is set apart for this purpose. The subjoined statement indicates the financial assistance given by each development block in the district, under its rural arts and crafts programme, during the year 1966-67 :—

Sl. No.	Name of Block	Financial assistance given
1	2	3
		Rs.
1.	Tumkur	1,800
2.	Kora	1,500
3.	Koratageri	4,000
4.	Madhugiri	6,000
5.	Kodigenahalli	8,000
6.	Kunigal	3,000

1	2	3
7.	Tiptur-I	6,500
8.	Tiptur-II	7,000
9.	Pavagada	4,000
10.	Chiknayakanahalli	2,500
11.	Turuvekere	1,000
12.	Sira	1,500
13.	Patnayakanahalli	8,500
14.	Gubbi	500
Total		55,800

Even as a princely State, Mysore was noted as a pioneer in the field of industrial development. The Government of Mysore, in their declaration of industrial policy, made it clear that all possible assistance would be given to help the growth of industries in the State, both in the public and private sectors. The Mysore State Aid to Industries Act, which was adopted in 1951, had been very helpful to the industrial entrepreneurs in the State. Under the provisions of this statute, a number of small, medium and big industries in the State had been given financial assistance by the State Government. Till the enactment of the new State Aid to Industries Act, 1959, loans aggregating to Rs. 1.59 lakhs had been sanctioned (under the old Act) to nine small-scale industrial units in the district. The State Aid to Industries Act, 1959, has laid down the mode and method of extending financial help for the establishment and development of industries. Under the Act, provision has been made to extend financial assistance in the form of loan or bank guarantee to such of the industries as are not covered by the Mysore Financial Corporation Act and also when the loan required does not exceed one lakh rupees. The Director of Industries and Commerce in Mysore, Bangalore, is the statutory authority for sanctioning advances to industries under this Act. In Tumkur district, the following four small-scale industries have so far (1967-68) been given financial assistance under the new Act :—

Type of Industry	No. of units	Amount of assistance
		Rs.
Tile factories	two	18,149
Wood-based industry	one	9,800
Bone-meal industry	one	9,000
Total	..	36,949

Besides, 13 more applications for financial assistance, involving a sum of Rs. 81,050, had been processed and recommended to the authorities concerned for sanction.

The Mysore State Financial Corporation, which was established by the Government of Mysore in March 1959, in furtherance of their policy of industrial development, also grants loans from Rs. 10,000 to Rs. 10 lakhs to industrial units of all categories. Since 1960, and upto the end of 1967-68, the Corporation had sanctioned loans to the extent of Rs. 11.80 lakhs to 24 industrial units in Tumkur district as noted below :—

Sl. No.	Type of Industry	No. of units	Amount of loan sanctioned	Amount disbursed
1	2	3	4	5
			Rs.	Rs.
1.	Food manufacturing industries ..	1	1,00,000	1,00,000
2.	Rice Mills ..	3	2,47,000	97,000
3.	Fertiliser industries ..	1	75,000	50,000
4.	Tile industries ..	4	3,05,000	2,05,000
5.	Iron and steel casting and forging industries.	2	75,000	75,000
6.	Brooms and brushes manufacture ..	1	10,000	10,000
7.	Transport services ..	12	3,68,000	3,33,000
	Total ..	24	11,80,000	8,70,000

Besides, the Tumkur District Industrial Co-operative Bank Ltd., which was established in 1963 with a view to providing credit and other banking facilities to rural artisans, industrial co-operatives and other small industrialists in the district, has also advanced loans to the extent of Rs. 21,11,799 to as many as 1,150 individuals and institutions. The following statement indicates the types and amounts of loans advanced by the Bank since its inception upto the end of December 1967 :—

Sl. No.	Type of loan	No. of cases	Amount of loan
1	2	3	4
			Rs.
1.	Short-term loans ..	93	2,82,100
2.	Pledge loans ..	60	4,15,719
3.	Project area loans ..	128	5,66,850
4.	Displaced goldsmiths' loans ..	776	2,83,050

1	2	3	4
5.	Supply of tools and equipments ..	65	10,298
6.	Dairy and poultry development loans ..	2	1,57,127
7.	Loans to Goldsmiths' Co-operative Societies ..	5	1,90,000
8.	Hire-purchase loans ..	2	75,484
9.	Medium-term loans ..	8	63,996
10.	Small-scale industries loans ..	8	42,750
11.	Loans to Power-loom Weavers' Co-operative Society ..	1	12,625
12.	Loans to Silk Handloom Weavers' Co-operative Societies.	2	12,000
	Total ..	1,150	21,11,799*

The State Bank of Mysore, which has its branches in almost all the taluk headquarters of the district, as also some of the branches of the commercial banks working in the district, have been extending credit facilities to different industrial undertakings in the district. As on 31st March 1968, the State Bank of Mysore had granted loans to the extent of Rs. 5,40,500 to 16 small-scale industrial units in the district, under its liberalised scheme of assistance to industries. The following statement indicates the types of industries to which loans were advanced, the number of units and the amount of loans advanced to each type of industry :—

Sl. No.	Type of Industry	No. of units	Amount of loan
1	2	3	4
			Rs.
1.	Light Engineering Units ..	5	2,75,000
2.	Saw Mills ..	4	95,000
3.	Printing Presses ..	2	3,000
4.	Bricks and Tiles Unit ..	1	1,35,000
5.	Utensil-making Unit ..	1	25,000
6.	Radio Unit ..	1	5,000
7.	Bakery ..	1	6,500
8.	Others ..	1	6,000
	Total ..	16	5,40,500

* This figure includes also amounts of financial assistance sanctioned by the Government to the industrial and craft co-operative societies, which are channelised through the District Industrial Co-operative Bank.

Further, the Mysore State Khadi and Village Industries Board, an agency of the Khadi and Village Industries Commission, also provides grants and loans to khadi and village industries in the district. The financial assistance of the Board is given only to industrial and craft co-operatives of artisans and craftsmen and such other registered institutions. Including the grants and loans given to the several industrial and craft co-operative societies already referred to, the Board had, upto the end of September 1967, granted a total financial assistance of Rs. 9,23,094 to 43 co-operative societies and one registered institution in the district. Given below is a taluk-wise break-up of the financial assistance given by the Board in the district :—

Sl. No.	Name of taluk	No. of societies	Financial assistance given		
			Loan	Grant	Total
1	2	3	4	5	6
			Rs.	Rs.	Rs.
1.	Tumkur	8	2,80,054	1,20,900	4,15,954
2.	Sira	6	1,32,440	33,888	1,66,328
3.	Chiknayakanahalli	3	81,755	3,780	85,535
4.	Gubbi	5	40,300	10,680	50,980
5.	Turuvekere	6	35,710	20,625	56,335
6.	Kunigal	2	41,513	4,920	46,433
7.	Madhugiri	5	28,880	9,250	38,130
8.	Koratagore	3	12,200	6,670	18,870
9.	Pavagada	4	10,275	8,346	18,621
10.	Tiptur	2	9,695	1,120	10,815
Total		44	6,84,906	2,38,188	9,23,094

Machinery on hire-purchase

The State Department of Industries and Commerce also helps small-scale industrial units to obtain modern machineries on hire-purchase basis from the National Small Industries Corporation, New Delhi. Under this scheme, financial assistance is rendered to small industrial units for purchase of machines, of the value exceeding Rs. 500, and repay the amount in easy instalments, normally spread over seven years. Upto the end of 1967, 35 industrial units in the district had been supplied with different types of modern machineries under the scheme. More than half the number of units thus benefited, i.e., 19, were in Tumkur taluk. Besides, under the hire-purchase scheme sponsored by the Mysore Small Industries Corporation, Bangalore, for supply of plants and machinery to industries based on coir and its by-products, seven applications had been entertained, of which three units had already obtained the required machinery.

Apart from these Government and other agencies, which provide financial and other assistance to small-scale and village industries, other agencies like the Small-scale Industries Board, the Handloom Board, the Handicrafts Board, the Coir Board and the Silk Board also extend assistance to industries in their respective fields. Besides, the Small Industries Service Institute, Bangalore, which is one of such institutes set up by the Government of India to promote the development of small-scale industries in the country, also provides technical guidance and other forms of assistance to industrialists in the district.

The small-scale industries in the district are mostly concentrated in urban areas like Tumkur, Tiptur, Sira, Gubbi and Madhugiri towns. With a view to providing suitable factory accommodation and modern facilities to the small-scale industrialists, the State Government decided to establish two Industrial Estates in the district, one at Tumkur and the other at Sira. The Mysore Small Industries Corporation was entrusted with the construction, maintenance and management of the Industrial Estates. Facilities like industrial workshops and office accommodation with power, water and sanitary facilities, canteens, technical libraries, show-rooms and godowns are being provided in these estates. Of the two Industrial Estates sanctioned for the district, the one at Tumkur, with six workshops, has been completed, while the other one at Sira, which is to have four workshops, was under construction during 1967-68.

The Siddhaganga Institute of Technology, Tumkur, which was established in 1963, offers higher education facilities to students in engineering subjects, while the Government Polytechnic Institute at Tumkur conducts three-year diploma courses. (See Chapter XV for particulars).

The State Industries and Commerce Department is running an Artisan Training Institute at Madhugiri with a branch at Tumkur. The main Institute at Madhugiri, which was established in 1960, imparts training in carpentry, smithy, coir, cotton-weaving and leather-stitching. It has an intake capacity for about 100 candidates and the duration of training is one and a half years. During 1966-67, about 75 candidates were undergoing training in the Institute in the various trades. In the Branch Institute at Tumkur, which is exclusively meant for ladies, training is imparted in tailoring, hosiery and doll-making, mat-weaving and making of glass beads. During 1966-67, one hundred candidates were undergoing training in these trades in the Institute. During the period of training, the local trainees are paid a monthly stipend of Rs. 20 each, while those coming from mofussil areas are paid Rs. 30 each per month.

**Agricultural
Machinery
Training Centre**

There is also an Agricultural Machinery Training Centre at Tumkur, run by the Industries and Commerce Department, where training is imparted in trades like smithy, welding and carpentry to interested candidates. This Institute was established in 1961 and the first batch of eight candidates completed their training during 1962-63. During 1966-67, ten candidates were undergoing training in the Institute. The candidates are also trained in servicing and repairing of agricultural implements, the duration of training being one year. A stipend of Rs. 30 per month is paid to each trainee during the period of training.

**School of
Industries**

There is also a School of Industries at Tumkur run by the Church of South India (Methodist Mission). This institution, which was started as a workshop as early as in 1879, has been imparting training to orphan and poor boys in crafts like carpentry, weaving, smithy, rope-making, etc. A revised three-year course in carpentry training was introduced in the School in 1966. The course includes practical carpentry, rattan work, technical and free hand drawing and designing. Annually 15 boys between the ages of 14 and 17 are admitted to this course.

Apart from these institutions, which impart training to candidates in various trades, there are also some other institutions in the district, which provide similar training facilities in the industrial field, such as the Training Centre at Gubbi, started by the local Taluk Development Board, which provides training in repairing and servicing of oil engines, electric motors and pump-sets, the Training-cum-Production Centre for coir industry run by the Coir Handicrafts Co-operative Society Ltd., Tyagatur, at Gubbi and the Training-cum-Production Centre for ready-made garments started by the Tumkur District Mahila Industrial Co-operative Society at Tumkur.

**Industrial
Associations**

There is one District Small-scale Industries Association at Tumkur. It considers the requirements of the industrial units and disseminates information received from the Assistant Director of Industries and Commerce of the district and other sources pertaining to industrial and related matters. In 1965, there were 43 members in the Association, representing various types of artisan trades. Besides, there is also a District Mill Owners' Association in the district. In 1965, it had about 20 members and was limited to rice and oil-mill owners only.

**Industrial
potentialities**

As already stated, a cement factory is the only large-scale industrial unit functioning in the district. There are a number of cottage industries in some of the taluks of the district, which call for a new approach towards improving the technique employed in them and their size. Besides, there is need for establishing

more industries based on the available resources, as also on the demand for manufactured products in the district. The Small Industries Service Institute, Bangalore, which conducted a survey in this regard in 1962 at the instance of the State Government, has pointed out the possibilities of starting some new industries, both resource-based and demand-oriented, in the district.

Based on the number of livestock in the district, it is estimated that about 1,500 tons of bones are available in the district every year. As they are not being utilised in the district, they are generally collected by private traders and sent out to other places. Since the demand for fertilisers is increasing every year, there is good scope for setting up a few bonemeal factories in the district to utilise this raw material and also to meet the local demand for bonemeal. Again, there are large extents of land under ragi cultivation in the district, and the total production of ragi in the district is estimated to be more than 2 lakh tons. In view of the good demand prospects for ragi malt and the availability of sufficient raw materials, there is scope for taking up the manufacture of this product.

As already stated earlier, about five crore tons of limestone deposits are said to occur in Tumkur and Chitradurga districts. Limestone can be used for the manufacture of hydrated lime and calcium carbonate. Since constructional activities are on the increase and the demand for quick-lime is growing, there is scope for setting up an industry in the district for manufacture of hydrated lime. Similarly, the consumption of calcium carbonate is also expected to increase at the rate of about 25 per cent per annum. At present, the requirements of calcium carbonate in the country are mostly met by imports from foreign countries. Since Tumkur district has huge deposits of limestone, a small-scale industry for the manufacture of calcium carbonate can also be established in the district.

Tumkur district has large extents of land under coconut cultivation and substantial quantity of coir is available, which is mostly being used for manufacture of ropes and as fuel. Brushes, mattresses, foot-rugs and floor-mats can be manufactured out of this coir, since there is good demand for these products in cities like Bangalore. Besides, large quantities of dried copra are also available in the district, which are now partly made use of for manufacture of coconut oil and partly sold for edible purposes. As dessicated copra is in demand for manufacture of confectionery and toffees, a few small-scale industrial units for the manufacture of the same can be established in the district. Since Tumkur is just about 40 miles from Bangalore city, one of the important marketing centres in the country, there is also scope for setting up some demand-based industries for making of radio components,

rubber contraceptives, fountain-pens and the like. Among the other industries for the setting up of which there is scope in the district, may be mentioned manufacture of tooth powder using paddy husk, refined and hydrogenated oils out of groundnut, scented hair-oils out of cocoanut oil, activated carbon from cocoanut shells, druggets out of wool, abrasives from corundum, sheet glass out of silver sand, bran oil from paddy husk and ferro-manganese out of manganese.

The district has enough mineral and other resources which can be exploited for further industrial development. The district has also other advantages, such as, being on the main railway line (Bangalore—Poona line) and trunk road connecting it to other parts of the State. Facilities such as transport, water and power are also available. The Government, through the Department of Industries and Commerce, is also providing adequate incentives to entrepreneurs, who come forward to establish industries in the district, where there is a good economic climate for the establishment of small industries.

Welfare of Industrial labour

Welfare of industrial labour is an important factor for development of industries in any district. All the Central and State Labour Laws are applicable to Tumkur district. The provisions of the Mysore Minimum Wages Act, Mysore Shops and Establishments Act and the Mysore Beedi Industrial Premises (Regulation of Conditions of Work) Act, 1964, are also made applicable to Tumkur, Gubbi, Tiptur, Pavagada, Sira and Madhugiri towns. In Tumkur district, the only industry, which has a large labour force, viz., 700, is the cement factory at Ammasandra. The cement company has provided several welfare amenities to its workers, such as free medical aid, education facilities to the children of workers, recreation and other facilities as required under the labour laws in force. Residential accommodation is also being provided to the workers in a phased manner. The other industries in the district are rice and oil mills, soap works, beedi factories, agricultural implements factories and the like, which are only small-scale industries, employing only a few workers. The women employed in the factories are given maternity benefits as provided under the law. (See also Chapter XVII).

Production of minerals and their value in Tumkur district

Minerals	1961		1962		1963		1964		1965		1966	
	Production (Tonnes)	Value (Rs.)	Production (Tonnes)	Value (Rs.)	Production (Tonnes)	Value (Rs.)	Production (Tonnes)	Value (Rs.)	Production (Tonnes)	Value (Rs.)	Production (Tonnes)	Value (Rs.)
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Iron ore ..	1,00,656	7,24,154	2,09,370	13,59,481	2,13,907	12,71,857	81,758	4,37,786	1,13,597	11,02,049	1,39,820	6,96,100
2. Manganese ore	13,691	5,44,450	8,516	2,07,090	3,582	84,740	5,015	1,60,305	10,463	5,86,190	3,722	37,220
3. Dolomite ..	4,572	31,500	152	3,344	3,192	12,568	1,388	9,581	6,445	54,583	6,445	96,675
4. Limestone ..	77,013	5,44,474	1,14,830	7,98,667	1,28,831	9,01,817	1,09,249	4,54,308	1,36,269	2,53,269	9,193	45,965
5. Kaolin ..	3,049	9,000	N.A.	N.A.	3,192	12,568	3,365	15,142	2,827	N.A.	2,74,578	13,72,890
6. Red-oxide ..	..	..	..	..	..	..	3,197	14,387	1,500	6,750	3,231	16,155
7. Fire clay ..	..	..	..	..	..	..	..	..	4,545	13,635	..	..
8. Soapstone ..	122	36,000	225	2,28,110	..	..	..	..	30	9,600	..	..

N.A.—Not Available

CHAPTER VI

BANKING, TRADE AND COMMERCE

PART A—BANKING AND FINANCE

Indigenous
Banking

TUMKUR district is not different from other districts of the State in regard to the history of indigenous banking. Though precise information is not available, it can be said that a system of borrowing for the furtherance of trade and other business was prevalent in the area. The proverbial middleman, who played a prominent role in the rural economic scene, took away a large portion of the profits of agriculturists by interposing himself in the rural transactions. Indigenous money-lenders and bankers existed in almost all places and advanced money to those who wanted it urgently for the pursuit of agricultural and business operations. The money-lenders not only supplied cash but also dealt in grains. They went about purchasing grains during harvest time, and having stored them, waited for the prices to rise. By this process, they acquired wealth and firmly established themselves as indigenous bankers. While the small money-lender gave money on trust and faith, the indigenous banker advanced it on production of sureties and securities.

In Tumkur district, indigenous banking was largely in the hands of some families of Vaishyas and Jains and, later on, the Marwaris and Multanis came on the scene. These indigenous bankers and money-lenders were found in all urban areas and they used to move about or send their agents to find the need for credit in the agricultural areas. It is worthwhile to describe here how these indigenous money-lenders and bankers advanced credit. One of their usual methods was to lend money on a written demand or promissory note, which, in the case of larger loans, had to be attested by sureties. Other methods in vogue were the receipt method, the bond method, mortgage of lands and immovable properties and finally discount of hundies. This system of money lending continued till 1904, when the co-operative movement was introduced in order to minimise the evils inherent in the old system of borrowing money.

In Tumkur district, as in other parts of Mysore State, generally, agriculture was in the hands of poor people who had to rely on capitalists for any assistance to improve it. From the old days, the village banker had the monopoly of supplying money to the cultivator; money was lent at exorbitant rates of interest, which, many a time, the borrower was unable to repay. Consequently, in some cases, the entire cultivable land itself passed, either by sale or by mortgage, into the hands of money-lenders. The Government had to take some definite steps to arrest the spread of the evil and the first step was the formation, in 1894, of agricultural banks to advance money on the security of land. A further measure was the grant of loans to cultivators under the Land Improvement Loans Regulation IV of 1890, for repair of wells or tanks, reclamation of waste-land and the like. Under the Land Revenue Code, loans were granted for the purchase of agricultural requisites.

The starting of agricultural banks was the beginning of modern banking in the district. However, the Town Co-operative Bank at Sira, which was established in 1906, was the earliest banking institution as such in the district. The establishment of a Co-operative Bank at Chiknayakanahalli in 1909 was another milestone in the history of banking in the district.

In spite of the starting of these banks and the facilities afforded to give credit on various lines, the role of private money-lenders did not vanish; the private money-lenders continued to flourish, and one of the main reasons for this was the procedural formalities involved in the advance of money by the banks; cultivators found it easier to go to the indigenous money lenders and obtain their requirements of credit. It was only in 1913-14 that branches of the Mysore Bank (now the State Bank of Mysore) started functioning at Tiptur and Tumkur. These years are important, because they mark the beginning of modern banking in the district. After some years, other banking establishments started their business in various parts of the district.

A survey was conducted in 1941 by the Census Department as **Indebtedness** to the extent of indebtedness in 36 villages scattered over all the ten taluks of the district. This survey, which was based on random sampling, disclosed that indebtedness was widespread in the district as could be seen from the following statement :—

Sl. No.	Taluk	Name of the village selected for the survey	Total No. of families in the village	No. of families in debt	Total debt in rupees
1.	Tumkur	1. Kempana-Dodderi	89	71	7,395
		2. Holakal	109	65	5,466
		3. Chikkabellavi	38	19	4,723
2.	Madhugiri	1. Nagenahalli	46	32	10,625
		2. Kodigenahalli	502	209	50,589
		3. Byalya	322	177	56,465
3.	Koratagere	1. Hulikunte	204	96	18,549
		2. Thovinakere	251	155	32,059
		3. Surenahalli	108	40	4,410
		4. Mavathur	64	9	..
4.	Sira	1. Lakshmisagara	112	69	20,245
		2. Hosahalli	49	37	4,776
		3. Changavara	292	213	60,982
		4. Chirthahalli	234	205	43,682
5.	Pavagada	1. Mangalawada	256	169	42,004
		2. Siddapura	68	53	9,239
		3. Thimmammanahalli	168	112	13,480
6.	Chiknayakanahalli.	1. Gopalahalli	47	35	11,610
		2. Thimmanahalli	380	249	63,955
		3. Kenkere	322	162	60,640
7.	Gubbi	1. Thimmalapura	25	3	275
		2. Muganaikanakote	277	130	25,330
		3. Dasarakallahalli	64	35	3,340
8.	Tiptur	1. Echanur	220	123	24,593
		2. Kibbanahalli	163	62	14,426
		3. Nonavinakere	372	146	57,816
		4. Ramanahalli	46	36	13,161
9.	Turuvekere	1. Banasandra	193	122	41,015
		2. Mayasandra	251	101	25,305
		3. Mavinakere	147	101	12,884
		4. Vittaladevanahalli	48	41	8,902
		5. Dandinashivara	228	168	28,295
10.	Kunigal	1. Santhemavathur	127	10	4,870
		2. Yeliyur	227	180	41,557
		3. Hale-Ooru	167	104	13,275
		4. Amruthur	409	275	1,48,973

(Source: Economic Survey of selected villages—Tumkur district—Mysore Census 1941)

It is seen from the above statement that roughly two-thirds of the total number of families in the district were in debt. The reasons for this were many and varied. In a majority of cases, indebtedness was handed down from father to the son. The causes which made the families to run into debt were—heavy expenditure on marriages, festivals and other domestic ceremonies, in addition to the expenditure that was necessary for the improvement of

their lands. Another reason was the easy availability of credit. Once the peasant borrowed money, he was seldom in a position to repay it easily. The interest went on mounting and, together with the unpaid principal, it grew into a huge amount which could never really be liquidated. And then this burden was handed down as a legacy from generation to generation.

Again, as a part of the 1961 census operations, a socio-economic survey was conducted in respect of Kodigenahalli, a typical and representative village in Madhugiri taluk, which gives a clear picture of the present extent of indebtedness in the area comprising Tumkur district. The following table indicates the extent of indebtedness of the various income-groups in the village at the time of the survey :—

Kodigenahalli village survey

Income group	Total No. of house-holds	No. of house-holds indebted	Amount of debt	Percentage of indebted house-holds to total No. of house-holds.	Average debt of an indebted house-hold
			Rs.		Rs. - P.
Rs. 25 and below	103	42	2,450	40.770	210.19
Rs. 26 to Rs. 50	252	172	70,522	64.285	410.01
Rs. 51 to Rs. 75	135	103	60,585	76.296	588.20
Rs. 76 to Rs. 100	61	44	45,555	72.131	1,035.34
Rs. 100 and above	137	93	1,58,155	67.883	1,700.59
Total	688	454	3,43,267	..	..

Thus, 454 households out of 688, or nearly 66 per cent of the households in the village, were indebted, their total debts amounting to Rs. 3,43,267. This worked out to a debt of Rs. 756 per indebted household, the *per capita* debt, taking the entire village into consideration, being Rs. 91.6. The largest percentage of indebted households was to be found in the income group of Rs. 51 to Rs. 75. The overall totals of amounts borrowed and amounts outstanding with the relative sources of debts were as shown below :—

Source of debt	Amount borrowed during 1955-61 (in Rs.)	Amount outstanding in 1961 (in Rs.)
Money-lenders	2,87,157	2,70,627
Land Development Banks	52,380	37,925
Government	5,655	5,630
Banks	2,250	2,250
Life Insurance Corporation	200	200
Others	26,835	26,635
Total	3,68,477	3,43,267

The above table reveals that the private money-lenders still continued to be one of the main sources of finance to the people in the rural areas, especially to the small cultivators. Next to the money-lenders, the Land Development Banks had advanced the highest amounts of loans, mostly on long-term basis, for purposes like land development, digging of irrigation wells and clearing of old debts, followed by co-operative and other public institutions.

An analysis of the causes of indebtedness revealed that of the total amounts borrowed, 22.34 per cent was for marriage purposes, 22.85 per cent for livelihood expenses, 8.93 per cent for purchase of clothes and a small percentage for sickness, funeral ceremonies and such other unproductive purposes. As against this, about 41 per cent of the debts were contracted for productive purposes like sinking of irrigation wells, purchase and development of land, cultivation, purchase of livestock and business purposes.

Control of money-lending

The need for a statutory control to check the evils of private money-lending and the usurious rates of interest levied became more and more urgent. The Government quickly responded to the representations made in the State Legislature in this regard and enacted a law in 1939 called the Mysore Money-Lenders Act, 1939. In accordance with the provisions of this Act, the Deputy Commissioner of Tumkur district was made the authority to license and thereby regulate money-lending. The Act also provided for the delegation of authority to the Tahsildars and Sub-Registrars. The law stipulated the maximum rates of interest at 9 per cent on transactions backed by securities and 12 per cent on unsecured transactions. Under the Act, no person could lend money for interest without obtaining a licence from the competent authority. The Act was amended twice by Acts 14 of 1955 and I of 1956 to suit the needs of the situation. The following statement indicates the number of licences issued in the various taluks of Tumkur district for five years from 1956 to 1960 :—

Sl. No.	Name of taluk	1956	1957	1958	1959	1960
1.	Sub-Registry Office, Tumkur ..	8	4	12	21	11
2.	Sub-Registry Office, Kunigal ..	2	2	..	..	..
3.	Sub-Registry Office, Gubbi ..	..	..	1	..	..
4.	Sub-Registry Office, Turuvekere ..	..	..	..	1	1
5.	Sub-Registry Office, Tiptur ..	2	..	5	30	28
6.	Sub-Registry Office, Chiknayakanahalli.	3	1	..	1	..
7.	Sub-Registry Office, Sira ..	..	2	1	2	2
8.	Sub-Registry Office, Madhugiri	5	..	5	2	..
9.	Sub-Registry Office, Koratagere	3	1	1	4	1
10.	Sub-Registry Office, Pavagada	..	..	..	8	..
Total ..		23	10	25	69	43

According to the census of 1961, there were only 21 money-lenders and pawn-brokers in the district. This meant a considerable decrease from the previous two years in the number of private money-lenders in the district. One of the reasons for the decrease is the spread of the co-operative activities in the rural areas and the availability of easy credit through the co-operative and other financing agencies. However, the number of licensed money-lenders and pawn-brokers in the district had increased to 30 by the end of 1967-68.

There was, however, a persistent demand by the public of the State to enact a new comprehensive and uniform measure for the control of money-lending in the new Mysore State so as to suit the present needs. In accordance with the popular wishes, the Mysore Money-Lenders Act, 1961 (Mysore Act 12 of 1962), and the Mysore Pawn-Brokers Act, 1961 (Mysore Act 13 of 1962), were enacted and they came into force throughout the State in 1965. The Registrar of Co-operative Societies in Mysore, Bangalore, was appointed as *ex-officio* Registrar-General of Money-Lending, having jurisdiction over the entire State of Mysore. The rules framed under the Act empowered the Deputy Registrars in the districts to regulate the money-lending transactions. It was stipulated that those who carry on business as money-lenders or pawn-brokers should obtain licences from the authorities concerned, maintain account books and submit returns as prescribed. By a notification issued in July 1965, the Government have fixed the maximum rate of interest on secured loans at 15 per cent and on unsecured loans at 18 per cent.

As a result of these remedial measures and provision of other facilities for supply of credit, the rural indebtedness, especially for unproductive purposes, among the cultivating classes has been gradually scaled down in the district in recent years. In addition to grant of special loans under grow-more-food schemes, the practice of subsidising some of the requirements of the agriculturists as an incentive to further effort has come to stay. The age-old *taccavi* loans, the land improvement loans and loans for the construction of irrigation wells have all become regular features. The cultivators have to state their necessities and apply for loans and advances through the revenue authorities. The district authorities sanction the loans out of allotted funds, after scrutinising the *bona fides* of the applicants.

The following table indicates the extent of financial help given to the cultivators of Tumkur district during the financial year 1966-67 :—

Financial aid to agriculture

Sl. No.	Type of loan	Allotment of funds	Amount of loan
1	2	3	4
		Rs.	Rs.
1.	Taccavi Loan ..	2,76,750	2,76,705
2.	Land Improvement Loan ..	2,15,000	2,13,015
3.	Loan for Irrigation Wells (Liberalised Scheme).	4,82,884	3,78,657
4.	Loan for Irrigation Wells from Block funds.	1,92,050	1,72,390
5.	Loan for deepening the existing Irrigation Wells.	1,25,000	1,20,750

In addition, the co-operative institutions like Agricultural Credit Societies and Land Development Banks also advance both short-term and long-term loans to cultivators for purchase of fertilisers and agricultural implements, for construction of irrigation wells, for land development works and for such other purposes. The particulars of loans advanced by these institutions are given elsewhere in this chapter.

Commercial Banks

Banking has been an important economic activity in the district for the last about five decades and has attracted a considerable amount of capital by way of deposits. With the gradual growth of industry, trade and commerce, more and more branches of various commercial banks came to be established in the district in all the important industrial and commercial centres. None of them, however, has its registered office in this district. Though the Town Co-operative Bank at Sira was the earliest banking institution to be established in the district, as early as 1906, the Tiptur branch of the State Bank of Mysore was the earliest among the commercial banks, having been established in 1913. Since then, the bank has established eight more branches in the district. The Pangal Nayak Bank Ltd., which has its registered office at Udipi in South Kanara district, has also opened four branches in the district, while the Syndicate Bank Ltd., which has its registered office at Manipal in South Kanara district, has opened two branches. The Canara Bank Ltd., and the Karnataka Bank Ltd., both of which have their registered offices at Mangalore, have also opened a branch each in the district. Thus, in all, there were 17 branches of commercial banking institu-

tions (other than co-operative banks) in the district in 1967 as shown below :—

Sl. No.	Location of the Bank	Name of the Bank
1.	Tumkur	(1) State Bank of Mysore (2) Syndicate Bank Ltd. (3) Canara Bank Ltd. (4) Pangal Nayak Bank Ltd. (5) Karnataka Bank Ltd.
2.	Tiptur	(6) State Bank of Mysore (7) Syndicate Bank Ltd.
3.	Kunigal	(8) State Bank of Mysore (9) Pangal Nayak Bank Ltd.
4.	Chiknayakanahalli ..	(10) State Bank of Mysore (11) Pangal Nayak Bank Ltd.
5.	Gubbi	(12) State Bank of Mysore
6.	Pavagada	(13) State Bank of Mysore
7.	Madhugiri	(14) State Bank of Mysore
8.	Sira	(15) State Bank of Mysore
9.	Turuvekere	(16) State Bank of Mysore
10.	Huliyar (Chiknayakanahalli taluk)	(17) Pangal Nayak Bank Ltd.

The State Bank of Mysore, which is a subsidiary of the State Bank of India and which has its registered office at Bangalore, has nine branches operating within the confines of Tumkur district as already stated. Upto 1960, there were only two branches of the Bank in the district and the commercial banking of the entire district had to be done only at these centres. This caused considerable difficulty to the merchants and agriculturists of the district who had to reach these centres from far-off places. To obviate this difficulty and to expand its activities, the Bank opened its third branch at Sira in 1960. Since then, the remaining six branches were opened within a short span of six or seven years. The merchants, industrialists, agriculturists and the general public of these and surrounding places are being greatly benefited by these institutions. The State Bank of Mysore, being an agency of the Reserve Bank of India, is also conducting the treasury business of the Government at these centres.

Apart from assisting the promotion of trade, industry and agriculture by extending timely financial help, the Bank is also striving to infuse a banking habit among the rural people and encourage the habit of thrift among them. Four kinds of deposits, namely, thrift deposits, savings bank deposits, fixed deposits and cumulative deposits are received by the Bank for the benefit of all classes of depositors.

The deposits received and advances made by all the nine branches of the State Bank of Mysore in the district were as shown below as on 30th June 1967 :—

Sl. No.	Name of Branch	Deposits Advances	
		(Rupees in lakhs)	
1.	Tumkur Branch	.. 41.07	15.80
2.	Tiptur Branch	.. 19.57	40.70
3.	Kunigal Branch	.. 12.97	1.12
4.	Madhugiri Branch	.. 10.78	0.52
5.	Gubbi Branch	.. 10.70	0.22
6.	Turuvekere Branch	.. 7.89	2.01
7.	Sira Branch	.. 5.83	1.28
8.	Pavagada Branch	.. 5.68	1.30
9.	Chiknayakanahalli Branch	.. 1.68	0.18
	Total	.. 116.17	63.19

The advances were made mostly to traders, industrialists and agriculturists, and they included loans, overdrafts and negotiable bills. Advances are also granted against gold ornaments, Life Insurance policies and warehouse receipts.

Pangal Nayak Bank

The Pangal Nayak Bank Ltd., which was established in 1920 and which had, in 1967, 24 branches in Mysore and Kerala States, opened its first branch in the district on 8th January 1959. The second branch at Tumkur was opened in November 1960, while the third branch at Chiknayakanahalli was started in October 1963. The fourth branch at Huliya in Chiknayakanahalli taluk was opened in December 1966.

The Bank undertakes all types of modern banking business and accepts deposits and accounts like fixed and time-deposits, savings bank deposits, current accounts, contingency accounts and the like. The branches of the Bank in the district have been playing a useful role in the economic development of their respective areas by advancing loans to trade, commerce and industry and

by promoting thrift. The total deposits and advances of the four branches of the Bank in the district at the beginning of 1967 were as follows :—

Sl. No.	Branch	Deposits	Advances
		Rs.	Rs.
1.	Kunigal	.. 2,63,750	3,53,774
2.	Tumkur	.. 5,10,340	4,95,234
3.	Chiknayakanahalli	.. 3,05,217	5,41,866
4.	Huliya (a newly started branch).	21,959	800
Total		.. 11,01,266	13,91,674

The Canara Bank Ltd., which had, at the end of 1966, 241 branches, opened its only branch in the district at Tumkur on 5th November 1957. The main object of starting the Bank was to inculcate in the people the habits of thrift and savings and to provide financial help for the growth of industry and commerce. In addition to the usual current, fixed, short-term and savings deposits schemes found in any normal-sized scheduled bank, this Bank has also introduced 3-year and 5-year cash certificates, annuity certificates and cumulative deposits schemes.

The branch at Tumkur is playing a useful role in the economic life of the district. It has mobilised substantial deposits in the area and has also assisted the development of trade and industry by advancing sizeable amounts of loans. Of the total advances made by the Bank, about 34 per cent were given to the industrial sector and 57 per cent to the commercial sector.

The Canara Industrial and Banking Syndicate, now called the Syndicate Bank Ltd., which was incorporated in 1925 mainly to finance cottage industries, took up, after three years, commercial banking and began to expand its activities by establishing branches. It had 217 branches in the country in 1967. The Tumkur branch of this Bank was opened on 9th September 1957 and the Tiptur branch on 27th March 1958. These branches have been rendering useful banking services to the public of these towns as well as to a large number of people of the surrounding areas.

The Bank has introduced savings schemes like cumulative deposits and pigmy deposits in addition to the other regular banking business. Recently, a new scheme called the 'Investors' Agency Scheme' has been started. It makes mainly short-term advances to the industrialists and businessmen

for their working capital requirements. The Bank undertakes every type of banking business including foreign exchange and executor and trustee services. The small savings schemes of the Bank have been popular and a large number of accounts have been opened by the middle and lower middle classes of people.

Karnataka Bank

The Karnataka Bank Ltd., which was established in 1924 and which had, in 1967, 53 branches all over the Mysore State, opened its first branch at Tumkur in April 1958. The total deposits and advances at this branch at the end of April 1958 stood at Rs. 15,25,884 and Rs. 8,66,855 respectively. It grants loans and advances on varied types of securities, i.e., gold loans, goods loans, mortgage loans, over-drafts, cash credits and the like and accepts deposits for current, fixed and savings bank and other accounts. The Bank assists the entrepreneurs in the commercial and industrial fields, as also the general public.

Co-operative Banks

Tumkur district is one of the foremost districts in Mysore State in the field of co-operation. The co-operative movement was started in the district as early as 1904 and the first co-operative institution to be established was the Town Co-operative Bank at Sira. Since then, the movement has gradually grown into a very wide organisation embracing almost all fields of economic activity in the district. Both in regard to the number of co-operative societies and their membership, the district is ahead of several other districts in the State. The movement has not only made much progress in respect of credit structure and provision of facilities, but has also made a headway in several other fields, such as, housing, industrial development, lift irrigation, farming, dairying, marketing, etc.

Apart from the commercial banks there are several co-operative banks in the district, extending credit facilities to agriculturists, merchants, artisans, and others for various purposes. As at the end of 1967, there were, in all, 15 co-operative banking institutions in the district as shown below :—

Sl. No.	Location of the Bank	Name of the Bank	Nature of office
1	2	3	4
1.	Tumkur	(i) Tumkur District Co-operative Central Bank Ltd.	Head Office
		(ii) Tumkur District Industrial Co-operative Bank Ltd.	Head Office
		(iii) Tumkur Grain Merchants' Co-operative Bank Ltd.	Head Office
2.	Sira	(i) Tumkur District Co-operative Central Bank Ltd.	Branch Office
		(ii) Town Co-operative Bank Ltd.	Head Office

1	2	3	4
3.	Chiknayakanahalli..	(i) Tumkur District Co-operative Central Bank Ltd.	Branch Office
		(ii) Co-operative Bank Ltd.	Head Office
4.	Turuvekere	(i) Tumkur District Co-operative Central Bank Ltd.	Branch Office
		(ii) Turuvekere Merchants' Co-operative Bank Ltd.	Head Office
5.	Gubbi	Tumkur District Co-operative Central Bank Ltd.	Branch Office
6.	Koratagere	do	do
7.	Kunigal	do	do
8.	Madhugiri	do	do
9.	Pavagada	do	do
10.	Tiptur	do	do

The District Co-operative Central Bank Ltd., which was established in February 1955, is the central financing agency of the district for all co-operative credit societies affiliated to it. It also serves as a balancing centre by accepting the surplus funds of one society and making them available to another which requires more capital. The funds of this Central Bank consist of share-capital, reserve and other funds, deposits and loans or overdrafts from banks. It is affiliated to the State Co-operative Apex Bank and is rendering good service in catering to the needs of agriculturists in the district through the credit co-operative societies. The jurisdiction of the Bank extends over the entire district with its headquarters at Tumkur and nine branches in the other nine taluks. The main object of this bank, which is the pivot of co-operative finance in the district, is to provide finance to all primaries affiliated to it so that they can meet the short-term and medium-term loan requirements of their members. Promotion of the economic welfare of the cultivating class, by providing them with necessary finance through the service co-operatives, is also one of its main objectives. The number of members of this Bank in 1967 was 760 consisting of 759 co-operative societies and the State Government. The total share-capital of the Bank at the end of 1966-67 was Rs. 92.16 lakhs, while the deposits amounted to Rs. 43.31 lakhs. The total amount of advances made by the Bank to its member societies during 1966-67 was of the order of Rs. 105.85 lakhs, consisting of short-term and produce loans

(Rs. 47.03 lakhs), cash credit loans (Rs. 30.05 lakhs), medium-term loans (Rs. 28.05 lakhs) and loans on deposits (Rs. 0.72 lakhs).

The Bank has been making steady progress as could be seen from the following table, which relates to the general working of the Bank during the last decade ended with the year 1966-67 :—

(Rs. in lakhs).

Year	Member-ship	Share amount	Reserve Fund	Total Deposits	Loans advanced
1957-58	308	5.03	0.08	5.84	31.47
1958-59	402	8.54	0.25	10.74	50.92
1959-60	583	16.49	0.41	13.28	70.01
1960-61	654	21.77	0.87	21.04	118.57
1961-62	652	30.29	1.38	23.30	109.70
1962-63	649	31.09	1.57	34.67	99.06
1963-64	664	31.47	2.47	29.54	90.29
1964-65	696	31.41	5.08	37.00	92.11
1965-66	737	31.62	5.12	31.03	106.06
1966-67	759	32.16	6.11	43.31	105.85

As on 30th June 1967, the Bank had invested a sum of Rs. 9.26 lakhs in the Mysore State Apex Bank, Gauribidanur and Hiriur Co-operative Sugar Factories, Government loans and securities and the like. The total borrowings of the Bank from the Mysore State Co-operative Apex Bank, in the form of short-term and cash credit loans, stood at Rs. 44.99 lakhs in 1966-67.

The District Co-operative Central Bank is the pivot of co-operative finance in the district. Its success depends much on the efficient working of the primary co-operative societies established in the rural areas. In order to maintain their efficiency, the Central Bank exercises supervision over the affiliated societies. The supervising staff of the Bank inspect the societies periodically, check up their accounts, arrange for the rectification of the deficiencies pointed out by the auditors, exercise vigilance over the utilisation of the borrowed funds and assist in the recovery of loans. A supervisor is appointed for every 10 to 14 primary societies with his headquarters in the rural area so as to enable him to be in close touch with the members.

The Town Co-operative Bank Ltd., is one of the oldest co-operative institutions in the State having been established in the year 1906, and it celebrated its diamond jubilee in January 1967. The total membership of the Bank at the end of 1960 was 640, and by 1967, the number had increased to 2,052. This Bank has an authorised share capital of Rs. 2,00,000, of which the paid-up share capital as on 30th June 1967, was Rs. 1,66,269. The

Town Co-operative Bank, Sirs

Bank has attracted deposits to the extent of Rs. 5,10,900 as follows :—

Current deposits	Rs. 95,100
Savings deposits	Rs. 2,09,800
Fixed deposits	Rs. 1,26,300
Day deposits	Rs. 66,900
Other kinds of deposits	Rs. 13,800

The total investments of the Bank, including shares in other banks and Government securities, came to Rs. 1,96,700, while its reserve fund was of the order of Rs. 1.03 lakhs. In addition, the Bank had advanced loans to the tune of Rs. 2,93,000 during 1966-67. The Bank has also a consumers' section dealing mainly in cloths and a shelter section which owns some lands and buildings in the town.

The Town Co-operative Bank Ltd., Chiknayakanahalli, was established in 1909 with the main object of developing the habit of thrift and savings among the members and to attract capital and grant credit to the members. This Bank, which was started with only 67 members, had, at the end of 1966-67, 3,150 members consisting of both 'A', 'B' and 'C' classes. The share capital and deposits, which were Rs. 1,528 and Rs. 55 at the commencement, had increased to Rs. 3,14,651 and Rs. 4,56,229 respectively in 1967. The total amount of loans granted to the members during 1966-67 was Rs. 11,73,646, for business, land improvement and such other purposes.

Town Co-operative Bank, Chiknayakanahalli

The District Industrial Co-operative Bank Ltd., Tumkur, was established in September 1963. The main objects of the Bank are to provide financial facilities to *bona fide* rural industrialists, artisans and others interested in the establishment of village, cottage and small-scale industries, to finance industrial co-operatives and other co-operative societies which have, among their members, artisans and industrial workers, and to promote thrift, self-help and co-operation among artisans and industrial workers in the district.

Industrial Co-operative Bank, Tumkur

The total membership of the Bank at the end of 1966-67, (i.e., 30th June 1967) was 1,070, consisting of the State Government, 78 industrial co-operative societies and 991 individuals (artisans and small industrialists). The authorised share capital of the Bank was Rs. 10 lakhs, of which the paid-up share capital, as at the end of 1966-67, was Rs. 2,68,320. The total borrowings amounted to Rs. 13.07 lakhs. The Bank had attracted deposits to the tune of Rs. 3,57,637, and had advanced loans to the extent of Rs. 6,93,245 mostly to handloom weavers' and goldsmiths' co-operative societies, dairy and poultry co-operative societies, for

construction of godowns, for purchase of machinery on hire-purchase basis and for such other purposes. The Bank has been linked up with a network of taluk rural industrial co-operative societies and other industrial and craft co-operative societies in the district.

**Grain
Merchants'
Co-operative
Bank, Tumkur**

The Grain Merchants' Co-operative Bank Ltd., Tumkur, was established in December 1963 and its area of operation is limited to the area of the Tumkur Town Municipality. The membership of the Bank is open to only the members of the Tumkur Grain Merchants' Association. The main objective of the Bank is to provide financial facilities to the grain merchants of the town by advancing them loans, discounting their bills of exchange, hundies, etc., and to transact such other business as are conducive to the interests of its members.

As on 30th June 1967, there were 359 members on the rolls of the Bank with a paid-up share capital of Rs. 2.39 lakhs as against the authorised capital of five lakhs of rupees. The total deposits held by the Bank as on that date was Rs. 9,74,884, while its total borrowings stood at Rs. 1.50 lakhs. The total loans advanced to the members, as on 30th June 1967, was Rs. 10,83,518, mainly in the form of surety and produce loans. The Bank had invested a sum of Rs. 1.15 lakhs in the District Co-operative Central Bank Ltd., Tumkur.

**Turuvekere
Merchants'
Co-operative
Bank**

With a view to providing for the financial needs of the merchants of Turuvekere, the Merchants' Co-operative Bank Ltd., Turuvekere, was established in September 1964. The authorised and subscribed share capital of the Bank, as in October 1967, was Rs. 2.50 lakhs. It held deposits of various kinds amounting to Rs. 46,674 and advanced loans to its members to the extent of Rs. 9,99,510. It had borrowed Rs. 4.74 lakhs from the District Co-operative Central Bank Ltd., Tumkur.

**Co-operative
Societies**

At the beginning of 1961-62, there were, in all, 1,094 co-operative societies of several types in the district, the coverage of co-operative credit being about 65 to 70 per cent. The total membership of all these co-operative institutions in the district then was 1,13,672, with a total share amount of Rs. 54.03 lakhs. By 1965, the total membership of co-operative societies in the district had increased to 1.74 lakhs, while the number of societies had come down to 967. The decrease in the number of institutions was mainly due to the amalgamation of some of the small-sized societies so as to form large-sized societies. By the middle of 1966, both the number of societies and their membership had increased to 1,029 and 1.93 lakhs, respectively. By 30th June 1967, the number of societies had increased still further to 1,037. The

subjoined table indicates the general working of the co-operative societies in the district during the years 1964-65 and 1965-66 :—

Sl. No.	Particulars	1964-65	1965-66
1.	Number of co-operative societies.	967	1,029
2.	Number of members ..	1.74 lakhs	1.93 lakhs
3.	Share capital (in lakhs of rupees).	102.93	110.53
4.	Reserve and other funds (in lakhs of rupees).	35.98	33.83
5.	Total deposits (in lakhs of rupees).	69.24	63.03
6.	Total borrowings (in lakhs of rupees).	330.86	408.79
7.	Working capital (in lakhs of rupees).	537.10	618.33
8.	Loans advanced (in lakhs of rupees).	223.93	158.65
9.	Loans recovered (in lakhs of rupees).	183.48	104.78
10.	Loans outstanding (in lakhs of rupees).	375.44	444.84

The Agricultural Credit Co-operative Societies constitute the bulk of the co-operative credit institutions in the district. Providing of short-term and medium-term loans to their members is their main function. Loans are advanced mostly on personal security of the borrower supplemented by the guarantee of two sureties, mainly for agricultural purposes and, to a limited extent, for domestic purposes. The loans are provided for meeting the expenses in respect of implements, seeds, manures, etc. Medium-term loans are granted for purchase of bullocks, carts, for land improvement works and for ceremonial expenses. There is a limit fixed to the normal amount of credit that may be granted to each member. Loans are generally given in cash, but, of late, where the purpose of loan permits and a suitable organisation exists, it is increasingly being advanced in kind.

**Agricultural
Credit Societies**

Although these societies are primarily the agencies for supplying credit, a few other points of contact with the economic life of the members have also been provided by the recent trends in the evolution of co-operative movement. There has been a steady and all-round progress in the working of these societies over the years, both quantitatively and qualitatively. Increase is noticed not only in the number of societies but also in their membership, share capital and working capital. During 1965, there were 535 Agricultural Credit Societies in the district with a membership of

82,000 and a share capital of Rs. 26.91 lakhs. By the middle of 1966, the number of societies had increased to 545 and their membership to 83,000. Their paid-up share capital and working capital had also gone up to Rs. 27.19 lakhs and 105.06 lakhs respectively. They had advanced loans to the extent of Rs. 12.02 lakhs and supplied agricultural requisites and consumer goods worth about Rs. 93 lakhs. There has been further progress in the working of these societies in 1967. As on 30th June 1967, the number of societies had risen to 548 and their share capital and working capital to Rs. 28.12 lakhs and 118.74 lakhs, respectively. They had supplied farming requisites, such as, seeds, fertilisers, insecticides, agricultural implements, etc., to their members to the extent of about Rs. 105.12 lakhs.

Land Development Banks

There are ten Primary Land Development Co-operative Banks in the district, one in each taluk headquarters. Formerly, these institutions used to advance loans to the cultivators for redemption of their old debts. But now they are extending credit facilities, mainly for purposes of land development, in the form of long-term loans and loans for sinking of irrigation wells under a scheme, sponsored by the Government.

In 1966, the total membership of these banks was about 31,000, their share and working capitals being Rs. 13.58 lakhs and Rs. 203.12 lakhs, respectively. They had advanced long-term loans to the tune of Rs. 42.99 lakhs to 1,306 members. The membership of these banks had increased to 33,092 in 1967, so also their share and working capitals, which stood at Rs. 15.12 lakhs and Rs. 228.35 lakhs, respectively. The amount of long-term loans disbursed during the year was Rs. 30.33 lakhs.

Under the scheme for sanctioning of loans for sinking of irrigation wells, 757 loan applications, involving a sum of Rs. 24 lakhs, were sanctioned during 1966. Out of this, a sum of Rs. 22 lakhs was actually disbursed in instalments for sinking 269 wells. Of these, 147 wells had been completed during the year and the remaining 122 wells were nearing completion. Since the inception of this scheme in 1965 upto the end of November 1967, in all, 1,620 wells had been sanctioned by these banks, of which 331 wells had been completed.

Marketing Societies

As on the 30th June 1966, there were 16 different Marketing Societies in the district, with a total membership of 5,421 and a share capital and working capital of Rs. 7.57 lakhs and Rs. 45.12 lakhs, respectively. These societies are mainly engaged in the purchase and sales of agricultural produce, agricultural requisites and consumer goods to their members at fair prices. By the middle of 1967, the membership of these societies had increased to 5,673 and their share capital to Rs. 9.67 lakhs. The total value of

purchases and sales effected by these societies during 1965-66 and 1966-67 were as follows :—

	1965-66	1966-67
	(Rs. in thousands)	
Purchases	164.09	180.87
Sales	176.29	208.19

These societies have godown facilities for proper storage. Of late, these societies have been working as Government agencies for the procurement and distribution of foodgrains on a wholesale basis.

With the rise in prices of consumer commodities and the need to hold the price-line, the role of Consumers' Co-operative Societies has assumed a great importance. These societies strive to secure to consumers their daily necessities of consumer goods at reasonable rates and thus help to check the rise in prices. With this object in view, one Central Wholesale Co-operative Consumers' Stores and 37 Primary Consumers' Co-operative Societies have been established in Tumkur district. In 1966, these societies had a total membership of 4,362 and a share capital of Rs. 1.47 lakhs. Their working capital during the year was Rs. 3.15 lakhs, while the value of their total purchases and sales was Rs. 21.42 lakhs and Rs. 22.33 lakhs, respectively. By the middle of 1967, the number of Consumers' Co-operative Societies in the district had increased to 41.

Consumers' Co-operatives

There were 51 Co-operative Farming Societies in the district in 1966, as against 28 in 1964. Of these, 42 societies were in Kunigal taluk alone, which had been brought under a pilot project scheme of co-operative farming. The total membership and share capital of these 51 societies were 880 and Rs. 1.23 lakhs, respectively. One more society was organised in 1967, thus raising the total number of societies to 52 and their membership to 910. Their share capital also increased to Rs. 1.52 lakhs. Nearly two-thirds of the members of these societies were small land-holders and the remaining one-third agricultural labourers and others. The total extent of land commanded by these societies was 5,803 acres, of which nearly 5,000 acres were under cultivation.

Farming Societies

With a view to providing pure and wholesome milk to consumers at reasonable prices, Milk Supply Co-operative Societies have been organised in several places in the district. In 1964-65, there were 16 such societies with a membership of 1,174 and a share capital of Rs. 0.17 lakh. Subsequently, four more societies were organised, raising the total number of societies to 20 by 1967. Their membership and share capital also increased to 1,595 and

Milk Supply Societies

Rs. 0.54 lakh respectively. Five of these societies were given a share capital contribution of Rs. 5,000 each by the Government, while another society, viz., the Rural Industrial Co-operative Milk Project, Tumkur, which was started in 1966-67 under the Rural Industrial Project of the Industries and Commerce Department, was sanctioned a working capital loan of Rs. 0.94 lakh.

Industrial Co-operative Societies

In 1966-67, there were 50 Handloom and two Power-loom Weavers' Co-operative Societies in the district, with a total membership of about 8,000 and a share capital of Rs. 2.15 lakhs. They had a total working capital of Rs. 18.21 lakhs. Besides, there were nearly 100 other Industrial Co-operative Societies in the district, which included 16 Handicrafts Co-operative Societies, 9 Village Oil Gana Co-operative Societies, 7 Neera and Palmgur Co-operative Societies, 6 Potters' Co-operative Societies and 3 Leather Industrial Co-operative Societies. They had a total membership of about 30,880 and a share capital of Rs. 6.14 lakhs. Their total working capital was of the order of Rs. 25.26 lakhs. The goods produced by these societies during 1965 were valued at Rs. 1.88 lakhs. Some of these societies were reported to be in a dormant condition. (See also Chapter V).

Housing Societies

The House-Building Co-operative Societies strive to solve the housing problem of the district within their limitations. There are two categories of House-Building Societies in the district, viz., General House-Building Societies and Scheduled Castes and Scheduled Tribes House-Building Societies. As on 30th June 1967, there were 15 societies of the former category and 11 of the latter category in the district. The total membership of these 26 societies was about 6,000 and their share capital was Rs. 2.42 lakhs. They had borrowed funds to the tune of Rs. 11.24 lakhs from the central financing agencies, as well as from other sources, for advancing loans for construction of houses.

Other types of societies

Apart from the various types of co-operative societies referred to above, there were also some other types of co-operative societies in the district, such as, a Co-operative Tile Factory, a Fishermen's Co-operative Society, two Labour Contract Co-operative Societies, one Processing Co-operative Society and four Non-Agricultural Non-Credit Societies.

Of the total number of co-operative societies in the district, as many as 79 societies were reported to be under liquidation at the end of June 1966-67.

Storage facilities

With a view to providing proper storage facilities to marketing societies and the like, 124 godowns of various capacities, including 23 godowns under the 'Crash Programme', have been sanctioned to the district. Of these, construction of 55 godowns had been

completed by the end of December 1967 and 30 more godowns were under various stages of construction. In addition, the Marketing Societies had engaged about 60 godowns on hire-basis. Till June 1968, a sum of Rs. 16.18 lakhs had been sanctioned to several societies in the form of loans and subsidies for the construction of godowns.

The Co-operative Union forms an important wing of the co-operative organisation. Its main object is to educate the people about the principles and practice of co-operation. The District Co-operative Union, Tumkur, was started in April 1963 and it has been affiliated to the State Co-operative Union. Till the end of 1967, the District Co-operative Union, under its training programme, had given training to 4,200 directors and 400 honorary members and managers of co-operative institutions in the district. Besides, under a scheme for imparting training to members and non-members, which was in force upto 1964, the Union had trained 4,272 members and 1,258 non-members. As at the end of 1967, the Union had 180 members on its roll.

Under the co-operative planning programmes included in the successive Five-Year Plans, efforts were made to bring in, as many agricultural families as possible, into the co-operative fold. The number of co-operative societies and their membership were increased considerably. The co-operative credit was linked with production and marketing. During the First and Second Plan periods, 44 large-scale co-operative societies were formed in the district by conversion and re-organisation of the former smaller societies, and they were granted financial assistance to the tune of Rs. 5.06 lakhs towards their share capital and managerial cost. The Marketing Societies were reorganised into Agricultural Produce Primary Marketing Co-operative Societies and were extended financial assistance to the tune of Rs. 3.27 lakhs. Besides, 306 small-sized co-operative societies were also reorganised. Among the co-operative institutions newly organised, ten were large-sized and 27 small-sized godowns, 320 service co-operatives, 10 Land Mortgage (Development) Banks, five Farming Societies and one Processing Society. A total financial assistance of about Rs. 8.61 lakhs was given to these institutions, in the form of both loans and subsidies. The District Co-operative Central Bank Ltd., Tumkur, was also organised during this period, with a share capital contribution of Rs. 6.45 lakhs.

During the Third Plan period, the co-operative movement was given a greater impetus and its activities were expanded to a greater extent. About 20 development schemes, estimated to cost over Rs. 13 lakhs, were drawn up and most of them were implemented. The schemes mainly related to providing of subsidy and managerial cost to a large number of village co-

operatives, co-operative banks, marketing societies, farming societies and the like. Financial assistance for the construction of godowns, share-capital contribution to several primary marketing, farming and consumers' societies, provision of medium and long-term loans and bearing the expenditure of supervisory staff of the District Co-operative Central Bank and Land Valuation Officers of the Primary Land Development Banks, were among the other schemes undertaken during the Third Plan Period.

Small Savings Scheme

With the increase in the tempo of developmental activities under the successive Five-Year Plans, and the consequent increase in the developmental expenditure, the need for raising more and more financial resources has become imperative. In this connection, the Small Savings Scheme has been receiving a greater attention in recent years since it is considered to be one of the best methods of raising resources, as it does not impose any burden on the people as in the case of taxation. Besides, mopping up of the savings of the people helps to check inflation and to hold the price-line by putting a voluntary curb on the extra purchasing power of the people and utilising it as a means of capital formation. Another important object of the scheme, besides accumulation of funds, is to make the people partners in the great task of national development. The message of small savings is being rapidly spread throughout the State through a network of both official and non-official agencies and efforts are being made to mobilise the savings of both the rich and the poor, and invest them in the small savings securities, such as, the National Savings Certificates, Post Office Savings Bank Deposits, Cumulative Time Deposits, National Defence Certificates, etc., which are designed to suit everyone's purse.

In Tumkur district, apart from the official agency, there is a Small Savings Advisory Board, consisting mostly of non-officials and there are also several Small Savings Agents. During 1966-67, the gross and net collections under the scheme in the district amounted to Rs. 26.43 lakhs and Rs. 4.88 lakhs, respectively, while the corresponding figures for 1967-68 were Rs. 32.63 lakhs and Rs. 9.75 lakhs, respectively.

Life Insurance

With the nationalisation of Life Insurance business in the country, the Life Insurance Corporation of India was formed on 1st September 1956, under an Act of Parliament. Formerly, several Indian and foreign insurance companies were transacting life insurance business in the district, operating mainly either from Bangalore or directly from their head offices or divisional offices. The Mysore Government Insurance Department, through its public branch, was also conducting life insurance business in the district. But the private insurance companies had made hardly any efforts to take the message of life insurance to the interior

villages. However, since the nationalisation of life insurance business, the Life Insurance Corporation has pursued with earnestness its objective of spreading the message of life insurance to the country's nooks and corners also. It has successfully implemented its development plans in this regard and has reached out into the interior villages by measures like deployment of trained field workers, opening of branches and sub-offices at the remoter points also, where there had been no such facilities previously, and upgrading of sub-offices as and when the business developed in the area.

There are trained Field or Development Officers of the Corporation in each taluk of the district engaged in propagating the importance of insurance and in rendering prompt service to clients. The total number of Development Officers in the district in 1967 was seventeen. There are also two offices of the Life Insurance Corporation of India in the district, one at Tumkur and another at Tiptur. The Tumkur office is a branch office with jurisdiction over Tumkur, Gubbi, Koratagere, Sira, Madhugiri and Pavagada taluks, while the Tiptur office is a sub-office with jurisdiction over Tiptur, Chiknayakanahalli, Turuvekere and Kunigal taluks. There are also a number of agents of the Life Insurance Corporation in the district and their number has steadily increased over the last few years. There were 223 of them in the district in 1961 and by 1967, their number had increased to 502.

There has been a progressive increase in the life insurance business in the district as is evident from the following comparative figures of new business for the years 1957, 1960, 1963-64 and 1966-67:—

Year	Number of new policies issued	Sum assured (Rs.)
1957	3,553	64,37,350
1960	2,949	99,56,000
1963-64	4,477	1,52,56,200
1966-67	4,610	1,81,04,800

The Corporation has also made arrangements for the payment of insurance premia through banks and post offices. Besides the two offices of the Corporation, eight banks and seven post offices in the district have undertaken the collection of insurance premia from the policy-holders.

As already detailed in Chapter V, several agencies are extending financial assistance for industrial development in the district. Under the State Aid to Industries Act, which is also applicable to Tumkur district, the State Government, through its Department of Industries and Commerce, has been giving financial assistance

Financial assistance to industry

for starting new industries as well as for expansion and development of existing industries. Several entrepreneurs in the district have derived benefits under the provisions of the Act, for purchase and erection of plant and machinery, for purchase of raw materials, etc. Since the inception of the scheme upto the end of 1967, a total sum of Rs. 1.98 lakhs had been advanced to 13 industrial units in the district. Under the scheme for supply of machinery on hire-purchase basis, 38 industrial units had been helped to obtain their requirements of machinery.

During the period from 1960-61 to 1967-68, the Mysore State Financial Corporation also had sanctioned loans to the extent of Rs. 11.80 lakhs to 24 industrial units in the district, while the Mysore State Khadi and Village Industries Board had granted loans and grants to the tune of 9.23 lakhs of rupees to 44 Industrial and Craft Co-operative Societies in the district for the development of village and cottage industries. Further, the Tumkur District Industrial Co-operative Bank and the State Bank of Mysore had also advanced loans to the extent of Rs. 21.12 lakhs and Rs. 5.40 lakhs, respectively, besides the loans advanced by the other commercial banks, etc. (See also Chapter V).

Coinage system

Prior to the introduction of the Indian coinage system in the former Mysore State, almost every kind of coins of India was found to be current in important trade centres of the region like Bangalore and round about. But all the accounts were being maintained only in Kanthiraya Pagodas, Fanams and *Duddus*, which were the coins of the region. While a Kanthiraya Pagoda was considered to be equal to about three rupees, ten Fanams were considered to be equal to one Kanthiraya Pagoda; a Fanam was being exchanged for 18 *Duddus*, the rate of exchange being fixed generally once a month by an officer of the Government. Side by side, there was also a coin called Star Pagoda, which was equivalent to about four rupees. Tipu Sultan had also issued coins of various denominations during his time which were known as Sultani Fanams. It is said that the coinage system had considerably developed during his time and that his coins were in circulation side by side with the Kanthiraya Pagodas. But until 1853, the standard coin was the Kanthiraya Pagoda, which was a nominal gold coin, first issued during the reign of Kanthirava Narasimharaja Wodeyar (1638-1659). It was in 1854, that all these coins were withdrawn from circulation and the rupee currency was introduced.

Under a notification of the Government of India issued in 1870, the Indian Coinage Act of 1870 was extended to Mysore and the coins of the Government of India were made legal tender in the State. Under another notification issued in 1879, the Madras Circle currency notes were made legal tender in Bangalore, while

under the Emergency Regulation of 1918, universal currency notes and other currency notes of the Government of India, issued within the Madras Circle, were made legal tender in the whole of Mysore State including the district of Tumkur.

Under the Indian Coinage system, beginning from the one rupee coin down to the coins of smaller denominations, called subsidiary coins, which are token coins and whose face value is higher than their intrinsic value, the Tumkur district has all the coins common to the country. Rupee and half-rupee coins are unlimited legal tender, whereas the subsidiary coins are legal tender upto Rs. 10 only. Decimal coinage has been acclaimed as the simplest form of coinage, making calculations quick and easy. In the modern complicated system of trade and commerce, easy conversion of money is most essential, and the decimal system which works in multiples of ten makes the task of conversion easier. From 1st July 1957, India has changed over to the decimal system of coinage and the district of Tumkur has had the beneficial impact of this change. To give effect to this change, an amendment to the Indian Coinage Act of 1906 was passed by Parliament in August 1955. Under this Amendment Act, it was declared that the Indian rupee would continue to be the standard coin, but it would be divided into 100 naye paise, the half-rupee and the quarter-rupee being equivalent to 50 and 25 naye paise, respectively.

Since 1st April 1957, fifty, twenty-five, twenty, ten, five, three, two and one naye paise coins have been issued all over India and are circulating in the district. All the old coins that were minted prior to 1947 have already been withdrawn from circulation. In Tumkur district, the people living in the urban areas took to the change to the decimal system readily, but in the rural areas, the people found some difficulty because of the complications in calculation from the old to the new coins, since both of them were in circulation side by side in the initial stages.

PART B—TRADE AND COMMERCE

Prior to the advent of modern communications, the course of trade mainly flowed from one village to another in a particular area where a shandy was periodically held. The agricultural produce was carried in country carts and unloaded in the shandy *maidan*. From there, it was moved to retail centres. In the absence of any known survey of the trends of trade of those days, it can only be surmised that agricultural produce grown in a particular place was exchanged for other goods which the villagers required for their daily use. Tumkur district is well known for the production of coconuts, copra, oil-seeds, jaggery and pulses.

All these are assembled in a particular place for sale and export. With the advance of modern methods of trade, the regulated markets have now become the prominent assembling centres.

During the reign of Chikkadevaraja Wodeyar (1673-1704), a system of laying out of market places (*pete*) in certain important localities, came into being. Large scales were said to have been fixed up at Gubbi and Turuvekere where arecanut and other articles of trade were to be brought and weighed and later taken to local markets for sale. A sort of trade emporium for the distribution of economic products in different areas had thus been established. The Customs Department was reorganised about this time, salaried servants having been appointed to look after the collections. Officials were posted in suitable numbers to be in charge of toll-gates. Collections of money were kept in cash chests belonging to the respective administrative units. The merchants were required to set apart a small portion of their wares as contribution to institutions of local deities.

Exports and Imports

After the Bangalore-Harihar-Poona railway line was laid during the last quarter of the last century, the principal commodities are being transported to places inside and outside the district largely through the railways. With the development of road transport, lorries are also being engaged for this purpose. Most of the copra from Tiptur is exported to Delhi, Kanpur, Poona, Bombay and Ahmedabad. The coconuts largely produced in the district find their way to places like Bombay, Poona and Bangalore. The peak season of arrivals is from January to July, although there is a regular flow to the markets during other periods also. It is estimated that out of the total arrivals of coconut in the market at Tiptur, about 80 per cent is exported outside. Similarly, about 14,000 tons of copra, on an average, are exported outside annually from this market alone. In short, the Tiptur market is the principal clearing house for coconut and copra produced in the district. The rates mostly depend on the quality of the produce and also on the demand for it.

The other principal commodities which are, in normal times, exported from the district are rice, ragi, horsegram, bengalgram, castor, oil-seeds, tamarind, jaggery, arecanut and betel leaves. Arecanut is exported to places in Andhra Pradesh from Tumkur and Sira. Much of the agricultural produce of the district, in normal times, finds its way to Hindupur in Andhra Pradesh and Bangalore. In the domain of trade in the district, the imports occupy a much larger volume than exports with the exception of coconut and copra trade. The articles imported are wheat, jowar, pulses, sugar, ghee, coconut-oil, coffee, cardamom, chillies, pepper,

cotton, gold, silver and iron. The chief places from where these articles are imported are Hindupur, Bangalore, Gauribidanur, Davanagere, Bhadravati, Sholapur, Bombay, Madras and Vellore. The principal trade centres in the district are Tiptur, Tumkur, Sira, Turuvekere, Madhugiri, Huliya, Kunigal, Chiknayakanahalli and Gubbi. There are regulated markets at all these centres.

The Government of Mysore had taken steps in respect of regulation of marketing much before the advent of the Five-Year Plans and had enacted the Mysore Agricultural Produce Markets Act of 1939. Under this Act, the Government established a regulated market at Tiptur in 1940. Later on, in 1952, another market was established at Tumkur. This was followed by the establishment of a third market in the district at Sira in 1956. In 1959, another regulated market was established at Turuvekere. Three more markets were added in 1961 and they were the Madhugiri, Kunigal and Huliya regulated markets. Thereafter, two markets were established at Chiknayakanahalli and Gubbi in 1962 and 1963, respectively. Thus, in all, there are now nine regulated markets in the district. A market committee has been constituted for each of these markets under the provisions of the above Act. The main object of establishing these markets was to ensure to the agriculturists a better price, fair weighments and relief from collection of illegal fees.

The Tiptur Regulated Market is the oldest in the district, having been established as early as 1940 and it is also the most prominent of all the markets in the district. Tiptur occupies a very important place in the trade of the district and the regulated market at this place is controlling mainly the marketing of copra and coconuts. This area is full of coconut palms popularly known as "Kalpa Vriksha". As already stated earlier, Tumkur district stands first among the districts of Mysore State in coconut production with an area of 84,252 acres under this crop in 1966-67. It has been estimated that about 30 per cent of the total area under coconut cultivation in the State is in Tumkur district and a major portion of this is around Tiptur. Apart from copra and coconuts, several other commodities have also been brought under regulation in this market, notable among them being *seegu* (broomsticks), jaggery, *kavatu* (spoiled copra) and oilseeds.

The jurisdiction of the market extends over ten miles around the municipal limits of Tiptur town. There are as many as 110 traders, 9 commission agents, 33 weighmen, 138 *hamals* and 18 cartmen in this market. As already mentioned, copra and coconuts are the most important of the commodities handled by this regulated market and the following statement shows the arrivals

of coconut, copra and *seegu* in this market for the period from 1962-63 to 1966-67 :—

Year	Copra		Coconut		Seegu	
	Arrivals in quin- tals	Value in Rs.	Arrivals in numbers	Value in Rs.	Arrivals in quin- tals	Value in Rs.
1962-63	1,45,238	2,81,76,172	95,16,514	39,73,588	32,204	9,98,324
1963-64	1,43,777	3,10,55,832	75,21,663	21,58,527	37,375	11,21,250
1964-65	1,50,266	3,35,09,318	58,85,133	16,47,990	27,930	8,09,970
1965-66	1,31,824	4,93,02,176	65,79,091	28,61,805	28,420	8,52,600
1966-67	97,011	4,16,79,897	67,61,420	24,74,526	27,675	8,57,925

The income of this Market Committee, which was Rs. 36,176 in 1960-61 had increased to Rs. 53,232 in 1966-67. The following were the sources and amounts of income of the market :

Particulars	Amount Rs. P.
Market cess	.. 37506.60
Licence fees	.. 10,168.00
Miscellaneous	.. 5,557.33

Sellers receive a fair and competitive price for their produce in the market. Correct weighment is done by licensed weighmen and timely payment is also ensured. Originally, the entire business of the regulated market was being done in the town itself. But with the creation of a new market-yard outside the town, it was shifted from the town to the new market-yard from January 1961. The Market Committee acquired an extent of 56 acres and 25 guntas of land for putting up this new market-yard. The Government granted a sum of Rs. one lakh for this purpose. The Committee has constructed three bays of zinc sheet sheds for facilitating auction of regulated commodities, and has also allotted sites to the merchants in the area for the construction of godowns. An office building, a pump house for supplying water and a restaurant building have also been provided in the market-yard. Roads have been constructed and lighting facilities have been provided.

With the shifting of the market to the new yard, the old system of auction of commodities has been changed. Formerly, the 'chamber system of auction' was in vogue for copra. The merchants used to assemble in a chamber and used to bid on the sample brought by *dallalia* or brokers. This system was also called 'sale by sample basis'. Now the 'open auction system' has been introduced. Under this system, auctioneers appointed by the Committee are engaged for the conduct of auctions of all the commodities and the sales are confirmed by the Secretary or his deputy in favour of the highest bidders and agreements are executed in this regard on the spot itself. Commercial grading of coconuts has also been introduced in the market. During 1966-67, about 53 lakhs of coconuts valued at Rs. 16.67 lakhs were graded.

Next in importance to the Tiptur Regulated Market, comes the Regulated Market at Tumkur, which was established in 1952. This is also one of the bigger markets in the old Mysore area. The commodities which are brought under regulation in this market are groundnut, arecanut, tamarind, jaggery, soapnut, *honge* seed, *hippe* seed, castor-seed, *huchellu*, *achellu*, *avare*, horsegram, paddy, ragi and coconut, the most prominent of all the commodities regulated being arecanut. Tumkur district had about 8,437 acres under arecanut cultivation during 1966-67 and this is calculated to be about nine per cent of the total area under arecanut cultivation in the State. The following statement shows the arrivals of arecanut in the Tumkur Regulated Market and their value during the period from 1961-62 to 1966-67 :—

Regulated
Market,
Tumkur

Year	Quantity in quintals	Value in Rs.
1961-62	.. 9,021	54,48,720
1962-63	.. 10,050	55,74,240
1963-64	.. 14,083	65,70,848
1964-65	.. 12,738	78,98,550
1965-66	.. 14,601	99,91,500
1966-67	.. 11,597	91,67,150

The following statement indicates the arrivals of other prominent commodities in the market during 1966-67 and their value :—

Commodity	Quantity in quintals	Value in Rs.
Jaggery	.. 73,654	66,72,580
Groundnut	.. 50,633	1,05,71,580
Castor	.. 12,022	16,22,824
Coconut	.. 21,00,100 (nuts).	8,22,370

Commodity	Quantity in quintals	Value in Rs.
Tamarind ..	24,806	58,38,490
Ragi ..	74,326	54,49,100
Avare ..	27,721	24,66,795
Horsegram ..	41,749	20,72,130
Honge seed ..	33,648	30,41,745
Niger ..	21,925	31,97,080
Sesamum ..	8,669	15,94,860
Hippe seed ..	7,113	11,64,430
Paddy ..	1,73,077	1,10,31,585
Soapnut ..	13,564	22,93,020

The income of this Market Committee which was Rs. 35,330 in 1960-61 had increased to Rs. 83,382 in 1966-67.

The regulated market has its own office building and recently, it has purchased a site for constructing a new market-yard, costing about rupees one lakh. Construction of two auction sheds, a canteen, an overhead tank for water supply and roads were in progress during 1966-67. Other amenities like lighting, cart-stand, cattle-shed, water troughs, etc., were also being provided.

Regulated
Market, Sira

The Sira Regulated Market was established in June 1956. The commodities brought under regulation in the market are tobacco, groundnut, arecanut, tamarind, jaggery, cotton, coconut, honge seed, castor seed, niger, blackgram, avare, togari, paddy, ragi, navane, chillies, horsegram and tamarind seed. Thus, in all, 19 commodities are regulated in this market. The statement given below indicates the arrivals of prominent commodities in the market and their value during 1966-67 :—

Commodity	Arrivals in quintals	Value in Rs.
Jaggery ..	8,551	9,04,245
Groundnut ..	4,817	7,44,079
Castor ..	209	29,260
Coconut ..	5,68,950 (nuts)	1,90,783
Chillies ..	256	95,203
Tamarind ..	1,233	2,13,895
Onion ..	3,073	1,30,235
Ragi ..	6,064	5,10,294
Honge seed ..	418	39,643
Paddy ..	15,874	11,74,756
Arecanut ..	1,110	8,31,490
Tobacco ..	1,709	5,47,045

There were, during 1966-67, 16 traders, 22 commission agents, 30 weighmen, 18 *hamals* and 1,386 casual traders in the market. The income of the Market Committee during the year was Rs. 15,436. The Government have so far sanctioned loans to the extent of Rs. 30,000 for developing the market. Construction of a market-yard on a site measuring 7-4 acres along the Bangalore—Poona National Highway was in progress.

Prior to the establishment of the Turuvekere Regulated Market, the entire Turuvekere taluk was under the jurisdiction of the Tiptur Regulated Market. Turuvekere taluk also being one of the important coconut growing areas in the district, it was felt necessary to have a regulated market at Turuvekere as the growers of coconut had to carry their produce all the way to Tiptur for marketing them. A regulated market was accordingly established at Turuvekere in August 1959. The commodities brought under regulation in the market are copra, coconut, paddy, ragi, tamarind, jaggery, arecanut, castor, *seegu*, chillies, honge seed, groundnut, horsegram, avare, jowar and soapnut. In 1966-67, there were 17 traders-cum-commission agents, seven commission agents, four *hamals* and three weighmen in the market. The subjoined statement indicates the arrivals of some of the prominent commodities and their value during 1966-67 :—

Regulated
Market,
Turuvekere

Commodity	Arrivals in quintals	Value in Rs.
Copra ..	3,781	1,13,410
Coconut ..	7,03,010 (nuts)	2,46,057
Jaggery ..	3,184	2,86,560
Seegu ..	6,231	2,17,065
Ragi ..	4,690	4,22,100
Jowar ..	8,100	7,29,000
Arecanut ..	774	61,920

The income of the Market Committee during 1966-67 was Rs. 11,029.

The Regulated Market, Madhugiri, was established in August 1960. The commodities regulated are paddy, ragi, arecanut, niger, castor, tobacco, honge seed, jaggery and horsegram. The state-

Regulated
Market,
Madhugiri

ment given below shows the arrivals of some of the prominent commodities and their value during 1966-67 :—

Commodity	Arrivals in quintals	Value in Rs.
<i>Avare</i>	1,105	95,580
Jaggery	3,327	2,82,795
Groundnut	11,257	14,07,125
Chillies	210	1,03,950
Ragi	9,730	7,68,670
Honge seed	523	44,978
Areca nut	2,095	16,23,625
Tobacco	433	2,59,800
Paddy	26,292	21,82,236

The income of the Market Committee during 1966-67 was Rs. 10,881. As regards market functionaries, there were 42 traders, 10 weighmen and 11 *hamals* during the year.

Regulated
Market, Gubbi

The Regulated Market, Gubbi, was established during the year 1963. The commodities brought under regulation in the market are paddy, ragi, horsegram, jaggery, coconut, soapnut, tamarind, areca nut, groundnut and honge seed. The arrivals of these various commodities in the market during 1966-67 and their value were as follows :—

Commodity	Arrivals in quintals	Value in Rs.
Groundnut	316	37,920
Jaggery	2,072	1,86,480
Tamarind	199	35,820
Soapnut	238	28,560
Areca nut	1,080	9,72,000
Honge seed	654	58,206
Horsegram	2,272	1,36,320
Paddy	12,996	9,74,700
Ragi	2,819	2,33,977
Coconut	15,59,600 (nuts)	7,01,820

The income of the market during the year 1966-67 was Rs. 8,081, and there were 10 traders, three commission agents, 10 weighmen, nine *hamals* and 848 casual traders.

The Kunigal Regulated Market was started in February 1961 and the commodities brought under regulation in the market are paddy, rice, ragi, jowar, horsegram, jaggery, areca nut, groundnut, coconut, copra, soapnut, tamarind, castor seed and safflower. The arrivals of some of the important commodities in the market during 1966-67 and their value are indicated in the following statement :—

Regulated
Market, Kunigal

Commodity	Arrivals in quintals	Value in Rs.
Paddy	1,696	1,13,022
Rice	2,992	4,14,563
Ragi	1,653	1,49,350
Jowar	7,913	7,32,663
Horsegram	423	32,146
Coconut	4,06,200 (nuts)	1,66,914
Jaggery	18,683	16,26,516
Groundnut	381	48,740

The income of the Market Committee during 1966-67 was Rs. 12,158. The Government have granted a loan of Rs. 25,000 to the Market Committee for acquisition of land for the construction of a market-yard. During the year, there were 19 traders and one commission agent in the market.

The Regulated Market, Huliya, was established in the year 1965. Copra, coconut and *seegu* are the commodities brought under regulation in this market. Since the market is of recent origin, the arrivals of commodities in the market during 1966-67 were not much. Besides, the required facilities for development of trade in the market were yet to be provided. There were nine traders-cum-commission agents, four *hamals* and two weighmen and the income of the Market Committee during the year was Rs. 2,649.

Regulated
Market, Huliya

Another Regulated Market* has been started very recently (1966) at Chiknayakanahalli. Particulars regarding arrivals of regulated commodities, income of the Market Committee, etc., are not yet available in respect of this market.

Agricultural marketing plays a vital role in the improvement of the rural economy of the district and in securing the maximum agricultural income to the farmer. This objective can be achieved only through a sound marketing organisation which can create confidence among the growers. The need to have regulated markets arose on account of the poor standards of primary and

secondary markets where producers converted their crops into cash and the prevalence of various malpractices like short-weighments, excessive market charges and unauthorised deductions and allowances. With the establishment of regulated markets, producers have become market-conscious with the result that the percentage of sales through regulated markets has increased considerably and the producers have been deriving considerable benefits. Further, the concept of agricultural marketing does not restrict its activity only to the regulation of markets. Regulation of markets is only a part of agricultural marketing. It has been linked with other activities like grading, transport, warehousing, financing and co-operative marketing. With effect from 1st May 1968, a new comprehensive and uniform Act called the Mysore Agricultural Produce Marketing Regulation Act, 1966, has come into force throughout the State. The Act seeks to bring about uniformity in the State in agricultural produce marketing. It has laid down that the chairmen and vice-chairmen of regulated market committees should be representatives of agriculturists. A maximum commission of 1.5 per cent of the sale price of the produce has been fixed under the Act.

Warehousing

With the development of trade in the district, the necessity for warehouses, enabling proper storage of agricultural produce and protection against pests and consequent loss, had been keenly felt. The passing of a Central Act called the Agricultural Produce (Development of Warehouses) Corporation Act, 1956, resulted in the starting of Warehousing Corporations in various States. In Mysore State also, a State Warehousing Corporation was established to afford scientific storage facilities for foodgrains in principal markets. Private traders, agriculturists and co-operative institutions are given facilities in these warehouses. In April 1960, the State Warehousing Corporation has set up a modern warehouse at Tumkur, with a storage capacity of 20,000 bags of agricultural produce.

The following statement shows the details of agricultural commodities stored and withdrawn at the warehouse during the year from 1960-61 to 1967-68 :—

Year	Quantity deposited (in bags)	With-drawals (in bags)	Closing balance as on 31st March	Storage charges collected (in Rs.)
1960-61	40,660	7,699	8,721	2,943.84
1961-62	35,800	24,783	21,875	11,904.67
1962-63	1,35,243	47,046	7,999	32,823.91
1963-64	31,464	26,621	18,960	15,595.93
1964-65	18,374	28,718	8,232	21,968.23
1965-66	18,661	14,245	12,648	13,361.49
1966-67	29,171	25,785	17,666	19,362.41
1967-68	26,143	31,540	12,362	19,258.41

The Warehouse provides not only safe storage facilities to agriculturists for their produce, but also credit facilities on warehouse receipts at concessional rates of interest from the banks.

Religious fairs or *jatras* are held in all taluks of the district and these have assumed special importance in the trade trends of the area. People congregate in great numbers to avail themselves of the opportunity to buy their necessities, and thus, these fairs, though generally religious in character, also afford considerable opportunities to canalise trade. These fairs are generally held in places where important temples are situated. When the annual festival takes place, a *jatra* is also held lasting from three to ten days. The Siddhalingeswara *jatra* at Siddhaganga near Tumkur town, Udasalamma *jatra* at Turuvekere, Shambhulingeshwara *jatra* at Pura, Mahalingeshwaraswamy *jatra* at Lakkammanahalli, Gangadhareshwaraswamy *jatra* at Amanikere and Honnammadevi *jatra* at Dandinashivara are among the prominent fairs in the district, where not only the general trade but also trade in cattle takes place on a considerable scale. The Anjaneyaswamy fair at Kallur is also important as a cattle fair. The Sri Narasimhaswamy fair at Devarayanadurga is one of the largest general fairs, (i.e., other than cattle fairs). The following statement indicates some of the prominent fairs in Tumkur district :—

Sl. No.	Name of the fair	Place where held	Taluk	Duration (in days)	Date of commencement
1	2	3	4	5	6
1.	Narasimhaswamy Jatra	Devarayanadurga.	Tumkur	3	Phalgun Shuddha Pournima.
2.	Siddhalingeswara Jatra	Siddhaganga	do	10	Mahaashivaratri.
3.	Anjaneyaswamy Jatra	Kyamenahalli.	Koratagere	12	Magha Shuddha Saptami.
4.	Dandinamaramma Jatra.	Madhugiri town.	Madhugiri	10	Phalgun Shuddha 2nd Tuesday.
5.	Patnayakanahalli Cattle Fair.	Patnayakanahalli.	Sira	10	Pushya Shuddha Pournima.
6.	Tavarekere Jatra	Tavarekere	Sira	10	Magha Shuddha Saptami.
7.	Narasimhaswamy Jatra	Seebi	do	10	Magha Bahula Bidige.
8.	Subramanyaswamy Jatra.	Nagalamedike	Pavagada	8	Pushya Shuddha Shashti.

1	2	3	4	5	6
9.	Siddheshwaraswamy Jatra.	Hariharapura	Pavagada	8	Magha Bahula Chaturdashi.
10.	Anjaneyaswamy Jatra	Dasudi	Chiknayakanahalli.	5	Chaitra Shuddha Saptami.
11.	Bagala Basaveshwara Jatra.	Muddena-halli.	do	7	Jyestha Bahula Panchami.
12.	Rangaswamy Jatra ..	Kerehalli	do	3	Phalguna Shuddha Dashami.
13.	Prasanneshwaraswamy Jatra.	Chiknayakanahalli.	do	4	Phalguna Shuddha Dashami.
14.	Parvathammas Jatra ..	Mathighatta	do	5	Chaitra Shuddha Dwadashi.
15.	Ranganathaswamy Jatra.	Hosakere	Gubbi	11	Chaitra Shuddha Prathipada
16.	Anjaneyaswamy Jatra	Kallur	do	9	Phalguna Shuddha Tadige
17.	Channabasaveshwaraswamy Jatra.	Gubbi town	do	..	Phalguna Shuddha Dashami.
18.	Gungurmale Cattle Fair	Gungurmale	Tiptur	6	Chaitra Shuddha Shashti.
19.	Kibbanahalli Cattle Fair	Kibbanahalli	do	3	Chaitra Bahula Chowthi.
20.	Udasalammas Jatra ..	Turuvekere	Turuvekere	7	Chaitra Shuddha Dashami.
21.	Shambulingeshwaraswamy Jatra.	Pura	do	7	Pushya Shuddha Saptami.
22.	Mahalingeshwaraswamy Jatra.	Lokammanahalli.	Turuvekere	7	Pushya Bahula Prathipada
23.	Gangadharaswamy Jatra.	Amanikere	do	7	Magha Bahula Chaturdashi
24.	Honnammadevi Jatra	Dandina-shivara	do	7	Chaitra Bahula Dashami.
25.	Mahadeswaryaswamy Jatra.	Dhanyakana-pura.	do	7	Kartika Shuddha Pournima
26.	Siddhalingeshwaraswamy Jatra.	Yedeyur	Kunigal	7	Chaitra Shuddha Panchami.

The other trade fairs which are held in various places go by shandies the name of shandies or *santes* and these are held on particular days of the week. Shandies usually start after day-break and go on till late in the evening. Shandies are clearing houses for producers, and men and women come from adjoining villages and buy their needs. It is only the retail trade which is generally prosperous in these shandies. Though a number of retail shops are to be found in the villages, shandies have not lost their importance and they continue to function as before. There are about 90 shandies in Tumkur district and the most important of them are held in Tiptur (Saturday) and Tumkur (Thursday). Among the other important shandies are Turuvekere (Monday), Madhugiri (Wednesday), Chiknayakanahalli (Monday), Sira (Tuesday), Gubbi (Monday) and Pavagada (Monday). The following statement indicates the other shandies in the district and the days on which they are held :—

Sl. No.	Taluk	Place	Shandy day
1	2	3	4
1.	Tumkur ..	Hebbur ..	Friday
		Honnudike ..	Sunday
		Nagavalli ..	Tuesday
		Kyatsandra ..	Tuesday
		Mallasandra ..	Wednesday
		Ajjeonahalli ..	Friday
		Kodigehalli ..	Monday
		Beladhara ..	Wednesday
		Bellave ..	Monday
		Chikkatolukere ..	Monday
2.	Koratagere ..	Akkirampura ..	Saturday
		Mavathur ..	Sunday
		Irakasandra ..	Tuesday
		Elerampura ..	Wednesday
		Thovinakere ..	Friday
		Nagenahalli ..	Saturday
3.	Madhugiri ..	Hosakere ..	Monday
		Byalya ..	Monday
		Ittigadibbanahalli ..	Saturday
		Jodi-Inamgarani ..	Thursday
		Midigeshi ..	Saturday
		Naralekere ..	Tuesday
		Kodigenahalli ..	Thursday
		Yelkuru ..	Monday
		Dandinedibba ..	Saturday
		Badavanahalli ..	Monday
4.	Pavagada ..	Venkatapura ..	Sunday
		Channakeshavapura ..	Wednesday
		Tirumani ..	Wednesday
		Doddahalli ..	Saturday
		Mangalavada ..	Wednesday
		Hoskote ..	Thursday
		Hariharapura ..	Sunday

1	2	3	4
5.	Gubbi ..	.. Kallur ..	Thursday
		.. Mavinahalli ..	Saturday
		.. Kalaghattamma Devasthana	Tuesday
		.. Chandrasekharapura ..	Wednesday
		.. Kadaba ..	Sunday
		.. Nittur ..	Friday
		.. Kondli ..	Sunday
		.. Doddaguni ..	Wednesday
		.. Bidare ..	Friday
		.. Hagalvadi ..	Wednesday
		.. Chelur ..	Sunday
6.	Sira ..	.. Kallambella ..	Sunday
		.. Chirthahalli ..	Monday
		.. Baragur ..	Wednesday
		.. Tavarekere ..	Friday
		.. Hosur ..	Wednesday
		.. Bukkapatna ..	Wednesday
		.. Harogere ..	Wednesday
		.. Bhutanagudi ..	Saturday
		.. Guligenahalli ..	Friday
7.	Tiptur ..	.. Kibbanahalli ..	Thursday
		.. Biligere ..	Thursday
		.. Hongelakashmi Devasthana	Friday
		.. Nonavinakere ..	Wednesday
		.. Konehalli ..	Tuesday
		.. Kalammanagudda ..	Tuesday
		.. Honnavalli ..	Monday
		.. Halkurke ..	Wednesday
		.. Besige ..	Monday
		.. Dasarighatta ..	Wednesday
8.	Chiknayakanahalli ..	.. Hulyar ..	Thursday
		.. Handanakere ..	Saturday
		.. Kandikere ..	Tuesday
		.. Mathighatta ..	Friday
		.. Doddayennagere ..	Monday
		.. Dasudi ..	Thursday
9.	Kunigal ..	.. Nagasandra ..	Monday
		.. Hutridurga ..	Sunday
		.. Hulyurdurga ..	Thursday
		.. Kodavatti ..	Monday
		.. Ujjani ..	Friday
		.. R. Byadarahalli ..	Monday
		.. Amruthur ..	Thursday
		.. Yedeyur ..	Friday
		.. Honnamachanahalli ..	Sunday
		.. Maroonahalli ..	Sunday
		.. Yadavanne ..	Friday

1	2	3	4
10.	Turuvekere ..	.. Dandinashivara ..	Friday
		.. Banasandra ..	Sunday
		.. Sampige ..	Saturday
		.. Mayasandra ..	Wednesday
		.. Mavinakere ..	Friday
		.. Vittalapura ..	Sunday
		.. Kanathur ..	Sunday
		.. Dabbeghatta ..	Friday
		.. Aremallenahalli ..	Thursday
		.. Jodibenakanakere ..	Friday

As already stated earlier, there were 16 Marketing Co-operative Societies in the district in 1966-67. They also serve as trade channels in that their main functions are to arrange for the sale of agricultural produce of the members to their best advantage, to undertake export of agricultural produce as well as processed goods, to arrange to supply to the agriculturists their requirements of fertilisers, improved seeds and manures, agricultural implements and also essential domestic requirements and to advance loans on the security of agricultural produce to the extent of 60 per cent of the market value of the produce.

The post-war period of high prices, general inflation and Fair Price hoarding and profiteering by some unscrupulous traders created a serious problem which called for immediate measures. The Government realised that the opening of fair price shops on their own account or through co-operative societies would go a long way in ensuring fair prices to the consumers; some merchants were also permitted to undertake this responsibility. In 1961, there were in all 125 fair price shops in the district, run either by co-operative societies or by merchants. More and more fair price shops were opened in the subsequent years and there were as many as 668 of them in the various taluks of the district in 1967, as shown in the following statement:

Sl. No.	Name of the Taluk	Number of Fair Price Shops
1.	Tumkur ..	118 (80 in Tumkur town and 38 in other places).
2.	Kunigal ..	35
3.	Sira ..	76
4.	Chiknayakanahalli ..	57
5.	Gubbi ..	79
6.	Turuvekere ..	66
7.	Tiptur ..	51
8.	Koratagere ..	48
9.	Madhugiri ..	85
10.	Pavagada ..	53
	Total ..	668

Principal foodgrains like rice, ragi, jowar and wheat are sold in all these fair price shops at reasonable prices.

Weights and Measures

The weights in use in the district till the introduction of the metric system were the standard *maund* of 40 seers, the seer of 24 *tolas* and the five-seers weight familiarly called *pancheru* or *viss*. Liquids were either measured or weighed according to local practices. Ghee and butter were weighed employing the *viss* as the unit weight and oils were measured employing the standard seer as the unit. Petrol and diesel oil were sold to customers using the gallon as the unit. With the introduction of the metric system, these old units have changed. The metric system of weights and measures was introduced all over the district in 1960 and the traders of the district are now following this system. The units of weights now in use are kilograms and grams, petrol and diesel oil are sold in litres (See also Appendix). A good deal of propaganda has been done by the Department of Weights and Measures to familiarise the people with the new system.

CHAPTER VII

COMMUNICATIONS

IN the early years of the last century, the Tumkur district seems to have had no good road communications at all, except for some improved tracts, which were fit only for country-cart traffic, pack-animals and pedestrians. In 1831, there were just two roads in the district which entitled to the appellation of roads. They were the Srirangapatna—Sira road and the road from Bangalore to Harihar passing through the district. Even these roads were in a very bad state, having portions running through swamps. Another important road communications, which existed in the district in the early years of the last century, was the road between Bellary and Bangalore passing through Pavagada taluk. This was also in a bad state, when Colonel J. P. Grant attempted to survey the area in 1872, except for a few portions lying in the Madakasira taluk of Anantapur district in Andhra Pradesh and also to the south of Tumkur town, which were said to be in a fairly good state.

Old-time
routes

Immense changes in the means of communication took place between 1870 and 1909. According to a report submitted to Government by Colonel Grant in 1870, the means of communication were very bad with the exception of the Bellary—Bangalore road. This road was improved during the period from 1870 to 1909 so as to sustain the flow of a large volume of traffic. It was maintained in an excellent condition in the later years and became a well-established road of importance. After the original revenue settlement in 1870, a road running from Pavagada through Kodamadavu and Roddam to Penukonda was laid. Another road from Pavagada through Parashurampur to Challakere in Chitradurga district was also laid. The Penukonda—Madakasira road was also opened for traffic during the same period. The other roads, which existed in the district at the time of the original settlement in 1870, were the Sira—Tumkur and Sira—Hiriyur roads (forming parts of Bangalore—Bellary road), the Sira—Madhugiri road, the Sira—Huliyar road passing through Bukkapatna and the Sira—Gubbi road, called also the Sira—Nelligere road. Subsequently, the Sira—Amarapur road connecting the northern portion

of the district, was laid as also the Bukkapatna—Hagalvadi road connecting parts of the tract with Chelur and Bellave of the Tumkur taluk. These roads, however, did not come up to the standard of the modern roads. But, with the passage of time, the road-surfacing methods improved and efforts were made to develop the standards of roads, by stages, in keeping with the requirements of the increased volume of road traffic. The principal roads were called State Roads and the less important ones were called District Fund Roads.

Classification of roads

Tumkur district is grouped under the *maidan* region for opening up road communications. This region is mostly a flat country, cut across by streams and small rivers. Since transport is not only the moving of goods from one place to another, but also a key factor in economic development, communication facilities play a very important part in the development of the area. The roads in the district are grouped and classified as National Highways, State Highways, Major District Roads, Other District Roads and Village Roads. The State Forest Department is also maintaining a few miles of roads. The categories of surfaces of these roads are cement-concrete, black-topped, water-bound macadam, other kinds of surface and natural soil.

National Highways are maintained by the State Public Works Department out of grants received from the Central Government. The intensity of traffic on these highways in the Mysore State, according to a traffic census conducted in 1961-62, varies from a minimum of 4,000 tons to a maximum of 8,780 tons per day. A sample survey conducted during 1963-64 has further estimated that the annual increase in traffic intensity on these roads is more than 15 per cent. The National Highways connect the metropolitan cities, State capitals, ports and other centres of major activity. These roads are generally fully bridged and metalled, and in recent years, almost all of them have been asphalted. State Highways are defined as other main trunk or arterial roads connecting National Highways, district headquarters towns and other important towns within the confines of the State and serving as the main arteries of traffic to and from district roads. The State Highways are maintained by the State Government and are generally bridged and metalled. They are generally motorable throughout the year. Efforts have been made in recent years to asphalt them. Major District Roads connect important marketing centres with the Railways, State Highways and the National Highways. These roads constitute the main link between the district headquarters towns. Other District Roads are subject to frequent interruptions in traffic during the monsoon period and most of them were unmetalled till recently. Other District Roads connect important market places in the district. Village Roads are generally approach roads from the main roads to the villages

TUMKUR DISTRICT

and have generally unmetalled surfaces. The term "rural communications" broadly covers inter-village roads. These have been mud roads, unmetalled and with no causeways or culverts. Though these roads were laid by the Public Works Department, their maintenance is left to the village community.

The total length of all the roads maintained by the Public Works Department in the district as on 31st March 1967 was 1,606.75 miles. Out of this total, 51.50 miles were of National Highways, 142.68 miles of State Highways, 631.87 miles of Major District Roads, 468.12 miles came under Other District Roads and 312.63 miles under Village Roads. The surface-treatment of these roads was as follows:—

Cement-concreted	..	32.00 miles
Black-topped	..	569.38 miles
Water-bound macadam	..	796.38 miles
Other kinds of surface	..	150.37 miles
Natural soil	..	58.62 miles
Total	..	1,606.75 miles

The road mileage and surfacing in the district have considerably increased during the period from 1958 to 1967. The total road mileage per square mile has also gone up from 0.48 to 0.55 during the decade. The following table indicates the development from year to year during the decade:—

(In miles)									
Year	Mileage under Public Works Dept.	Mileage under the charge of Tq. Boards	Mileage under the charge of Forest Dept.	Total	Sur-faced roads	Un-surfaced roads	Total road mileage per sq. mile		
							Sur-faced	Un-surfaced	Total
1	2	3	4	5	6	7	8	9	10
1958 ..	1,000	945	21	1,966	938	1,028	0.23	0.25	0.48
1959 ..	1,245	700	21	1,966	1,093	873	0.26	0.23	0.48
1960 ..	1,252	791	21	2,064	1,096	968	0.26	0.23	0.49
1961 ..	1,420	630	21	2,071	1,120	951	0.26	0.23	0.49
1962 ..	1,423	680	22	2,125	1,136	989	0.27	0.24	0.51
1963 ..	1,444	691	25	2,160	1,163	997	0.28	0.24	0.52
1964 ..	1,476	687	17	2,180	1,222	958	0.29	0.23	0.52
1965 ..	1,494	660	21	2,175	1,264	911	0.30	0.22	0.52
1966 ..	1,570	632	21	2,223	1,352	871	0.32	0.22	0.54
1967 ..	1,607	635	7	2,249	1,400	849	0.34	0.21	0.55

As a number of miles of roads belonging to the erstwhile District Boards, and now the Taluk Boards, have been taken over by the Public Works Department, the total mileage maintained by the Taluk Boards has decreased from 935 to 635 miles. The work of surfacing of roads has made a remarkable progress and the surfaced portion had increased from 938 miles in 1958 to 1,400 miles in 1967; the length of unsurfaced portion had decreased from 1,028 miles in 1958 to 849 miles in 1967. According to statistics supplied by the Public Works Department, the total road mileage per lakh of population in the district worked out to 160, while the road mileage per square mile stood at 0.55.

The roads in the district are maintained by two Public Works Divisions, viz., Tumkur and Madhugiri, each manned by an Executive Engineer, stationed at Tumkur and Madhugiri. In 1967, the Tumkur Division had 795.75 miles under its care, while the Madhugiri Division had 811.00 miles, the total length for the district being 1606.75 miles.

During 1966-67, the State Public Works Department took over 20.88 miles of roads belonging to the Taluk Boards and other agencies, the total mileage of roads thus taken over by the Department in the district from 1958-59 to 1966-67 being 516.

Taluk Board Roads.—In addition to the 1,607 miles of roads maintained by the Public Works Department, the Taluk Boards in the district (10 in number), in all, maintained 634.62 miles of roads in 1967, of which 2.50 miles had a water-bound macadam surface, 362.37 miles with other kinds of surface and 269.75 miles with natural soil surface.

Forest Roads.—As on 31st March 1967, the State Forest Department also maintained 7.25 miles of roads in the district. The road surface in this category had other kinds of surface treatment.

Thus, there were, in all, 2,249 miles of roads in the district maintained by the State Public Works Department, the Taluk Development Boards and the State Forest Department.

Roads maintained by other Agencies.—As on 31st March 1967, there were, in all, 261 miles of additional roads of all categories under the charge of the Municipalities, Village Panchayats and Community Development and National Extension Service Blocks in the district as shown below :—

1. Municipalities	..	211 miles
2. Village Panchayats	..	11 "
3. Community Development and National Extension Service	..	39 "
Total	..	261 "

During the period from 1961-62 to 1966-67, the State Public Works Department incurred an expenditure of Rs. 291.16 lakhs for road maintenance and development works in the district. The yearwise break-up of the expenditure, both on original and repair works, was as shown below :—

Year	Original works	Repair works	Total
	(Rs. in lakhs)		
1961-62	.. 29.71	29.89	59.60
1962-63	.. 54.49	21.95	76.44
1963-64	.. 51.52	13.41	64.93
1964-65	.. 10.46	16.53	26.99
1965-66	.. 17.07	19.02	36.09
1966-67	.. 8.35	18.76	27.11

There were, in all, one National Highway, nine State Highways, 34 Major District Roads, 55 Other District Roads and 59 Village Roads (including those taken over from the erstwhile District Boards for maintenance) in the district under the charge of the two Public Works Divisions as on 31st March 1967. A brief account of some of the more important of these roads is given in the following paragraphs. (The lengths of the roads mentioned therein relate to the year 1967).

Bangalore-Poona Road.—The Bangalore-Poona road is the only National Highway passing through the district, for a length of 51 miles and 4 furlongs within the confines of the district. The road enters the district very near Hirehalli on the Bangalore-Tumkur road and leaves the district near Narayanapur in the Sira taluk. This road is popular for vehicular traffic from places in South India to places in the northern parts of Mysore State and also in Maharashtra. Lorries laden with merchandise take this road from Bangalore to Bombay via Tumkur, Sira, Hiriya, Chitradurga and Harihar. The Bangalore-Belgaum luxury bus service is also routed through this road. The road has a north-westerly direction from the starting point in the district to the point where it leaves the district. Tumkur and Sira are the only two important places on this National Highway within the confines of the district. The road is fully black-topped.

Bangalore-Honnavar Road (Length : 57 miles and 6 furlongs) : This important road, coming under the category of State Highway, enters the district near Hirehalli on the borders of Nelamangala taluk in the Bangalore district and Tumkur taluk of the Tumkur district and leaves the district near Chikka-bidare in Tiptur taluk. It then enters the Arsikere taluk of the Hassan district. After leaving the Tumkur town, this State Highway takes an east-west direction upto the borders of the Tiptur taluk where it leaves the district. Out of a total length of 57 miles and 6 furlongs of this

road, 25 miles and 2 furlongs are cement-concreted and 32 miles and 4 furlongs are black-topped. This road passes through Tumkur town, Gubbi, Nittur and Tiptur and cuts across the Sira-Nelligere, Turuvekere-Huliyar and Tiptur-Chiknayakanahalli roads. In the communication net-work of the district, the Bangalore-Honnavar road takes a precedence, because this is the only highway passing along the entire length of the district to the *malnad* districts of the State, reaching the Arabian Sea coast at the end. Transport of industrial goods from Bhadravati to Bangalore is done through this road.

Bangalore—Mangalore Road (Length: 18 miles and 6 furlongs).—This road, which is also called the Bangalore—Hassan road, runs from east to south-west. Out of its total length, 6 miles and 6 furlongs are cement-concreted and the other 10 miles are black-topped. The road enters the district near Doddakere and leaves the district border near Marconahalli, passing through Kunigal, an important taluk headquarters. The traffic from the State administrative headquarters of Bangalore can easily reach the South Kanara coast through this State Highway, passing through Hassan and Sakleshpur. Barring the Bangalore—Mysore—Mercara—Mangalore route, this road is much frequented by vehicles going to the west coast.

Kibbanahalli—Huliyar Road (Length: 21 miles and 2 furlongs).—The Kibbanahalli—Huliyar State Highway starts from Kibbanahalli on the Bangalore—Honnavar road and runs slightly north-west, passing through Settihalli, Chiknayakanahalli (an important centre for coconut production in the district) and Chikka-bidare. The road ends at Huliyar which is on the Tumkur—Chitradurga district border. The whole length of this road is black-topped, and this State Highway is an important means of road communication between Tumkur and Chitradurga districts.

Hiriyur—Huliyar Road (Length: 5 miles and 5 furlongs).—Out of the total length of this road, two miles and one furlong have a black-topped surface and the rest are metalled. The road starts from Hiriyur, a taluk in Chitradurga district, and runs straight south to Huliyar in Tumkur district, passing through Yelladakere. This road links Tumkur with Chitradurga district.

Kibbanahalli—Turuvekere Road (Length: 10 miles and 5 furlongs).—This State Highway is a continuation of Huliyar—Kibbanahalli road, running straight south to Turuvekere, the headquarters of a taluk in Tumkur district. This road cuts across the Bangalore—Poona metre-gauge railway line near Banasandra Railway Station between Nittur and Tiptur. Out of its total length, 5 miles are black-topped and the rest metalled.

Challakere—Pavagada Road (Length: 18 miles and 7 furlongs).—Only one mile of this road is black-topped and the rest are metalled. This road starts from Challakere in Chitradurga district and runs slightly south-east to Pavagada, passing through Kotagudda, Rangasamudra and Lingadahalli. This road cuts across the Pavagada—Bellary road and also the Channakeshava-pura—Hoskote road.

Pavagada—Roddam Road (Length: 7 miles and 2 furlongs).—Only one mile of this road is asphalted and the rest are metalled. This is an important State Highway in the Pavagada taluk, linking it with Andhra Pradesh.

The other two State Highways are the roads within the town limits of Tumkur and Turuvekere, each of which is two miles and two furlongs in length. Both these roads are black-topped.

Tumkur—Bellary Road (Length: 65 miles and 2 furlongs).—**Major District Roads**
This road, which starts from the headquarters town of Tumkur, passes through Koratagere, Madhugiri and Pavagada through a strip of territory in Andhra Pradesh. From Pavagada, the road again enters the Anantapur district of Andhra Pradesh and reaches Bellary. The entire length of this road is black-topped.

Tumkur—Kunigal—Maddur Road (Length: 44 miles and 4 furlongs).—This road also starts from the district headquarters town of Tumkur and takes a slightly south-westerly course and leaves the district boundary near Nidasale in Kunigal taluk. Out of the total length of 44 miles and 4 furlongs, 39 miles and 6 furlongs are black-topped and the remaining portion has a metalled surface. This important road passes through Gulur, Hebbur, Kunigal (where the State Government runs a Stud Farm) and Huliurdurga. This road crosses the Bangalore—Mangalore State Highway near the Kunigal town. The road, after emerging from the Tumkur district, joins the Bangalore—Mysore road near Maddur, not far off from the Shimsha river road bridge.

Banavara—Sira Road (Length: 42 miles).—This road enters the district from Banavara in Chikmagalur—Hassan district border near Bommanahalli and takes a north-easterly direction and joins the Salem—Bellary National Highway near Sira. This road touches the Huliyar—Turuvekere road near Huliyar and runs on the fringes of the Boranakanive Reservoir, and passing through Bukkapatna and Jogihalli touches Sira. From there, the road runs north-east to Agur near the Anantapur district border. Of the total length of the road, 12½ miles are black-topped, while the rest are metalled.

Tumkur—Chelur—Bukkapatna Road (Length : 39 miles).—This road takes off from the Bangalore—Honnavar road near Tumkur. Out of the total length of 39 miles, only 5 miles and 7 furlongs are black-topped and the rest are metalled. This road runs in a curve upto Chelur and then takes a westerly course upto Ankasandra and from there takes a straight northerly course upto Bukkapatna. The road, though called Chelur—Bukkapatna road, goes upto Gowdagere, crossing the Salem—Bellary National Highway near Devarahalli, and joins the Sira—Hulikunte road near Gowdagere.

Nelligere—Sira Road (Length : 49 miles and 4 furlongs).—This road takes off from the Bangalore—Poona National Highway, some ten miles south of Sira, and runs in a south-westerly direction all along till it leaves the district near Karadagere in Turuvekere taluk. From there, it goes to Nelligere in Mandya district. Out of the total length, only 23 miles of this road are black-topped and the rest have a metalled surface. The road crosses the Tumkur—Bukkapatna road very near Chelur and also the Bangalore—Honnavar road near Nittur, and it passes through Kaidala, Kallur, Bochihalli and Soravanahalli.

Sira—Madhugiri Road (Length : 23 miles and 6 furlongs).—Though this road runs only to about 23 miles in the northern part of the district, it has assumed importance on account of its linking two taluks of considerable historical background. Almost the entire length of this road is black-topped. It runs slightly towards south-east upto Badavanahalli and then takes an easterly direction crossing the Brahmasandra—Hoskere road near Badavanahalli. The road continues from Madhugiri north-eastwards to Hindupur in the Anantapur district of Andhra Pradesh.

Madhugiri—Hindupur Road (Length : 19 miles).—This road has 16 miles and 5 furlongs of black-topped surface and two miles and three furlongs of metalled surface. It runs upto Kodigenahalli in a slightly north-easterly direction and from there, goes up to Hindupur passing through Puravara and crossing the Kumudvathi river. The road cuts across the Koratagere—Madakasira road near Doddahosalli.

Yedeyur—Tiptur Road (Length : 32 miles and 2 furlongs).—This road takes off from the Bangalore—Honnavar road near Tiptur and runs to Yedeyur in Kunigal taluk in a winding manner, passing through Gopalapura, Nonavinakere, Turuvekere, Soravanahalli and Koppa, and joins the Bangalore—Mangalore road near Marconahalli. From there, it enters Yedeyur. This road has 13—2 miles of black-topped surface and 19 miles of metalled surface.

Bidrammanagudi—Huliyar Road (Length : 26 miles and 3 furlongs).—This road takes off from Bidrammanagudi on the Bangalore—Honnavar road near the Arsikere border, running in a curve upto Kodagihalli. From there, the road runs as a common road with the Tiptur—Huliyar road and passes through Honnavalli, Bommanahalli, Mallighatta and then on to Huliyar. Only 7—5 miles of this road are black-topped and the rest have a metalled surface.

Madhugiri—Thondebhavi Road (Length : 18 miles and 4 furlongs).—This road runs straight east upto Doddahosalli and then takes a south-easterly direction to Thondebhavi, a railway station on the Bangalore—Guntakal metre-gauge section. The entire length of this road is black-topped. This road is an important link between Tumkur and places in the Kolar district. People from Pavagada and Madhugiri taluks take this road to Thondebhavi where they get rail connections to places in Andhra Pradesh.

Sira—Amarapura Road (Length : 26 miles and 4 furlongs).—This road runs straight from Sira passing through Bevinahalli, Hosahalli and Chikka-Hulikunte. Only 2—7 miles of this road are black-topped and the rest are metalled.

Pavagada—Hindupur Road (Length : 18 miles and 6 furlongs).—Only three miles of this road are black-topped and the rest have a metalled surface. It runs in a curve, taking a north-easterly direction upto Tirumani and passing through Srirampura, Nagamudi and other places. The road is used for traffic from Pavagada to places in the Anantapur district.

Dobbspet—Koratagere Road (Length : 15 miles).—The entire length of this road has a black-topped surface. The road runs straight north from Dobbspet in Bangalore district to Koratagere, a taluk headquarters town north-west of Tumkur town. Vehicles from Bangalore side pass through this road to places in Madhugiri and Pavagada taluks without touching Tumkur. The road passes through Kundigihalli, Shringerihalli, Palanahalli and joins the Tumkur—Gauribidanur road near Koratagere.

Gubbi—Hebbur Road (Length : 12 miles).—A length of only two furlongs of this road is black-topped and the rest of the length has a metalled surface. The road takes a south-easterly direction from Gubbi, an important taluk headquarters on the Bangalore—Honnavar road, which is also a railway station on the Bangalore—Harihar metre-gauge section, and passes through Shiravara.

Gubbi—Chandrashekkharapura Road (Length : 11 miles).—The entire length of this road has a metalled surface and it runs

straight south to Chandrashekharapura taking off from the Gubbi—Hebbur road near Halegudi. This constitutes a principal road link between Gubbi and Kunigal taluks and is mostly used for transporting agricultural produce. On this road is found the famous Kalaghattamma temple.

Thovinakere—Dabbeghatta Road (Length: 10 miles and 6 furlongs).—This road is mostly metalled and has only one mile and three furlongs of black-topped surface. It runs slightly south-eastwards to Dabbeghatta, a village on the Madhugiri—Sira road in Madhugiri taluk.

Koppa—Chandrashekharapura Road (Length: 12 miles and one furlong).—This road has only three furlongs of black-topped surface, the rest of the length having a metalled surface. It runs slightly north-eastwards to Koppa.

Tavarekere—Bukkapatna Road (Length: 12 miles and 3 furlongs).—The entire length of this road has a metalled surface and runs south-westwards upto Yeradikatte and then takes a direct southward course to Bukkapatna.

Chiknayakanahalli—Tiptur Road (Length: 14 miles and 6 furlongs).—Only one mile and four furlongs of this road are black-topped and the rest of the road length is metalled. The road runs south-westwards to Tiptur passing through Settikere and Sasalu. It joins the Bangalore—Honnavar road near Tiptur town.

Among the other important Major District Roads, mention may be made of the Chiknayakanahalli—Hagalvadi road, which runs to a length of 18 miles and 4 furlongs, the Y. N. Hoskote—Kotegudda—Channakeshavapura road of a length of 17 miles and the Jampanahalli—Nelahal road with a length of 15 miles. All these three roads are mostly metalled with only a few furlongs of black-topped surface.

Other District Roads

Tiptur—Kodigehalli Road via Halkurki (Length: 11 miles and 2 furlongs).—About two miles of this road are black-topped and the rest are metalled. It runs straight north to Kodigehalli passing through Halkurki, an important coconut plantation area.

Sira—Changavara Road (Length: 15 miles).—The road has mostly a metalled surface with only five furlongs of black-topped portion. It runs north-eastwards upto Bevinahalli and then takes a north-westward course to Changavara very near the Anantapur district border.

Pavagada—Arsikere Road (Length: 10 miles and 4 furlongs).—Only three miles of this road are black-topped and

the rest have a metalled surface. The road passes through Channakeshavapura and Mangalavada and enters Arsikere from Pavagada taluk. It runs almost parallel to Pavagada—Challakere road.

Hebbur—Kallur Road (Length: 17 miles and 2 furlongs).—The entire length of this road is metalled and is laid to join the Nelligere—Sira road already referred to earlier. The road runs straight west from Hebbur upto Chandrashekharapura and then takes a slight north-westerly direction upto Kallur. It crosses the Gubbi—Kunigal road near Chandrashekharapura.

Huliyurdurga—Amruthur Road (Length: 10 miles and 6 furlongs).—Out of the total length, only 2 miles and 3 furlongs have a black-topped surface and the rest are metalled. The road takes a north-westerly direction to Amruthur, an important village in Kunigal taluk.

Koratagere—Mavathur Road (Length: 13 miles and 5 furlongs).—This road also runs to Thondebhavi, a railway station on the Bangalore—Guntakal metre-gauge line. The road takes off from the Bangalore—Koratagere road very near Koratagere and runs slightly south-eastwards to Mavathur, a border village in the Koratagere taluk. The road has only 6 miles of metalled surface and the rest is a natural soil road. The roadway is mostly used by carts laden with agricultural produce.

Turuvekere—Bochihalli Road via Talakere—Kallur (Length: 9 miles and 5 furlongs).—The road has a metalled surface for a length of about $5\frac{1}{2}$ miles, the rest having been treated with other kinds of surface. The road joins the Nittur—Nelligere road after Kallur. This is an important inter-village communication route for transporting agricultural produce.

The following are some of the other important roads in the district coming under the category of Other District Roads, which have a length of more than ten miles:—

	Length
	M. F.
Naranahalli—Kallur road via Ammasandra and Sampige road.	11—5
Arakere—Jonegarahalli road	10—6
Koratagere—Mavathur—Thondebhavi road	14—5
Kodagadala—I.D. Halli road	14—0
Sorayanahalli—Seegehalli road	10—4
Salakatte—Bellara road via Kandikere	14—0
Mathighatta—Doddayennegere road	10—2
Anchepalya—Yelagalvadi road	11—2

	Length
	M. F.
Nagavalli—Shivaganga road <i>via</i> Honnudiike ..	11—0
Huliyurdurga—Kowdley Bridge road ..	12—0
Hosakere—Muddenahalli road ..	15—0
Hosakere—Badavanahalli road ..	16—3
Thumbadi—Horiganahalli—Akkirampura road ..	11—4
Turuvekere—Dabbeghatta road ..	11—5

Village Roads

The Village Roads are 59 in number in the district running to a total length of 312.63 miles, as already indicated. Of this total length, 29.38 miles are black-topped, 135.88 miles have water-bound macadam surface and 147.37 miles are unmetalled. They have been laid with raised formation and with adequate land width. Most of these roads have been provided with culverts over small streams and have causeways over minor river crossings. These roads have a single lane carriage-way.

Rural Communications

Mysore is perhaps the pioneer State in the country in conceiving a planned programme for the development of rural communications. The programme, which was launched in the year 1959-60, consists of (1) construction of rural roads, (2) construction of missing links and (3) construction of culverts and causeways (C.D. works) with less than 20 feet linear waterway on non-P.W.D. roads, in order to connect the villages to the nearest important roads, market places and rail-heads. The standard of these roads is more or less that of village roads and they are mainly meant for cart traffic. Their surface is either gravel or earth. The programme envisages the construction of at least 50 miles of rural roads in each taluk.

Under this programme, it was contemplated to construct and/or develop 1,967 miles of rural roads in Tumkur district. Of this, during the period from 1962 to 1967, a total of 1,721 miles had been completed at a total expenditure of about Rs. 215 lakhs, and this mileage was the highest among all the other districts in the State.

Major Bridges

The State Public Works Department maintains fifteen major bridges, with a linear waterway of more than 100 feet, in various places in the district. A brief account of each of these bridges is given below:—

(1) *R.C.C. Bridge at Puravara.*—This bridge is located at mile 5/7 of the Madhugiri—Hindupur road and is an R.C.C. decked bridge with 10 spans of 30 feet each, built across the Jayamangali river in Madhugiri taluk.

(2) *Sira—Doddakere Bridge.*—This is one of the oldest bridges in the district, having been constructed in about 1880. It is a masonry arched structure of 4 spans of 40 feet each. It is located at mile 2/5 of Sira—Amarapura road in Sira taluk. The road width over the bridge is about 14 feet.

(3) *Sira—Amarapura Road Bridge.*—This is also a masonry bridge with 4 spans of 40½ feet each. It is built across a major *halla*—a tributary to river Suvarnamukhi—in Sira taluk, at mile 4/8 of Sira—Amarapura road. This is also one of the oldest bridges, constructed in about 1880.

(4) *Shimsha Bridge.*—A masonry arched bridge with 9 spans of 20 feet each, it was constructed across the Shimsha river at mile 18/4 on the Nelligere—Sira road in Gubbi taluk, prior to 1940. The road width over the bridge is 18 feet.

(5) *Kowdley Bridge.*—This bridge is built across the Shimsha river near Kowdley village in Kunigal taluk at a cost of Rs. 4.025 lakhs in 1960. The bridge is constructed in two portions—14 spans of 36 feet clear and 5 spans of 36 feet clear—having a peninsula in between the two portions. The bridge connects the Maddur—Kowdley road with the Kunigal—Amruthur road. The road width over the bridge is 18.6 feet.

(6) *Banavara—Sira Road Bridge.*—This is a masonry arched bridge with 18 spans of 12 feet each and is built across the waste-weir *halla* of Boranakanive dam at mile 41/3—4 on the Banavara—Sira road in the Chiknayakanahalli taluk. This is also one of the oldest bridges in the district, constructed as early as 1893.

(7) *Yedeyur Bridge.*—This is a masonry arched bridge with 6 spans of 20 feet each and is constructed across a *halla* in Turuvekere taluk at mile 27/8 on the Yedeyur—Tiptur road.

(8) *Nagini River Bridge.*—This is an R.C.C. decked bridge with 10 spans of 24 feet each and is built across the Nagini river at mile 2/5 on the Nademavinapura—Amruthur road near Kaggere in Kunigal taluk. The road width over the bridge is 18 feet. The bridge was constructed in 1954 at a cost of Rs. 1.276 lakhs.

(9) *Bangalore—Mangalore Road Bridge.*—This is a masonry arched bridge with 4 spans of 25 feet each and is constructed across the Nagini river at 47/3 mile on the Bangalore—Mangalore road in Kunigal taluk. The road width over the bridge is 18 feet.

(10) *Bangalore—Honnavar Road Bridge.*—This is also an R.C.C. bridge completed in 1962 at mile 68/6 on the Bangalore—Honnavar road in Doddaguni village across a tank-bed. Cons-

tructed at a cost of Rs. 1.89 lakhs, the bridge has 5 spans of 20 feet each with a road width of 24 feet.

(11) *Tumkur—Maddur Road Bridge*.—This is an old arched bridge constructed across a waste-weir *halla* of Nidasale (new) tank at mile 45/4 on the Tumkur—Maddur road. It has a linear waterway of 111 feet and the road width over the bridge is 14 feet.

(12) *Tiptur—Channarayapatna Road Bridge*.—This bridge is of B.S. slab construction and is located at mile 5/1 at Mathighatta on the Tiptur—Channarayapatna road. Constructed across a feeder *halla*, it has a linear waterway of 198 feet and the road width over the bridge is 14 feet.

(13) *Yedeyur—Tiptur Road Bridge*.—This bridge is also of B.S. slab construction and has a linear waterway of 216 feet. It is constructed across a waste-weir *halla* at mile 28/8 in Nona-vinakere on the Yedeyur—Tiptur road. The width of the road over the bridge is 12 feet.

(14) *Tavarekere Bridge*.—This is an arched bridge constructed across a waste-weir *halla* of the Lakhmisagar pick-up at mile 82/4 of the National Highway No. 4 (Bangalore—Poona road) at Tavarekere. It has four spans of 25 feet each, the road width over the bridge being 16 feet.

(15) *K.H.Y. Road Bridge*.—This bridge is of R.C.C. T-beam deck slab construction, with four spans of 40 feet each. It is constructed across Ballakatte *halla* at mile 21/6 of Kibbanahalli—Huliyar—Yelanadu road, at a cost of Rs. 3.90 lakhs. The road width over the bridge is 24 feet. The bridge was completed in 1965-66.

Expenditure on bridge works

During the period from 1961-62 to 1966-67, a sum of Rs. 36.69 lakhs was spent on the construction and maintenance of road bridges in the district by the Public Works Department. The yearwise break-up of the expenditure, both on original and repair works, was as shown below :—

Year	Original works	Repair works (Rs. in lakhs)	Total
1961-62	11.61	0.12	11.73
1962-63	7.01	0.25	7.26
1963-64	3.85	0.17	4.02
1964-65	4.21	0.25	4.46
1965-66	5.60	0.32	5.92
1966-67	5.47	0.83	6.30

Thus, including the expenditure on the construction and maintenance of roads in the district, a total sum of Rs. 330.85 lakhs was spent during the six-year period from 1961-62 to 1966-67 by the Public Works Department for the development of road communications in the district. As against this, the amount spent in the district for the same purpose during the Second Five-Year Plan period (i.e., from 1956-57 to 1960-61) was of the order of Rs. 141.09 lakhs.

The common public conveyance in the urban areas of the district is the single pony-driven *jutka*. These *jutkas* are found in Tumkur, Tiptur, Madhugiri, Sira and Turuvekere towns. In places like Turuvekere and Chiknayakanahalli, passengers bound for trians use this mode of conveyance for fairly long distances. Most of these *jutkas* are owner driven. These vehicles are licensed by the various Municipalities under bye-laws framed for the purpose. Bicycles form by far the largest number of private vehicles. They are also available for hire in urban areas.

In spite of the progress in mechanised transport, the old bullock-cart is still the popular means of transport in use in the rural parts. Most of the agriculturists have their own bullock-carts which they use for carrying manure to their fields, bringing in the harvested crops and also for taking their grains to the shandies. (The number of bullock carts in use in the various taluks is given in Chapter IV—Agriculture and Irrigation). There are also a number of hand-carts in the principal trade centres of Tumkur, Tiptur, Sira and Turuvekere for carrying goods within the town.

In 1961, the total number of buses (stage carriages) registered in the district was 195, while that of lorries (goods vehicles) was 258. These numbers had gradually increased over the years and in 1967, there were 223 stage carriages (including both M.S.R.T.C. and private buses) and 349 lorries in the district. Besides, a number of other motor vehicles had also been registered in the district and they included 15 omni-buses, 19 motor cabs, 75 jeeps, 246 cars, 286 motor cycles, 6 delivery vans, 42 tractors, 43 trailers and one road-roller. Thus, there were in all 1,305 different categories of motor vehicles in the district in 1967.

With the advent of responsible Government, it has been the policy of the State Government to nationalise bus-routes in a phased manner. With this end in view, a department called the Mysore Government Road Transport Department was constituted and it started nationalised passenger transport services on certain important routes of the erstwhile Mysore State in September 1948. In the initial stage, the idea was to connect Bangalore city with all the district headquarters towns in the State. The Depart-

ment gradually increased its tempo of activities and took over more and more important private bus routes, including the Bangalore—Tumkur route. The services were extended to other taluk places in Tumkur district subsequently. In 1961, the Department was constituted into a Corporation, viz., the Mysore State Road Transport Corporation. The operation of services to Tumkur and other places in the district is controlled from Bangalore which is the headquarters of the Bangalore Division of the Corporation. The seating capacity of passenger buses plying on these routes varies from 30 to 43, and twenty-five per cent of the seating capacity of the buses is allowed for standing passengers subject to a maximum of ten.

With the nationalisation of bus services in the Shimoga sector from 1st July 1968, a new Depot of the Corporation has been set up at Tumkur under the jurisdiction of Bangalore Division. The operational statistics in respect of this Depot indicate that in October 1968, there were 22 nationalised bus routes in the district operated by the Mysore State Road Transport Corporation with a fleet of 25 buses. The route-kilometres covered by them was 1,962 and the daily average number of passengers carried was about 40,700. Besides these services operated by the Tumkur Depot, a number of long-route buses from Bangalore to Belgaum, Shimoga, Bellary, Chikmagalur, Hassan, Harihar, Chitradurga, etc., operated by the Bangalore, Mysore and Hassan Divisions of the Corporation either touch Tumkur or pass through the district *en route*. The plying of buses on these routes is administered by the Transport Department which has set up a Regional Office at Tumkur. The Regional Transport Authority determines the routes and the availability of permits. Issue of permits to ply buses is governed by an Act of the Legislature. Besides the nationalised bus routes, the Transport Authority has given permission for running private bus services on many routes, which operate in several taluks of the district. Some of the private buses from Tumkur go to the adjoining districts in the State and also to other neighbouring States, particularly to Andhra Pradesh. Including the nationalised routes, there were in all 144 bus routes in the district in 1967. Bus stands managed by the local municipalities are located at Tumkur, Tiptur, Kunigal and Turuvekere. These bus stands have all the passenger amenities like restaurants, waiting rooms and lavatories.

The total distance of route-kilometres covered per day by the Mysore State Road Transport Corporation buses in the district is about 1,92,000. The maximum number of seats permitted in passenger buses is determined by the Regional Transport Authority.

The Bangalore—Poona section of the metre-gauge railway line **Railways** passes through the Tumkur district between kilometres 54/13-14 and 152/14 to 153/1, the total length in the district being 98 kilometres. This section of the railway line is administered by the Southern Railway system of the Indian Railways. The railway line enters the district near the Nandihalli village in Tumkur taluk and leaves the district border between Honnavalli Road and Arsikere corresponding to 97th mile and 3rd furlong on the Bangalore—Honnavar road. The railway stations in the district are Hirehalli, Kyatsandra, Tumkur, Mallasandra, Gubbi, Nittur, Sampige Road, Ammasandra, Banasandra, Aralaguppe, Karadi, Tiptur and Honnavalli Road.

The railway line from Bangalore to Tumkur, constructed with funds obtained by a railway loan of Rs. 20 lakhs, was opened for through traffic on 11th August 1884. Further, this line was extended as far as Gubbi, an important centre of trade at a distance of 11 miles from Tumkur, by using the surplus stores and by a cash outlay of 1½ lakhs of rupees from the State revenues. In the meantime, the survey of the line from Gubbi to Tiptur had also been finished. At this stage, the State Government agreed, in 1885, to the proposal made by the Government of India for the construction of a line from Gubbi to Harihar by means of foreign capital. The Secretary of State, on behalf of Mysore, negotiated a loan of £12,00,000 at 4 per cent interest per annum with the Southern Mahratta Railway Company. The proceeds of the loan raised by the Company amounted to £12,24,000, including a premium of two per cent, and was equivalent to Rs. 1,63,82,801 in Indian currency. Out of this amount, the Mysore Government was paid back the amount spent on the railway constructed by it, i.e., Rs. 68,60,508, and out of the remaining amount, the cost of the construction of the line from Tiptur to Harihar by the Southern Mahratta Railway Company was defrayed. It was agreed that the entire railway from Mysore to Harihar was to be worked by the Company from 1st July 1886 as a separate system distinct from their railways in the then British India and the cost of management was to be apportioned between the two systems in the proportion of their respective gross earnings. Out of the net earnings of the Mysore system, the Company were to retain for themselves a quarter share, the remaining three-quarters being handed over to the Mysore State. The contract with the Company regarding the management of the line was to be in force for a period of 46 years from the 30th June 1886 to 30th June 1932.

The railway from Gubbi to Harihar was completed by the Company in 1889, and on the 5th August of the same year, the lines from Mysore to Tiptur and from Harihar to Tiptur were finally linked together and the through-line declared open by His late Highness Sri Chamaraja Wodeyar. Thus, this metre-gauge

section in the district was, in the beginning, administratively managed by the Madras and Southern Mahratta Company (M.S.M.). After the expiry of the contract, the line formed part of the Mysore State Railway. This section was included in the Southern Railway system during 1950.

The railway line from Bangalore to Tumkur takes a north-westerly direction, and from Tumkur, the line runs from east to west till it enters the Hassan district. Tumkur, Gubbi and Tiptur are the important railway stations in the district. Recently, Ammasandra, where a large cement plant has been set up, has assumed importance. Hence, this former flag station has been converted into a full-fledged crossing station and necessary railway siding facilities have been provided. Similarly, Mallasandra, which was a flag station, has also been converted into a crossing station. More and better passenger amenities have been provided in the important railway stations like Tumkur and Tiptur.

Travel facilities

The district has a good number of rest houses, choultries and *Musafirghanas* for the use of pilgrims and travellers. In the old days, when there were no modern transport and travel facilities, people on pilgrimage and ordinary travels used to stay in these choultries or *Dharmashalas*. These free lodging houses were built by philanthropic persons for the use of pilgrims and travellers. There are nine choultries in the district, of which one is located at Tumkur, three at Kunigal, two at Gubbi and one each at Madhugiri, Sira and Pavagada. Of these, the Purnaiya Choultry at Tumkur, the Savithramma Choultry at Tumkur, the C. D. Ramaswamaiya Choultry at Kunigal and the Bheemappa Choultry at Pavagada are the more important ones.

The erstwhile District Board of Tumkur was maintaining some *Pravasi Mandirs* and *Musafirghanas* in various places in the district which were later handed over to the Taluk Boards. In some of these rest houses, cooks are provided, but in some others, this facility is not available. Ordinary utensils and furniture for the use of the travellers are provided, and the rates charged vary from place to place; ordinarily, the rate for a full day's stay is one rupee. They are generally situated on or near main roads. There are, in all, 15 *Pravasi Mandirs* and *Musafirghanas* in the district, a statement showing the particulars of which is given at the end of this chapter.

The State Public Works Department is also maintaining some well-equipped Inspection and Travellers' Bungalows of a superior class in several places in the district. In the headquarters town of Tumkur, there is a Circuit House, an Inspection Lodge for Government officers and a Travellers' Bungalow for travellers.

The Devarayanadurga hill (3,896 ft.), about 12 miles from Tumkur Railway Station, which is noted for its salubrious climate and scenic beauty, is being developed as a tourist spot. There is a Second Class Travellers' Bungalow at this place maintained by the State Public Works Department (besides a *Pravasi Mandir* maintained by the local Taluk Development Board). Besides, a Tourist Home with two suites has also been constructed here recently by the State Government for the benefit of tourists. The rates normally charged in the Inspection and Travellers' Bungalows for private persons vary from Rs. 3 to Rs. 4 per day depending upon the class of suite occupied while the Government officers and officials on duty are charged at concessional rates, ranging from Rs. 1.75 to Rs. 2.50 per day. A statement giving particulars of Inspection and Travellers' Bungalows maintained by the Public Works Department in the district is appended at the end of the chapter. The Forest Department is also maintaining a Forest Lodge at Namada Chilume, about two miles lower down the Devarayanadurga hill.

After the take-over of the Mysore administration by the British Commission in 1831, the then *Anche* (postal) organisation, which was working under the guidance of a *Bakshi*, was further developed. *Anche* offices were located in every taluk headquarters town, as also in some other important places. Stamps were not in use then; instead, pre-payment of postage, before actually posting the letters, was compulsory. Postal articles were not being insured, nor money orders accepted. After the Rendition in 1881, the *Anche* Department underwent some changes. With the construction of the metre-gauge railway line from Bangalore to Tumkur, the postal service was further improved and expanded so as to serve a larger population. Hobli schoolmasters were appointed to look after the postal work also and they were called *Anche Mutsaddis*. There was co-ordination between the State *Anche* Department and the Imperial Postal Department for delivery of letters and articles from respective regions. In 1885, the British Indian authorities mooted the idea that the State *Anche* organisation should be amalgamated with that of the British provinces. After protracted negotiations, the actual transfer was effected in 1889. Since then, there has been gradual expansion of postal services, and the progress achieved in this regard after the advent of Independence, especially in recent years, has been remarkable. Now, there is a post office in almost every big village or a group of smaller villages in the district.

For purposes of postal and telegraphic work, there is a separate division called the Tumkur Division under the Mysore Circle of the Indian Posts and Telegraphs Department, with headquarters at Tumkur. The Division is headed by a Superintendent

Posts and Telegraphs

of Post Offices, who is in charge of the postal services in the district, while the Divisional Engineer, Telegraphs, Bangalore, is in charge of telegraph and telephone services. Both these officers work under the administrative control of the Postmaster-General, Mysore Circle, Bangalore. In 1961, the district had 11 sub-post offices and 213 branch offices, in addition to the head office at Tumkur. Telegraph facilities were available in about 10 post offices. But, as against this, in 1967, there were as many as 368 post offices in the district, consisting of one head office, 37 departmental sub-offices, one extra-departmental sub-office and 329 extra-departmental branch offices. Telegraph facilities were available at 35 post offices, and about 90 post offices were doing savings bank work also. Mails are conveyed by railway, motor buses and, for the remote villages, by postal runners.

Telephones

The first telephone exchange in the district was opened in Tumkur town on 21st March 1955, with 75 connections. It was a manual exchange with a small 100-line switch board. It was gradually developed in keeping with the demand for new telephone connections in the town. As at the end of 1967, the town was served by a 400-line automatic exchange, with 374 working connections. This automatic exchange was opened in July 1965. Schemes had also been evolved for the expansion of the capacity of the exchange by another 100 lines during 1968-69. The next telephone exchange to be started in the district was the one at Tiptur. It was opened in September 1956 with 23 connections. This was followed by the Gubbi automatic exchange which was started in March 1959 with 9 connections. Two more exchanges were opened in 1963 at Madhugiri and Sira, four more in 1964 at Turuvekere, Kunigal, Chiknayakanahalli and Huliya and two more in 1966 and 1967 at Amruthur and Pavagada, respectively. Thus, there were, in all, eleven telephone exchanges in the district providing working connections to 617 telephones at the close of 1967, particulars of which are given in the following table:—

Sl. No.	Location of exchange	Type of exchange	Equipped capacity	Working connections	Date of opening
1.	Tumkur	..	400 (Automatic)	392	374
					21-3-1955 (Auto-exchange on 1-7-1965)
2.	Tiptur	..	100 (Manual)	95	88
3.	Gubbi	..	25 (Automatic)	22	14
4.	Madhugiri	..	35 (Automatic)	32	27
5.	Sira	..	50	45	29
6.	Turuvekere	..	25	22	14
7.	Kunigal	..	25	22	18
8.	Chiknayakanahalli	..	25	22	19
9.	Huliyar	..	25	22	7
10.	Amruthur	..	25	22	7
11.	Pavagada	..	25	22	20

Besides these, a new telephone exchange was sanctioned for Koratagere and it was expected to be commissioned shortly. Schemes for the expansion of the exchanges at Gubbi, Chiknayakanahalli, Kunigal, Madhugiri and Pavagada to 50 line SAX during 1968 had also been sanctioned.

The first long-distance public call office in the district was opened at Koratagere in March 1957. Thereafter, it was only in 1965 that seven more public call offices were opened at various other places in the district, followed by three more offices in 1966 and eleven more in 1967. The subjoined statement indicates the places where these offices are located, their parent exchanges and their dates of opening:—

Sl. No.	Location	Parent Exchange	Date of opening
1	2	3	4
1.	Koratagere	.. Madhugiri	.. 30-3-1957
2.	Holavanahalli	.. "	.. 18-2-1965
3.	Devarayanadurga	.. Tumkur	.. 29-4-1965
4.	Gulur	.. "	.. 30-5-1965
5.	Mayasandra	.. Turuvekere	.. 14-7-1965
6.	Chandrashekharpura	.. Gubbi	.. 4-8-1965
7.	Patnayakanahalli	.. Sira	.. 8-10-1965
8.	Settikere	.. Chiknayakanahalli	.. 11-11-1965
9.	Kora	.. Tumkur	.. 28-3-1966
10.	Kudur	.. Kunigal	.. 29-3-1966
11.	Midigeshi	.. Madhugiri	.. 30-10-1966
12.	Kodigenahalli	.. "	.. 25-3-1967
13.	Hebbur	.. Tumkur	.. 27-3-1967
14.	Urdagere	.. "	.. 27-3-1967
15.	Y. N. Hoskote	.. Pavagada	.. 31-3-1967
16.	Dandinashivara	.. Turuvekere	.. 19-4-1967
17.	Kallambella	.. Sira	.. 29-4-1967
18.	Timmanahalli	.. Chiknayakanahalli	.. 30-4-1967
19.	Honnnavalli	.. Tiptur	.. 14-6-1967
20.	Huliyurdurga	.. Amruthur	.. 17-6-1967
21.	Bellave	.. Tumkur	.. 26-6-1967
22.	Chelur	.. Gubbi	.. 3-8-1967

Schemes were also sanctioned, as at the end of 1967, for provision of public call office facilities at three more places, viz., Tirumani, Nonavinakere and Nagavalli in the district.

The use of radio sets is becoming increasingly popular in the district in recent years. It is gathered that there were, in all, 15,163 radio sets of all kinds in the district at the end of 1968.

Particulars of Inspection and Travellers' Bungalows maintained by the Public Works Department in Tumkur district as in 1937-38

<i>Sl. No.</i>	<i>Name of the Bungalow</i>	<i>Class</i>	<i>Location : Taluk and Town</i>	<i>Approach road and the distance from the nearest main road</i>	<i>Distance from the nearest Railway Station</i>	<i>Mileage of the point where the approach road branches off</i>
1	2	3	4	5	6	7
1.	Travellers' Bungalow and Inspection Bungalow at Tumkur.	I	Tumkur town	.. Located at a distance of 2 furlongs from the main road (Bangalore-Honnavar road).	Few yards only	43rd mile of Bangalore-Honnavar road.
2.	Travellers' Bungalow at Kunigal.	II	Kunigal town	.. Located by the side of Bangalore-Mangalore road at 2/45th mile.	24 miles from Tumkur Railway Station.	..
3.	Inspection Bungalow at Marconahalli.	II	Marconahalli, Kunigal taluk.	Located 3 furlongs away from the approach road and 3 miles from the nearest main road, i.e., Bangalore-Mangalore road.	38 miles from Tumkur Railway Station.	5/55th mile of Bangalore-Mangalore road.
4.	Travellers' Bungalow at Devarayanadurga.	II	Devarayanadurga hill, Tumkur taluk.	Length of approach road 3 miles from 1/10th mile of Dobbset-Koratagere road; 5 miles from 1/6th of Tumkur-Urdagere road.	13 miles from Tumkur Railway Station.	1/10th mile of Dobbset-Koratagere Road; 1/6th mile of Tumkur-Urdagere road.
5.	Low-Income Group Rest House at Devarayanadurga.	II	do	.. do	.. do	do

Particulars of Inspection and Travellers' Bungalows—(contd.)

<i>Sl. No.</i>	<i>Name of the Bungalow</i>	<i>Facilities available—like cook, utensils, furniture, water, light, etc.</i>	<i>No. of suites</i>	<i>Places of interest nearby and distance</i>
			9	10
1.	Travellers' Bungalow and Inspection Bungalow at Tumkur.	Provided with electricity, water supply, sanitary fittings, furniture and utensils; cooks, watchmen and sweeper maintained.	Nine plus one suite of Circuit House.	1. Devarayanadurga hills and temple—10 miles 2. Kaidala temple—5 miles 3. Siddhaganga Mutt—3 miles 4. Shivaganga (Bangalore district)—17 miles
2.	Travellers' Bungalow at Kunigal.	Provided with water supply, electricity, furniture, utensils and flush-out latrine. There is one maity, one watchman and one sweeper.	Four	.. Government Stud Farm just opposite the bungalow
3.	Inspection Bungalow at Marconahalli.	Provided with water supply, electricity, furniture, utensils and flush-out latrine. There is one maity, one watchman and one sweeper.	Two	.. Marconahalli Reservoir nearby
4.	Travellers' Bungalow at Devarayanadurga.	No such facilities available.	Two	.. Nil
5.	Low-Income Group Rest House at Devarayanadurga.	Cooks maintained for preparing food if supplies are made. Electricity, furniture and utensils available.	Four	.. Yoganarasimha temple on the top and Bhoganarasimha temple at the foot of the hill, within a radius of 1 mile. The famous Namada Chilume at a distance of 2 miles lower down.

Particulars of Inspection and Travellers' Bungalows (contd.)

1	2	3	4	5	6	7
6.	Inspection Lodge at Irakasandra	..	Irakasandra	.. 14 miles from Tumkur Railway Station.	..	..
7.	Travellers' Bungalow at Tiptur.	II	Tiptur town	.. Located by the side of Bangalore—Honnavar road.	One mile from Tiptur Railway Station.	6/90th mile of Bangalore—Honnavar road.
8.	Travellers' Bungalow at Kibbanahalli.	II	Kibbanahalli, Tiptur taluk.	Two furlongs from the bus-stop	..	..
9.	Inspection Lodge at Mavathur.	..	Mavathur	.. 24 miles from Tumkur Railway Station.	..	..

Particulars of Inspection and Travellers' Bungalows—(concl.)

	8	9	10
6.	Inspection Lodge at Irakasandra.	Cooking facilities available; provided with furniture, utensils, electricity, water supply and sanitary fittings.	One
7.	Travellers' Bungalow at Tiptur.	Cook available; provided with utensils, furniture, electricity, water supply and sanitary fittings.	Two
8.	Travellers' Bungalow at Kibbanahalli.	Provided with furniture, electricity, water, etc.	Two
9.	Inspection Lodge at Mavathur.	No other facilities except furniture, water and light.	One

Particulars of Pravasi Mandirs and Musafirghanas maintained by Taluk Development Boards in Tumkur district in 1967.

Name of Bangalore	Class	Location: Taluk and Town	Distance from nearest Railway Station	Facilities available like cook, utensils, furniture, etc.	No. of suites
1	2	3	4	5	6
Musafirghana	..	III Tumkur town (District Head-quarters).	Half-a-mile from Tumkur Railway Station.	Furniture, vessels, water and light.	Four suites
Pravasi Mandir	..	do Koratagere town (Taluk Head-quarters).	16 miles from Tumkur Railway Station.	Furniture, vessels and light.	Two rooms
do	..	II Madhugiri town (Taluk Head-quarters).	27 miles from Tumkur Railway Station.	do ..	Four rooms
Musafirghana	..	III Sira town (Taluk Headquarters)	32 miles from Tumkur Railway Station.	do ..	Eight rooms
Pravasi Mandir	..	do Pavagada town (Taluk Head-quarters).	About 33 miles from Hindupur Railway Station.	do ..	Two rooms
Musafirghana	..	do Pavagada town (Taluk Head-quarters).	do ..	do ..	Two rooms
do	..	do Kuniyal town (Taluk Headquarters).	24 miles from Tumkur Railway Station.	do ..	Five rooms

Particulars of Pravasi Mandirs and Musafirghanas—(contd.)

1	2	3	4	5	6
Musafirghana	..	III Gubbi town (Taluk Headquarters)	Half-a-mile from Gubbi Railway Station.	Furniture, vessels, and light.	Three rooms
Pravasi Mandir	..	do Chiknayakanahalli town (Taluk Headquarters).	10 miles from Banasandra Railway Station.	do ..	Two rooms
Musafirghana	..	do do	do ..	do ..	Ten rooms
Pravasi Mandir	..	do Huliyar town on Bangalore-Hoedurga road.	25 miles from Banasandra Railway Station.	do ..	Three rooms
Musafirghana	..	do Tiptur town (Taluk Headquarters)	..	Furniture, vessels, water and light.	Eight rooms
do	..	do Konehalli (Tiptur taluk)	Nearby Konehalli Railway Station.	..	Two rooms
do	..	do Banasandra (Tiptur taluk)	Banasandra Railway Station nearby.	Water, vessels, furniture and light.	Four rooms
do	..	do Turuvekere town (Taluk Headquarters).	8 miles from Banasandra Railway Station.	do ..	Four rooms

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS

SOME of the important sectors of the district's economy such as agriculture, industries, trade and commerce, transport and communications have been dealt with in the previous chapters. Though these are the major sectors of employment, there is still a small percentage of population unaccounted for who find employment in other avenues classed under miscellaneous occupations. This percentage, though small, has an important bearing on the economic development of the area. Out of the district's total population of 13,67,402 as per the 1961 Census, 83.6 per cent was engaged in agriculture and the total non-agricultural percentage of population in the district was 16.4. Out of this, about 7.5 per cent is engaged in other avocations grouped under miscellaneous occupations. The bulk of them live in urban areas as the chances of getting suitable employment in the rural areas are not many. These occupations include public administration services, learned professions like law, medicine and education, domestic and personal services like laundering, tailoring and hair-dressing, other occupations like carpentry, pottery and basket-weaving and running of hotels and restaurants. They give not only the means of livelihood to a section of the population, but also provide some important services or produce certain essential goods for the community. With the growth of urbanisation in recent decades, the miscellaneous occupations have also grown helping to stabilise the economic fabric of the area.

Public Administration Service

A considerable number of persons are employed in public services under the State and Central Governments. The village officials and the personnel engaged in administering the local self-governing institutions also come under this category. With the increasing tempo of developmental activities under the successive Five-Year Plans, the number of Government employees has increased over the years. The Tumkur town has all along been important as the centre of the district's administration, and a large number of the Government employees of the district are concentrated here. Next in importance, from this point of view, come Tiptur, Madhugiri, Gubbi and other taluk headquarters towns.

Realising the importance of a regular collection of the statistics of persons employed in Government, the State Bureau of Economics and Statistics has been conducting a survey since 1959. The report of the survey for the year 1959 was published in 1961. It contains, among other things, the distribution of Government employees, as on 31st March 1959, working in the district by category and tenure of appointment. As these particulars are of interest in studying the avenues of employment in the Government sector, the figures relating to 1959, 1963 and 1965 are given below :—

As on 31st March 1959

Category	Permanent	Temporary	Not stated	Total
1	2	3	4	5
Gazetted ..	60	10	10	80
Non-Gazetted ..	3,181	345	3,026	6,552
Class IV ..	474	268	1,041	1,783
Total ..	3,715	623	4,077	8,415

As on 31st March 1963

	Class I	Class II	Class III	Class IV	All
1	2	3	4	5	6
Tumkur town ..	22	36	1,564	597	2,219
Tumkur district (excluding Tumkur town.)	11	59	5,408	849	6,327
Total for the district	33	95	6,972	1,446	8,546

As on 31st March 1965

	Class I	Class II	Class III	Class IV	All
1	2	3	4	5	6
Tumkur town ..	23	50	1,323	540	1,936
Tumkur district (excluding Tumkur town.)	10	62	4,944	840	5,856
Total for the district ..	33	112	6,267	1,380	7,792

From the above tables it can be seen that the figures for the year 1965 indicate some decrease in the total number of Government employees in the district; but actually it is not so. According to the Bureau of Economics and Statistics, these are not complete figures since a few offices had not furnished the required particulars to the authorities conducting the census.

Besides the State Government employees, there are also Central Government servants and workers employed by the local bodies in the district. The Central Government employees of all categories numbered 870 in the district in 1966-67, while there were about 550 employees working in the various local bodies during the same year. A majority of these categories of employees, who earn an assured sum of money, may be said to belong to the middle classes. The various benefits afforded to this official class give them a sense of security.

Other Office-workers and Shop-assistants

In addition to those who are working in Government offices and local self-governing institutions in various capacities, there are also a considerable number of people who are earning their livelihood by working in private offices, shops and other establishments. According to the 1961 Census, Tumkur district accounted for about 2,000 administrative, executive and managerial workers in the private sector and 2,886 salesmen, shop assistants and related workers. A number of new industrial units have been established in the district and there has also been a good deal of development in the fields of trade and commerce in recent years. This has resulted in increasing recruitment of workers of these categories.

Learned professions

The important learned professions in the district include medicine, engineering, law, teaching, arts and letters. A brief account of these professions is given below.

Medicine.—According to the 1951 Census figures, there were 574 persons in the medical and health services in the district. As against this, the 1961 Census revealed that there were 305 physicians, surgeons and dentists and 452 nurses, pharmacists and other medical and health technicians in the district. Of these, 172 persons were females and the rest males. These figures included those who were working in public hospitals, dispensaries, health centres, private nursing homes and clinics. Nearly half of these persons were working in the urban areas of the district, while the other half were in the rural areas.

Engineering.—There were, in all, 227 engineers, architects and surveyors in the district in 1961. Of these, 97 persons belonged to civil engineering and were engaged in construction of buildings, roads and bridges. Besides these, there were 20 draughtsmen and other engineering technicians in the district.

Law.—The district accounted for 156 persons in the legal profession as per the 1961 Census. These included jurists, legal practitioners and advisers. Most of these persons, i.e., 149, were working in the urban areas of the district.

Teaching.—There were 3,831 persons in the educational services in the district in 1951, including both employers, employees and independent workers. Since then, there has been a gradual increase in the number of educational institutions in the district, both primary and secondary and higher. According to the 1961 Census, there were 4,990 teachers in the district. Of these, as many as 4,258 were middle and primary school teachers, 235 were secondary school teachers and 119 nursery and kindergarten school teachers. Out of the total, 436 teachers were women. A majority of the teachers were in the rural areas, the number of those working in the urban areas being only 1,535.

Arts and Letters.—In 1961, there were, in all, 297 persons engaged in the professions relating to arts and letters, of whom 52 were women. This category of workers included actors, musicians, painters, writers, journalists and related workers.

The census of 1961 has returned 11,588 working proprietors, both of wholesale and retail trade, in the district, whose main occupation is to manage their own shops and other business establishments, as also various production units. A number of paid employees work under many of them on monthly wages. They are not mere financing agents and profit earners. They also look after the managerial side of their establishments and contribute their share of work as well. About 50 per cent of these working proprietors were found in the urban areas and the rest in the rural areas. There were also a considerable number of women among them, viz., 2,340.

Working Proprietors

In Tumkur district, there is a considerable number of persons engaged as farmers and farm-workers, other than agricultural. According to the 1961 Census, there were 38,112 of them, of whom 9,261 were females. Except for 1,489 persons, all others were working in the rural areas of the district. The total number included farm and plantation managers and those engaged in rearing of animals, birds, insects and the like, both in Governmental and non-Governmental establishments.

Farmers and Farm-workers

The hotels and restaurants in the district, as elsewhere, provide opportunities of employment as cooks, servers, cleaners and, in some cases, paid managers. In most of the establishments, the owners themselves look after the management. According to the 1961 Census, there were about 1,160 persons following these

Workers in hotels and restaurants

and other related professions in the various hotels, restaurants and eating houses in the district. The wages of cooks generally varied from Rs. 60 to 80 and those of servers from Rs. 30 to 50 with boarding. The cleaners are paid less.

Besides these workers employed in hotels and restaurants, there were also about 1,660 persons working as house-keepers, bearers, waiters, maids and the like in private houses in the district. Of these, about 340 were females.

Transport Workers

As per the 1961 Census, the workers in transport and communication occupations in the district numbered 1,785, most of whom were in the urban areas. Of these, 1,122 were drivers of road transport services, including buses, lorries, cars and animal-drawn vehicles. Among others were conductors, traffic inspectors, signalmen, pointsmen, ticket sellers and collectors, railway guards, telephone operators, etc.

Electrical Workers

Electricians and related electrical workers in the district in 1961 numbered 544. Of these, 404 were linemen and cable-jointers. With the rapid development in rural electrification and telegraph and telephone services, the need for workers of these categories has been on the increase, and they are also paid better than the unskilled workers.

Tool-Makers

There were about 800 tool-makers, machinists, welders, plumbers and related workers in the district in 1961. These also included mechanics and repairmen, who numbered 470. Of the total number, more than 500 persons were working in the urban areas, where employment opportunities for such type of workers were more. With the increased tempo of industrialisation, there is greater demand for these workmen and they are paid better than the traditional craftsmen.

Construction Workers

There were 5,428 construction workers in the district, consisting of brick-layers, plasterers, stone-cutters, masons, well-diggers and the like, according to the 1961 Census. Of these, the stone-cutters and dressers alone accounted for 1,726 persons, the number of brick-layers and plasterers being 697. The stone dressers, many of whom move about with their tool-kits offering their services wherever necessary, get an average daily wage of Rs. 3 to 5, while the brick-layers, plasterers and masons get about Rs. 4 to 6. With the increase in constructional activities in recent years, the employment avenues for these classes of workers have also increased.

Barbers

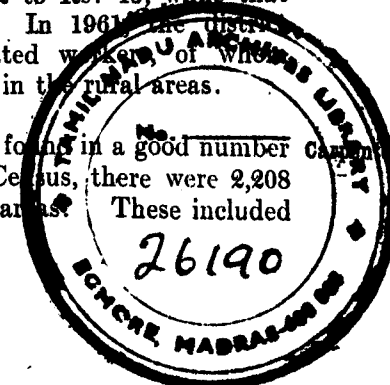
In the old days, mostly the practice was for the barbers to go to houses of the people in their localities to render their services. While this practice still continues to a certain extent, especially in

the rural areas, many of the barbers have now established their own saloons, both in the urban and rural areas. The presence of the barber is necessary at certain religious ceremonies like *chudakarma* and funerals among many Hindus. A significant feature of this profession is that a majority of those engaged in it are independent workers. The average daily earning of an independent barber may be put at Rs. 3 to 5, while the average monthly earning of a barber's shop may vary from Rs. 100 to Rs. 250, depending upon its size and popularity. Many of the barber families have also the tradition of cultivating instrumental music. In 1961, the district had 1,269 barbers, hair-dressers and related workers, of whom 406 were in urban areas.

Laundrying is another essential personal service needed by the community. In 1961, there were 2,892 persons engaged in this occupation in the district, of whom as many as 1,082 were females. A large majority of these washermen and women were in the rural areas, with only 365 of them working in the urban areas. Washermen also go from house to house to collect and deliver the clothes, especially in the rural areas. In the urban areas, it is common to see laundrying shops and also, of late, dry-cleaning establishments. In the laundries, the rate charged per clothe varies from 12 to 15 paise for an ordinary wash and about 25 to 30 paise for an urgent wash. Dry-cleaning of woollen suits is done for Rs. 1-50 to Rs. 2-50 per suit. The domestic washerman, who collects clothes from the houses, charges about Rs. 10 per 100 pieces.

A majority of tailors in the district are independent workers, having their own sewing machines and earning a fairly good income. They are found all over the district, especially in towns and small townships. In some of the shops, especially cloth shops, merchants accommodate a tailor or two in a corner of their shops; some of the cloth merchants also employ one or two tailors to work in their shops. Tailoring shops, with a master-tailor employing two or three workers, are a common feature in the urban areas of the district. It is a full-time occupation, which provides employment throughout the year, and the monthly average earnings of a tailor may be put at Rs. 150 to Rs. 250. The tailoring charges are paid by customers, according to the apparel required, on a piece-rate basis. The charges for stitching a cotton suit generally varies from Rs. 12 to Rs. 15, while that of a woollen suit from Rs. 40 to Rs. 60. In 1961, the district had, in all, 3,683 tailors, cutters and related workers, of whom 1,376 were in the urban areas and the rest in the rural areas.

Carpenters are skilled artisans and are found in a good number in the district. According to the 1961 Census, there were 2,208 of them, concentrated mainly in the rural areas. These included



also cabinet-makers, pattern-makers and other related workers. Generally, carpenters have their own tool-kits. In the villages, they make and repair agricultural implements, bullock carts, doors and windows and the like, while in the towns, they are mostly engaged in house-construction and making of furniture and the like. Many of the carpenters in villages work in their own houses or sheds attached to their houses, while some of those in towns have their own shops. Many of those engaged in making doors and windows and other materials for house-construction, are attached to building contractors. A skilled carpenter earns at an average of Rs. 5 to Rs. 7 daily. With the improvement in the standard of living of the people in recent years and the increase of house-building activities, there is greater demand for carpenters, especially in the urban areas.

Blacksmiths

In 1961, there were 1,628 blacksmiths (including hammer-smiths and forgemen) in the district, working mostly in the rural areas. They generally have their own workshops in small hutments and attend to the various needs of the agriculturists. Generally, they have brisk work when agricultural operations are in full swing and when there is more demand for agricultural implements and tools. They also undertake other jobs like fixing of iron tyres (rings) for bullock-cart wheels. On an average, a blacksmith earns about Rs. 100 to Rs. 150 per month.

There are also some other traditional occupations besides those described above, in which also a sizable number of people are engaged in the district. They are goldsmiths, spinners and weavers, potters, basket-weavers and the like. Many of them are skilled artisans who play a vital role in the district's economy. A brief account of some of these occupations is given hereunder.

Goldsmiths

The total number of goldsmiths in the district in 1961 was 2,260. These included jewellers and silversmiths as well. Generally, the goldsmiths and the silversmiths are the same in the rural areas. The village goldsmith often works alone and sometimes takes his near relations to assist him or to work as apprentices. He confines himself generally to the manufacture of simple ornaments which are popular in the rural areas. In urban areas, the goldsmiths have their own shops with one or two assistants under them. Due to the gold control measures introduced in 1963, some of the goldsmiths in the district were affected considerably. With a view to rehabilitating them, the State Government have given them lands for agriculture, loans for starting cottage industries and educational concessions to their children. Training facilities in various useful trades and assistance in securing employment have also been extended to them. Some of the recent relaxations of the gold control order have also been of help to them, to some extent, in rehabilitating themselves.

Spinners, weavers, dyers and related workers numbered 11,682 in the district in 1961, of whom 6,133 were females. More than 9,300 of the total number were in rural areas. Many of the weavers possess their own looms and the supply of raw materials is made to them by the local master-weavers or financiers, who take back the finished products and pay them the weaving charges. The establishment of Weavers' Co-operative Societies in recent years has been helpful in improving their economic position to a certain extent. A weaver, who has more than one loom, employs labour in accordance with his needs and pays them daily wages. The average earning of a weaver varies from Rs. 3 to Rs. 5 a day.

Spinners and Weavers

Potters are scattered all over the district, mostly in the rural parts. There were 2,649 of them in the district, in 1961. These included also kilnmen, clay formers and related workers. The potters sell their wares in local shandies and markets and also by carrying them to houses. The daily earning of potters varies from Rs. 3 to Rs. 5 depending upon the skill and the quantity of products manufactured. With the increase in the use of aluminium utensils in the households in recent years, the demand for potters' ware is gradually decreasing.

Potters

In 1961, there were 2,259 basket-weavers and related workers in the district and almost all of them were in the rural areas. A significant feature of this occupation is that about 70 per cent of those engaged in it were women. Thus, of the total number of 2,259 basket-weavers, as many as 1,589 were women, the number of men being only 670. The products they make include mats, baskets, sieves and the like, for which there will be more demand during the harvest months. By and large, the persons engaged in this craft are poor and they eke out their livelihood with great difficulty.

Basket-Weavers

The leather-workers include shoe-makers, shoe-repairers, leather-cutters and the like. Their total number in the district in 1961 was 1,266. They are either independent workers or are employed by tanners. On an average, the employees are paid about Rs. 2 to Rs. 3 a day. The independent workers pursue their occupation with their small capital.

Leather Workers

A statement showing the occupational classification of persons at work, other than cultivation, in the district in 1961 is given in the Appendix.

CHAPTER IX

ECONOMIC TRENDS

TUMKUR is one of those districts of Mysore State which are subject to periodical scarcity conditions. Keeping this in view, its economic growth has been well-planned in recent years, having regard to its potentialities in the fields of agriculture, irrigation, industries, communications and other spheres. The many programmes carried out under the successive Five-Year Plans have brought about developments of a far-reaching importance and have laid the foundation for its future prosperity. In presenting an account of the economic trends in the district, it would be necessary to look into the livelihood pattern of the population, the price and wage fluctuations with their impact on economic and social conditions, the standard of living of the people, the employment level and other cognate matters. In dealing with these aspects, one has to bear in mind what has been said in some of the earlier chapters of this volume, particularly relating to agriculture, irrigation, industries, banking, trade and commerce.

There are a variety of factors which determine the economic regeneration of a region and the main occupations of the people are taken into consideration in any assessment of economic trends. The occupations, traditional or modern, are closely inter-related to the natural resources that are available in the district or a region. The advantages of situation of natural resources, availability of raw materials, the technical know-how acquired by the people, the accumulated savings of the people, the credit available for starting new enterprises, the institutional advantages and a spirit of enterprise are some of the important factors which go to improve the economic condition of an area.

Livelihood
pattern

The district is not dissimilar to other contiguous districts in its occupational pattern, which is, of course, mainly agricultural. According to the 1951 Census, out of a total population of 11,51,362, as many as 9,62,909 persons, i.e., 83.6 per cent, were depending on agriculture for their livelihood. The non-agricultural population numbered only 1,88,453, i.e., 16.4 per cent. The

1951 Census enumeration of the livelihood pattern was divided into eight classes with two broad divisions, viz., agricultural and non-agricultural. The agricultural classes were further divided into four sub-divisions, viz., (i) cultivators of land wholly or mainly owned and their dependents, (ii) cultivators of land wholly or mainly unowned and their dependents, (iii) cultivating labourers and their dependents, and (iv) non-cultivating owners of land, agricultural rent receivers and their dependents. The actual number of persons of agricultural class falling under each of these categories in 1951 was as follows:—

1. Cultivators of land wholly or mainly owned and their dependents ..	8,23,683
2. Cultivators of land wholly or mainly unowned and their dependents ..	40,471
3. Cultivating labourers and their dependents ..	62,924
4. Non-cultivating owners of land, agricultural rent-receivers and their dependents ..	35,831
Total ..	9,62,909

The non-agricultural classes were also sub-divided into four categories, viz., persons engaged in (i) production other than cultivation, (ii) commerce, (iii) transport, and (iv) other services and miscellaneous sources. The following were the number of persons (including their dependents) in each of these categories in the district in 1951:—

(1) Production other than cultivation ..	57,999
(2) Commerce ..	40,422
(3) Transport ..	4,305
(4) Other services and miscellaneous sources ..	85,727
Total ..	1,88,453

In the 1961 Census, for the first time, tables of persons engaged in useful economic activity were prepared in greater detail. In order to get a correct number of persons engaged in different occupations, the population of each village in the revenue area and of each enumerator's block in a town was first divided into "workers" and "non-workers". The working population was then classified under the following nine broad categories, viz., (1) as cultivators, (2) as agricultural labourers, (3) in mining, quarrying, livestock, forestry, fishing, hunting and plantations, orchards and allied activities, (4) in house-hold industry, (5) in manufacturing other than house-hold industry, (6) in construction, (7) in trade and commerce, (8) in transport, storage and

communications and (9) in other services. The sub-joined statement indicates the actual number of persons working in each of these categories:—

(1) As cultivators ..	4,87,472
(2) As agricultural labourers ..	61,482
(3) In mining, quarrying, livestock, forestry, fishing, hunting and plantations, orchards and allied activities ..	20,539
(4) In house-hold industry ..	46,478
(5) In manufacturing other than house-hold industry ..	9,470
(6) In construction ..	5,792
(7) In trade and commerce ..	15,088
(8) In transport, storage and communications ..	2,384
(9) In other services ..	37,810
Total number of workers ..	<u>6,86,515</u>

Thus, out of a total population of 13,67,402 in the district in 1961, 6,86,515, i.e., only about 50 per cent, were workers, while the rest, i.e., 6,80,887, were non-workers who depended on the workers. (See also Chapter VIII and Appendix).

Price trends

In any study of the economic condition of a particular area, the price-level is an important factor. The interests of the producer as well as of the consumer have to be reconciled, and a balance effected between the two goes to help their economic prosperity. If uneconomic prices prevail, the grower will have no incentive to put forth his best efforts. If the consumer is hit hard, resistance in buying will increase. Hence, a proper balance between the two factors has to be struck to preserve also the economic equilibrium. The average prices for agricultural produce that existed in the later part of the last century give a fair indication of the low returns to the producer. The causes for this were many. Lack of communications, absence of any marketing regulation and localisation of trade resulted in abundance of stocks in a particular growing area. The glut in these markets naturally brought the prices down.

From the figures available from 1871 to 1873, it is seen that the price of rice for a maund of 80 lbs. ranged between Rs. 3 to Rs. 4-8-0. In 1882 and 1883, the prices went down as low as Rs. 2-8-0 per maund. From 1891 to 1892, there was an upward trend and the price of rice shot up to nearly Rs. 5 per maund. The same was the case with ragi which sold at Rs. 1-8-0 per maund in 1881-82. This price went up to nearly Rs. 2 in 1891-92 and again came down to Rs. 1-8-0 in 1892-93. Going

back a hundred years from the dawn of the 20th century, according to Buchanan's observation, the prices near about Tumkur in 1800 were : ragi 12 sultani fanams per *khandaga* of 200 seers and rice, best sort, 28½ seers and rice coarse 66½ seers. If converted into rupees, ragi was 50 seers for a rupee and rice, best sort, 9 seers per rupee and second sort 21 seers. (*Mysore Gazetteer*, Vol. I, Lewis Rice—p. 562). These were the prices prevailing a hundred and sixty years ago. Just before the commencement of the First World War (1913-14), the average price of rice (first sort) in Tumkur was 6 seers per rupee and ragi was selling at 14 seers per rupee.

The averages for all the districts were worked out between 1886 to 1915 and 1916 to 1923. According to the available figures, rice in 1886-90 was selling at 13.50 seers per rupee. From 1901 to 1905, the price quoted was 10.35 seers per rupee and in 1916, it was 7.22 seers. The price of ragi in 1886-1890 was 39.96 seers per rupee. During 1901-1905, it was 24.40 seers and in 1916, 17.68 seers.

It is clear from these figures that the prices of essential food-grains began to register an upward trend in the pre-war and post-First World War years. The reasons for the increase in prices were many. Apart from the usual monetary causes, the reasons for the appreciation in prices in the early years were the growth in population, variations in production and the prices quoted for gold and silver. The price of rice, for example, which was selling at 13½ seers per rupee in 1886, was only 7 seers per rupee in 1916. The same was the case in respect of ragi; in fact, the price of ragi doubled itself during the period from 1886 to 1916.

The price-line after the First World War upto the closing stages of the Second World War, has also to be noted in any estimation of price structure. In 1923-24, the price of rice for one *palla* in Tumkur district was Rs. 27-4-0 and in 1944-45, it was Rs. 29-0-0. The price of ragi in 1923-24 was Rs. 12-8-0 per *palla* and in 1944-45, it was Rs. 14-4-0. The rise in prices during this period was partly due to the hazardous financial policy of the British Government. Paper currency had to be expanded in order to make purchases of goods for the allied powers. Since the supply of goods shrank with the expansion in currency, prices took a sharp upward course. The speculators accentuated the situation by cornering the markets with the newly gained profits. Due to the priority given to war supplies, the channels of distribution became defective and there were sharp bottlenecks. Black-markets appeared in respect of all the consumer goods all over the country and the impact of this was also felt in Tumkur district. The people were put to tremendous hardship and

misery. Rationing in food and cloth and control in the prices of other essential materials did not improve the position much.

After 1947

In 1947, the decontrol of foodgrains, sugar and cloth resulted in a sharp upward turn in prices which forced the Government to re-impose controls to arrest the rise. In 1949, the devaluation of the rupee had a considerable effect on the domestic price-line; prices started falling and it appeared that the harmful effects of the earlier rise in prices were slowly wearing out; but again the prices of principal commodities went on rising as indicated by the following table for the years 1957, 1958 and 1959 :—

*Average wholesale prices of principal commodities
(Price in Rs. per B. Maund).*

Year		Rice	Ragi
		Rs. nP	Rs. nP
1957	..	19.40	11.92
1958	..	19.95	11.84
1959	..	21.59	13.39

This inflationary tendency was due to many factors. The impact of the monetary policies of the Government, the price of gold and silver, the variations in the volume of production and the policy of imports and exports had all played their parts in the instability of the price-line. The war years threw up manifold social ills and it was noticed that there was a preponderance of speculation in the foodgrains trade. The speculators and hoarders did their worst by creating artificial scarcities and this had its own impact on prices. The State Government was not slow in checking these undesirable trends. Control measures on prices were tightened to arrest this tendency. Compulsory procurement of paddy and ragi was ordered and essential foodgrains were rationed in urban areas. The free movement of foodgrains from rural to urban areas was kept in check by issuing control orders. Many people felt the severity of controls and they persisted in the demand that the controls on foodgrains should be lifted as speedily as possible and in 1952, all controls on foodgrains were removed. It was thought that this action of Government would bring down the prices; but this did not happen. Prices continued to be high and fair price shops were opened to alleviate the difficulties of the consuming public. Buffer stocks were created to have a steady effect on the price-line. Banks were advised not to lend money on agricultural produce. But, these measures did not have much effect on the price-structure. The prices of essential commodities went on rising with the result that in 1960, rice was being sold at 1½ seers per rupee and ragi at 2½ seers per rupee.

About the close of the year 1964, the prices of food articles began to show a further upward trend, as a result of which the consumers were put to much hardship. During that period and throughout 1965, 1966 and 1967, the market prices for rice, ragi, edible oils, pulses and chillies were abnormally high. The State Government took several measures to alleviate the difficulties of the consumers. A series of regulatory orders were issued from time to time with a view to holding the price-line. The wholesale and retail sale of foodgrains came under controls. Fixation of the purchase and selling prices was attempted to check the spiralling prices. The dealers in foodgrains were directed to declare their stocks periodically. They were also required to exhibit the prices of commodities. The Food Corporation of India was established by the Union Government to build up buffer stocks. Controlled distribution of foodgrains was resorted to in urban areas. The cultivators were asked to part with a portion of their production under the foodgrains levy system. Distribution of foodgrains through consumers' co-operative societies at fair prices helped the people to a certain extent.

Foodgrains are being procured with a view to supplying them to fair price shops and consumers' co-operative societies. Under this scheme, several regulations have been issued by the State Government such as the Mysore Paddy Procurement (Levy) Order, 1966, the Mysore Jowar Procurement (Levy) Order, 1966, the Mysore Ragi Procurement (Levy) Order, 1966, and the Mysore Bajra Procurement (Levy) Order, 1966. During 1966-67, the procurement work in the district was entrusted to the co-operative institutions which acted as purchasing agents. The above levy orders are being continued from year to year with a view to checking further rise in prices of foodgrains. The distribution of foodgrains, on a controlled basis, to the consumers is being done through a net-work of fair price shops organised by co-operative societies, village panchayats and individual merchants. During 1968, there were, in all, 688 fair price shops in the district, of which 455 shops were run by co-operative societies, 146 by village panchayats and 87 by individual merchants. The average wholesale and retail prices of foodgrains and other consumer commodities in the district during the year 1968 were as given below :—

Commodity	Wholesale price per quintal	Retail price per quintal
1	2	3
	Rs.	Rs.
Wheat (imported)	75—00	77—00
Milo (imported)	56—00	58—00
White Jowar	71—00	73—00

1	2	3
Bajra ..	71—00	73—00
Ragi ..	89—00	71—00
Rice (fine) ..	96—00	98—00
Rice (mid-fine) ..	91—00	93—00
Rice (medium) ..	87—00	89—00
Rice (coarse) ..	85—00	87—00
<i>Wheat products :—</i>		
Maida ..	94—00	96—00
Soji ..	98—00	100—00
Atta ..	76—00	78—00
Sugar ..	173—00	175—00
(controlled price)		

Wages

Urban Wages.—The wage index of any area is closely linked to the price-line, and when the commodity prices increase, the wages have also to be raised. This trend is particularly significant in an inflationary period. In discussing the wage rates prevalent in the district, only averages are noted, though the wages paid may vary from place to place depending upon the economy of the place. The average wage for casual labour in the district varies from Rs. 1.50 to Rs. 2.00 a day. In areas with a larger population, the rates paid are more since the demand for labour is more. The wages paid to domestic servants are not based on any definite standard or principle. There are variations from place to place. In some areas, there are whole-time domestic servants getting a monthly wage with or without food. In some places, servants are employed on part-time basis or are paid according to hours of work. But, in all these cases, the wages paid have no standard basis. The rates of wages generally vary from Rs. 40 to Rs. 50 per month for full-time servants, while the part-time servants are paid from Rs. 15 to Rs. 20 per month depending upon the type of work given to them. Office boys in private establishments, who do mostly menial work, are paid Rs. 60 to Rs. 70 a month, whereas a class IV servant in a Government establishment is paid a basic pay of Rs. 50 a month plus dearness and other allowances as in force from time to time, the present rate of dearness allowance (1968) for them being Rs. 65.

Drivers of motor vehicles are important in the category of urban wage-earners. Towns like Tumkur, Tiptur, Gubbi have grown considerably in recent years. There are a number of merchants and officers in these places. Many of these well-to-do persons have their own cars or lorries for which they keep paid drivers. The car drivers are paid Rs. 75 to Rs. 90

a month. The wages paid to drivers of heavy motor vehicles like lorries and trucks are comparatively higher; their wage rate varies from Rs. 100 to Rs. 125 a month. Similarly, the bus-drivers in private enterprises are also paid between Rs. 100 to Rs. 120 a month with an additional high price allowance. Skilled workmen like carpenters, blacksmiths, tailors and barbers also earn easily twice as much as the unskilled labour.

Rural wages.—In this predominantly agricultural district, a vast number of people depend entirely on land for their livelihood. Though some of the cultivators are better off than before in some of the tracts due to the rise in prices of agricultural commodities, the position of many others is none too happy because of the capricious nature of the rainfall which often causes anxiety. Tanks under which wet cultivation is conducted, do not fill up regularly every year. This creates considerable hardship to the small cultivators and agricultural labourers, some of whom migrate to the urban areas and seek jobs in the industrial and other establishments. As the yield from land is not sufficient for their needs, they are naturally attracted towards other employment opportunities. But, all the same, a large number of persons in the district are engaged in agricultural operations like ploughing, sowing, weeding, transplanting, harvesting and threshing. A common feature of most of these occupations is the casual nature of employment offered as against permanent employment obtaining in some of the categories in the urban areas. The landless labourers are employed whenever there is need and they are without employment in other periods, thus rendering their living condition very difficult. The method of paying wages in the rural areas is varied, payment being made daily, weekly or monthly either in cash or in kind. In some places, cash is paid and in some other places, in addition to cash, grains are also given.

The daily wages paid to men labourers vary from Rs. 1.25 to Rs. 2.50, while women labourers are paid Re. 1.00 to Rs. 1.50. Agricultural labourers are available in good numbers except during some peak seasons. Most of the heavy work is done by men who get better wages than women. They work for about eight hours a day. Under the Minimum Wages Act, 1948 (Central Act XI of 1948), the State Government had fixed the minimum rates of wages in respect of several categories of employment in agriculture in 1959. These rates were revised in 1968. The sub-joined statement shows the old and the revised rates of wages of the several categories :—

Class of employment	All inclusive minimum daily rates						
	Dry areas		Irrigated areas		Perennial garden areas		
	1959	1968	1959	1968	1959	1968	
	1	2	3	4	5	6	7
	1	2	3	4	5	6	7
Class A—		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1. Ploughing ..	}	1.25	1.85	1.50	2.20	1.75	2.55
2. Digging ..							
3. Harrowing ..							
4. Sowing ..							
5. Inter-culturing ..							
6. Irrigating or watering, and ..							
7. Uprooting ..							
Class B—							
1. Manuring ..	}	1.00	1.45	1.12	1.65	1.37	2.00
2. Transplanting ..							
3. Weeding ..							
4. Reaping (including harvesting, threshing and winnowing).							
5. Picking in the case of cotton.							
Class C—							
Cattle, sheep and goat grazing.		0.50	0.75	0.50	0.75	0.50	0.75

The monthly minimum rates fixed in 1968 for youths and children employed permanently under Class A are—Rs. 22.05 with food and clothing and Rs. 44.05 without food and clothing. The corresponding rates under Class B are—Rs. 14.70 with food and clothing and Rs. 22.05 without food and clothing and under Class C Rs. 7.35 with food and clothing and Rs. 22.05 without food and clothing. Compared with these agricultural wages, the wages paid to industrial workers are much better. As a result, migration of agricultural labourers to industrial areas is noticeable in the district.

Agricultural development

The total cultivated area of the district in 1965-66 was 12,00,458 acres out of a total area of 26,11,134 acres. The forest area is not much and the extent works out to only 8 per cent of the total geographical area. Sira, Gubbi, Kunigal, Pavagada and Chiknayakanahalli taluks have larger areas of forest

than that of the other taluks, sandal, bamboo and *devadari* being the chief forest species. Most of the forests in the district are thin and are situated largely in hilly areas. Tumkur is mainly a dry-farming area and scarcity conditions are common whenever the rains fail. Variations in the rainfall are, no doubt, natural, but this aspect has not been very pronounced. The climate, for the most part, is salubrious and healthy. About 41.7 per cent of the total geographical area is under a variety of food crops. The main food crops grown in the district are ragi, paddy, jowar and grams including horsegram, blackgram and greengram. Among the other crops grown are groundnut, castor and tobacco. The chief garden crops are coconut and arecanut.

Irrigation has not been very prominent in assisting agricultural production in the district. Out of a total cropped area of 12,00,458 acres, only about, 1,67,040 acres were under irrigation in 1967, mainly by tanks, wells, canals and *talaparigea*. The area cultivated by different irrigation sources is comparatively more in Tumkur, Gubbi, Madhugiri and Pavagada taluks. The area cultivated by tank irrigation in the district is, in fact, more than the area cultivated by any other types of irrigation. In the development of wet-land farming, several methods for moisture and soil conservation have been attempted. This has become absolutely necessary, because the sources for increasing irrigation are rather few. Contour-bunding, which is a familiar but sure way of conserving moisture, is on the increase. This has, to some extent, helped to ward off the threat of periodical scarcity. The cultivators have realised the beneficial effects of good bunding of fields in conserving the soil. In recent years, new methods of dry farming have been introduced and intensive cultivation methods have also been adopted. All these measures have helped the area to achieve a good measure of quantitative and qualitative progress in agriculture. Various schemes to increase the yield of ragi, paddy, coconut and arecanut are being implemented. The mechanisation of agriculture is confined only to some areas where bulldozers and tractors are used. There are a few affluent agriculturists who have the means to hire tractors for ploughing their fields. But, these modern methods have not in any way diminished the importance of livestock. The Animal Husbandry Department has introduced many new schemes to improve the breed of cattle and sheep in the district.

The statistics of agricultural holdings in the district indicate that a large number of holdings has been uneconomic. The size of holdings and their distribution in the district, according to the Mysore Tenancy Agricultural Land Laws Committee Report (1958), have been given in Chapter IV.

It would be of interest to note that the average holding per holder in the district then consisted of 7.73 acres while the State average was 10.87 acres. According to the 1961 Census figures, there were, in all, 38,567 cultivating households in the district. Of these, 990 households cultivated land extending to less than one acre, 7,915 households from 1 to 2.4 acres, 11,485 households from 2.5 to 4.9 acres, 8,006 households from 5 to 7.4 acres, 3,160 households from 7.5 to 9.9 acres, 2,859 households from 10 to 12.4 acres, 850 households from 12.5 to 14.9 acres, 2,496 households from 15 to 29.9 acres and the rest 30 acres and above.

The tempo of economic development has considerably increased in recent years by the impact of organised planning which has been adopted as a national policy. Agricultural development has been a keynote of planning aimed at getting more food from the arable land by introducing improved agricultural practices. Intensive methods have now been adopted in the district with the timely advice of the technical personnel of the agricultural department. Irrigational facilities, which go to increase and improve the yields, are rather poor in the district. The district has no perennial rivers, though, of course, there are several major tanks. Absence of suitable sites for construction of major irrigation works has been a serious handicap. The Marconahalli Reservoir and the Boranakanive Anicut have been among the major irrigation works which have paid good dividends in their respective tracts. Lift irrigation methods are being increasingly adopted. More and more irrigation pumpsets are now being installed in the district. The major and minor tanks depend entirely on the monsoons. If the seasonal rains are good, these tanks provide copious supplies of water during the agricultural seasons.

Food deficit

Tumkur has been a deficit district in regard to production of foodgrains. It has been estimated that during the agricultural season of 1967, the district produced only about 80,070 metric tonnes of foodgrains as against its requirements of about 2,62,000 metric tonnes, as could be seen from the following table :—

(In metric tonnes)				
Sl. No.	Name of taluk	Total requirements of foodgrains	Total production	Total deficit
1	2	3	4	5
1.	Tumkur	24,257	18,000	6,257
2.	Gubbi	88,800	25,801	62,999
3.	Kunigal	35,000	27,350	7,650
4.	Tiptur	25,320	14,100	11,220
5.	Chiknayakanahalli	20,385	12,800	7,585

1	2	3	4	5
6.	Turuvekere	19,482	15,900	3,582
7.	Madhugiri	22,253	11,600	10,653
8.	Sira	53,775	17,019	36,756
9.	Koratagera	28,536	18,200	10,336
10.	Pavagada	34,200	19,300	14,900
Total		2,62,008	80,070	1,81,938

Thus, the deficit during the year was to the tune of about 1.82 lakh metric tonnes, and this deficit had to be met by importing foodgrains from other regions. The land ownership pattern, which has had all the evils of fragmentation, the outmoded methods of cultivation, which are still being followed to a considerable extent, insufficient irrigation facilities and periodical failures of rains have stood in the way of getting more from the land.

The Mysore Land Reforms Act, 1961, which is being now implemented; has envisaged great changes in the pattern of land-ownership; it has prescribed ceiling limits for present holdings and also for future acquisitions and has made provisions in respect of tenants' rights with a view to making the tiller of the soil the owner of the land. This would encourage them to put forth their best efforts to get more from the land. A comprehensive programme for better utilisation of the water resources in the district is also being carried out.

It has been realised that complete dependence on agriculture by a large number of people for their livelihood retards the progress of agriculture and affects the common well-being of the people. This problem becomes more acute in the scarcity areas where the yields are often poor and the extent of land under cultivation is smaller. Therefore, diversification of agriculture and pursuit of activities allied to agriculture are necessary for remedying this position. Realising this fact, development of animal husbandry, fisheries, sericulture and such other occupations allied to agriculture are being now increasingly encouraged. This would provide the families of agriculturists enough work all through the year and a good additional source of income which would help to raise their standard of living.

Some developments in the sphere of finance have been apparent in the district over the decades. In the old days, there were no institutional financing agencies supplying credit to those who needed it. There were, of course, the village money-lenders who advanced loans to agriculturists and rural craftsmen.

Avenues of investment were not much in evidence. Government securities and the like were availed of only by a few of the privileged classes who had some assured means of income. As a result of urbanisation, institutional banking came into prominence after 1913, when branches of well-organised and established banks were located in the district.

The gradual development of co-operative credit institutions in the district is yet another aspect of economic importance. The number of co-operative institutions in 1967 in the district was 1,037 and this indicates the immense popular response to the movement. These institutions supply credit to the different sections of the district's economy. Supplemental aid has also been forthcoming from Government agencies. The Government have a number of schemes to render financial assistance to the cultivators in the form of developmental loans and subsidies. Loans are also being given for promotion of industries.

Trade pattern

A noticeable feature of the trade pattern in the district is the conglomeration of retail traders and the preponderance of independent workers engaged in commerce. Trade and commerce are mainly carried on in towns. A large percentage of the mercantile class is to be found in urban areas. Though not rapidly, vast changes have been noticed in the volume of trade because of the increased production of agricultural commodities. The entire organization and pattern of trade in the district have undergone a change with the development of road and railway transport and good inter-taluk communications. Outlying areas have been made accessible to the flow of trade by the construction of roads connecting all the taluks and important villages of the district.

The pattern of trade has changed for the better with the establishment of regulated markets in some important places where an assured fair price is offered to the producers. The increased popularity of machine-made goods like textiles and the growing importance of cash crops, such as, cocoanuts and arecanuts, have all made the trade pattern of the district conform to the changed conditions. Of the total production of cocoanuts in the district, about 80 per cent is exported to Bangalore and other places. Retail business is spread over all parts of the district. Even remote villages have one or more shops that cater to the daily needs of the people of the place. Shandies or *santes* are the distributing centres of daily necessities. Besides these shop-keepers and fairs, pedlars go from place to place hawking merchandise from village to village and thus act as connecting links between places.

Cheap and assured supply of electric power is a sure base for Power economic development. The main power line from Mahatma Gandhi Hydro-Electric Works at Jog runs through this district. Though electric power was extended to the district as early as 1931, the expansion programmes had to wait because of the meagre supply from the only power generating station then existing at Shivasamudram. It was only in 1948 that the Jog Hydro-electric Scheme was put into operation. After the availability of this power, electric energy was extended to several areas. Now, with the commissioning of the Sharavathi generating units, there is plenty of power supply. Extension of power supply to rural areas is now the declared policy of the State Government, and more and more towns and villages have been supplied with power in recent years. This has encouraged the development of small-scale industries, lift irrigation and other pursuits.

In the sphere of communications, the Bangalore-Harihar-Communications Poona line of the Southern Railway system is the only line passing through a part of this district. While this has offered some good scope for the flow of trade between eastern and western parts, there is no such facility especially in the northern parts of the district. Road communications are fairly adequate in the district linking every taluk with the district headquarters-town and also the administrative capital. In respect of inter-village communications also, appreciable progress has been achieved in recent years, though there is still a good deal to be done. (See also Chapter VII).

As already stated, the pattern of occupations in the district Industrial is chiefly agricultural, and the growth of industries is confined development mainly to the cottage variety, like handlooms, sericulture, wool-weaving and oil-pressing. A number of cottage and small-scale industrial units have come up in the district in recent years. Raw-materials like wool, groundnut and coir, which are abundantly available in the district, have been put to use to some extent. The absence of coal and iron has been, of course, a severe handicap to the growth of any large-scale industries. The presence of limestone in areas around Ammasandra has been made use of to establish a cement factory in the private sector at Ammasandra in Turuvekere taluk. This is at present the only large-scale industry in the district and it employs about 700 workers. Handloom cloth-weaving, wool-weaving and sericulture are some of the oldest occupations in the district. Among the small-scale industries may be mentioned beedi-making, manufacture of slate pencils, hair-comb making, *kambli*-weaving, manufacture of agricultural implements, general engineering, coir industries, saw mills and wood-based industries, confectionery and the like. In recent years, there has been a considerable development of small-scale industries in the district, and at present, there are 257

registered small-scale industrial units, which provide employment to about three thousand persons.

Improved agricultural practices exert a steady influence on the growth of industrialisation. As the district is not a cotton-growing area, there is no impetus for establishment of textile mills. The limited but assured irrigational facilities in Kunigal area and around Boranakanive, offer good scope for increased cultivation of sugarcane. The total acreage under sugarcane in the district in 1967 was only 7,882. If this acreage is further increased, there may be scope for starting one or two sugar production units in the district.

Some useful economic minerals are found in various parts of the district. There are manganese, gold, iron and other mineral deposits. Limestone, china-clay and building stones are also available. Though gold-mining in Bellara has been given up at present, a renewed examination may reveal economic possibilities. Building stones, which are available in plenty in Kunigal, Tiptur and Turuvekere taluks, can be quarried on a large scale and exported. The stones take a very high degree of polish. (For more details on the industrial potential in the district, please see Chapter V—Industries).

Standard of living

The standard of living of the people is reflected in the level of their income and the pattern of their expenditure. The average *per capita* income of Mysore State in 1960-61 at current prices was estimated at Rs. 290.10. As against this, the *per capita* income of Tumkur district was Rs. 256, i.e., Rs. 34.10 less than the State average. According to the quick estimates worked out for 1964-65, the *per capita* income of the State had gone up to Rs. 391.67. Correspondingly, the *per capita* income of the district also must have gone up. If any analysis has to be attempted to get a clear idea of the standard of living of the population in a particular area, it is necessary to assess the income and expenditure of the different sections of the community in that area. A cross-section analysis to indicate the broad outlines of the pattern of living of the socially significant sections of the rural and urban population of the district, is also helpful in gauging the standard of living of the people.

Out of a total population of 13,67,402 (1961) in Tumkur district, 12,28,413, i.e., about 89.8 per cent live in the villages and 1,38,989, i.e., about 10.2 per cent in towns. The rural population, which is mainly agricultural, is spread over 2,444 (inhabited) villages, while the urban population is spread over the 11 towns of the district. Owner-cultivators in the district, who constitute about 71 per cent of the population, form the bulk of the agricultural population. The other groups like tenant

cultivators, cultivating labourers and non-cultivating owners form only about 3.5 per cent, 5.5 per cent and 3 per cent respectively. The non-agricultural population of the district is about 17 per cent of the total, and out of them, a good number reside in towns and some in villages. Persons depending on various types of industries make up about 5 per cent of the total population. Apart from agriculture and industries, trade and commerce and transport account for about 3.5 per cent and 0.5 per cent of the population, respectively. The remainder depend on their avocations, which may be grouped under miscellaneous occupations.

The increased prices of agricultural commodities and better Rural areas productions have helped to improve the position of many of the cultivators. In rural areas, a very large portion of the population has a share in the produce of the land. Wages of labourers in many cases are paid in kind. Many cultivators supplement their income by other subsidiary occupations. All these make it somewhat difficult to get a correct estimate of the occupations and their incomes. In spite of these handicaps, a description of the way of living of some typical families in the different classes and occupations would help in conveying a fairly clear idea of the economic life of the rural population.

The big farmer, cultivating his own fields with his own Big farmers labour, as also with hired labour, may be reckoned as constituting the well-to-do class of the rural parts of the district. The cultivation of large-sized holdings necessarily implies the maintenance of more than one pair of bullocks. It is customary to express the size of the farming business in terms of the number of bullocks maintained. The families of some of these big cultivators are conspicuous by their size and composition. Traditionally, some of these families in which brothers and their wives, grown-up sons and their wives, parents and other near relations live under the same roof, furnish the pattern of the joint family system. In some households, faithful servants also find a well-recognised place in the set-up of the family. There are a number of instances of families consisting of as many as 30 members. It would be of interest, here, to contrast this characteristic of the family of a substantial farmer with that of his urban counterpart, who, though financially on the same plane, has a much smaller family under his care. The average size of a rural family is larger than that of an urban family. The rural well-to-do farmers possess fairly big houses in the village and own a large extent of land in the confines of the village. The houses are quite spacious. In the rural parlance of the district, these people are called *Sahukars*. Six or eight bullocks, a couple of buffaloes and some cows make up their livestock wealth. Most of the male members of such a family know how to read and write.

Boys and girls have to go to schools under the rules of compulsion now enforced all over the State. The more intelligent of the students study in high schools and some of them attend colleges. The older women are generally illiterate. Every able-bodied male member of the family engages himself in farming. The women, though not drawn into the fields to do heavy work, assist in several ways like taking care of the cattle, household work and carrying food to members of the household working in the fields. The average income of this rural affluent family comes to about Rs. 6,000 to Rs. 8,000 per annum. As the big farmer grows his own food, lives in his own house and pays in kind for many things and services, he gets a sense of security and adequacy that can hardly be calculated in terms of money.

On an average, this family of about 12 to 15 members, spends about Rs. 600 per year on clothes and about Rs. 200 on charities, pilgrimages and hospitality. Annual repairs to the house is another regular recurring item of expenditure which may claim about Rs. 200. The expenditure on medicines and the like may come to about Rs. 150 annually. The monthly expenditure for cereals and pulses of this family comes to Rs. 90 to Rs. 100 and on condiments and oil Rs. 50. Tobacco, betel leaves and arecanuts account for an expenditure of Rs. 25. The maintenance of a servant or two, both for agricultural and domestic work, is a common feature of this class. Such servants are usually paid in kind and if this is expressed in terms of money, may come to about Rs. 400 per year. The expenditure pattern of the substantial farmer indicates that the income is such that adequacy is not only assured on all these items, but some surplus is also left which is reflected in their savings both in kind and cash. In their households, one can see cupboards, a time-piece and some items of furniture. Clothing of different varieties is possessed and the womenfolk have ornaments of gold and silver of much value.

Medium-scale farmers

The medium-scale farmer forms the rural middle class. He is in between the affluent class and the poorer cultivators. The middle-class farmer has generally a pair of working bullocks. He has a small holding which leaves no margin to go in for higher comforts of luxuries. This family ordinarily consists of five or six adults staying in a moderate habitation. In many cases, the middle-class farmer is a mere tenant cultivating the superior land-lord's land. A pair of bullocks, a buffalo, some cows and goats constitute the livestock wealth of an average middle-class cultivator. As in the case of well-to-do farmers, boys of the school-going age in the family are also sent to primary classes and in some cases to secondary schools also. The womenfolk are not educated in general, but they are persuaded to send the girls also to schools. The average annual income of this group is

anywhere in the neighbourhood of about Rs. 3,000 per annum. A standard of minimum adequacy seems to be more or less assured to this group. They mostly rely on their own produce for foodgrains, vegetables, fuel and dairy products. A family of five to six adults and some children spends about Rs. 250 per year on clothes and Rs. 100 on festivals, charity and on guests. The expenditure on medicines may amount to about Rs. 70. Expenditure on pilgrimage and the like account for about Rs. 50. The expenditure on cereals and pulses per month ranges from Rs. 30 to Rs. 50, milk and milk products Rs. 10, edible oils Rs. 8, gur and sugar Rs. 10. Many families of this group balance their budgets and there is no occasion for them to run into debt. Sometimes, they incur debts for productive purposes. These people lead generally a comfortable and contented life.

Next to the middle-class farmers, come the poor agriculturalists. These are small land-owners who cannot economically depend, for their sustenance, on the land. Whenever need arises, they seek casual employment in the fields of other bigger land-lords. Many of them are wage-earners, living as labourers. It is quite common to see in the district an agricultural labourer having a piece of land which serves as a second source of income. Some of them do not possess even a pair of bullocks and they generally hire them from a brother-farmer or get them in exchange for something. It is difficult to assess definitely what a family budget means to them as their economic life is open to serious fluctuations. A good season brings them enough food as their wages are usually paid in kind and the womenfolk also find employment at the time. When they have a good employment, they buy clothing and a few other requirements, but generally their budget shows a total absence of items like milk, ghee and entertainments. The average income of such a family is about Rs. 600 a year. Expenditure on clothing comes to about 1/10th of this amount per year. In the pattern of their expenditure, they generally earmark Rs. 20 a month on cereals and pulses, Rs. 5 on oil, Rs. 3 on gur and sugar and Rs. 2 on kerosene oil. A wage-earner finds it difficult to make both ends meet and this makes him to borrow money at usurious rates of interest. It would not be incorrect to say that many of the agricultural labourers in the district hardly get an adequate income to satisfy their physical needs. The economic position of this group becomes very difficult in times of acute scarcity, when work is not sufficiently available to eke out their livelihood.

The absentee landlords are called non-cultivating owners. These form only a small section of the village community. In recent years, due to changes in the agrarian pattern, the importance of the non-cultivating owners has been very much reduced. When compared to a big farmer actually cultivating and living

on the land, the standard of living of the non-cultivating class is much lower. There are, of course, variations in the holdings of this group. A landlord of this category has generally a much smaller family than that of a big cultivating farmer. He generally maintains only a few head of cattle. He and his family members are better educated than the others constituting the rural class. Their womenfolk and children do not work in the fields. The houses they own are generally spacious. Though they do not own ploughs, carts and other agricultural aids, they possess furniture, good vessels and finer varieties of clothing. Their womenfolk have ornaments of gold and silver. The standard of living of this group is certainly higher than that of the average middle-class farmer.

Village artisans

The village artisans—the carpenter, blacksmith, leather-worker, potter, washerman and barber—constitute another group in the rural economy. The families of this class of artisans are middle-sized. Some of them are literate. The womenfolk of this class are illiterate and they help the men in a number of ways. Most of these men own houses where they carry on their occupations. Some of them own a little land which is leased out for cultivation. The average income of this group ranges between Rs. 800 and Rs. 1,000 per year. The expenditure relates to food, clothing, medicines and the like. An annual expenditure of Rs. 200 on clothing, Rs. 50 on medicines and Rs. 50 on pilgrimages and the like is generally incurred. The monthly expenditure on foodgrains would be about Rs. 20 to Rs. 30, Rs. 5 on edible oils, Rs. 5 on gur and sugar, Rs. 5 on vegetables and Rs. 5 on fuel. This expenditure pattern indicates a possible balancing of the family budget. However, some of them have to supplement their income by taking to agricultural labour.

Urban areas

The process of urbanisation is another factor, the impact of which also determines, to a certain extent, the extent of economic growth. The number of towns in the district, which form the urban areas, was only 11 in 1951 and 1961 (in 1941 it was 10) and the total urban population of the district, according to the 1961 Census, was 1,38,989 out of the total population of 13,67,402, the district being predominantly agricultural, with as many as 12,28,413 people living in the rural areas. The percentage of rural population in 1941 was 93.5 and in 1951, it was 90.8 and in 1961, 89.8. All municipal or notified areas or places having a population of not less than 5,000 or a density of not less than 1,000 persons per square mile or where at least three-fourths of the adult male population are employed in pursuits other than agriculture, have been considered as urban areas in the 1961 Census. However, some inhabited areas may have more than the stipulated population of 5,000 and above, but still they may present the picture of a rural economy. While the rural areas are composed mostly

of the cultivating classes, the urban areas have a majority of non-agricultural population. There are, indeed, a variety of occupations in the towns and marked variations in the income. The industrial workers are now getting considerably more wages than in the past, but much of their increased income goes away to meet the high cost of consumer goods. There are traders and businessmen and high-placed officers who have annual incomes of more than Rs. 12,000, while, on the other hand, there are also labourers who earn a rupee or two a day.

Those families that are considered as very well-to-do, are not many in number in the district. The standard of living of these people is naturally high, because they can afford luxuries. These people live in spacious houses with good gardens and have their own transport. They have servants, gardeners and motor-drivers to work for them. In the urban areas, there is a considerable number of family groups with an annual income ranging from Rs. 6,000 to Rs. 8,000 a year and even a larger number earning between Rs. 3,000 and Rs. 4,500 a year. The difference in the incomes may not be very marked, but it is sufficient to indicate the nature of the amenities available to them. Next come the families with incomes ranging from Rs. 1,200 to Rs. 2,500 and from Rs. 500 to Rs. 1,000 a year. These two categories may be called the low-income groups, whose standard of living is indeed very poor.

A well-to-do family gets an income of over Rs. 6,000 to Rs. 8,000 a year. This family of about five or six members spends about Rs. 600 annually on clothes, Rs. 200 on festivals, Rs. 100 on medicines and another Rs. 100 on travels. The monthly expenditure of this group broadly comes to Rs. 60 on cereals and pulses, Rs. 50 on milk and milk products, Rs. 15 on sugar and jaggery, Rs. 20 or Rs. 25 on coffee and tea. House-rent for those who do not possess their own houses, comes to about Rs. 40 or Rs. 50 a month. Generally, this group maintains maid servants or other menial workers, who are paid monthly wages ranging from Rs. 30 to Rs. 40. The expenditure on education of children takes away a big slice of their income. This group, by the social position it occupies, has, of course, to spend on modern amenities like radio, furniture and good clothes.

The upper-middle class is the group whose income is just sufficient to keep them above want and who cannot enjoy a life of ostentation or luxury. The group is composed of Government and other officials, medium-scale businessmen and a few others. In this group, the expenditure per month for a family of about six is Rs. 35 on cereals and pulses, Rs. 20 on oils, spices and vegetables, Rs. 30 on milk and Rs. 25 on sugar and gur, tea and coffee. Some items of expenditure of this class are almost similar

to those of the well-to-do families. On house-rent, for example, nearly Rs. 30 per month are spent. Though full-time domestic servants are not maintained, they generally employ part-time servants for assisting in house-hold work and, on an average, Rs. 10 to Rs. 15 are paid per month. On toilet articles and entertainments, about Rs. 10 per month are expended. Calculated in terms of annual expenditure, an amount of Rs. 250 is spent on clothes and about Rs. 50 on medicines. Between Rs. 70 to Rs. 100 are spent on travels and pilgrimages. A fairly large sum is spent on education. A majority of the families belonging to this class do not possess big properties like the families of the well-to-do class, but quite a number of them have small landed property in rural areas and some have their own houses.

Lower-middle class

The lower-middle class is composed of petty shop-owners and employees like clerks, teachers and others who earn between Rs. 1,500 and Rs. 2,500 a year. The families constituting this class have neither any disposable surplus nor any property to fall back upon in times of need. Their income is just sufficient for the essentials of life and any unforeseen expenditure lands them in debt. The only consideration that probably places them above the very poor is that, unlike the latter, this class need not have to go without essential things. The typical lower-middle class family is generally the one with a number of children and with the head of the family as the only earning member. The annual expenditure pattern of this class is Rs. 150 on clothes, Rs. 75 on ceremonies and travels and Rs. 30 on medicines. The monthly spending on cereals and pulses comes to about Rs. 25. Rs. 15 on milk and milk products, Rs. 15 or Rs. 20 on sugar, coffee and tea and Rs. 10 on vegetables and other small daily necessities. They may have to pay a house-rent of Rs. 20 to Rs. 25 a month. The education of children is indeed a burden on this class. Many live a hard life though they are not called poor.

Poorer class

The poor classes are those whose income falls below about Rs. 1,200 per year. This low income is barely sufficient to satisfy the normal needs of food and clothing of a family of about four or five. When the income falls below Rs. 500 a year, the persons fall into the category of the indigent and, in their case, even clothing and housing are not easily procurable without encroaching upon food or entailing some other privation. Hawkers and unskilled labourers constitute the poorer class. In the case of this group, the womenfolk do some menial work and earn a little which supplements the total household income. The majority in the group are illiterate. It is very difficult to assess the expenditure pattern of this class owing to the meagre and changing character of the income they get. Food claims the

biggest slice of their income. Expenditure on clothing is small. They cannot spend any money on education. At times, they run into debts and remain in a state of indebtedness for long periods.

The human resources available in the district form the base for economic progress. The population of the district which was 6,71,953 in 1901 increased to 13,67,402 by 1961. This gives an indication of the growth of man-power resources which have more than doubled in the course of the last six decades.

Employment market

The man-power resources of a district can be, no doubt, a great national asset, but at times the same may be a liability. The task of man-power planning depends upon the sum total of the current potential labour supply on the one side and the existing and future labour requirements for the development of the economy on the other, and involves the co-ordination and balance of these factors in terms of needs. There is an unlimited supply of unskilled labour on the one hand and on the other, there is acute deficit of skilled technical and scientific personnel and an absence of optimum utilisation of available resources in terms of men. It is to achieve this utilisation and to avoid, as far as possible, frictional unemployment that the employment exchanges have been opened. The district of Tumkur had no independent Employment Exchange till recently and it was only on March 1, 1961, that an Employment Exchange was opened in the district headquarters town. Till then, Tumkur district was under the jurisdiction of the Bangalore Employment Exchange. The District Employment Exchange, Tumkur, is the central clearing house in the district for purposes of securing employment in different categories.

The Employment Exchange follows a scientific system of registration and placements of candidates seeking employment. It sorts out the vacancies notified to it by employers and classifies the employment-seekers registered with it according to their qualifications, degree of skill and previous experience. All particulars are noted on cards and the cards are arranged in a manner that they could be picked up quickly whenever a candidate has to be matched against a vacancy. When the vacancy is notified, the exchange examines the cards of persons of the appropriate category on its register and matches the vacancies with the men most suitable for filling them. Generally, the employment exchanges have a staff who are able to assess the aptitudes of the persons who seek their assistance in securing employment and fit them into jobs where their qualifications and skills will have scope and will be of advantage to the community. The following statistics, as supplied by the District Employment Exchange, Tumkur, relating to the first seven months of the

opening of the exchange in 1961, shows the extent of the employment problem as existed in the district during that period :—

<i>Year and month</i>		<i>No. of registrations</i>	<i>No. of vacancies notified</i>	<i>No. of placements</i>	<i>Number awaiting at the end of the month</i>
1		2	3	4	5
March, 1961	..	3,000	12	33	2,963
April, 1961	..	539	65	50	3,444
May, 1961	..	460	18	41	2,184
June, 1961	..	521	14	12	2,434
July, 1961	..	671	38	19	2,795
August, 1961	..	553	43	34	3,013
September, 1961	..	480	45	39	3,060

As against this, the following statement relating to the first ten months of 1967, i.e., after six years of the opening of the Exchange, reveals that over the years the unemployment problem has become acute in the district in that the average number of candidates awaiting employment assistance on the live register of the Exchange has more than doubled :—

<i>Year and month</i>		<i>No. of registrations</i>	<i>No. of vacancies notified</i>	<i>No. of placements</i>	<i>Number awaiting at the end of the month</i>
1		2	3	4	5
January, 1967	..	621	113	38	6,725
February, 1967	..	524	29	27	6,773
March, 1967	..	531	56	79	6,817
April, 1967	..	490	31	16	6,747
May, 1967	..	357	62	20	6,231
June, 1967	..	668	73	77	6,617
July, 1967	..	826	43	31	6,949
August, 1967	..	671	46	26	7,116
September, 1967	..	690	35	25	7,143
October, 1967	..	780	36	30	7,214

It is a common feature in the Employment Exchange that surpluses exist throughout the year in unskilled category of labour, as also in the categories of untrained teachers and clerks. As per the Compulsory Notification of Vacancies Act, 1959, a statutory obligation is now cast on private employers employing more than 25 workers to notify all vacancies carrying a salary of Rs. 60 and above per month to the Employment Exchange. However, there is no binding on them to fill up the vacancies through the exchanges.

Tumkur district, being mainly an agricultural area, the problem of unemployment in the rural areas is more acute than in the industrial sector. Any constructive programme for the betterment of the district should, therefore, take into account the vast amount of semi-employment or unemployment in rural areas and harness the unutilised energy of the people for the benefit of the country. Many of the people engaged in agriculture usually work for only six months in a year and the remaining months become a period of 'enforced idleness'. Though these persons are not wholly unemployed, the income they derive is insufficient for their livelihood and, therefore, supplementary employment is needed to reduce this 'disguised unemployment'. Various schemes designed to solve this problem have been and are being undertaken under the successive Plans, the chief among them being the establishment of rural and cottage industries, which has already been described in an earlier chapter. Efforts are being made to balance the economy by linking together industrial and agricultural development.

The Employment Exchange, Tumkur, has undertaken an Employment Market Information Programme, by which it collects facts and figures relating to the number of persons employed, the number of vacancies filled up and the number of posts vacant, etc., from both public and private establishments employing more than ten persons, once in a quarter, and prepares and publishes area reports on the employment situation in the district. These reports are helpful in determining as to what types of persons are in short supply and in providing a method by which to measure continuously the changes in the level of employment in the Exchange area. The Exchange renders free and voluntary service both to the employers and employment seekers.

An Employment Information and Assistance Bureau is also functioning in the Exchange, which helps to educate the rural applicants about the employment opportunities and training facilities available, the state of the employment market in the urban and rural areas and the facilities available for employment assistance. It also helps them in getting their names registered and

renders all possible assistance in securing them suitable employment.

Community development

One of the main causes of poverty and economic backwardness of the district's rural community has been the apathy of the people towards new methods and new ways of life and the lack of co-ordinated efforts to solve the complex problems which face the agriculturists. Therefore, an objective of the community development programme is to bring about a change in the mental outlook of the people and to instil in them an ambition for a higher standard of living and the will and determination to work for the achievement of such a standard. Further, it aims at an all-round betterment of rural life at a rapid pace by an integrated and comprehensive approach to the problems. It includes, within its scope, activities relating to the development of agriculture, village industries, animal husbandry, minor irrigation and communications, and promotion of co-operation, health and sanitation, social education and the like. The rural people are encouraged to put forth their best efforts through village institutions organised on the basis of self-help and co-operation. With the introduction of re-oriented Panchayat Raj institutions, a new dynamism has been infused into the movement. The various developmental agencies of the Government work together as a team for execution of the programmes. The essence of the approach is that the villagers co-operate with the Government agencies for bringing about the desired results.

Under this programme, community projects, each covering about 300 villages and a population of about two lakhs, were inaugurated in October 1952 in a few selected areas in the State. This generated a great deal of enthusiasm among the rural people and there was great demand to extend the programme to other areas also. The Government noting the great interest evinced by the people towards this revolutionary programme of rural uplift, decided to introduce also the National Extension Service (N.E.S.), a new scheme, which was less intensive in character. After the introduction of this scheme, the programme was implemented in three stages, viz., the National Extension Service stage, the Community Development stage and the Post-Intensive stage. The National Extension Service stage extended over three years during which a relatively less comprehensive programme was executed within a budget ceiling of Rs. four lakhs and with a limited staff. This was followed by another three years of intensive community development work with a larger staff and a budget of Rs. eight lakhs. Thereafter, the blocks entered the post-intensive stage, with a small budget allotment of Rs. 30,000.

Revised pattern

A revised pattern of community development programme was brought into force with effect from April 1, 1958, and the entire

programme was rephased. The new programme envisaged an intensive development over a longer period divided into two stages, viz., stage I and stage II, of five years' duration. The new arrangement also implied an automatic conversion of the National Extension Service Blocks into Community Development Blocks with an increased budget allotment. The funds provided for the first and second stages were Rs. 12 lakhs and Rs. 5 lakhs, respectively, for each block. Stage I is the intensive development phase. The achievements of stage I are taken as the guide-lines to prepare for stage II, which is the post-intensive phase.

The community development programme was first started in Tumkur district in October 1953 in Turuvekere taluk. The programme was gradually extended to the other taluks of the district, so that by the end of 1962, the entire district was covered by this programme. The following statement indicates the names of the blocks, the dates of their inauguration, their present stage and other relevant particulars :—

Sl. No.	Name of Block	Date of inauguration	Present stage	Date of entry into present stage
1	2	3	4	5
1.	Tumkur—I ..	2-10-1954	Post-stage II ..	1-10-1966
2.	Tumkur—II ..	2-10-1957	II Stage ..	1-4-1964
3.	Kora ..	2-10-1957	II Stage ..	1-4-1964
4.	Kunigal ..	1-4-1960	I Stage (extended period).	1-4-1961
5.	Amruthur ..	1-4-1960	I Stage (extended period).	1-4-1961
6.	Gubbi—I ..	2-10-1954	Post-stage II ..	1-10-1966
7.	Gubbi—II ..	1-4-1957	Post-stage II ..	1-4-1967
8.	Turuvekere—I ..	2-10-1953	Post-stage II ..	1-4-1965
9.	Turuvekere—II ..	1-4-1957	Post-stage II ..	1-10-1967
10.	Chiknayakanahalli—I ..	2-10-1955	Post-stage II ..	2-10-1967
11.	Chiknayakanahalli—II ..	1-4-1957	Post-stage II ..	1-4-1967
12.	Koratagere ..	2-10-1959	Stage I (extended period).	2-10-1960
13.	Sira ..	1-4-1959	Stage II ..	1-10-1966
14.	Patnayakanahalli ..	1-4-1959	Stage II ..	1-10-1966
15.	Madhugiri ..	2-10-1961	Stage I (extended period).	1-10-1962
16.	Kodigenahalli ..	1-4-1962	Stage I ..	1-4-1963
17.	Pavagada ..	2-10-1956	Post-stage II ..	1-4-1968
18.	Tiptur—I ..	2-10-1962	Stage I ..	2-10-1963
19.	Tiptur—II ..	2-10-1962	Stage I ..	2-10-1963

The development works undertaken in each of these blocks fall into the following eight heads, viz., (1) agriculture and animal husbandry, (2) irrigation, (3) health and sanitation, (4) education, (5) social education, (6) communication, (7) housing and (8) rural arts and crafts. The schematic budget allotment for a full block (unit) for stage I is Rs. 12 lakhs and for stage II Rs. 5 lakhs. Considerable progress has been achieved in all the spheres of development in each of the blocks over the years. The people have shown considerable enthusiasm for the various development programmes and have been co-operating in their execution and are being immensely benefited by it. In short, it is through this scheme that the Five-Year Plans have sought to initiate the process of transformation in the social and economic life of the rural people. As the physical progress achieved under the various heads of development under this scheme are included in the treatment of the general working of the respective major development departments, only the progress achieved by one of the blocks, viz., Koratagere, is briefly summarised below by way of illustration. However, a statement showing the schematic budget and the expenditure incurred under the several heads of development by each of the blocks is appended at the end of this chapter.

Koratagere Block

The Koratagere Block was first started in October 1959. It was converted into a Stage I Block in October 1960 with a schematic budget of Rs. 12 lakhs. Since then, 123 irrigation wells had been sanctioned in the block, of which 96 wells had been completed by the end of 1967-68 at a total cost of about Rs. 1.72 lakhs. Under the rural man-power programme, 13 works had been taken up, of which five works had been completed at an expenditure of about Rs. 38,000. Over 4,530 compost pits were got dug up and an area of 2,800 acres was covered under green manures. Fourteen soil conservation works were undertaken, of which five works were completed by 1967-68 at a cost of Rs. 70,985. A number of cultivators were supplied with improved agricultural implements and modern plant protection chemicals at subsidised rates. Over 400 acres of land were reclaimed and 2,799 acres were bunded or terraced. An extent of 3,800 acres was brought under the Japanese method of paddy cultivation, and the dry farming method was introduced in about 1,200 acres. About 500 quintals of improved seeds and 2,655 fruit plants were distributed among the cultivators in the block.

Under this programme, construction of 169 drinking water wells were taken up, of which 105 wells were completed till the end of 1967-68. About 460 soakage pits and 182 rural latrines were provided under the rural sanitation programme. Construction of school buildings were undertaken at 80 places, of which five school buildings were completed. Under social education-

about 1,240 illiterate adults were made literate. Roads and cross-drainages were provided at several places at a total cost of Rs. 42,220. Five industrial co-operative societies were organised and 73 village artisans were trained in different rural crafts. Under the animal husbandry programme, 23 breeding bulls and buffaloes and 416 pedigree sheep were supplied. About 500 chicks and 900 eggs of pedigree birds were supplied to poultry farmers.

Statement showing the schematic budget provision and the expenditure incurred in the several Community Development Blocks in Tumkur district upto the end of March 1968

Sl. No.	Head of Account	Tumkur and Kora		Kunival Stage-I		Amruthur Stage-I		Gubbi Post-Stage	
		Schematic budget provision	Expenditure	Schematic budget provision	Expenditure	Schematic budget provision	Expenditure	Schematic budget provision	Expenditure
1	2	3	4	5	6	7	8	9	10
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1.	Block Headquarters ..	8,00,000	6,82,345	3,10,000	3,06,208	3,10,000	2,14,777	5,45,000	3,72,182
2.	Agriculture and Animal Husbandry	2,00,000	1,41,507	95,000	74,423	95,000	62,003	2,33,750	1,56,834
3.	Irrigation :								
	(a) Loan ..	7,00,000	6,47,982	3,00,000	2,01,350	3,00,000	1,70,775	6,41,750	5,82,317
	(b) Non-Loan ..	1,50,000	46,750	55,000	48,017	55,000	58,620	2,05,000	1,58,093
4.	Rural Health and Sanitation ..	3,10,000	2,35,878	1,10,000	73,867	1,10,000	99,968	2,02,500	1,65,074
5.	Education ..	2,20,000	1,22,328	60,000	18,306	60,000	28,260	1,54,500	1,01,070
6.	Social Education ..	2,40,000	1,15,307	60,000	34,653	60,000	26,749	1,50,000	64,079
7.	Communication ..	2,90,000	2,60,773	45,000	15,535	45,000	10,460	1,71,500	80,003
8.	Rural Arts, Crafts and Industries ..	2,30,000	80,216	65,000	56,126	65,000	17,287	1,81,000	1,23,698
9.	Housing ..	2,60,000	1,07,229	1,00,000	76,182	1,00,000	55,408	65,000	29,132
	Total	34,00,000	24,40,115	12,00,000	9,04,967	12,00,000	7,13,807	25,50,000	18,33,882

Statement (contd.)

Sl. No.	Head of Account	Tiptur I		Tiptur II		Turuvekere	
		Schematic budget provision	Expenditure	Schematic budget provision	Expenditure	Schematic budget provision	Expenditure
		11	12	13	14	15	16
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1.	Block Headquarters ..	2,69,000	2,60,000	2,69,000	2,24,656	4,00,000	6,84,608
2.	Agriculture and Animal Husbandry	19,000	6,840	1,58,000	88,389	1,00,000	2,33,871
3.	Irrigation :						
	(a) Loan ..	1,58,000	80,793	3,92,000	1,38,400	9,25,000	2,76,063
	(b) Non-Loan ..	3,92,000	1,37,530				
4.	Rural Health and Sanitation ..	96,000	41,746	96,000	27,215	1,90,000	1,60,858
5.	Education ..	29,000	19,000	29,000	23,066	1,10,000	1,00,603
6.	Social Education ..	47,000	16,293	47,000	17,156	1,20,000	79,956
7.	Communication ..	25,000	15,150	25,000	9,659	1,10,000	61,926
8.	Rural Arts, Crafts and Industries ..	84,000	27,241	84,000	18,080	1,15,000	44,406
9.	Housing ..	1,00,000	..	1,00,000	..	1,30,000	85,958
	Total ..	12,00,000	6,04,593	12,00,000	5,46,631	22,00,000	17,28,249

Statement (contd.)

Sl. No.	Head of Account	Chikmagalur		Madhugiri		Kodigenahalli	
		Schematic budget provision	Expenditure	Schematic budget provision	Expenditure	Schematic budget provision	Expenditure
		17	18	19	20	21	22
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1.	Block Headquarters	5,00,000	4,07,000	2,89,000	2,57,000	2,69,000	1,83,088
2.	Agriculture and Animal Husbandry	1,26,400	1,12,882	1,58,000	53,049	1,58,000	63,85
3.	Irrigation :						
	(a) Loan	5,29,850	4,43,877	3,92,000	2,02,027	3,92,000	1,32,950
	(b) Non-Loan						
4.	Rural Health and Sanitation	2,17,250	1,45,945	96,000	45,698	96,000	50,853
5.	Education	1,58,125	1,25,879	29,000	13,900	29,000	10,600
6.	Social Education	1,43,750	97,241	47,000	26,583	47,000	16,756
7.	Communication	1,27,750	75,560	25,000	..	25,000	3,600
8.	Rural Arts, Crafts and Industries ..	1,59,375	62,246	84,000	37,666	84,000	24,869
9.	Housing	1,62,500	1,22,798	1,00,000	16,000	1,00,000	17,000
	Total	21,25,000	15,93,428	12,00,000	6,51,923	12,00,000	5,03,566

Statement (concl.)

Sl. No.	Head of Account	Sira and Patnayakankalli		Koratgere Stage I.		Parugada	
		Schematic budget provision	Expenditure	Schematic budget provision	Expenditure	Schematic budget provision	Expenditure
		23	24	25	26	27	28
		Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1.	Block Headquarters	8,00,000	6,89,739	3,15,000	2,90,210	4,00,000	3,33,405
2.	Agriculture and Animal Husbandry	2,20,000	1,54,529	1,00,000	93,992	1,12,885	94,181
3.	Irrigation						
	(a) Loan		4,65,914	2,64,000	1,99,045	3,75,000	3,41,894
	(b) Non-Loan	8,30,000		40,000	37,441	40,000	27,515
4.	Rural Health and Sanitation	3,30,000	2,42,306	1,24,000	1,19,798	1,68,115	1,34,299
5.	Education	2,20,000	1,08,670	87,000	78,999	1,10,000	80,732
6.	Social Education	2,40,000	75,518	50,000	47,331	1,20,000	76,793
7.	Communication	2,70,000	74,219	55,000	42,221	1,29,000	70,152
8.	Rural Arts, Crafts and Industries ..	2,30,000	62,876	65,000	46,379	1,15,000	48,895
9.	Housing	2,60,000	1,06,166	1,00,000	84,475	1,30,000	98,150
	Total	34,00,000	19,51,047	12,00,000	10,39,891	17,00,000	13,06,016

CHAPTER X

GENERAL ADMINISTRATION

THE history of Tumkur district as an administrative unit with the various changes effected in its set-up from time to time has been dealt with in Chapter I. In this chapter, the pattern of general administration in the district and the functions and powers of the several officers, from the Divisional Commissioner to the village officers, are set forth in brief.

The public administration of the State, in the beginning of this century, largely consisted in providing security of person and property and realising the revenue necessary for maintaining the several departments of Government. The Police, the Prisons and the Judiciary constituted the security departments, while the Land Revenue, Excise, Registration and Stamps formed the main sources of revenue for the administration. The Public Works Department formed an important unit of the Government. With the gradual introduction of measures for the economic and social betterment of the people, development departments like Agriculture, Education, Public Health, Industries and Commerce, Co-operation, etc., attained growing importance. After the attainment of Independence, incessant and concerted efforts are being made to promote all-round welfare of the people at a faster pace by launching a series of development plans.

Tumkur district is one of the four districts constituting the Bangalore Division, the other three districts being Bangalore, Kolar and Chitradurga. There are ten revenue taluks in the district. For administrative convenience, these taluks are grouped into three revenue sub-divisions, with headquarters at Tumkur, Tiptur and Madhugiri. The following are the revenue sub-divisions and the taluks attached to each sub-division in the district : (1) Tumkur Sub-Division with Tumkur, Gubbi and Kunigal taluks ; (2) Tiptur Sub-Division with Tiptur, Chiknayakanahalli and Turuvekere taluks ; and (3) Madhugiri Sub-Division with Madhugiri, Sira, Koratagere and Pavagada taluks. Each of these ten taluks is again sub-divided into hoblies, each of which, in turn, includes a group of villages. There are, in all, 49 hoblies and 2,725 villages in the district.

The Bangalore Division, which includes Tumkur district, is headed by a Divisional Commissioner. The posts of Divisional Commissioners in the new Mysore State were created by the Mysore Adaptation of Laws Order, 1956, under the provisions of the States' Re-organisation Act, 1956. The Divisional Commissioner is the head of the revenue administration in his jurisdiction. He plays a prominent role in the general administration of the districts coming under his jurisdiction, not only in respect of revenue matters but also in respect of the activities of other departments. He acts as a link between the State Government and the district authorities in respect of all developmental and public welfare activities. He undertakes tours in the districts and supervises the general activities of all development departments and gives them guidance, wherever necessary.

In view of the numerous activities under the Five-Year Plans and the increasing tempo of community development programme, great importance has been attached to the post of the Divisional Commissioner. Being the chief co-ordinator of the various development programmes in the district, he convenes co-ordination meetings of the district officers periodically with a view to reviewing the progress of development works and removing difficulties and bottlenecks, if any, in their expeditious execution. He has to be particularly vigilant against natural calamities like floods, famines and scarcity conditions and bestow his urgent attention towards organising relief measures for alleviating the hardships of the people. He has also to be watchful about the abnormal rise in prices and scarcity of foodgrains and other consumer goods and take suitable remedial measures.

The Divisional Commissioner's office is the channel through which all proposals from Deputy Commissioners regarding revenue matters, community development programme, municipal administration and the like have to go to the Government. The distribution and re-appropriation of budget grants to revenue offices, Community Development Blocks, Taluk Development Boards and, to some extent, to Municipalities, are his responsibility. He constitutes the appellate authority above the Deputy Commissioner in matters of revenue administration, both as regards revenue law and disciplinary proceedings against the revenue staff. In short, his functions may be described as appellate, inspecting, controlling, supervising, co-ordinating and advisory.

The main brunt of the district administration, however, is directly borne by the Deputy Commissioner of the district, who works under the immediate supervision of the Divisional Commissioner. As the revenue head of the district, he plays the most important and pivotal role in all aspects of district administration, from land revenue work to that of planned development. With

the advent of the democratic set-up and increased tempo of developmental activities, his functions and responsibilities have further increased. In general, his functions may be defined as executive and his duties may be broadly classified as (1) revenue, (2) law and order, (3) development, (4) co-ordination and (5) public welfare in general.

Revenue collection

In the general pattern of the district administration, the Deputy Commissioner is the custodian of Government property in land (including trees and water), wherever situated, and at the same time, the guardian of the interests of members of the public in land, in so far as the interests of the Government in land have been conceded to them. All land, wherever situated, whether put to agricultural or other uses, is liable to payment of land revenue, except in so far as it may be expressly exempted by a special contract. Such land revenue is of three kinds: (1) agricultural assessment, (2) non-agricultural assessment and (3) miscellaneous. The duties of the Deputy Commissioner are in respect of (1) fixation, (2) collection and (3) accounting of all such land revenue. He has to see that the revenue due is recovered punctually and with the minimum of coercion and that the collections are properly credited and accounted for. With a view to enabling him to carry out these and other duties, he has been given wide powers under the Mysore Land Revenue Act.

The Deputy Commissioner is also responsible for the collection of fees and taxes under various Acts in respect of irrigation, ferries and bridges, stamps, etc. Any arrears, whether of Central or State Government, may be recovered as land revenue under the provisions of the tax laws. If a party does not pay the tax in time, the tax-collecting authority sends a certificate of tax arrears to the Deputy Commissioner of the district, who has powers to recover the amount in the same way as he does in respect of land revenue.

As the head of the revenue administration of the district, the Deputy Commissioner exercises all the powers under the Mysore Land Revenue Act. He is also responsible for the maintenance of land records and in addition, he exercises various powers under several other Acts such as the Land Reforms Act, Land Acquisition Act, Mysore Irrigation Act, Mysore Religious and Charitable Endowments Act, Mysore Land Improvement and Taccavi Loans Act, Mysore Village Panchayats and Local Boards Act and the Town Municipalities Act. He discharges also a quasi-judicial function in revenue disputes. Under the Mysore Village Panchayats and Local Boards Act, 1959, a large portion of the revenue from land is assigned to the Village Panchayats and Taluk Development Boards and the allocation of these funds is the responsibility of the Deputy Commissioner.

Under the Community Development Programme, the Deputy Commissioner is designated as the Deputy Development Commissioner. In that capacity, he is in over-all charge of all the development blocks in his jurisdiction. He has to possess a clear picture of the normal working of several departments at the district level so as to evolve an integrated approach to the various developmental activities. He holds periodical meetings of all the district-level officers (except the judicial officers) and the Block Development Officers at which the block programmes and achievements are reviewed. He is also the *ex-officio* Chairman of the District Development Council, which has to guide and co-ordinate the developmental activities of several departments in the district and those of the Taluk Development Boards, which help in the execution of the community development programmes in the rural areas. He has also the overall responsibility for the successful implementation of the many plan schemes, including social welfare work. Thus, co-ordination forms an important part of the work of the Deputy Commissioner.

As the Executive District Magistrate of the district, the Deputy Commissioner is responsible for the maintenance of law and order. He is the head of all Executive Magistrates in the district and has specified powers under the Code of Criminal Procedure. Since 1956, when the judiciary was separated from the executive in the district, the Deputy Commissioner has ceased to deal with the actual dispensation of justice. His law and order responsibility involves two distinct functions; firstly, he has to enforce law and order through the police and secondly, he has to take regulatory and penal action.

The Deputy Commissioner also exercises supervision over local administration, census operations, elections, excise, food and civil supplies. He is enjoined to give effect to the notifications issued by the Government from time to time in respect of foodgrains and other essential commodities. He is also the custodian of all *muzrai* institutions in the district under the provisions of the Mysore Religious and Charitable Endowments Act. He is also the licensing authority under the Mysore Cinematograph Act and exercises powers vested in him also under the Indian Arms Act, Indian Explosives Act, Prevention of Untouchability Act, etc. Being the *ex-officio* District Registrar, he exercises control over the Sub-Registrars in the district and he is also *ex-officio* Collector of Stamps and Chairman of the Regional Transport Authority.

The Deputy Commissioner is assisted in his duties in the headquarters by two officers of the rank of Assistant Commissioner, designated as Headquarters Assistant and District Development Assistant, respectively. There is also another officer designated as Headquarters Assistant to the District Registrar, who assists

the Deputy Commissioner in so far as his work relating to registration and stamps is concerned. Besides, there are also an Office Assistant, a Food Assistant, an Assistant District Excise Officer and a District Social Welfare Officer assisting the Deputy Commissioner in their respective fields. Since 1967, the Regional Transport Officer of the district is also required to work under the control of the Deputy Commissioner.

Assistant Commissioners

The three revenue sub-divisions, viz., Tumkur, Tiptur and Madhugiri, are under the charge of an Assistant Commissioner each. These officers, who are directly responsible to the Deputy Commissioner, are in direct charge of the revenue administration in their respective sub-divisions. In all revenue matters, these officers are appellate authorities over the orders passed by the Tahsildars of taluks. They exercise such of the powers as are conferred on them by the Deputy Commissioner under the Land Revenue Act and various other Acts and regulations in force. They are also Sub-Divisional Magistrates. Their functions are more or less similar to those of the Deputy Commissioner, but at a lower level.

Tahsildars

In the revenue set-up of the district, the revenue officer at the taluk level is the Tahsildar. There are ten Tahsildars in-charge of the ten taluks in the district. Their duties and powers as Taluk Revenue Officers are such as are conferred upon them under the Mysore Land Revenue Act and their powers and duties are defined in the Mysore Revenue Manual. The Tahsildars are the key-men in the taluks in so far as the revenue administration of the taluks is concerned. They are directly responsible to the Assistant Commissioners of their respective sub-divisions and are required to exercise supervision over the working of the Revenue Inspectors in the several hoblies coming under their respective jurisdictions. They are also Taluk Magistrates.

Revenue Inspectors

In the district's revenue set-up, the Revenue Inspector is an important official at the hobli-level. The Revenue Inspectors are in charge of hoblies and each one of them is directly responsible to the respective Tahsildar of the taluk in the administration of revenue matters in the hoblies. He supervises the working of the village officers and scrutinises the village maps. He is also responsible for land revenue collections in his hobli. He has to acquaint himself generally with the agricultural conditions in his jurisdiction.

Village Officers

Until a few years ago, the village establishment in the old Mysore area consisted of five hereditary offices, i.e., those of Patel (village headman), Shanbhogue (village accountant), Talari (village scout), Thoti (village watchman) and Nirganti (distributor of water from irrigation tanks). The remuneration of the

Patel and the Shanbhogue consisted of Inam lands subject to *jodi* or full assessment and cash allowances called *potgi* on the basis of the land revenue demand. The other village servants received a certain quantity of grain from each cultivator and certain cash payments from non-agriculturists in addition to the remuneration by rent-free or lightly assessed lands.

These hereditary offices were, however, abolished by the Mysore Village Offices Abolition Act, 1961, which came into force throughout the State on 1st February 1963. Under the provisions of this Act, in the place of Shanbhogues, Village Accountants have been appointed as full-time Government servants on salary basis. They are required to work under the guidance of the Revenue Inspectors of hoblies. They are also required to perform such other duties also as may be entrusted to them by the Tahsildar or the Deputy Commissioner. The present incumbents of the posts of Patels and other village officers are, however, being continued for the time-being without hereditary rights. The Patels get an annual remuneration equivalent to the *potgi* which they were receiving prior to the abolition of their hereditary offices.

The other department which is next in importance on the Law and Order executive side is the Police headed by the District Superintendent of Police, who has his headquarters at Tumkur. The Superintendent of Police and the police force of the district are under the control of the Deputy Commissioner in so far as their functions in respect of maintenance of law and order are concerned. As regards discipline, training and other administrative matters, they are under the control of the Deputy Inspector-General of Police, Central Range, Bangalore. For administrative convenience, the Police Department in the district has been divided into two divisions, with headquarters at Tumkur and Tiptur, respectively, each under the charge of a Deputy Superintendent of Police.

There are two divisions of the Public Works Department in Tumkur district, viz., Tumkur Division and Madhugiri Division, under the charge of an Executive Engineer each, to look after the execution of all public works in the district. The functions of the Executive Engineer being purely technical, he is not subordinate to the Deputy Commissioner, though in a sense, he plays a part subsidiary to the general administration of the district, of which the Deputy Commissioner is the head. He is expected to help the Deputy Commissioner whenever required to do so. In times of floods, famines, scarcity conditions and the like, the Executive Engineer has to draw up plans and programmes of relief works in consultation with the Deputy Commissioner and execute them expeditiously.

Judicial

The District and Sessions Judge, Tumkur, is the principal judicial officer in Tumkur district and is the administrative head for both civil and criminal courts in the district. He has a separate and independent sphere of work and his functions have been set forth in detail in Chapter XII. On the civil side, there is a Civil Judge at Tumkur and a Munsiff each at Tumkur, Tiptur and Madhugiri.

In accordance with the scheme of separation of the judiciary from the executive brought into force in the district in 1956, the functions of a Magistrate have been divided between two types of Magistrates designated as Judicial Magistrates and Executive Magistrates. There are two Judicial Magistrates' Courts in the district, viz., the First Class Magistrate's Court at Tumkur and the Special First Class Magistrate's Court at Madhugiri. Besides, the Civil Judge at Tumkur and the Munsiff at Tiptur also exercise the powers of a First Class Magistrate.

Other District-level Officers

There are several other district-level officers in Tumkur district who are in-charge of the administration of the various departments of Government in the district. Their functions have not been described here as the same have been dealt with, in the case of most of them, in the appropriate chapters and Chapter XIII. Hence, only a list of these officers is given hereunder;

1. Deputy Director of Agriculture.
2. Deputy Registrar of Co-operative Societies.
3. District Educational Officer.
4. District Surgeon.
5. District Health and Family Planning Officer.
6. District Officer, Animal Husbandry and Veterinary Services.
7. Assistant Director of Industries and Commerce.
8. Executive Engineer (Electrical).
9. Assistant Director of Sericulture, Kunigal.
10. Assistant Director of Fisheries.
11. Assistant Superintendent of Land Records.
12. District Employment Officer.
13. District Social Welfare Officer.
14. District Treasury Officer.
15. Assistant Controller, Local Audit Circle.
16. Assistant Coconut Development Officer, Tiptur.
17. District Statistical Officer.
18. Regional Transport Officer.
19. Divisional Forest Officer.
20. District Publicity Officer.

The Central Government has its own offices in the district for the collection of income-tax, excise duties, administration of postal, telegraph and telephone services and the railways.

CHAPTER XI

REVENUE ADMINISTRATION

DURING the time of old dynasties, the principal divisions of the country had some numerical designations affixed to their names, as for example, Nolambavadi-82,000, Gangavadi-98,000, etc. Sometimes, the numerical designation alone was used without specifying the name of the tract. Whether such reckoning had reference to the amount of revenue realised, as seems likely, or to the value of land produce or to anything else, is not clear. Smaller revenue-administered tracts are also frequently mentioned in inscriptions; divisions called *khampana* and *ventya* are also noted. According to available records, a territorial division yielding 100 *niskhas* (*pagodas*) was called a *seeme* or *kshetra*. A large number of *seemes* formed a *khampana* and two *khampanas* a *ventya*; it is noticed that 33 *ventyas* including a large number of *seemes*, were formed into a *panichhasana*. Every village was a separate community, and the *Gauvda* or the Patel was the magistrate of the village and the Shanbhogue was the registrar who kept revenue accounts. The Talari and the Thoti were the watchmen of the village and also of the crops. In a few instances, the lands of the village were jointly cultivated corresponding in a way to the present theory of co-operative farming. The crops so raised were divided in the proportions of the labour contributed. But generally, each occupant tilled his own field. The waste land was a common patsure for the cattle of the village. The boundaries of the village were carefully marked and they were maintained as a common right of the village.

The *bijavari* (i.e., extent of land calculated according to the quantity of seed required for sowing in it) and assessment on lands followed a set pattern which, more or less, were the same under many Hindu rulers, one grain from each of the *nava-dhanya* or nine kinds of grains (rice, wheat, jowar, *hesaru*, *uddu*, *kadale*, *avare*, *togari* and *yellu*) being taken to form one *nishka*. Ten *nishkas* were called a *phala*, 64 *phalas* a *mana*, 20 *manas* a *kolaga*, 20 *kolagas* a *khandaga*. But in some places, 40 or 50 *kolagas* formed a *khandaga*. The assessment levied for superior kinds of

irrigated lands had three separate rates, i.e., 21, 18 and 9½ *pagodas* per *khandaga*. For red soils watered by wells, nine *pagodas* were paid per *khandaga*. Gardens producing coconut, areca, plantains and citrus fruits were measured by *manadandas*. Several old dynasties in Tumkur district followed the above pattern, of course, with variations from time to time to suit local conditions.

Under the rule of the Hoysalas, each cultivator paid to the sovereign one *kula* or ploughshare. It is said that in order to encourage and extend cultivation, king Vishnuvardhana devised a plan, whereby a cultivator could secure recognition or distinction according to the number of worn-out ploughshares he handed over to the Government. It is surmised that a *kula* was also a pole, eighteen lengths of a rod, and was the measure of a piece of land, forming the standard for assessment. One-fifth of the produce on dry lands and one-third of the produce on wet lands seem to have been levied as assessment at the time. During the Vijayanagar days, the land rent was fixed on the basis of a sown area, i.e., one *kolaga* of seed sown on the land. This sown area had to pay an assessment from three to ten *pagodas* according to the fertility of the soil. Lands put to agricultural use under *kapile* wells were assessed to a specified money rent. Paddy fields cultivated under tank *atchkats* were assessed on a different basis. The owners of these lands were required to give one half of the crop. In some cases, money rent, together with crop-sharing, was also in vogue; the revenue collections were called *agram*. Gardens in Sira and Madhugiri areas paid a considerable revenue to Government. Later, the Marathas introduced different offices of *Deshpande*, *Desh-Kulkarni*, *Sar-Nad-Gaud*, *Deshmukh* and *Kanungo*, by whom the revenue accounts of the country were kept. After capturing Bijapur in 1687, the Mughals secured the dependent districts in the south of the Tungabhadra and formed the *Suba* of Sira with several *paraganas*. Officers for collecting and managing land revenues were appointed in the *amani* districts only. At the same time, the offices of *Deshmukh*, *Desh-Kulkarni* and *Sar-Nad-Gaud* were formed into one office.

Later period

During Chikka-Devaraja Wodeyar's reign of over 31 years, several changes in the field of finance were introduced. A tax of two gold *fanams* per *kudu* was levied upon dry cultivation, while the produce of wet and garden lands and of coconuts and arecanuts was divided between the cultivator and the Government, the share of Government being one-fourth of the produce. The king appears to have introduced several other taxes called *bajebab*. The revenues were realised with great regularity and precision. Haidar Ali left the fiscal institutions of Chikka-Devaraja Wodeyar intact, but added to the revenue some more levies. A considerable vigilance was exercised, both on oppression and on

defalcation, by the appointment of *Harikars* in each taluk. Tipu Sultan abolished the posts of *Harikars*; but this did not yield fruitful results. He divided the territory into *tukadis* of 5,000 *pagodas* each, and appointed officers for each *tukadi* for the custody, collection and management of land revenue. He also imposed extra cesses. The system of renting out villages to the highest bidder was also in vogue during the period.

After the fall of Tipu Sultan, Dewan Purnaiya, who had an adequate conception of the advantages, both to the cultivator and to the Government, of a system of hereditary landed property and fixed rents, took necessary measures. He ordered a general *paimayish* or measurement of fields. But this *paimayish* could not but be imperfect under the conditions of his days and the work done was irregular and incomplete. He generally confirmed the property rights on the possessors of lands, including coconut, areca and other perennial plantations. He mostly acceded to the proposals made by individuals for getting the rents fixed and securing the property rights on lands of every description. Generally speaking, the cultivators of dry lands paid a fixed assessment in cash calculated at about one-third of the gross produce and those of wet or paddy lands at about one half of the crop; this was discharged in cash at the average rates prevailing in the district. The system of renting out villages to the highest bidder was abolished. The whole of the revenue administration was brought under the direct management of Government.

Dewan
Purnaiya's
reforms

Later, during the reign of Krishnaraja Wodeyar III, there was a reversion to the practice of renting out villages to the highest bidders. The land revenue was permitted to be paid sometimes in cash and sometimes in kind. Assessment on wet lands varied from two to twelve *pagodas*. Dry-land rates were less. The cultivators, who held *kandaya* lands, in some instances, from generation to generation, paid a fixed money rent. Those, who cultivated lands under the *waram* or *batayi* system, retained one half of the produce. There were cultivators called *Jodidars* or those who held lands under a favourable rent. Those, who held the *kandaya* lands and paid the full assessment, could be dispossessed of their property only when they failed to pay the rent to the State.

During the early years of the British Commission, the maintenance, as far as possible, of existing institutions was continued. The revenue system followed was the one laid down by Lord William Bentinck, that is, the *raiayatwari*, which appeared to be well suited to the wants and traditions of the people. The money rents were lowered in all cases where the authorities were satisfied that they were fixed at too high a rate, and the system of payments by the cultivators was made as easy as possible by

Under British
Commission

abandoning the system of demanding the *khists* before the crops were gathered and by receiving it, instead, in five instalments later.

The lands in every village at the time were classified as *kushki* or dry, *tari* or wet and *bagayat* or garden. The measures in vogue were *khandagas*, *kolagas*, *ballas*, seers and *payili* or *padi*, these being also the names for the measures or weights of seed required to sow a given space. Each village had its *beriz*, *chedsal jamabandi* and the *sthal shist* or *rivaz*. The *beriz* was the amount of revenue fixed in earlier times to be drawn from the village. The *chedsal jamabandi* was the maximum amount derivable from the village and the *sthal shist* or *rivaz* was the traditional rate of assessment on each particular field. Every field had its own particular name and the boundaries were carefully marked. The Shanbhogue was the primary agent between the cultivators and the Government. It was through him that the revenue administration of the village was conducted and it was to him and to his books that the cultivators looked for their rights. He kept a register of all the cultivators in the village and also maintained an account of the lands of such persons as had died, deserted their lands or become insolvent. The collections commenced usually in December in Tumkur district. It was the duty of the Shanbhogue to keep a detailed revenue account of the demand, collection and balance of every individual in the village. The *patta*, regarded as an important revenue document, contained a description of the land held by the cultivator and the amount of assessment to be paid by him on each plot of land, as well as any other tax which he might have to pay. Entries were also made in it of the *khists* or instalments of the cultivators as they were paid.

Cubbon's reforms

Sir Mark Cubbon, who was Commissioner of Mysore for a long period from 1834 to 1861, introduced several reforms. The land revenue system was liberalised and vigilantly supervised in its working. The *batayi* system (equal division of the crop between the Government and the cultivators) was converted into a money payment. The system of *mohatarfa* (taxes levied on looms, houses, oil mills, shops, etc.) taxation was revised and a number of petty taxes were abolished. The second period from 1862 to 1881 was noted for its varied reforms. This was the period of Mr. Bowring who was the Commissioner. In 1862-63, the whole State was divided into three divisions, which were subdivided into eight districts, the present district of Tumkur being one. Each division was placed under a Superintendent and each district under a Deputy Superintendent, assisted by Assistant Superintendents. Each district was further divided into several taluks, graded into five classes according to their extent and revenue. In 1863, the

Revenue Survey and Settlement Department was organised. Later, in 1868, an Inam Commission was set up. Among the other reforms of this period may be mentioned the passing, in 1874, of the *potgi* rules, providing for the remuneration in kind of the minor village servants, introduced first in the Nandidrug division. These rules were more or less the off-shoots of the introduction of the revenue survey and settlement.

The period from 1881 to 1917 saw various reforms, the more important of them being the reformation of the district and taluk establishments. The outstanding reform of the first decennium of Sir K. Seshadri Iyer's administration was the passing of the Land Revenue Code and the rules issued under it.

During the British administration of the territory, framing of a Land Revenue Code had been contemplated, but the objective had not been realised. In the beginning of 1882, the work of formulating a comprehensive Land Revenue Code was entrusted to a Special Officer who, after an examination of the rules existing in the State and the laws elsewhere, formulated proposals for a Land Revenue Code. The first draft of the Code was published in September 1883. It was referred to a select committee for examination and report. Important portions of the Code were generally discussed by the members of the Mysore Representative Assembly at their meetings held in 1883 and 1884. The opinions of revenue and judicial officers were also obtained and fully considered. The final draft was sent to the Government of India in September 1886. After undergoing a few more modifications the draft Code was finally approved by the Government of India in 1888. The Code came into force on 1st April 1889 and was later on amended from time to time to suit the changing needs.

Land Revenue Code, 1888

At the time of formation of the new Mysore State, different Revenue Codes were in force in the various integrating areas. With a view to having a comprehensive and uniform law for the whole State, a new Mysore Land Revenue Bill was passed by the Mysore Legislature in 1963. It received the assent of the President of India on 6th March 1964 and this Act came into force on the 1st April 1964 as per Government Notification dated the 19th March 1964. With the promulgation of the Mysore Land Revenue Act, 1964 (Mysore Act 12 of 1964), 50 other enactments of the various regions relating to land revenue were repealed under Section 202 of the new Act. The Mysore Land Revenue Act, 1964, which is a consolidated one, contains 202 sections detailing the powers and functions of the revenue officers, procedures to be followed by them, constitution and powers of the Mysore Revenue Appellate Tribunal, revenue jurisdiction, land and land revenue, grant, use and relinquishment of unalienated land, revenue survey, settlement and assessment, record of

Mysore Land Revenue Act, 1964

rights, boundary marks, realisation of land revenue and other miscellaneous provisions on cognate matters. In exercise of the powers conferred by Section 197 of the Act, the State Government issued the Mysore Land Revenue Rules, 1966, containing 151 clauses, relating to the procedures to be followed by revenue officers, application and appeals, survey and settlement, record of rights, deputation of survey parties, maintenance survey, revenue jurisdiction, recovery of land revenue, levy and recovery of fees, suspension and remission of land revenue, etc.

In exercise of the powers conferred by sub-section (1) of Section 195 of the Act, the State Government delegated certain powers, formerly conferred on the Deputy Commissioners, to the Assistant Commissioners placed in charge of revenue sub-divisions. These related to the land, occupancy, etc. Under a separate notification issued on the 17th June 1966, certain powers, which were held by the Deputy Commissioners in respect of land revenue, road-side trees and the like, were delegated to the Tahsildars of the taluks. The powers, which the Government had under Section 68, were delegated to the Divisional Commissioner. The Mysore Land Revenue Act, 1964, was amended during 1966 and the amendment received the assent of the Governor of Mysore on 11th February 1966. This amendment related to the transfer of appeals, which were pending before the Divisional Commissioners, to the Revenue Appellate Tribunal.

Land tenures

The land tenures in the district could be broadly divided into Government lands (*Sarkar*) and Inam lands. The Government lands were held under the *raiayatwari* tenure on *kandaya*, i.e., a fixed money assessment. Except in the settled tracts, where the term of settlement was fixed at thirty years, *kandaya* lands were held on annual leases or *pattas*, but the assessment was seldom altered. By far the largest portion of the land in the district was held on this tenure. In the case of the private estates, such as Inam and *Kayamgutta* villages, separate principles of tenure were enunciated. The Inams and Jodis have since been abolished. A hereditary right of occupation was attached to all *kandaya* lands. As long as the *pattedar* paid the Government dues, he had no fear of displacement, and virtually possessed an absolute tenant's right, as distinct from that of proprietorship. When the State found it necessary to assume a land occupied by him for public purposes, he was always paid compensation fixed either by mutual consent or under the provisions of Land Acquisition Act.

Inams

In the old days, the Government used to grant lands to persons who rendered services to the State or to the village community. Lands were granted for religious, charitable or other purposes also. Such lands were held by the recipients free of

assessment or subject to a *jodi* (small assessment), which, in revenue parlance, was called "quit-rent". In the Land Revenue Code, the term 'Inam' or 'alienation of land' meant the assignment in favour of an individual or individuals or of a religious or charitable institution, wholly or partially, of the right of Government to levy land revenue. *Kayamgutta* villages, i.e., villages granted on a permanent assessment with a view to promoting cultivation, had also been treated in the same manner as Inam villages since 1877. After the fall of Tipu Sultan and the restoration of power to the royal family in 1799, the British suggested to Dewan-regent Purnaiya not to gift any land without the prior permission of the Resident. Accordingly, the alienations of lands between 1799 and 1810 were less frequent. From 1810 to 1831, Maharaja Krishnaraja Wodeyar III alienated some lands, besides confirming some lands on the basis of *kayamagutta* or permanent tenure. During the British administration of Mysore from 1831 to 1881, alienations were few and far between and made only for specific performance of service, consisting in the upkeep of *chhatras*, maintenance of groves, tanks and avenue trees and the like. At the time, there were also some "Sthal" Inams or, as they were sometimes called, 'Chor' Inams, which had not been granted by competent authority.

After the revenue survey of 1863, a scrutiny of this kind of tenure became urgent. During 1863, skeleton Inam rules were framed. In 1866, an Inam Commission, consisting of an Inam Commissioner, one Special Assistant and three Assistants, was formed for examining the various aspects of the tenure. In 1872-73 the Inam Department was re-organised with the Survey Commissioner as its head. Upto 1872, the determination of the value of Inams for purposes of enfranchisement followed the Madras Inam Rules and was based upon the old assessments recorded in Purnaiya's *Jodi* Inam accounts. But this created certain difficulties and in 1874, a correct valuation was ordered by the Chief Commissioner. After the Rendition in 1881, the Inamdars complained of certain hardships and on careful examination, title deeds were issued to the Inamdars. At that time, there were *Kodagi*, *Kayamgutta*, *Dharmadaya*, *Brahmadaya* (including *Agrahara* Inams), *Devadaya*, personal service and miscellaneous Inams in existence. The *Kodagi* Inams, which were almost invariably wet lands, were granted free of or on light assessments in consideration of construction and upkeep of tanks, and they were abolished during the later part of the 19th century. *Devadaya* Inams were those belonging to the religious institutions; *Dharmadaya* Inams were lands granted to charitable institutions; *Brahmadaya* Inams were lands given to Brahmins for personal service. Miscellaneous service Inams comprised lands granted for miscellaneous police, revenue and commercial services as distinct from village service. There were also village artisan Inams

granted to artisans and others for services rendered to the village community and also Inams held for village service in Government villages.

Some of the Inams comprised whole villages, while others consisted of a few specified lands in a village, the latter being called minor Inams. The whole Inam villages fell into three categories, viz., *Sarvamanya*, *Jodi* and *Kayamgutta*. *Sarvamanya* villages were held free of all demands and only cesses on the recorded value were recovered from the holders. *Jodi* villages were those held on a light assessment. The *Kayamgutta* villages were the nearest approach to the permanently settled estates, then prevailing in other Indian provinces. All Inams confirmed as *Kayamgutta* were hereditary and transferable. The two statements given below show the extent of Inams that existed in the district before their recent abolition :—

Inam Villages

Taluk	Number	Extent (Acres)	Beriz (amount of revenue)	Jodi and quit-rent
1	2	3	4	5
			Rs.	Rs.
Tumkur	44	23,590	12,479	4,324
Madhugiri and Koratagere ..	48	35,673	10,999	5,180
Sira	7	5,548	1,330	222
Pavagada	4	11,121	4,617	575
Chiknayakanahalli	6	7,919	3,170	2,547
Gubbi	6	6,586	3,341	1,812
Tiptur and Turuvekere	8	9,636	6,334	1,410
Kunigal	32	28,970	11,091	4,380
Total	155	1,29,049	53,961	20,400

Minor Inams

Taluk	Number	Extent (Acres)	Jodi and quit-rent
1	2	3	4
			Rs.
Tumkur	13	1,587	6,579
Madhugiri and Koratagere ..	12	5,232	2,875
Sira	10	2,307	1,133
Pavagada	10	10,111	1,804
Chiknayakanahalli	8	2,546	848
Gubbi	11	10,915	4,707
Tiptur and Turuvekere	13	8,696	4,114
Kunigal	10	8,947	3,077
Total	87	50,341	25,137

The condition of Inam villages came up for serious consideration of the Government as a result of prolonged discussions in the Mysore Representative Assembly and Legislative Council. Two Special Committees were appointed in May 1915 and May 1916; however, as the deliberations of these Committees did not lead to any useful results, a Commission was appointed in July 1918 to examine the whole question. On 2nd July 1925, the Government passed orders modifying the earlier orders, and the Mysore Land Revenue Code was amended by Act No. XVII of 1928 to implement certain decisions which mitigated the hardships of the cultivators in Inam villages. This was the first attempt to protect and secure the rights of tenants in Inam villages. But the relationship between the Inamdars and their tenants did not much improve. The tenants felt that their position was still insecure. The Inamdars complained that their tenants were irregular in their payment of rent, forcing the Inamdars to litigation. The Government felt that a fresh investigation was necessary and accordingly set up an Inam Committee in 1932. The Committee recommended that survey and settlement should be compulsorily introduced in all Inam villages in which they had not yet been introduced. Several other measures relating to resumption of tenures, disputes arising out of settlements, fixation of rents to be charged and the like were also suggested by the Committee. The recommendations of this Committee were approved by the Government with the modification that action should be taken only if not less than 50 per cent of the tenants or 50 per cent of the *vrittidars* desired Government management of Inam villages. The Alienated Villages Purchase Act (Act II of 1944), enabling the Government to purchase alienated villages at the request of the holders at prices agreed to by the latter, also came into force in 1944. However, the tenants of the Inam villages felt that the steps taken by the Government had not resulted in any substantial improvement in their condition. Hence, a total abolition of the Inams was being pressed in the State Legislature. Finally, after detailed examination, the Mysore (Personal and Miscellaneous) Inams Abolition Act was passed in 1954, abolishing all the Inams and providing for compensation to the Inamdars.

A Special Deputy Commissioner for the implementation of the provisions of the Act in the district was appointed and he had the assistance of Special Tahsildars for Inam Abolition. Notifications were issued in the Gazette calling for applications for resumption of title on the part of Inamdars, *Kayamguttadars* and others. The Special Tahsildars heard these petitions and passed orders, on which the Special Deputy Commissioner heard objections, if any. The matter was finally settled by the Revenue Appellate Tribunal. All the Inam lands vested in Government, and after enquiry, they were made over to the parties as *raiyyatwari* lands. As many cases are still not yet settled, the exact amount of compensation

paid to the dispossessed Inamdars would be known only at a later date.

The systems of grain and land measures followed in the old days in the district were as follows:—Grain measures: *chataks*, *pav*, *payili* or *padi*, *seer*, *balla*, *kolaga* and *khandaga*. Four *chataks* made one *pav*, two *pavs* one *padi*, two *padis* one *seer*, two *seers* one *balla*, four *ballas* one *kolaga* and 20 *kolagas* one *khandaga*; Land measures: the quantity of seed sown in an area of 64,000 square yards (8 guntas and 11½ square yards) was reckoned as one *khandaga* of seed. An acre equalled 40 guntas, each gunta being 121 square yards. Now it is the hectare which is the basis for all land measurement (See also Appendix).

Principles of Survey and Settlement

Prior to 1799, no general survey of lands appears to have been conducted. Immediately after the termination of the wars with Tipu, a general topographical survey was made by Col. Mackenzie. The *paimayish* (measurement) attempted by Purnaiya was imperfect as already stated and with the lapse of time, the records had become extremely defective. Though the value of a thoroughly scientific revenue survey and assessment was realised even during the early days of the British Commission, their introduction was deferred until the finances of the State improved. A decision to introduce survey and settlement was finally taken in 1862. The first step in the introduction of survey and settlement into any taluk was the division of the village lands into fields, the definition of the limits of such fields by permanent marks, and the accurate measurement of the area of each field by chain and cross staff. The next step was the classification of the land with the object of determining the relative values of the fields into which the land was divided. For this purpose, every variety of soil was referred to one of nine classes, such classes having a relative value in annas. In the case of irrigated wet and garden lands, in addition to soil classification, the source of water supply was also taken into consideration, and its permanency or otherwise regulated the class to which it was referred to. The soil and water class conjointly afforded an index to the value of the field. In the case of gardens dependent on wells, in addition to the classification of soil, the supply, depths and quantity of water in the wells, the area of the land under each and the distance of the garden from the village as affecting the cost of manuring were also ascertained.

When all the fields had been classified, the taluk was ready for settlement. The villages in each taluk were divided into groups; the climate, the position with respect to markets and communications and the agricultural skill and actual condition of the cultivators were the main factors which were considered while grouping the villages. The maximum assessment to be levied in

each class of cultivation in a group was then fixed. For this purpose, the total amount of assessment to be levied on each group was determined by examining the nature and effects of the past management of the area and by a comparison of the settlements of the previous years. The average of the previous 20 years was generally adopted unless there were special reasons, such as shrinkage of the cultivation or decrease of population, to justify an appreciable reduction. After determining the total assessment for the group of villages, the maximum assessment, (*viz.*, the assessment to be levied on a 16-anna land) for each class of cultivation was calculated, by converting all lands into the equivalent extent of the 16-anna lands. Once the maximum rate was fixed, the rates for individual fields were calculated having regard to their value in the anna scale. These rates, multiplied by the extent of each field as determined by the survey, gave the assessment on each field. From the procedure adopted for introducing survey and settlement, it would be clear that the assessment levied was not any specific share of the net or gross produce, but that the main purpose of the survey and settlement was to distribute the burden of land revenue in a taluk more equitably on the lands in the area, having regard to the relative productivity of the lands. As the rates of assessment in the several taluks were dependent, to a considerable degree, on the previous revenue history of the taluks and as, prior to the introduction of survey and settlement, different systems prevailed in different regions, there was no certainty that the assessment would be uniform all over the State. The settlement reports, however, indicate that as survey and settlement operations progressed, the rates fixed for the areas under settlement were compared with the rates fixed for areas already settled, to verify if the differences in rainfall, facilities of communication and the general economic conditions of the tracts had been given adequate consideration. The high rates of assessment fixed in some areas were inevitable in the system which based the settlement demand also on the previous revenue management of the tract.

The land revenue is a demand, which is fixed during the currency of a settlement, and consequently, once the settlement is made, the cultivator knows precisely what he has to pay in the shape of assessment. The highest maximum dry assessment levied as per original settlement was Rs. 3 per acre on dry lands in the first group in some taluks, while for dry lands in the second group in Pavagada taluk, the levy was only eight annas per acre. Even these maximum rates were leviable only on the best dry lands in the group valued at 16 annas. The average rate of assessment in Pavagada was Re. 0-3-4 per acre on dry lands. The rates of assessment fixed during the original survey and settlement were generally in force for 30 years and they were revised after the

expiry of this period. Only wet and garden lands were reclassified during the revision survey and settlement, and the statute laid down that a revised assessment shall be fixed not with reference to improvements made from private capital and resources during the currency of the original settlement, but with reference to general considerations of the value of the land, whether as to soil or situation, prices of produce or facilities of communication. This principle was set out in Section 115 of the land Revenue Code. Since the particulars relating to settlements throw much light on the agrarian conditions prevailing at the times, they are given below at some length.

ORIGINAL SETTLEMENT

Former Budihal
taluk

Necessary preparations for the introduction of the original settlement in the former Budihal taluk were completed in May 1870, and proposals regarding the rates of assessment were submitted to Colonel W. C. Anderson, the then Survey and Settlement Commissioner. The taluk occupied the extreme southern point of the Chitradurga district. The Sira, Chiknayakanahalli and Honnavalli taluks were in the east, south and west, respectively. The total area, which came in for scrutiny was 2,33,167 acres or 364 square miles, with a population of 26,370 inhabitants which worked out to 72 per square mile. The total cultivable Government land in the taluk was 65,285 acres, and a total extent of 2,153 acres had been alienated. Both the *nagadi* or money assessment and the *batayi* or crop assessment prevailed in the tract. The revenue realisations under the latter system fluctuated sharply. Captain J. P. Grant, Revenue Survey Superintendent at that time, wrote in his minutes thus: "I cannot but suppose that the loss to Government must have occasionally been very great owing to the impossibility of exerting the necessary check upon the revenue officials who were entrusted with the realisation of the Government share. It is impossible otherwise to understand why the realisations under the *batayi* for one year should be nearly four times as much as they amounted to the year previous". Captain Grant's observation on the prevailing system went home to the policy makers. In the money assessment tenure, there was nothing different to what existed in the neighbouring taluks. Coconut cultivation had firmly established itself in the taluk with the result that dry grains and paddy were grown in quantities for home consumption. According to Captain Grant, the cultivators in Budihal taluk appeared to be somewhat wanting in energy. The people in the centre and southern villages were undoubtedly the most prosperous. The revenue collections had not risen in proportion to other taluks. In 1869-70, the total of surveyed acres in the taluk was 63,285 and the actual revenue derived from land assessment was Rs. 61,852, giving a sum of Re. 0-15-2 per acre. According

to the revision proposals, the lands were divided into three groups with a maximum dry assessment rate of Rs. 1-12-0, Rs. 1-8-0 and Rs. 1-6-0, respectively. For paddy fields, a maximum of Rs. 8-0-0 for the first and second class villages and Rs. 7-0-0 for the third class were proposed. In respect of gardens, a maximum of Rs. 16 was recommended. The result of the imposition of the above maxima was that the revenue went up by Rs. 6,784. It was also observed that the available arable waste, although of considerable extent, had a low assessment, being of an inferior description. The officer who went into the question had no doubts whatsoever about the unequal incidence of the old assessment. He was of the view that the increase in the assessment would scarcely be felt by the cultivators generally.

Lt. Col. W.C. Anderson, in his note to the Secretary to the Chief Commissioner, dated 29th May 1870, wrote thus: "The chief peculiarity of the Budihal taluk is the dry coconut gardens which I have never seen elsewhere. This species of cultivation, it is stated, has been only introduced within the last 12 years. These gardens are always found in low situations, the soil is ordinarily sandy and thus the ryots have an easy access to the water lying at no great depth from the surface The revenue actually collected in 1869 was Rs. 61,852, while that for 1870 under the survey settlement will be, on the occupied land, only Rs. 67,522, an increase of Rs. 5,670, and besides Rs. 6,784 will accrue to the local fund from the one anna cesses, ordinarily giving a total increase of revenue, under all heads, of Rs. 12,454". The only point on which the Chief Commissioner was in doubt was with regard to the rates fixed on the coconut gardens, which appeared to be very low, considering the large revenue derived from them when in full bearing. No doubt the difficulty of fixing a satisfactory rate in this case was great, but it appeared to the Chief Commissioner that Rs. 8 per acre was too low as a maximum for a garden in full bearing enjoying all the advantages of tank irrigation. The average assessment on the whole cultivable area at the rates proposed was 11 annas per acre, and on the whole area of the taluk, 6 annas and 2 pies per acre, which is probably as satisfactory as could be looked for under the circumstances.

Proposals regarding the revised rates to be introduced in Sira taluk were sent by Captain Grant to the Survey and Settlement Commissioner on the 6th June 1870. Sira was the northernmost taluk of the Tumkur district. In 1870, this taluk had 8,77,794 acres or 590 square miles of land, with a population of 48,523 which worked out to 82 to a square mile. There were 233 villages, of which 228 were Government-owned and five Inam or otherwise, not under Government management. The cultivators were well off and contented, especially in the central, eastern and southern areas of the taluk. To the north and south-west, the

population was sparse and there were a good many deserted villages. Where the taluk of Hiriur in Chitradurga district adjoins to the north-west, the people were not well-off but the nature of the country and with it the condition of the people changed for the better, about three or four miles from the boundary of the Hiriur taluk. The Sira taluk was classified by the survey into 88,888 acres of dry crop, 6,876 acres of paddy crop, 4,880 acres under tank *atchkats*, 4,444 acres under well irrigation and 353 acres of coconut plantations. The collection from 1850-51 to 1869-70 (20 years' average) was Rs. 38,722. The collections under the *batayi* system, taking the average for the previous five years, amounted to Rs. 14,055. The lands held under the *batayi* tenure were almost entirely rice, the remaining lands being all held on *handaya* or money assessment tenure. The assessment upon all cultivated land was fixed in the time of Dewan Purnaiya. Such lands as were since cultivated were assessed based on the moderate rates fixed by Colonel Dobbs. Considerable inequality pervaded the assessment throughout Sira taluk. The assessment once fixed was not liable to be increased excepting in the case of garden area or sugarcane, in which case it was customary to double the assessment. The latter practice was abolished, but the evils of such a system did not disappear immediately. The rates on dry crop, rice and garden were as follows: Arecanut garden from Rs. 15-11-5 to Rs. 61-0-7, paddy from Rs. 2-6-8 to Rs. 19-6-4, paddy grown under *nala* or well water from Rs. 1-8-6 to Rs. 6-10-4 and dry crop from Rs. 0-7-0 to 2-4-0. For arecanut gardens, the land measures made use of was the *savurdya*, equal to about 6,000 square yards. For all other wet kinds, the *Krishnaraja kudu* of 500 square yards was adopted. For all dry lands, the *Krishnaraja kudu* of 3,200 square yards was the accepted measure.

An analysis of the actual revenue collections in 1869-70 reveals that for dry land crop, a sum of Rs. 28,781 was realised, giving an average of Re. 0-5-2 per acre. For all other wet crops, the average was Rs. 5-2-3 per acre. The proposals made by Captain Grant envisaged the division of the taluk into four groups in respect of dry crop, with a maximum of Rs. 1-4-0, Rs. 1-2-0, Re. 1-0-0 and Re. 0-12-0 respectively. The first group of 11 villages was not different from the second, with the exception that the villages of the former were situated on the Bangalore-Harihar road and the advantages enjoyed were distinct from those of other groups. The first and second groups, which formed the southern portion of the taluk, were more favourably situated in respect of roads, market and climate. The third group consisted of 66 villages in the central and western regions which were not so favourably situated. The fourth and the last group consisting of 36 villages was situated in the extreme north-west, where means of communication were not good and the rainfall precarious. For paddy

fields, a maximum of Rs. 9-0-0 was proposed in the first and second groups and Rs. 8-0-0 in the third and fourth groups. For tank garden lands, a maximum of Rs. 16-0-0 was proposed as reasonable. The total arable Government land in the taluk, occupied and unoccupied, and the assessment were as follows:—

		Acrea	Assessment Rs.
Occupied land	..	1,05,391	1,09,794
Unoccupied land	..	1,45,489	40,909
Total	..	2,50,880	1,50,703

Including the amount leviable on account of local fund, the total sum to be paid by the cultivators on occupied lands was Rs. 1,21,549, and this sum exceeded the collections of 1869-70 by Rs. 7,491. Captain Grant had no hesitation in suggesting this small increase in the rates of assessment. Indeed in his despatch from Channagiri, dated 6th June 1870, he observed: "I do not expect to see much of the arable waste brought under the plough at once. The present depression in the price of grain has had the effect of throwing much land out of cultivation in the northern districts, if indeed it has not had a similar effect throughout the whole of Mysore. A rise in prices would, I feel sure, at once bring a large extent of land under cultivation, but with the present prices, it cannot be expected that the ryots will greatly extend their holdings. Much depends also upon the facility or otherwise, which was afforded under the old system, for the contraction or extension of holdings. The subordinate officials sometimes from a mistaken energy or some other cause withhold the above facility as much as possible."

Captain Grant's suggestions to the Survey and Settlement Commissioner were fully looked into and this is what Lt. Col. W. C. Anderson had to say in respect of Sira taluk, in June 1870: "From an examination of the figures, it will be seen that the fluctuations in the collections have been very considerable and any attempt to drive them up has always been followed by a marked reactionary fall. For instance, in 1859-60 a sum of Rs. 1,03,057 was realised followed in the next year by a decrease of upwards of Rs. 20,000. About this time, prices throughout India were generally on the rise, consequent on the influx of money resulting from the expenditure in suppressing the mutiny. This was followed by the further rise, induced by the American war about 1862-63; we see then in that year a higher range of collections, but this appears to have been somewhat overpushed in 1863-64 and 1865-66 and again in 1867-68, for the higher collections of

each of those years are followed by the realisation of a smaller sum in the following year. The last of those years, 1867-68, shows a sum of Rs. 1,17,849 realised and in each of the two succeeding years a falling amount. The year 1869 was one of very low prices in Mysore and rates appear to have recovered somewhat in 1870; and with improvements in communications, affording better exits for surplus produce, we may hope that a recurrence of the exceptionally low rates of 1869 will not again occur".

The average results of the proposed rates are shown below. The total assessment on the area under cultivation in 1869-70 was Rs. 1,09,794 and on the total arable area Rs. 1,50,703.

Description	Average results	
	1869-70	New assessment
	Rs.	Rs.
Dry crop	.. 0-5-2	0-5-8
Rice	..	3-7-6
Garden (tank)	..	8-0-0
Garden (well)	.. 5-2-3	3-4-0
Coconut land	..	3-8-0
Total average	.. 1-1-0	1-0-8

In addition to the above assessment, which was less than the collections of 1869 by Rs. 3,804, the local fund cess would amount to Rs. 11,755 making the total assessment of Rs. 1,21,549. The rates appeared to be fair and liberal to the Chief Commissioner and he approved their adoption.

Tumkur taluk Proposals for the revision of the assessment in the Tumkur taluk were mooted in May 1871. The tract enjoyed great advantages. It had a good climate on the whole, and an abundant population (195 to the square mile), a much higher rate than in several other districts. The internal and external communications were ample, affording every facility for the conveyance of produce to large markets, and an extensive trade traversed the taluk in more directions than one, necessarily creating a considerable demand for fodder.

The following statement shows the survey area of each description of cultivation placed in juxtaposition with the collections for 1869-70:—

Description		Area by survey	Collections for 1869-70	Average rate per acre
1		2	3	4
		Acres	Rs.	Rs.
Dry crop	.. ..	1,07,823	57,867	0-8-7
Rice	.. ..	10,374	43,973	4-2-4
Tank-garden	.. ..	2,209	17,684	
Well-garden	.. ..	2,332		
Miscellaneous	.. ..	..	5,406	
Total	.. ..	1,22,738	1,24,930	..

There was no doubt about the inequality of the incidence of the assessment. Mr. E. Butcher, who was assisting Capt. Grant, had many occasions to ascertain the average actual rates on garden and rice lands. These rates ranged from Rs. 3 to Rs. 6 in the case of rice lands and from Rs. 4 to Rs. 10 in the case of garden lands. These rates were very inadequate and only served to show that the holders of land looked to the total assessment of their holdings and not to the assessment of each individual field. So long as the whole assessment was not excessive, they were quite willing to retain highly assessed fields as they held other fields which bore a merely nominal assessment. The tenure in Tumkur taluk was the simple *nagadi* or money assessment tenure. The collections for 1869-70, which amounted to Rs. 1,24,930 were the highest on record, and it was difficult to understand why this should be the case considering that prices had undoubtedly fallen since 1866. Before 1866, prices, as is well known, had risen to an exceptional degree. For purposes of assessment, the taluk was divided into five groups or classes. The grouping was based on the advantages in points of climate, means of communication and proximity to markets, enjoyed by one group of villages as compared with another. The general condition of the people was also taken into consideration and some of the villages on the important high roads had been placed one class higher than they would have been placed under ordinary circumstances. The first group consisted of 19 villages close to the Kasaba town of Tumkur. These villages enjoyed better facilities in the disposal of their produce and they obtained higher prices. It was proposed to fix a maximum dry crop rate of Rs. 2-2-0 per acre for them. The second group consisted of 53 villages at a somewhat greater distance from Tumkur. So it was proposed to fix a

maximum dry crop rate of Rs. 2-0-0 per acre. The third group consisted of 181 villages, which represented fairly the average advantages enjoyed by the taluk, and also of those which, although not enjoying a climate as good as the average, were situated near the roads. A maximum rate of Rs. 1-14-0 per acre was proposed for this group. The fourth group had a list of 80 villages on the north and north-west where the climate was inferior. A maximum dry crop rate of Rs. 1-12-0 per acre was proposed for this group. The fifth group had 36 villages to the extreme north and north-west where the climate was bad and the people poorer than elsewhere. Under the circumstances, a maximum dry crop rate of Rs. 1-8-0 per acre was proposed.

Increase in
revenue

For paddy fields, a maximum of Rs. 10 in the first, second and third groups and Rs. 9 for the fourth and fifth groups was suggested. For tank gardens, a maximum rate of Rs. 16 and for well gardens a maximum of Rs. 6 was proposed. In the tank gardens, as facilities for the growth of trees were wanting, a lesser rate was suggested so as not to burden the cultivators. The well gardens in the confines of the Tumkur taluk were very good and the water-bearing stratum was so near the surface that the capital invested for the construction of the wells and for the labour in working them was not much. The depths of the water from the surface varied considerably and this fact was duly considered in fixing the assessment. The result of the new assessment was to increase the revenue by Rs. 13,070, not taking into account the local fund which amounted to Rs. 12,750. Under the old assessed rates, the revenue had been fixed at Rs. 1,24,930 and as per the new rates, the revenue expected to be realised was Rs. 1,38,000, the average rate being Rs. 1-2-0. Including the local fund, the total assessment of all lands, occupied and unoccupied, came to about Rs. 1,50,000. Thitry-one villages in the taluk had not been assessed at all, being entirely Inam. The report of the Survey Superintendent solicited the Chief Commissioner's sanction to some definite mode of procedure in respect of the claims of those who had built or repaired tanks or who had sunk wells in accordance with the terms of the proclamation issued by the Chief Commissioner in 1863. The proclamation in question was dated 13th July 1863 and was as follows:—

“To those ryots who may themselves wish to engage in the construction or repair of tanks or wells without any assistance from Government, the following advantages are offered as an encouragement:

1. All those tanks and wells, which do not require the assistance or special knowledge from the Department of Public Works, should be repaired by the ryots themselves under the following liberal rules:

- (a) By the repair of useless tanks and wells, lands at present *kushki* become *tari*. Such lands should have a quarter less assessment than the average rate on wet land throughout the taluk, or
- (b) An assessment equal to the highest rate on *kushki* in the taluk, or
- (c) The assessment should be fixed to be paid by instalments increasing year by year (*i.e.*, by a *koul*).

2. If the ryots do not wish to undertake such repairs themselves in any village where there may be tanks or wells, then people, who have no connection with that village, may make application to be allowed to execute such repairs within the fixed time allowed and published in the taluk proclamation.

3. In places where there were formerly no tanks or wells for irrigation and where the ryots themselves have now built them at their own cost, the old rate on *kushki* will still be levied on the land under such tanks and wells, provided that the general rate on land throughout the taluk has not been altered.”

Capt. Grant suggested that if a remission were to be made at all in the case of those who could establish their claim to the privileges conceded in the proclamation, a uniform levy, namely, one-fourth of the survey settlement should be the basis. The difficulties attending the investigation of the claims were considerable, as strenuous attempts were made to establish a right to remission. Mr. E. Butcher, writing about the past revenue management of the Tumkur taluk, observed that there existed no taluk in the State in which the rates of assessment of both wet and dry lands varied so much as in the Tumkur taluk. Colonel Dobbs, who was for a long time the Superintendent of the district, had issued several orders on the subject. Almost every village had its own peculiar rate of assessment. In dry crop land, the rates varied from Rs. 5 to about one anna for *kudu* of 3,200 square yards. In the wet lands, as a general rule, the lands under the large tanks connected directly or indirectly with the *kacheries* had been assessed very lightly, while the rice fields under small tanks and *kuntas*, which could not grow rice crop except in very favourable seasons, were assessed at double the rate to that under large tanks. In short, the rates were most unequal in their incidence. There was very little *bataji* land in the taluk.

The Chief Commissioner observed that the circumstances of Tumkur taluk, as described in Captain Grant's report, were exceptionally favourable as compared with those already settled. The density of population per square mile, *vis.*, 195, was in excess of the average, and the unculturable area, which included the

Devarayanadurga range of hills, was only 28 per cent of that of the whole taluk. From the report submitted, it was observed that the Government land actually under cultivation was 1,22,738 acres, whereas the revenue accounts for the year 1869-70 showed only 72,440 acres. It was clear from this discrepancy that a vast area of cultivation must have been concealed. The results of the settlement gave a revenue of Rs. 1,38,000 on the occupied area, being Rs. 13,070 in excess of the revenue realised in 1869-70 (exclusive of the local fund cesses which amounted to Rs. 12,750). The Inam lands in Tumkur taluk comprised 31 villages as already stated. In addition, there were Inam lands in Government villages to the extent of 19,615 acres and bearing a survey assessment of Rs. 21,800.

Pavagada taluk

The preparation for the settlement of the Pavagada taluk, which was originally in Chitradurga district, proceeded according to plan in the early part of 1872. Mr. E. Butcher was the officer in charge of classification operations and his report gave a general description of the tract and contained useful information regarding climate, soils and mode of husbandry. This taluk was bounded on all sides by the Bellary Collectorate, being connected on the north-west only by a narrow neck of land with the former Dodderi taluk. In length, it averaged about 30 miles, with a breadth of 20 miles. It was sub-divided into seven *maganis*, containing 154 villages, of which five were Inam with an area of about 560 square miles. The taluk was of an undulating appearance with rocky hills cropping up irregularly all over its surface. Assessment rates varied much in different parts of the taluk. The dry crop lands were comparatively little valued and the rates were, therefore, usually low. In gardens, the assessment was on the trees and not on the land. In converting rice lands into garden lands, it was usual to plant it with betel creepers. The full assessment was not levied on these till the fourth year, when the plants were in full maturity. The plantation generally lasted for 10 years after which it was rooted up. In respect of wet lands, the rates were usually low. Nearly the whole of the wet lands were held on *kandaya* (money assessment), the *batayi* system being in force under a few small tanks. The system of sub-letting of lands prevailed to a considerable extent in the Nidugal, Mugudalbetta and Ganghatta *maganis* where paddy was extensively cultivated.

Complicated system

Pavagada had formerly constituted a part of the Chitradurga principality. During the time of the Nayakas, the system of assessment was full of complications. Assessment was imposed upon each plough or upon each well, or a certain assessment was arbitrarily announced for a certain field without measurement of land or classification of the soil. The revenue accounts of the taluk were in a very imperfect state and even the new accounts, although kept in more suitable forms and more easy for reference,

had been prepared on the faulty basis of the old accounts. About the year 1865, this position was greatly improved. In this taluk, there were comparatively few *kadim* or old rates for the simple reason that the *batayi* system was in full force and it was only in later years that the *nagadi* or money assessment supplanted the crop assessment. Under the old system, the area by survey was 1,65,007 acres, giving a revenue collection of Rs. 81,795 in 1870-71, the average rate then worked out being Re. 0-7-11 per acre. Under the new assessment (not including local fund), an increase of Rs. 10,154 was shown. The villages in the taluk were grouped into two classes, the first comprising 46 villages with a maximum dry crop rate of Re. 0-10-0 and 149 villages of the second class with a maximum dry crop rate of eight annas. For rice lands, a maximum rate of Rs. 6 was proposed throughout the taluk. For garden, the rate proposed was Rs. 12. The results of the settlement gave a total revenue of Rs. 91,635, the general average rate of assessment being Re. 0-8-11 per acre, showing an increase of Rs. 9,840 on the revenue realised in 1870-71, exclusive of the local fund cesses which gave Rs. 9,705.

In March 1876, the Chief Commissioner of Mysore issued orders approving the revision of assessment in the Koratageri taluk. The area of the taluk was 383 square miles of which the Government villages, which formed the subject of settlement, covered 333 square miles. The taluk was divided into seven *maganis* and contained 407 Government and 57 Inam villages. The population in 1876 was 53,774 or 161 to the square mile. The rates of assessment then in force were not based on any definite principle and the incidence of assessment in individual cases was very unequal. Attempts to bring these to one standard led to increase in some and reduction of assessment in several cases. The best areca gardens were assessed at from Rs. 30 to Rs. 48 per acre and rice lands producing double crops from Rs. 8 to Rs. 10 per acre. Rice lands bearing only one crop of rice were assessed at Rs. 4-8-0 per acre and the dry crop lands paid from five annas to Rs. 2-14-7 per *kolaga* of 3,200 square yards. The collections in 1873-74 amounted to Rs. 78,731. The realisations had risen gradually from Rs. 63,000 in 1853-54 to Rs. 81,500 in 1865-66, from which period there was a slight decrease, being Rs. 78,224 in 1872-73 and Rs. 78,731 in 1873-74. The steadiness of revenue during this latter period was attributed to the gradual disappearance of the *batayi* system under which the Government revenue necessarily fluctuated in respect of crops reaped on irrigated lands. The revenue of the taluk had increased during the previous twenty years by about 25 per cent, but the Survey Commissioner was of the opinion that considering the undoubted increase in population, the stimulus given by the very high prices, which prevailed during a part of that time, and the ensured steady demand for all exportable produce consequent on the opening of

the railway to Bangalore, the revenue of the taluk remained less changed than might have been expected. The realisations of revenue in 1872-73 with the average rates per acre from each class of land were as below :—

Description	Acres by survey	Collections in 1872-73	Average rate per acre
1	2	3	4
		Rs.	Rs.
Dry	78,461	40,823	0-8-4
Wet	8,766	37,401	4-4-4
Total ..	87,207	78,224	..

Moderate rates

It would be seen that these rates were very moderate, but the defect in the old system was want of definite rules in the imposition of the rates on individual fields. Captain Grant had pointed out that in six villages, viz., Ramapura, Kurubarahalli, Baligunti, Seethakal, Gundagere and Chikkamuddenahalli wet lands, which did not differ materially in their productive qualities, had been assessed at such widely varying rates as Rs. 1-5-1, 2-6-3, 3-3-5, 4-13-4 and 20-0-0 and dry crop lands at Re. 0-2-1, 0-2-2, 0-8-2, 0-8-10, Rs. 1-4-4 and 1-6-6 without any regard to the capabilities of the soil. In this settlement, therefore, examples of considerable increases and decreases of the old assessment often occurred. In the village of Kurubarahalli, for instance, the old assessment was proposed to be raised by 245 per cent. But this apparently enormous increase was justified in view of the fact that the old rate was so low as Re. 0-2-2 and the revised rate was only Re. 0-7-5 per acre. There were also instances of the reduction of the old assessment by more than one-half. In this, Captain Grant was guided, in a great measure, by the survey rates already proposed for the neighbouring taluks of Tumkur, Madhugiri and Sira. The villages were grouped into four classes for all kinds of land in the manner shown below :—

I	Dry rate	Rs. 2- 2-0.
II	Dry rate	Rs. 2- 0-0.
III	Dry rate	Rs. 1-12-0.
IV	Dry rate	Rs. 1- 8-0.
	Rice rate	Rs. 8- 8-0. to Rs. 9-0-0.
	Gaden rate	Rs. 16-0-0.

The maximum dry rates ranged from Rs. 2-2-0 to Rs. 1-8-0 and the wet crop rates from Rs. 9 to Rs. 8-8-0. The standard taken was a little higher than that proposed for Madhugiri, as parts of Koratagere possessed superior advantages. In consequence, however, of average inferiority in respect of soil and water supply, the average rates obtained on rice and dry crops in Koratagere were less than those of Madhugiri. The proposed survey assessment in 1876 on the Government occupied lands exceeded the collections of 1872-73 by Rs. 11,273 or 14.4 per cent, and the Chief Commissioner gave his approval to the proposals.

In June 1875, the Deputy Commissioner of Tumkur district wrote to the Revenue Survey Superintendent enclosing a copy of an order issued by Colonel Dobbs dated 23rd March 1855 regarding grants of garden lands virtually rent-free. The extremes of wet rate were 14 annas and 9 pies as against 2 annas and 4 pies and Rs. 1-2-8 per *kudu* in Madhugiri and Koratagere taluks, respectively, the usual rate in the latter being 4 annas and 8 pies, which was considered to be too low. The Deputy Commissioner was of the opinion that lands in Madhugiri were, as a rule, even superior to those in the other taluks. With regard to dry lands, the lowest rate in both taluks was the same, namely, 2 annas 4 pies per *kudu*, but the highest rates were Rs. 2-12-0 and Rs. 3-12-0. The nearness of water to the surface, especially in Madhugiri taluk, and the feasibility of excavating *talaparige* channels almost anywhere was of importance. But the point in favour of the agriculturists on the revision was that more care and labour had, for many years, been bestowed by them on the cultivation of their lands than in any other part of Mysore. They had doubtless good soil, climate and command of water to start with. But their own labour and capital had contributed to put them in advance of the rest of the district. The old assessment paid on all descriptions of land was Rs. 1,90,475 in the year 1873-74. The average rate on dry lands was Re. 0-9-11 and that on rice and garden Rs. 4-15-3. The survey assessment was fixed at Rs. 1,57,321. It can be noted from the above that the assessment on the irrigated lands (i.e., garden and rice) was in the proposed revision of the rates, very slightly enhanced, the gross increase being less than 8 per cent. The increase principally was on the dry crop soils, the rates on which were increased from an average of Re. 0-5-11 to Re. 0-9-11 per acre. The old payments on the dry crop soils were very unequal. The whole of the Teriyur *wagani* paid an average rate of Re. 0-3-2 only per acre and in individual villages, the rates varied from an average of Re. 0-13-0 to Re. 0-1-5.

The rates for Madhugiri taluk were, however, pitched lower than for Tumkur taluk, but while the latter had undoubted advantages of local position, roads, markets and the like, the lands in

Madhugiri were superior and more productive, and the water supply nearer the surface. The proportionate agricultural wealth in Madhugiri was considerably greater than in Tumkur. The taluk had an unlimited supply of vegetable manure which was wanting in Tumkur. All these helped to more than counteract the local position and advantages enjoyed by Tumkur taluk. The soil of the taluk was very good and favourable alike to wet, dry and garden cultivation. The wet crop soils were, however, considered very superior, and the best kinds of rice were grown in the tract. The water supply was copious. Besides the Jayamangali and Kundar rivers flowing through the taluk, and several tanks, there were any number of hill springs called *talapariyes* which afforded an abundant supply of water. The total area of the Government villages in the taluk (including five Amrit Mahal Kavals which extended to over 6,590 acres) was 2,41,587 acres, of which 1,50,190 were culturable and 84,807 unculturable. The average annual collections of the taluk for the previous 20 years commencing from 1854-55 were Rs. 1,30,841. The realisations, which in 1854-55 and the succeeding few years had amounted to a little over Rs. 90,000, had risen to Rs. 1,11,000 in 1858-59, on the abolition of the *batayi* system. Since then, the collections upto 1876 remained almost stationary at about Rs. 1,30,000. In the proposed settlement, the dry lands in the taluk were divided into three groups, having reference chiefly to the advantages of communication. There were 58 villages in the first group with a maximum rate of Rs. 2 per acre, 116 villages in the second at Rs. 1-12-0 and 108 villages in the third at Rs. 1-8-0 per acre. The first group consisted of those villages which were in the vicinity of Madhugiri town. In the second group were included those villages which were not so well situated as regards roads. The remainder of the taluk formed the third group. The minimum rate for dry crop was estimated at 1/9th of the maximum. Only one uniform maximum rate of Rs. 8 per acre was fixed for paddy lands as the advantages of position and climate were about the same throughout the taluk. The average actual rate imposed on these lands was Rs. 4-4-2 per acre and the minimum rate about 1/12th of the maximum. In 1873-74, the assessment was Rs. 1,30,641, and under the new assessment, it was Rs. 1,57,321. To this, a sum of Rs. 3,213 was added on account of the receipts from grazing and fruit trees and Rs. 821 on account of *jodi* on service Inam lands. The total collections under all heads for 1873-74 had amounted to Rs. 1,39,531 and under the new settlement, they came to Rs. 1,71,708, resulting in an immediate gross gain of Rs. 32,000 or 23 per cent.

Referring to the constant complaints that were made as to the frauds practised on the cultivators by the Shanbhogues at the time of the survey settlement, in the assignment of new numbers to their holdings, the Chief Commissioner considered that to

remove this cause of dissatisfaction it was desirable that each cultivator be supplied with a chit, giving the requisite details as to the area and assessment of his holding as determined by the survey and the number assigned to it. He did not understand why there should be any difficulty in doing this in company with the Revenue Officer of the district at the ordinary annual settlement, leaving the introduction of the new settlement to be deferred to the succeeding year, by which time the cultivators would have been able fully to understand the change contemplated.

In February 1879, proposals for the revision of the assessment of the Chiknayakanahalli taluk were taken up in respect of 294 Government villages. This taluk was very severely affected by famine. The classification had been completed before the famine. It was known for certain that the garden lands were much affected by the drought of the previous two years and that many of the trees had died. But people did not appear to have lost heart and the process of replanting was in progress. Considering, therefore, that the new assessment would not take effect by actual collection of revenue for twelve months, there did not appear to be any reason for making any material reduction in the assessment which would otherwise have been imposed. The revenue gradually and with some fluctuations had risen from Rs. 82,938 in 1851-52 to Rs. 98,395 in 1865-66. After 1866, there was a fall for two years with a partial recovery to Rs. 94,054 in 1869-70, a little above which point, the revenue remained with a remarkable steadiness upto 1875-76. The average collections of the five years ending with that year were Rs. 94,893. As to the rise and fall of the extent of the occupied area, there was absolutely no reliable information, the record of the area in terms of the Krishnaraja *khandies* being quite untrustworthy. A *bijavari* measure was one of value and not of the area, while the Krishnaraja *khandi* proper was the measure of an area. In some cases, it was found that for purposes of accounting, ancient *bijavari khandies* were directed to be converted into Krishnaraja *khandies* according to a certain arbitrary proportion. These were then called *bijavari Krishnaraja khandies*, but, were of course, as unreliable for the determination of areas as the original *bijavari khandies* from which they were deduced.

Chiknayakana-
halli taluk

The dry crop soils of the taluk were, on the whole, poor, being of shallow depth and of the grey sandy and gravelly kind. Good dark-coloured soil is seen occasionally in the valleys of the northern *maganis*, but it is only to the south, in the Dandinashivara and Koppa *maganis* that exclusive stretches of black and dark-coloured soils are met with. The stony dry crop soils of the north produce chiefly ragi, *same*, horsegram and oil-seeds. Jowar is sown in the better soils of the hollows. In the better soils of the south, are grown jowar and bengalgram with a little cotton. Two crops

Poor dry-crop
soil

are taken where the position is favourable. Rice is grown on the *tari* lands. The best gardens in those days were met with to the extreme north, both on the eastern and western borders in the neighbourhood of the rocky hills. The chief products were areca, betel creepers, plantains and coconuts. The areca gardens of the south-east were fairly good, but did not yield like those of Hagalvadi. There were extensive coconut gardens on the north-west, which were very productive. A very large area was cultivated on *batayi* system. The nominal rate for garden land was from 3 annas and 4 pies to Rs. 29-2-8 per *khandi*. When a garden was planted, the assessment was on the land as specified above till it came to bearing, after which areca *bagayat* was rated at from Rs. 23-4-4 to Rs. 72-11-3 per 1,000 trees or from 5 pies to one anna per tree. The nominal rates for *tari* were from Rs. 5-3-1 to Rs. 27-4-0 per *khandi*. For *kushki* (dry land), the nominal rates were from Rs. 1-1-4 to Rs. 74-8-0 per *khandi*.

The taluk was divided into three groups for purposes of assessment. The assessment on dry lands gave an average rate of Re. 0-3-7 per acre with a maximum rate of Rs. 2. The old collections on the same area gave an average of Re. 0-10-8. The proposed assessment, which was thus an increase of 33 per cent, was regarded as rather heavy for such poor soils. Considering, however, the general high prices of grain, the proposals were approved. The average assessment on rice lands was Rs. 3-15-8 per acre, with a maximum rate of Rs. 8. The total of the proposed settlement amounted to Rs. 1,10,351, being an increase of about Rs. 13,000 over the collection of 1875-76. There was, besides, an increase of about Rs. 4,000 in the local cess, the amount of which was, as usual, doubled by the survey. The settlement was approved in February 1879.

Former
Honnavalli
taluk

Administrative approval to the proposals for the revision of the assessment of the Honnavalli taluk (now Tiptur taluk) was given in February 1880. This taluk is one of the *maidan* taluks with few hills or jungles of any importance, but with an undulating ground consisting almost entirely of red soil. The taluk was irrigated by numerous rain-fed tanks and enjoyed a moderate rainfall. It was well provided with roads and markets, the weekly fair held at Tiptur being then the largest in the whole State. In regard to cultivation and other features, it shared more of the character of the Haranahalli and Chiknayakanahalli taluks than of the taluks to the east. There was very little sugarcane grown, but the taluk was rich in coconuts which were planted in irrigated as well as in unirrigated lands. Besides, the ordinary dry crops, ragi, *avare*, horsegram, oil-seeds, chillies and tobacco were also grown. The population, which was but sparse, suffered considerable diminution during the famine. The incidence of the proposed assessment was as follows:—

Description	Survey acres	Survey assessment	Past collections	Average rate per acre
1	2	3	4	5
		Rs.	Rs.	Rs.
Dry crop	60,798	48,770	37,347	0-9-10
Rice	1,858	8,039	53,595	4-4-8
Garden	16,857	52,337		1-12-7

The total of the settlement on the occupied lands, inclusive of the higher rate of local cess and of the irrigation cess merged in the assessment, amounted to Rs. 1,17,671 against Rs. 95,101, being the collections of the previous year. The increase of Rs. 22,570 represented the addition made to the payments by the cultivators who, however, were in return relieved from any payment of fees to the village officials. The survey assessment of the occupied lands (exclusive of the local cess) gave an increase of only Rs. 18,048; deducting the contribution of Rs. 3,799 to be made to the irrigation cess fund and the remuneration of village officers estimated at Rs. 8,000, the net increase by the settlement to the Government amounted to only Rs. 6,249.

Proposals for the revision of the assessment of the Government villages of the Kunigal taluk were sent to Government for approval in March 1881. The taluk had eight *maganis* or sub-divisions. These were Kunigal, Yediyur, Kottagere, Huliurdurga, Koppa, Amruthur, Hutridurga and Byadarahalli. In all, there were 314 Government villages, 48 Inam villages and four *Kavals*. Kunigal is a comparatively level and open taluk, excepting towards the west and south-west, where the Huliurdurga and Byadarahalli areas as well as a portion of the Hutridurga area are occupied by a continuation of the hill range which, entering Mysore near Midigeshi in the Madhugiri taluk, runs south through Madhugiri, Koratagere and Devarayanadurga, and in the taluk of Kunigal, it is represented by the heights of Hutridurga and Huliurdurga. In these more wooded and hilly tracts, where the soils are poor and stony, tanks and irrigation were generally less common than elsewhere; but in the valleys and low lying places there is much moisture, and altogether, the country, although somewhat inaccessible, was not quite so barren as might, at first sight, be supposed from its appearance. In the centre, near Kunigal itself and to the west and north, generally, of the hills just described, between them and the Shimsha river, the country opens out; here, chains of tanks and long stretches of irrigated

Kunigal taluk

land thickly occupied the surface and the quality of the soil here was better, but in no place it attained the character of what is usually known as "reghar" or black soil. In the dry lands were raised the dry grains common all over the district, ragi and beans being the staple crops. In the wet lands, paddy was grown with a fair proportion of sugarcane. The coconut and betel gardens greatly varied in quality. The water supply in this area was good.

The rates of assessment as stated by the Deputy Commissioner were low and a fear was expressed that much inequality in their incidence would be disclosed by a new survey and also that the extent of occupied land would be found to be very much understated in the accounts. The following were the average rates that were being actually paid :—

Description of land	Acres by survey	Collection for 1879-80	Average rate
1	2	3	4
		Rs.	Rs.
Garden	3,366	11,283	3-5-8
Rice	5,488	18,048	3-4-7
Dry crop	81,052	41,926	0-8-3

The distinction made between paddy and garden lands in the old accounts was only slight. The average rate had been almost the same in both cases, viz., Rs. 3-5-8 and Rs. 3-4-7. It is not easy to trace back these nominal rates to their origin, nor would it serve any practical purpose to do so. The rates stated to be in existence before 1880, as given by Capt. Price, showed wide extremes, ranging in the case of garden land from about Rs. 1-8-0 to Rs. 9-8-0 per acre. In the case of paddy land, the rates were from Rs. 3 to Rs. 24 and in the case of dry land, from Re. 0-3-6 to Rs. 3-8-0. Capt. Price, who was asked to go into this question, stated that the rates on rice land were fixed by dividing the average value (under *batayi* system) of the crop in 10 years by the average area under cultivation in the same number of years. He also stated in his report that an extra levy was made in the event of sugarcane being grown. The *batayi* tenure was converted into *nagadi* in 1865-66, the amount collected in that year under *batayi* being Rs. 16,766 and in 1866-67, only Rs. 3,896. This conversion of the *batayi* into *nagadi* represented a new point of departure in the revenue management of the taluk. The

operation was one which, with the best of intentions on the part of those carrying it out, must have, in the absence of any survey, afforded opportunities for fraud. The collections bore ample proof of the failure of the operation. An actual average rate of Rs. 3-5-8 for wet lands (including both garden and rice lands) would surely admit of very considerable enhancement, while the average rate of only Re. 0-8-3 for dry crop land was far below what was considered fair in the taluk.

The collections under the proposed settlement, as against the collections of 1879-80, were as indicated below :—

	Rs.
Collections of 1879-80 ..	71,257
One anna local cess ..	4,836
Total under the old system ..	76,093
Survey assessment of occupied lands ..	97,194
One anna local cess ..	6,874
Total under new survey system ..	1,04,068

The gross gain, leaving out any calculation of local cesses, was Rs. 25,937. From this sum, however, must be deducted the pay of village officers, which came to about Rs. 6,000. The net gain to Government, after deducting all charges, came to Rs. 17,667. The proposals were sanctioned by the Dewan in May 1891. The settlement, on the whole, showed a decided improvement over the past collections, though it did not exceed the high collections realised in some of the previous years under the *batayi* system and under the then prevailing high prices.

In May 1882, the Superintendent, Mysore Revenue Survey, Former Kadaba sent proposals for the revision of the old assessment rates of the taluk former Kadaba taluk (now Gubbi taluk). The taluk is situated in the middle of the district and is bounded by Tumkur taluk on the east and north, by Chiknayakanahalli, Honnavalli and Channarayapatna taluks on the west, and by Kunigal and Magadi taluks of Bangalore district on the south. At that time also, Gubbi was the headquarters town of the Kadaba taluk, situated on the Bangalore—Shimoga road, 12 miles to the west of Tumkur. Kadaba taluk was divided into eight *maganis* or sub-divisions. Almost all the villages are plain and open, the climate is healthy and the soil, for the most part, good. There are no hills, nor are there any perennial streams of any importance. The rainfall is moderate compared with that of Tumkur taluk, where the hills of Devarayanadurga precipitate more rain. The tanks in the taluk

were of ordinary size with the exception of those at Mallaghatta and Kadaba. The rates of assessment in the old days varied in every village and they were not fixed with reference to the productive quality of the soil, nature of irrigation or means of communication, markets and the like. The Superintendent of the Chitradurga Division, to which Kadaba was formerly attached, gave out the land on an assessment fixed on an average of the past 6 to 30 years' *batayi* revenue derived therefrom. About the year 1856-57, when the *nagadi* system was introduced in place of *batayi* throughout the taluk, some modifications were made in the then existing rates. Increase and decrease of the rates of assessment on the complaints of cultivators were of common occurrence in annual *jamabhandi* settlements. Since the formation of the district in 1862-63, changes in rates became few and far between. The old records show that the following rates were in existence :—

Description	Rate for Krishnaraja Khandi	
	From	To
1	2	3
	Rs.	Rs.
Irrigated under tanks	5—13—4	19— 9—0
Sugarcane	18— 3—0	35—13—4
Mulberry	5—13—4	11—10—8
Coconuts	6— 4—0	6— 4—0
Betel leaves	1— 7—0	10— 0—0
Plantains	6— 4—0	7— 4—8
Other vegetables	6— 4—0	17— 8—0
Under wells	6— 4—0	8—12—0
Dry crops	2— 4—8	60—0—0

Considering the position of the Kadaba taluk, its soil, population, roads and other advantages, the taluk was proposed to be divided into two groups, one consisting of Mayasandra, Kallur, Turuvekere and Dabbeghatta hoblies and the other of Kadaba, Gubbi, Hebbur and Chattanahalli hoblies. The incidence of the survey assessment in Tumkur was generally considered too heavy and unequally distributed in some places, so much so that the value of landed property had greatly decreased. Many of the valuable gardens and rice lands, which had been bought for good prices before the settlement, had been resigned, and the waste numbers were increasing every year in the *pad patrikas* and thus the revenue suffered. It was, therefore, strongly urged that

the mode of assessment adopted for Tumkur would not suit any part of the taluk under reference. The second group being on the borders of Chiknayakanahalli, Honnavalli and Kunigal taluks, the average rates of these taluks, which were already settled, were adopted. The average suggested for dry lands was from Re. 0-2-8 to Rs. 1-15-0, for wet lands between Rs. 1-12-0 and Rs. 6-14-0 and for garden lands from Rs. 1-12-0 to Rs. 12-10-8.

It is interesting to note what the Deputy Commissioner of the district, in a despatch to the Survey Superintendent, wrote; he stated: "I would avail myself of this opportunity to bring to your notice another point of importance. There are 41 Anrit Mahal Kavals attached to the Madras Commissariat Department measuring 3,613-12-15 *khandies*. Of this, 1,198-5-8½ *khandies* are unassessed waste, while the remainder (2,415-7-6½) bears an assessment of Rs. 19,360-11-9 per annum as per 1880-81 accounts. As the greater part of these *kavals* consist of superior land, raiyats of the adjacent villages take up every year portions here and there of these *kavals* for cultivation. Under the existing rules, the raiyats pay *kandaya* to the Mysore Government for the year in which the lands are cultivated and no rent when they are left waste. This course has not only caused fluctuations in the revenue but also affords room for frauds on the part of the *Kaval Survegars* and Shanbhogs." So, he recommended that steps might be taken to put an end to this system by resuming such lands and fixing, once for all, the rent to be levied on them.

For purposes of assessment, the taluk was divided into three groups, the first being the more favoured south-west portion, the second the great bulk of the level portion of the taluk and the third the remaining few villages of the same description which were more distant from the high roads. The rates of assessment adopted for lands of all descriptions were fair, the maximum fixed for well gardens being Rs. 6. The averages for dry crop did not exceed Re. 0-13-0 and for paddy Rs. 3-12-4. The garden average was Rs. 3-13-11. The total of the survey settlement showed an increase of about Rs. 23,000 over the past collection. The collection in 1880-81 was Rs. 99,598 and the new proposals estimated the revenue to be Rs. 1,23,129. Deducting certain cesses and collection charges, the net increase to Government was not very considerable. Besides the usual large extent of dry arable waste it was also observed that there was, under wet lands, an extent of waste nearly equal to the area under cultivation; on going through the statement of individual villages, it was also noticed that the whole or the greater portion of the area under several of the tanks was lying waste. The Deputy Commissioner of the district was asked by the Government to give his special attention to this aspect and was directed to take steps to put all the tanks in a state of thorough repair.

FIRST REVISIONAL SETTLEMENT

The cardinal principles of revisional settlement were stated in Section 115 of the Mysore Land Revenue Code, 1888, the main provisions being that the revised assessment be fixed with reference to general considerations of the value of land, soil or situation, prices of produce or facilities of communication and improvements of the land made from time to time. The *raiyatwari* tenure with the assessment fixed for a period of thirty years, obtained all over the district, except in the case of alienated villages and lands which were held by the owners rent-free or on partial assessment according to the terms of the grant in each case. Details of the first revisional settlement (*i.e.*, second settlement) were not available in respect of all the taluks. A study of what was available is presented in the following paragraphs.

Madhugiri
taluk

According to a report submitted on 23rd September 1914 by the Superintendent of Revenue Survey and Settlement in Mysore, the number of Government villages in the taluk was 282. The old grouping of villages was retained intact. The old maximum of Rs. 16 for tank-fed gardens was reduced to Rs. 12. The dry maxima under the revision proposals was raised by 8 annas, 7 annas and 6 annas for the 1st, 2nd and the 3rd groups, respectively. The old maxima were themselves moderate in character and the new maxima compared quite favourably with those adopted in the Koratagere taluk and more so with those taken for the Tumkur taluk. In the case of wet lands, it was proposed to do no more than to lift the old maximum of Rs. 8 to Rs. 9. A percentage of 12.5 was added to the old maximum. The effect of the new rates was that the revenue, which was Rs. 1,68,457 at the time of the original settlement, increased to Rs. 1,87,648. The net total increase was 10.48 per cent. This increase was shared almost equally by the dry and the wet lands, while the amount on the *bagayat* or garden lands remained practically unchanged. This circumstance is rather unusual. So much has been said of the sacrifice of *bagayat* revenue at revision settlements that a few facts, by way of recapitulation of the unique circumstances of the gardens of Madhugiri taluk, may be given. The first significant fact about them was that the qualities of the soil, the character of the water supply and the moderateness of the old assessment had all combined to bring about an increase of 757 acres in the aggregate garden area, inclusive of both occupied and waste lands. The average rate had, under the proposed arrangement, been reduced by six annas and nine pies. The old maximum wet rate, which was the same in all the groups, was raised by one rupee as was done in the revision settlement of the Tumkur and Koratagere taluks, while the maximum rate for garden lands was proposed to be reduced from Rs. 16 to Rs. 12 per acre. Both the Revenue Commissioner of the State and the Deputy Commissioner of

Tumkur district were of the opinion that the proposals of the Superintendent of Revenue Survey and Settlement were, on the whole, fair. The revised rates were brought into force in 1916-17 with the usual guarantee of thirty years. The order of the Government, dated the 9th February 1916, contained some significant facts about the actual revenue collections. The order said: "The taluk has, on the whole, improved in prosperity since the original settlement, though the progress was greatly impeded by the famine of 1877-78, and the revenue collection, which decreased from Rs. 1,50,899 in 1877-78 to Rs. 1,23,017 in 1881-82 had again risen to Rs. 1,69,845 in 1909-10".

According to the re-survey, the total extent of lands in the Sira taluk was 3,76,225 acres or 176 acres more than what had been recorded at the time of the original settlement. Owing to the peculiar condition of the taluk, the very moderate fertility of the soil in general and the scantiness of annual rainfall, which varied, on the average, from 19.17 inches at Sira, the headquarters of the taluk, to 22.15 inches at Bukkapatna in the south-west and 21.67 inches at Baragur in the north-east, the original rates had been fixed very low. The principles upon which they had been based were adhered to, as much as possible, in the revision settlement also, with the result that in spite of considerable improvement in the material condition of the tract since the last settlement, the new proposals provided for a total increase of only Rs. 6,086 or about 5 per cent over the collections of 1906-07. The tract suffered severely from the great famine of 1876-78. Its population, which according to the census of 1871, had been 71,762, had fallen to 49,611 at the time of 1881 Census. Since then, however, the population steadily increased and numbered 74,034 in the 1901 Census. Along with the increase of population, there was also then an improvement in the material resources of the people, especially of the agricultural classes. Considerable attention had also been paid to the development of the irrigational resources of the tract. Almost every village of any importance was having at least one tank of its own. Seventeen tanks yielded a revenue of more than Rs. 1,000 each. Of these, two were constructed after the introduction of the original settlement and two others were improved. The Public Works Department spent about four and-a-half lakhs of rupees in restoring and improving the tanks in the tract. The value of land had also increased and the tract had benefited by the general rise in prices of agricultural produce. The result was that in spite of the unfavourable anticipations at the time of the original settlement and large relinquishments of land during the great famine, there had been a satisfactory increase in the occupied area, which, at the time of the original settlement, had been 1,19,007 acres. This increased to 1,43,198 acres according to the re-survey. The expansion was most noticeable under garden cultivation, being as much as 1,417 acres.

For purposes of assessment, the villages in the taluk were classified into four groups. The maximum dry crop rates for these groups were Rs. 1-10-0, 1-8-0, 1-5-0 and 1-0-0, respectively. The wet maximum rate was Rs. 9 for groups I and II and Rs. 8 for groups III and IV as at the original settlement. The maximum rate for gardens was reduced from Rs. 16 to Rs. 10. The very liberal policy adopted in the case of gardens, resulted in a decrease in the total assessment by Rs. 11,334 or more than 20 per cent. The old assessment, as per former survey, was Rs. 1,22,751 and as per revision survey Rs. 1,28,837. The revised rates resulted in an increase of Rs. 6,086 or five per cent over the collections of the year 1906-07, which was the year of the highest revenue, exclusive of the miscellaneous revenue which amounted to Rs. 7,461. The bulk of this amount was levied as water rate on dry lands converted into wet under new irrigation works, which were brought on to *akarbund*. No doubt, this was not a recurring item of revenue. If the miscellaneous revenue was added to the land revenue collection of 1906-07, the small increase would disappear and the net result would be a loss of Rs. 1,370 or one per cent. Notwithstanding the decrease of 10,531 acres in the dry area, the proposed dry rate was to bring an increase of Rs. 8,473 or 22 per cent over the collections for 1906-07, which were the highest since the original settlement. The new rates took effect from the year 1910-11.

Pavagada taluk

By an order dated the 21st September 1909, the Government sanctioned the revision proposals in respect of Pavagada taluk. At the time of the revisional settlement, there were 16,572 new or re-survey numbers against 14,334 original survey numbers, showing an increase of 2,238 or 16 per cent. This increase was due to the measurement of new roads made during the currency of the settlement and of wet lands below new tank into survey numbers of two to five acres in extent. The dry arable area had decreased by 4,333 acres due to the conversion of dry into wet or garden land or to the transfer to the unarable head, when taken up for new roads or tanks or other public purposes. The wet lands showed but a small increase in spite of additions to irrigable area under new tanks, as some of the lands, originally classed as wet, were classed as garden lands owing to the additional protection they had acquired from wells sunk during the currency of the settlement or as dry when water supply had failed. The garden area showed a satisfactory increase of 1,106 acres, owing to the transfers, at the time of re-classification from wet lands, for reasons stated above, and conversion of dry into garden lands. Abandoned gardens under tanks or channels were in some cases transferred to the category of wet lands due to altered conditions of water supply. Every survey number was subjected to careful scrutiny both in the field and at headquarters. The boundary marks of every survey number were carefully examined, the

missing ones being replaced according to original measurement. This last but important item of work absorbed the lion's share of the attention of the survey staff.

By the former settlement, as per collection in 1905-06, the total revenue was Rs. 87,654 and by revision, it was Rs. 89,929. The average rate per acre for the whole tract was raised from Re. 0-8-0 to Re. 0-8-2, with only an increase of two pies per acre. There were only five instances in which the increase by revision exceeded the limit of 66 per cent. At Bugadur (No. 55 of group I), the revenue was raised by 133 per cent. Originally, the place had three acres of wet land. It had, at the time of revision settlement, 178 acres of wet land due to the construction of a new tank in the village. For a similar reason, Jalodu (No. 34), Kamanadurga (No. 64), Kyathaganakere (No. 70), all of group II, showed an increase of 13,297 acres and 94 per cent owing to extension of wet cultivation. Bomanagathihalli (No. 29 of group II), where the revenue was raised by 314 per cent, had then only 47 acres of dry land, whereas at the time of revision, it had 235 acres under occupation. The taluk had shown other indications of prosperity, such as, a rise in the value of the land and an increase in the number of houses and the quality of agricultural stock.

During the original settlement of 1876, the taluk had consisted of 404 villages, but soon after the settlement, many of the smaller villages were combined together for administrative convenience and the total number was reduced to 330. In 1881-82, the taluk was broken up and a sub-taluk was formed with 140 villages. There were 20,156 new or re-survey numbers as against 18,793 original survey numbers showing an increase of 1,363 numbers or 7 per cent. By the former survey, the assessment was Rs. 99,846 and by revision survey, it was Rs. 1,03,939. The net increase of Rs. 4,093 for the whole of the taluk worked out to four per cent on the collection of 1908-09, inclusive of miscellaneous revenue. Taking the various descriptions of land in detail, the average rate for dry land showed an increase of Re. 0-1-8 per acre. The incidence of these moderate increases in the dry rates did not give rise to any complaints. The average wet rate showed an increase of Re. 0-2-6 or only 4.8 per cent over the average rate of the original settlement. These enhancements were ascribed not to any increase in the wet maxima, for that was avoided, but to the reclassification of water supply. The average garden rate for the whole tract showed a substantial decrease of Rs. 1-3-6 per acre or 19 per cent. The new proposals from the Superintendent, Revenue Survey and Settlement to the Government, dated the 15th October 1912, envisaged a total assessment of Rs. 1,03,939. The adequacy of this increase was open to question in the case of a tract with a flourishing population and agricultural resources,

Koratagere taluk

greatly improved and extended by new irrigational works. But the fact had to be kept in mind that the settlement was one of a fixed character, that is to say, the assessments fixed were to be levied in full in good seasons. On balancing these facts, it was apparent that the rates proposed were fair and reasonable. The Government approved the proposals and the new rates came into force in 1914-15.

Other taluks

The re-survey or revisional settlement was introduced for 126 villages of the Chiknayakanahalli taluk in 1905-06. In 1920, another 72 villages of the same taluk were brought under the new settlement. In 1920-21, re-settlement of the rest of the villages was completed. The total revenue demand for the year 1922-23 was Rs. 1,82,018-8-10 and for 1923-24, it was Rs. 1,82,924-14-11. The new settlement in respect of Kunigal taluk was introduced in 1921-22 and the land revenue proper, at the time of the revision, was Rs. 1,37,681. The revisional settlement relating to Tiptur was completed by 1921-23. The total cultivable area of the taluk, at the time of re-survey, was 2,00,565 acres. As the area of the Turuvekere taluk was also included in Tiptur taluk at that time, the total revenue was Rs. 2,11,768. The revisional settlement in Tumkur taluk was introduced partly in 1910-11 and partly in 1922-23. The revenue demand for 1923-24 was Rs. 2,92,373-14-10. The revisional settlement came into force in Gubbi taluk in 1910-11 and the revenue demand at the time was Rs. 2,06,952.

SECOND REVISIONAL SETTLEMENT

The *raiayatwari* system prevailing in the district is based on a thorough survey, soil classification and settlement of the assessment of each holding. With the abolition of all Inams, the ex-Inam villages have been subjected to a cadastral survey. The detailed survey work of these ex-Inam villages has since been completed and the *hissa* survey work is in progress. The survey was being conducted, until recently, by chain and cross staff method. In a recent circular, however, the Government have put into effect the plane table method instead of the chain and cross staff method. Upto 1965-66, (*i.e.*, prior to second revisional settlement) the rates of assessment, which were in force in Tumkur district, were as shown below :—

				Rs. As.		Rs. As.
Group I	..	..	Dry	0—12	to	2—12
			Wet	6—0	to	9—0
			Garden	8—0	to	12—0
Group II	..	..	Dry	0—10	to	2—10
			Wet	8—0	to	9—0
			Garden	8—0	to	12—0

				Rs. As.		Rs. As.
Group III	..	..	Dry	1—5	to	2—8
			Wet	7—8	to	9—0
			Garden	9—0	to	12—0
Group IV	..	..	Dry	1—0	to	2—4
			Wet	8—0	to	9—0
			Garden	10—0	to	12—0
Group V	..	..	Dry	2—0	}	In respect of Tumkur taluk only.
			Wet	8—0		
			Garden	12—0		

As the guaranteed period of settlement rates in force in all the taluks had already expired, reclassification operations for the purpose of introduction of second revisional settlement (*i.e.*, the third settlement) were taken up in the district, commencing with Tiptur taluk, in the year 1958 and the work was completed in all the taluks of the district in 1963. According to the previous settlement procedure, the unit of settlement was more or less a taluk or occasionally a group of villages forming a portion of the taluk. As revision of assessment was over-due in almost the entire State, if the old procedure were to be followed, it would have taken a long time to complete the work; further, under the old system, the taluk being the unit of settlement, other rational considerations like physical configuration, homogeneousness of the tract, rainfall, etc., were, many a time, left out in the fixation of rates for different taluks.

In accordance with the recommendations of the Taxation Enquiry Committee, therefore, the Government revised the procedure which is as laid down in the new Mysore Land Revenue Act, 1964. According to this procedure, the entire State is divided into zones, based on physical configuration and other such conditions, *viz.*, rainfall and climate, principal crops and soil characteristics, so that the entire area in a zone could be rightly considered as one unit for the application of land revenue. Each zone may comprise not only a group of taluks in the same district, but also areas of different districts. As already stated, after the formation of the new Mysore State, a uniform land revenue law was framed and it was enacted as the Mysore Land Revenue Act, 1964. Chapter X of this Act prescribes the procedure for conducting the revision settlement operations, the salient features of which are as stated below.

The Settlement Officer appointed for each zone for conducting an enquiry into the factors mentioned in Section 116(2) of the Act is required to form groups in each zone on the basis of four main factors, namely, (1) physical configuration, (2) climate and

rainfall, (3) yield of principal crops and their prices and (4) soil characteristics. He is also required to take into consideration the following features in forming the groups :—

- (i) marketing facilities,
- (ii) communications,
- (iii) standard of husbandry,
- (iv) population and availability of labour,
- (v) agricultural resources,
- (vi) variation in the areas of occupied and cultivated lands during the previous thirty years,
- (vii) wages,
- (viii) ordinary expenses of cultivating principal crops, including the wages of the cultivator for his labour in cultivating the lands, and
- (ix) sales of lands used for purposes of agriculture.

The Settlement Officer has to collect the necessary information in respect of all these above points from respective departments and by spot study. As regards the yields of principal crops, on the basis of which he has to propose standard rates, the information is collected by conducting crop-cutting experiments, if the crops are standing at the time of enquiry or on the basis of crop-cutting experiments conducted by the other departments. On ascertaining the average yield of principal crops in each group, under each class of land, namely, dry, wet, garden and plantation, the cash value per acre is arrived at. The standard rates are then fixed for each class of land at a certain percentage of the cash value. The Settlement Officer then submits his report proposing revised standard rates to the Deputy Commissioner of the district concerned. The standard rates proposed in the report are notified in the *chavadi* of each village and the settlement report is published calling for objections, if any, within a period of three months from interested persons. The objections so received are, after hearing the objectors, if so desired by them, transmitted by the Deputy Commissioner to the Government through the Commissioner for Survey, Settlement and Land Records, along with his remarks on each objection. The settlement reports, together with the objections, are then laid before each House of the State Legislature, and after both the Houses approve them, with or without any modifications, by a resolution moved in this behalf, the State Government passes orders in conformity with such resolution. The Government will then notify the standard rates as approved, in the official Gazette, indicating the date from which these rates will come into effect. On the basis of this notification, the Deputy Commissioner of the district will notify the revised rates in the village *chavadi*.

The taluks of Tumkur district have been put under three Zones and zones, namely, Zone Nos. V, VII and VIII, each zone having the following taluks, along with some taluks of other districts :—

Name of Zone		Name of Taluks	
1		2	
No. V	.. ..	Sira, Madhugiri and Pavagada	and 4 taluks of Chitradurga District.
No. VII	.. ..	Tiptur, Turuvekere and Chiknayakanahalli	and two taluks of Hassan District.
No. VIII	.. ..	Kunigal, Gubbi, Tumkur and Koratagere	and five taluks of Bangalore District.

The numbers of villages coming under each group are as given below :—

Name of Taluk		No. of villages in each group				Total No. of villages
		I	II	III	IV	
Zone No. V.—						
Sira	.. ..	..	40	51	159	250
Madhugiri	.. ..	..	..	321	..	321
Pavagada	.. ..	..	..	..	144	144
Zone No. VII.—						
Tiptur	.. ..	..	230	..	..	230
Turuvekere	.. ..	..	244	..	..	244
Chiknayakanahalli	.. ..	234	..	..	..	234
Zone No. VIII.—						
Kunigal	.. ..	..	315	..	..	315
Gubbi	.. ..	..	345	..	..	345
Tumkur	.. ..	..	396	..	..	396
Koratagere	.. ..	251	..	..	..	251

The revised standard rates, which were worked out at 4 per cent of the cash value of the average yield per acre in respect of

all the three zones and which were brought into force with effect from the revenue year 1965-66, are as follows :—

Sl. No.	Zone No.	Group No.	Standard Rates					
			Dry land		Wet land		Garden land	
			Rs.	P.	Rs.	P.	Rs.	P.
1.	V	..	I	2—27	8—32		11—52	
				1—69	8—32		11—52	
				2—45	10—59		12—80	
				1—36	8—32		11—52	
2.	VII	..	I	3—13	13—21		12—23 to 13—68	
				3—13	10—76		12—23 to 13—68	
				3—06	9—88		7—68 to 9—88	
3.	VIII	..	I	3—40	9—60		5—12 to 19—20	
				3—20	11—84		7—68 to 22—40	
				2—32	8—44		3—84 to 16—00	

On the implementation of these new rates, the amount of land revenue in the district rose up to Rs. 21,04,721-71 from Rs. 17,75,245-44 as per details furnished below :—

Zone No.	Amount of assessment as per previous settlement		Amount of assessment as per revision settlement	
	Rs.	P.	Rs.	P.
V	4,56,694	33	5,27,514	43
VII	5,28,163	11	8,12,449	39
VIII	7,90,388	00	7,64,757	89
Total	17,75,245	44	21,04,721	71

The amount of land revenue assessment shown in column 3 does not, however, include the amount of water rate. The wet assessment levied previously on lands irrigated by tanks, etc., was removed from land revenue with effect from 1965-66 and in its place, a separate water rate was levied on such lands.

The application of the sanctioned standard rate to each individual holding has slightly differed from that followed in the previous settlement in so far as the preparation of *jantri* or the ready-reckoner is concerned. In preparing the *jantries*, only the soil classification value in respect of dry lands and soil classification and water class in respect of wet and garden lands were taken into consideration this time and not the distance of the field from the village site and population of the village, which had been taken into consideration during the previous settlement. The rate applicable to each holding is worked out in the *kayamdar taktha* along with assessment to be levied on each holding. In addition to *kayamdar taktha*, two other registers, viz., *akarbund* and *phaisal patrak* are prepared for the introduction of the revision settlement. The *akarbund* contains particulars regarding the total area of the holding, *phut kharab* (reserved and unreserved), extent of areas under dry, wet, garden and plantation categories and also rate and assessment on each class of land. The areas of wet and garden lands under Government source of irrigation are shown separately in the *akarbund*. According to the present system, the assessment is not differentiated into *katcha* (tentative) *akar* and *pucca* or *kayam* (final) *akar*, but the assessment worked out is final. The *phaisal patrak* contains particulars regarding the total area of the holding, *phut kharab*, cultivable areas, the total assessment and the names of the holders. The records are prepared by the Survey Department and the copies of *akarbunds* and *phaisal patraks* are sent to the Tahsildars concerned for giving effect to the revision settlement.

The duty of collecting the assessed revenue is the special responsibility of the Tahsildars, Revenue Inspectors and Village Accountants. The revenue authorities have powers to fix convenient dates for the payment of the assessment. In normal years, the land-owners cannot project excuses for delayed or irregular payment of revenue and the Deputy Commissioner of the district has powers to get the harvested crops of defaulters released for sale. The authorities will then collect the revenue dues from the sale proceeds. The Mysore Land Revenue Act, 1964, gives enough powers to the revenue authorities to declare defaulters and proceed against them according to law. The Deputy Commissioner has powers even to take possession of the entire village for non-payment of tax and appoint special officers to collect the dues. Statements showing the land revenue demand, collection and balance of each taluk of the district for

the years 1964-65, 1965-66 and 1966-67 are appended at the end of the chapter. There has been a progressive increase in the land revenue demand over the decades as could be seen from the following figures :—

1891-92	..	..	Rs. 11,04,193
1895-96	..	..	Rs. 12,98,881
1913-14	..	..	Rs. 15,00,108
1924-25	..	..	Rs. 15,19,208
1959-60	..	..	Rs. 28,91,598
1965-66	..	..	Rs. 30,12,577
1966-67	..	..	Rs. 38,89,180

Remissions of land revenue

There has been a liberalisation of the remission rules in recent years, which indicates a gradual departure from the previously accepted view that as the assessment is based on the average conditions during a levy period, including good as well as bad years, the cultivator is not entitled to relief in years during which the crops suffer on account of the adverse seasonal conditions. There were no specific remission rules prior to 1922 and when occasions for grant of relief did arise as in 1908-09, the Government passed special orders for the occasion. The first rules regarding grant of suspensions and remissions on account of adverse seasonal conditions were issued on 4th February 1922. These rules were mainly based on the Bombay system and provided that when owing to failure of rains throughout a tract or any tank did not receive an adequate supply of water and more than half the area under it was left uncultivated or, if cultivated, yielded a crop of not more than four annas in the rupee, the recovery of half the wet assessment on all wet lands under it should be suspended.

This suspended assessment was to be collected during the following year unless there was a failure of crop in that year also, in which case it was to be remitted. These rules were revised from time to time.

In July 1934, a committee of officials and non-officials was appointed by the State Government with instructions to make a rapid enquiry into the extent to which the fall in the price of agricultural produce in previous years had affected the resources, debt obligations and credit facilities of the land-owning and cultivating classes in different parts of the State and to report upon the nature and extent of the assistance that might be given to relieve them from the difficulties caused by the depression. The majority report of the committee did not recommend any reduction in the land assessment though liberalisation of the remission rules and grant of facility to pay the assessments by

instalments were recommended. This was accepted by the Government and appropriate rules were framed.

Upto the year 1939, the remission rules had no provision for the remission of dry assessment on account of loss of crops arising from the failure or insufficiency of rains. In tracts, which suffered badly from drought, the Government were sanctioning suspension of revenue and even remission of a part of the demand as a special concession outside the rules whenever occasion demanded. For the first time, provision for the remission of assessment on dry lands was incorporated as per a Government Order dated 29th July 1939. These rules authorised the Deputy Commissioner to grant suspension of one-fourth of assessment if, throughout any tract, there was a partial or total failure or destruction of crops on account of drought or other cause, the suspended revenue being normally collected in the following year along with the assessment of that year and remitted altogether if the crops had failed. A hobli in the taluk is to be treated as a tract for purposes of suspension of dry assessment. Under Section 147 of the Mysore Land Revenue Rules, 1966, the Deputy Commissioner is authorised to enquire into any partial or total failure or destruction of crops, on account of drought or any other cause. He has also to conduct crop-cutting experiments. After this procedure, he will determine the question of suspension or remission of land revenue.

LAND REFORMS

The problem of tenancy arises when the land owner lets out his land to someone else, who then becomes the tenant, on terms defined by contract or custom and usage. The distinction between such a tenant and a mere agricultural labourer is quite clear. The latter receives a fixed wage and works under the supervision and control of the employer. He has no right to the land and is not directly concerned with the produce. He merely does his allotted job in return for the wages and his responsibility ends there. But a tenant works on his own. He agrees to pay the land-owner a certain cash rent or, more often, a specified share of the produce. He utilises his own labour, also that of the members of his family, and in busy seasons or otherwise as need arises, employs hired labour to assist him. The land-owner, sometimes, may supply some capital and equipment. He takes no interest at all in agricultural operations. A tenant thus is not only his own manager, but is also in a way an entrepreneur. His reward fluctuates according to the crops he obtains and the prices they fetch. In course of time, many disputes arose over the rights of tenants and the benefits to be shared between them, and the problem of tenancy became acute.

Relationship between land-lord and tenant

A Committee was appointed in 1948 for suggesting measures for the revision of the land revenue system in Mysore. Through a questionnaire, facts and opinions were elicited from the public regarding the seriousness of the tenancy problem in Mysore. A few even went to the extent of saying that the tenants were actually dictating terms to the landlord and that protection, if any, should go to the landlords and not to the tenants. Cultivation of lands by tenants was prevalent more in the channel areas and the *jodi* villages. The committee came to the conclusion that it would be better to make some attempt to foster a good relationship between the landlords and tenants by a simple legislation which would ensure a fair deal to the tenant and make him feel contented. At the time of the committee's report in 1950, there was no separate law on tenancy in the old Mysore State. Though the provisions of the Transfer of Property Act (Act IV of 1918) relating to leases had not been made applicable by a notification under Section 117 to agricultural leases, the courts of law applied them to such leases on grounds of justice, equity and good conscience. The only other provision governing the relationship between the landlords and tenants were in Chapter VII of the Mysore Land Revenue Code, 1888. This was enforced only in respect of tenants of alienated villages.

According to the Mysore Tenancy Agricultural Land Laws Committee Report (1958), there were in the district 1,46,964 holdings covering an area of 11,36,365 acres. Out of this, 81,508 holdings with an area of 1,95,385 acres were in the range of below five acres for each holding. Another 34,982 holdings with an acreage of 2,45,237 had from five to ten acres per holding. This indicated that a large proportion was in the hands of small holders. (See Chapters IV and IX for more details). The total area leased out under various tenancies in the district was only 89,018 acres, being 7.83 per cent of the land owned. There were, in 1958, 8,23,888 owner-cultivators, 40,471 tenant-cultivators, 62,924 agricultural labourers and 35,831 non-cultivating owners. The absentee landlords, who formed the non-cultivating ownership class, formed only 3.1 per cent to the total population of the district. The tenant class in this district, numbering only 40,471, needed protection so as to ensure economic security and social status for them.

Mysore Tenancy
Act, 1952

The First Five-Year Plan indicated as to how best to tackle the problem of tenancy by recourse to legislation. The recommendations of the Planning Commission aimed at security of tenure for the tenants and the regulation of rents. Before the enactment of the Mysore Tenancy Act, 1952, the rights of tenants were regulated by the Mysore Land Revenue Code, 1888. Under this Code, there were two classes of tenants with permanent rights,

namely, *kadim* tenants—only in respect of Inam lands—and permanent tenants in both alienated and Government villages. Under the Mysore Tenancy Act of 1952 and the rules made thereunder, the tenants in possession of lands at the commencement of the Act were given a period of five years and were liable to ejectment at the end of that period unless the landlord allowed them to continue. Tenants, who had been in continuous possession for a period exceeding 12 years before the 1st April 1951, were given further security in that the landlord could eject them on the ground of personal cultivation, only from a part of their holding, i.e., the landlord could resume only half the area from a tenant holding 10 acres or less. In the case of tenants holding more than 10 acres, the land-owner could resume 50 to 75 per cent of the tenancy area. At the time of the formation of the new Mysore State in 1956, a Bill to amend the Mysore Tenancy Act, 1952, was before the Legislature of the former Mysore State. In view of the new development, pending adoption of a comprehensive and uniform measure for the new Mysore State, the Mysore Tenancy Act, 1952, was amended by an ordinance dated the 11th March 1957, continuing all leases where the period of five years had expired, and also requiring that surrenders of land should be in writing and duly verified and registered in the office of the Tahsildar. The land surrendered was to be taken under Government management and was to be leased out to Co-operative Farming Societies, agricultural labourers and other agriculturists.

After the formation of the new Mysore State, there was a persistent demand for appointing a Land Reforms Committee to go into the complex question of land reforms in all its details. Accordingly, the Mysore Tenancy Agricultural Land Laws Committee was appointed on the 10th May 1957 for examining the existing tenancy and agricultural land laws and to make suitable recommendations. The Committee went into the question of fixation of rent, security of tenure, right of resumption of land by landlords for personal cultivation, right of purchase by tenants and payment of compensation to landlords, ceiling on land-holdings and other cognate matters. The Committee, after fully examining all these aspects, submitted its report in 1958. The Government then introduced a Bill called the Mysore Land Reforms Bill, 1958, in the Mysore Legislature. After a general discussion, the Bill was referred to a Joint Select Committee of both the Houses consisting of 46 members. The Joint Select Committee held various sittings, heard witnesses, considered a number of representations, comments and memoranda. The Committee also considered the views of the Planning Commission. In the light of these and keeping in view the discussions that had taken place in the Mysore Legislature, the Joint Select Committee re-examined the provisions of the Bill and submitted its

report on 25th March 1961. The Mysore Legislative Assembly discussed the report and adopted the Bill in September 1961 and the Mysore Legislative Council (Upper-House) in November 1961. The Bill received the assent of the President of India on the 5th March 1962. However, as it was found necessary to amend certain provisions of the Act, its implementation was held up for some time. It was accordingly amended in 1965 by Act No. XIV of 1965.

**Mysore Land
Reforms Act,
1961**

The Mysore Land Reforms Act, 1961 (Mysore Act X of 1962), as amended in 1965, which came into force throughout the State with effect from the 2nd October 1965, the Gandhi Jayanti day, is a highly important piece of Legislation in the State relating to agrarian reforms. The enactment has made comprehensive provisions in respect of tenants' rights, ceiling limits of present holdings and future acquisitions, payment of compensation for surplus lands taken over from land-owners and other connected matters.

Under the provisions of the Act, no tenancy can be terminated merely on the ground that its duration, whether by agreement or otherwise, has expired. Tenants who were cultivating lands prior to 10th September 1957, but who had been dispossessed either by surrender or eviction, are entitled for restoration of possession. Eviction of tenants can only be done in accordance with Section 22 of the Act. Land leased to permanent tenants or those leased by a company, association or other body of individuals (not being a joint family), whether incorporated or not, or by a religious, charitable or other institution capable of holding property cannot be resumed.

From the date of vesting, all non-resumable lands leased to tenants would stand transferred to the State Government. Lands in excess of 27 standard acres in the case of existing holdings would be treated as surplus land, which would be vested in the Government. The ceiling area for future holdings is limited to 18 standard acres. A standard acre means one acre of first class land or an extent equivalent thereto as laid down in the Schedule to the Act. The future ceiling would be, therefore, as below:—

<i>Class of land</i>	<i>Ceiling area in acres</i>
I Class	.. 18
II Class	.. 24
III Class	.. 30
IV Class	.. 36
V Class	.. 72
VI Class	.. 108
VII Class	.. 144

The ceiling provisions do not apply to regimental farm lands or to plantations as defined in the Act. Compensation would be paid for all lands vested in the State at the rates prescribed in the Act. The Act does not apply to lands belonging to or held on lease from the Government or from religious or charitable institutions managed by or under the control of the State Government or from a public trust or a society established for public educational purpose, created or formed before the 18th November 1961, and which was in existence on the 18th July 1965.

The existing tenancies would, however, continue till the resumable and non-resumable lands are determined and resumable lands are resumed by the land-owners under Section 14 of the Act. Under Section 44 of the Act, the Government has to issue a notification declaring the date from which the non-resumable land vests in the Government. This can be done only after the Land Tribunals determine the non-resumable lands. From the date of vesting, all non-resumable lands leased to tenants would stand transferred to the State Government. The surplus lands vested in the State Government are to be granted in the order of preference as indicated below:—

- (1) Displaced tenants having no land;
- (2) Landless agriculturists and agricultural labourers;
- (3) Tenants, displaced tenants and owner-cultivators with less than a basic holding;
- (4) Co-operative Farms;
- (5) Tenants, displaced tenants and owner-cultivators with less than a family holding; and
- (6) Other persons desiring to take up personal cultivation.

It has been also provided that in granting the surplus lands, preference has to be given to the tenant, sub-tenant or other person who, immediately prior to the vesting of the land in the State Government, cultivated the land. The grantee would have to pay the purchase price to the extent of ten times the average net annual income of the land in question in a lumpsum or in annual instalments not exceeding twenty.

According to Section 2 (32) of the Act, a standard acre means one acre of land of the first class or an extent equivalent thereto consisting of any one or more classes of land specified in the following schedule:—

First Class: Wet land or garden land possessing facilities for assured irrigation where two crops of paddy can be raised in a year.

Second Class: Wet land or garden land other than first class land possessing facilities for assured irrigation, that is, land in channel area (*nala pradesha*) where one crop of paddy can be raised in a year.

Third Class: Wet land or garden land other than that of second class land possessing facilities for irrigation from tanks.

Fourth Class: Wet land or garden land other than first, second or third class of land irrigated (i) by rain water; (ii) by seepage water from tanks, canals or other sources of water; or (iii) by water lifted from a river or channel by electrical or mechanical power.

Fifth Class: Dry land or garden land not falling under the first, second, third or fourth class in areas in which the average annual rainfall is more than thirty-five inches or dry-cum-wet land or dry garden land, that is, light irrigated dry land or garden land.

Sixth Class: Dry land or garden land not falling under the first, second, third, fourth or fifth class in areas in which the average annual rainfall is not more than thirty-five inches and is not less than twenty-five inches.

Seventh Class: Dry land or garden land not falling under the first, second, third, fourth, fifth or sixth class in areas in which the average annual rainfall is less than twenty-five inches or uncultivable dry land in areas in which the average annual rainfall is not less than seventy-five inches.

The formula for determining equivalent extent of land of different classes is as follows: One acre of first class land equals one and one-third acres of second class, one and two-thirds acres of third class, two acres of fourth class, four acres of fifth class, six acres of sixth class and eight acres of seventh class.

A Commissioner of Land Reforms has been appointed recently with a view to co-ordinating and expediting the work of implementing the land reforms. Judicial officers of the rank of Munsiff have been appointed to perform the functions of a tribunal. The appellate authority is the District Judge. Any question of law is to be decided by the High Court of Mysore.

Consolidation
of holdings

The Mysore Tenancy Agricultural Land Laws Committee observed in its report (1958) that the implementation of the provisions regarding the right of resumption, especially by holders with less than a family-holding, may result in the creation of fragments. As it was not in the interests of efficient agriculture

to allow fragmentation in future, the Committee suggested that where the exercise of the right of resumption would involve the formation of a fragment, such fragment should go to the person who is entitled to the larger part. Keeping these suggestions in view, a uniform measure to consolidate the holdings, called the Mysore Prevention of Fragmentation and Consolidation of Holdings Act, 1964, was adopted. Effective steps are now being taken to check fragmentations as far as possible.

The voluntary land-gift movement launched by Acharya Bhoodan Vinoba Bhave has had its impact on the people of Tumkur district also. The Mysore Bhoodan Act, 1963, was enacted in the State to remedy certain defects in the transfer of lands to the grantees under the Bhoodan movement. According to the details furnished by the Chief Executive Officer, Mysore Bhoodan Yajna Board, 1,122 persons had donated about 2,710 acres of land, including 17 acres of wet land, in Tumkur district, as on the 1st October 1968. Of these 2,710 acres, 298-24 acres (including 5-19 acres of wet land) were in Chiknayakanahalli taluk, 211-36 acres in Koratagere taluk, 593-06 acres in Madhugiri taluk, 793-39 acres in Pavagada taluk, 431-13 acres in Sira taluk and 151-12 acres (including 5 acres of garden land) in Tiptur taluk. The statement given below shows the extent of lands donated in the several taluks of the district upto 1st October 1968:—

Sl. No.	Name of Taluk	Extent of land donated (in acres and guntas)				No. of donors
		Garden land	Wet land	Dry land	Total	
1.	Chiknayakanahalli	0-15	5-19	292-30	298-24	275
2.	Gubbi ..	1-00	6-00	88-08	95-08	48
3.	Koratagere ..	0-05	0-05	210-36	211-06	78
4.	Kunigal ..	0-10	4-31	75-21	80-22	40
5.	Madhugiri ..	..	0-19	592-27	593-06	135
6.	Pavagada ..	..	..	793-39	793-39	131
7.	Sira ..	..	0-20	430-33	431-13	253
8.	Tiptur ..	5-00	..	146-12	151-12	110
9.	Tumkur ..	..	..	51-03	51-03	43
10.	Turnuvekere ..	0-04	..	4-02	4-06	9
Total ..		6-34	17-14	2,686-11	2,710-19	1,122

Out of the total extent of 2,710-19 acres gifted, 394-37 acres had been distributed among 37 landless families in the district upto 1st October 1968. Twenty-six *danapatras*, involving an extent of 88 acres and 25 guntas, all in Madhugiri taluk, have been regularised.

OTHER TAXES

Besides land-revenue, there are other important taxes like sales tax, agricultural income tax, stamp duties, registration fees and excise duties levied by the State Government, and Central taxes like income tax and excise duties. A brief account of these sources of revenue is given below.

Sales-tax

For purposes of realising commercial taxes in the district, there are one Commercial Tax Officer, one Additional Commercial Tax Officer, three Assistant Commercial Tax Officers and one Additional Assistant Commercial Tax Officer. Both the Commercial Tax Officers have their headquarters in Tumkur town. The Assistant Commercial Tax Officers have their headquarters in Tumkur, Tiptur and Madhugiri towns, while the Additional Assistant Commercial Tax Officer has his headquarters at Tiptur. The Commercial Tax Officers are empowered to assess dealers whose annual turnover exceeds Rs. 40,000, as per the provisions of the Mysore Sales Tax Act, 1957. Under the Central Sales Tax Act, 1956, they are empowered to assess all commercial institutions. The Commercial Tax Officers are appellate authorities under the Mysore Entertainment Tax Act, 1958. The Assistant Commercial Tax Officers have powers to assess all dealers whose annual turnover ranges between Rs. 10,000 and Rs. 40,000. The taxable minimum under the Mysore Sales Tax Act, 1957, is Rs. 10,000 and the fee for registration is Rs. 6 per year. Every dealer whose annual turnover is Rs. 10,000 or more has to get himself registered. The total amount of collections in the district during 1967-68 under sales tax and Central sales tax are furnished below :—

			Rs.	P.
1. Mysore Sales-tax	..	..	21,52,139	—00
2. Central Sales-tax	..	..	1,38,494	—70
Total	..	..	22,90,633	—70

Agricultural
Income-tax

The Deputy Commissioner of Agricultural Income-tax, Mysore, is in charge of collecting agricultural income tax in the district. The Agricultural Income-Tax Officer, Tumkur Circle, Tumkur, has jurisdiction over the entire district. According to the provisions of the Mysore Agricultural Income-Tax Act, 1957, tax is levied on the total agricultural income of every person (either from plantation crops or from commercial crops) whose total agricultural income exceeds Rs. 7,000 in the case of a Hindu undivided family and Rs. 3,500 in other cases. A super tax is also being collected on a total agricultural income exceeding Rs. 25,000. The tax is levied on a slab basis. While most of

the food crops have been exempted from the purview of the Act, all cash crops come under this levy. Even with regard to the latter category, exemptions have been provided in some cases and comparatively the income from this source is small. The amount of tax realised in the district during the year 1967-68 was Rs. 52,121-23. The following statement indicates the number of taxable cases, the number of assessees, and the demand, collection and balance of agricultural income-tax in the district during that year :—

1. Number of taxable cases	..	328
2. Number of assessees	..	657
3. (a) Demand	..	Rs. 1,10,657-39
(b) Collection	..	Rs. 52,121-23
(c) Balance	..	Rs. 58,536-16

The demand raised, pertained mostly to assessees of the income group of Rs. 3,500 to Rs. 20,000, there being only one case of an assessee whose income exceeded Rs. 25,000.

The registration revenue in the district is administered by the District Deputy Commissioner, who is also the *ex-officio* District Registrar. He is assisted in his work by a Headquarters Assistant, a headquarters Sub-Registrar (Class II), one I Grade Sub-Registrar and eight II Grade Sub-Registrars in the taluks. The District Registrar is responsible to the Inspector-General of Registration and Commissioner of Stamps, Bangalore, in respect of all registration matters. The following statement shows the number of registrations, receipts and expenditure in the district for the year 1966-67 :—

Total number of documents registered	48,231
Gross receipts	.. Rs. 3,58,002-39
Gross expenditure	.. Rs. 1,32,658-57

The administration of stamp revenue in the district rests with the Deputy Commissioner, who is responsible in this respect to the State Commissioner of Stamps. Stamps are sold in the district through Government treasuries; stamps, both judicial and non-judicial, are also sold to the public through authorised vendors. The following statement shows the details of revenue collected under stamps in the district during the years 1966-67 and 1967-68 :—

Sl. No.	Category of stamps	1966-67	1967-68
		Rs. P.	Rs. P.
1.	General	19,16,886—10	16,25,746—25
2.	Revenue	1,19,081—90	1,22,786—00
3.	Special adhesive .. ..	.. ..	433—50
4.	Court-fee	2,61,533—05	3,09,357—61
5.	Copy sheets	7,436—91	8,370—00
	Total	23,04,937—96	20,66,693—36

Excise

Before the introduction of prohibition, the excise revenue derived by the Government from this district was Rs. 19,24,300, in the year 1950. After the introduction of prohibition in 1951, the revenue from this source came down to Rs. 2,27,339 per year (1966-67). Consequent on the relaxation of prohibition in the district from the 15th October 1967, the Excise Department has been reorganised with a District Excise Officer, an Assistant District Excise Officer, five Excise Inspectors, 15 Assistant Excise Inspectors and 69 Excise Guards. Now, the total excise revenue collected in the district, during a period of three months only, i.e., from 1st January 1968 to the 31st March 1968, was Rs. 11,21,389. The anticipated excise revenue for the year 1968-69 is Rs. 30,96,970, while the expenditure will be about a lakh of rupees.

Central Revenues

The Income-Tax Officer, Tumkur, has jurisdiction over the entire revenue district of Tumkur. He is assisted by an Inspector. The number of assessees under the various heads during the year 1966-67 and the amount of tax collected were as indicated below :—

Head	No. of assessees	Amount of tax collected
		Rs.
Income-tax	1,557	12,12,000
Wealth-tax	91	40,000
Gift-tax	20	6,000

Central Excise.—Central excise duties are being collected in the district on cement, tobacco, cotton fabrics and yarn, matches and vegetable non-edible oils. For purposes of collection of these taxes, the entire Tumkur district comes under the jurisdiction

of Tumkur Circle, which is under the charge of a Superintendent of Central Excise. There are four ranges in the Circle, namely, Tumkur, Sira, Pavagada and Hiriya (Chitradurga district). The following statement shows the total Central excise revenue realised in Tumkur district during 1966-67 :—

Sl. No.	Head of revenue	Amount collected
		Rs.
1.	Cement	59,02,078
2.	Tobacco	8,59,465
3.	Matches	15,244
4.	Cotton fabrics	11,554
5.	Vegetable non-edible oil	2,479
6.	Cotton yarn	227
	Total	67,91,047

Statement showing the demand, collection and balance of land revenue in Tumkur district for the year 1964-65,
i.e., before the new rates were brought into force.

Sl. No.	Taluk	Arrears on 1-7-1964	Demand for the year 1964-65			Collections			Total			Balance		
			Ra.	P.	Ra.	P.	Ra.	P.	Ra.	P.	Ra.	P.	Ra.	P.
1	2	3	4	5	6	7	8	9						
1.	Tumkur ..	60,826 36	3,87,910 07	4,48,736 43	3,57,611 11	191 05	3,57,802 16	90,834 27						
2.	Gubbi ..	1,37,684 97	3,41,201 72	4,78,886 69	3,79,023 25	1,036 54	3,80,059 79	98,826 90						
3.	Kunigal ..	2,41,174 24	3,49,556 23	5,90,730 47	2,98,750 19	3,290 00	3,02,040 19	2,88,690 28						
4.	Tiptur ..	56,110 82	3,23,244 10	3,89,354 92	3,56,368 18	998 03	3,57,366 21	21,988 71						
5.	Turuvekere ..	51,777 74	2,91,116 34	3,42,894 08	3,05,786 90	750 53	3,06,537 40	36,356 68						
6.	Chiknayakanahalli ..	75,696 71	3,03,821 18	3,79,517 89	3,11,964 56	932 68	3,12,897 24	66,620 65						
7.	Madhugiri ..	1,60,385 39	3,62,833 11	5,23,218 50	3,71,076 45	3,416 09	3,74,492 54	1,48,725 96						
8.	Sira ..	1,19,535 20	2,95,406 48	4,14,941 68	3,04,154 14	175 08	3,04,329 22	1,10,612 46						
9.	Koratagere ..	47,382 43	1,77,194 45	2,24,576 88	1,82,730 78	1,851 50	1,84,582 28	39,994 60						
10.	Pavagada ..	47,346 70	1,82,808 73	2,30,155 43	1,90,851 38	6,889 30	1,97,740 68	32,414 75						
Total ..		9,97,920 56	30,15,092 41	40,13,012 97	30,58,316 91	19,530 80	30,77,947 71	9,35,165 26						

Statement showing the demand, collection and balance of land revenue in Tumkur district for the year 1965-66
when new rates were brought into force.

Sl. No.	Taluk	Arrears on 1-7-1965	Demand for the year 1965-66			Collections			Total			Balance		
			Ra.	P.	Ra.	P.	Ra.	P.	Ra.	P.	Ra.	P.	Ra.	P.
1	2	3	4	5	6	7	8	9						
1.	Tumkur ..	90,834 27	3,87,920 14	4,78,854 41	3,57,611 11	191 05	3,57,802 16	90,834 27						
2.	Gubbi ..	98,826 90	3,28,479 88	4,27,306 78	19,297 32	27 15	19,324 47	4,07,982 31						
3.	Kunigal ..	2,88,690 28	3,35,061 89	6,33,752 17	37,443 61	2,845 23	40,288 84	5,83,463 33						
4.	Tiptur ..	21,988 71	3,45,882 87	3,67,871 58	97,281 64	784 22	98,065 86	2,69,805 72						
5.	Turuvekere ..	36,356 68	3,34,921 01	3,71,277 69	40,892 92	86 86	40,979 78	3,30,297 91						
6.	Chiknayakanahalli ..	66,620 65	2,85,273 84	3,51,894 49	79,745 71	556 71	80,302 42	2,71,592 07						
7.	Madhugiri ..	1,48,725 96	3,48,729 18	4,97,455 14	23,328 41	944 24	24,272 65	4,73,182 49						
8.	Sira ..	1,10,612 46	2,73,486 58	3,84,099 04	16,057 94	1,900 23	17,958 17	3,66,140 87						
9.	Koratagere ..	39,994 60	1,89,392 74	2,29,377 34	16,361 06	..	16,361 06	2,13,016 28						
10.	Pavagada ..	32,414 75	1,83,429 10	2,15,843 85	97,680 45	1,719 08	99,399 53	1,16,444 32						
Total ..		9,35,165 26	30,12,577 23	39,47,742 49	4,60,556 72	8,863 72	4,69,420 44	34,78,322 05						

Statement showing the land revenue demand, collection and balance in Tumkur district for the year 1966-67

Sl. No.	Name of Taluk	Arrears on 1-7-1966	Demand for 1966-67	Collections			Total	Balance
				By Cash	By Remission	Total		
1	2	3	4	5	6	7	8	9
1.	Tumkur	..	Rs. P. 4,46,396.75	Rs. P. 7,82,384.73	Rs. P. 45,263.25	Rs. P. ..	Rs. P. 45,263.25	Rs. P. 7,37,121.48
2.	Gubbi	..	4,07,982.31	4,18,732.98	35,845.98	..	35,845.98	7,90,869.31
3.	Kunigal	..	5,83,463.33	3,17,612.72	63,736.07	..	63,736.07	8,37,339.98
4.	Tiptur	..	2,69,805.72	5,98,993.37	35,600.75	..	35,600.75	8,33,198.34
5.	Turuvekere	..	3,30,297.91	5,39,068.39	30,976.09	..	30,976.09	8,38,390.21
6.	Chiknayakanahalli	..	2,71,592.07	6,17,862.29	75,640.61	..	75,640.61	8,13,813.75
7.	Madhugiri	..	4,73,182.49	3,52,579.89	35,023.23	18,876.30	53,899.53	7,71,862.85
8.	Sira	..	3,66,140.87	2,60,164.75	24,365.48	..	24,365.48	6,01,940.14
9.	Koratagere	..	2,13,016.28	1,82,881.51	27,699.18	..	27,699.18	3,18,198.61
10.	Pavagada	..	1,16,444.32	2,65,296.69	70,398.04	3,419.97	73,818.01	3,07,923.00
Total		..	34,73,322.05	38,89,180.57	4,44,548.68	22,296.27	4,66,844.95	69,00,657.67

CHAPTER XII

LAW, ORDER AND JUSTICE

PROTECTION of life and property of the people and maintenance of law and order in the rural areas were attended to, under the old Mysore rulers, by village servants called Patels, Shanbhogues, Kavalgars, Talawars, Thotis and Nirganties. The *Patnada Chavadi* was the headquarters of the Police at the metropolis, which supervised the work of the village watchmen also. This arrangement was continued with slight variations under Haidar Ali and Tipu Sultan. Later, armed peons known as the Kandachar Police were appointed during the time of Purnaiya to perform the police duties. Prior to this, there was no constabulary as such. The Kandachar Police discharged their assigned duties with the co-operation of the village servants and inhabitants. They assisted also the infantry in military duties in times of emergency, just as the infantry itself assisted the Kandachar men in police duties. Early history

In July 1834, the British Commission issued a code called the Police *Hukumnama* which regulated the day-to-day duties of the Kandachar peons. The first clause in the code mentioned that the duties of the Kandachar peons not being defined, it became necessary to indicate that they were primarily Police peons exclusively belonging to the department. This did not imply that these peons were not to be employed on occasional military duty or that the infantry should not help the Police in suppressing crime. On the contrary, it was well understood that they were to be supplementary to each other, but not inter-changeable. During the entire period of Sir Mark Cubbon's regime, this distinction was carefully adhered to. Whenever the Kandachar peons were transferred temporarily to the military services, their places in the Police were filled up by new recruits. Kandachar Police

The qualifications for recruitment to the Kandachar service and the various duties of the Kandachar Police were also prescribed. It was obligatory that the persons selected should be robust, brave and trustworthy. Should improper men be entertained, whether from bad choice or through negligence, the

persons who entertained them, were held responsible and were compelled to refund whatever expenses were incurred through such selection. The Kandachar peons were divided into two classes, the armed and the unarmed. The armed peons were expected to serve as occasional escort to treasure and prisoners and as guards at the various prisons. They had also to answer the call for field service. They were also put on duty to kill marauding tigers and a reward of Rs. 10 each for a full-grown tiger and Rs. 5 for a cub was given. Guarding of all sandal trees, which were the property of the State, was also one of their duties. The unarmed Kandachar peons were sometimes put on the work of the repairs of roads, tanks and other Government works also. It was laid down that in every hobli of a taluk, there should be stationed two peons and a proper number of peons in the forts and principal stations. The peons, who were stationed at the taluk offices, forts and hoblies, were required to wear swords and those placed at the frontier posts and jungles were provided with matchlocks.

Amildar's police duties

The regular police in each taluk were placed under the Amildar who had a Killedar, a Naib-Killedar or Daffedar, and Thanedars or Hoblidars to assist him in his police duties. The last mentioned three officers were considered as inferior police officers of the district, under the immediate control of the Amildar. The Amildar was declared to be the head of the police in his taluk and was held responsible for all the police work. At first, the Superintendent of a division had no special powers over the police, except to prevent and punish irregularities, such as neglect of duty, absence without leave and the like. The Commissioner reserved to himself all matters relating to superintendence and control, with the assistance of a Bakshi. In 1844, the office of the Bakshi was finally abolished, and the Superintendents were empowered to entertain, promote, discharge and punish all servants of the Kandachar Department from the Killedar downwards. For the execution of police duties, the Amildar was provided with an establishment which consisted of a Sheristedar or an Accountant and a *Gumasta* or a clerk. The Killedar acted as the manager of the police section as well as inspector in the taluk. He inspected villages and jungles 'capable of harbouring thieves' and stayed in his headquarters during other days. The people were asked to co-operate with the Amildar in maintaining night watches, detecting criminals and suppressing gang and other kinds of robberies. The Talawars and Thotis had to patrol the streets every night and note any new comers.

Prevention of offences

In those days, criminal gangs moved from place to place. 'Torch robbery' was also on the increase. To prevent offences of this kind, hedges were put all around the villages and the principal gates were guarded by night. There was little thuggee

in this region of the State though several thugs were believed to be living in Bangalore. As for vagrants, they were to be arrested and kept in custody until security was found for their good conduct. The security was not to exceed either Rs. 200 in cash or twelve months in custody. In carrying out these instructions, it was made clear that great care should be taken not to restrain the liberty of the subjects unnecessarily, or to leave any room to the inferior police authorities to commit oppression under the pretence of apprehending offenders. The Superintendent or his assistant was to hear and decide every case in which any term of imprisonment under the Regulation became necessary.

In 1856, the office of the Judicial Commissioner was newly established; he was made also *ex-officio* Inspector-General of Police. In 1873, a Deputy Inspector-General of Police was appointed. In the Tumkur district, the Deputy Commissioner was the *ex-officio* head of the police. In 1874, the Deputy Commissioner was aided by one of the Assistant Commissioners who was called the Police Assistant. Orders were issued in 1874 and 1875 defining the relative position, functions and responsibilities of the Deputy Inspector-General, the Deputy Commissioners, Police Assistants, Amildars and Inspectors. In 1876-77, the post of Deputy Inspector-General of Police was abolished and in 1879, the Judicial Commissioner also ceased to exercise the powers of the Inspector-General of Police, the Chief Commissioner having assumed direct control of the police.

After the Rendition, the direction of the police was at first in the hands of the Dewan and the Deputy Commissioners of districts. In 1885, an Inspector-General of Police was appointed, the same officer being also the Inspector-General of Forests and Plantations and Director of Agriculture and Statistics. The office of the Police Assistant Commissioner was revived. The Police Assistant Commissioner at Tumkur acted under the general supervision of the District Deputy Commissioner. The Amildar and the Deputy Amildar continued as the head of the taluk and sub-taluk police, respectively, aided by Inspectors and Jamedars. The police force in the district then consisted of the village police and the regular police. The village police were the hereditary village servants.

In 1901-02, the village police were provided with a uniform and lances. The regular police consisted of officers and men appointed and enrolled under Regulation V of 1908. The District Police consisted of the Taluk Police and the District Reserve Force including the armed emergency reserve, the former occupying the various stations for ordinary police duty and the latter attached to the District Police office to meet possible emergencies. In 1907-08, the Investigation Centre Scheme, the essential feature

of which was that the investigation of crimes was to be taken up only by the higher paid police officers, was introduced in Tumkur district. The Police Department was further reorganised in 1913. The pay of the Inspectors and their horse allowances were increased. Sub-Inspectors were appointed in place of Jamedars. The Mysore Police Manual published in 1918 and 1919 formed the basis of further systematisation of the work of the Department.

When the new Mysore State was formed in 1956, there were different Police Acts in force in the various integrating areas. In order to bring about uniformity in police administration, the Mysore Police Act, 1963 (Mysore Act No. 4 of 1964), was adopted and it came into force throughout the State on the 2nd April 1965. The functions, powers and set-up of the police in the district are now governed by this comprehensive measure.

Law and order situation

In 1959, the law and order position at Sira, Tiptur and Tumkur gave room for some anxiety. Tension arose between two communities and by the timely action of the police, the feelings between them were assuaged and tranquillity prevailed during the rest of the year. There was a small clash in September 1960 between members of two communities at Huliya in Sira police circle. Peace Committees were formed and the situation was soon brought under control, and there has been generally complete harmony between the major communities. In recent years, efforts have been made to solve various agrarian problems without giving room for tension. Organised labour force in the district is found mostly in private factories and establishments. Except for minor instances of strike for enhancement of wages and service conditions, there have been no major labour troubles anywhere in the district. The Posts and Telegraphs employees in the district had struck work from the midnight of 11th July 1960 at Tumkur, Kunigal, Tiptur and Turuvekere; consequently, 72 employees of the Postal Department and 17 employees of the Telephone Exchange were taken into custody and cases under the Essential Services Maintenance Order, 1960, were registered. Six employees of the Tiptur Post Office were convicted; cases against the others were withdrawn in accordance with the orders of Government. The strike ended on 17th July 1960; the situation had been under control throughout the period of the strike. Some of the political parties made peaceful demonstrations urging immediate implementation of land reforms and removal of food controls. There was also a strike by the college students at Tumkur demanding promotion of certain failed students of the I Year B.A. and B.Sc. classes to the next higher classes. This was amicably settled by the University authorities.

Cognisable offences under the Indian Penal Code have been classified into six separate categories for purposes of investigation, viz., offences against the State, offences against persons, serious offences against persons and property, minor offences against persons, minor offences against property and other offences not specified. The following table gives the number of crimes according to the above classifications for the years 1964, 1965 and 1966 :—

Class	Nature of crime	Year		
		1964	1965	1966
1	2	3	4	5
I.	Offences against the State, public tranquillity, safety and justice.	198	115	125
II.	Serious offences against persons	285	314	296
III.	Serious offences against persons and property or against property.	339	400	500
IV.	Minor offences against persons	73	43	62
V.	Minor offences against property	750	740	934
VI.	Other offences not specified above.	36	60	40
Total ..		1,687	1,672	1,957

The table shows that in 1966 there was a marked increase of offences under classes III and V, while the number of cases booked under the various special and local laws also showed an upward trend, being 7,473, 7,920 and 8,026 during the years 1964, 1965 and 1966, respectively.

Increases were noticed during the year 1965 in respect of Grave crimes murder, house-breaking and thefts and ordinary thefts, while there was a decrease in robbery cases, during 1965 and 1966. The sub-joined statement indicates the number of grave crimes committed in the district during 1959, 1964, 1965 and 1966 :—

Nature of crime		No. of cases			
		1959	1964	1965	1966
1	2	3	4	5	6
Murder ..	12	21	23	21	
Decoity ..	9	6	4	4	
Robbery ..	20	8	3	3	
House-breaking and thefts ..	192	285	347	449	
Ordinary thefts ..	Not available	443	523	656	

The following is the classification of murders according to motives :—

Motives	1964	1965	1966
1	2	3	4
Sexual jealousy ..	6	2	5
Gain ..	2	1	3
Family disputes ..	1	6	3
Factions ..	3	7	..
Other causes ..	6	6	8
Technical ..	2	5	1
Land dispute ..	1	1	1
Total ..	21	28	21

The number of cases of rioting during 1964, 1965 and 1966 was 99, 106 and 105, respectively.

Quinquennial
yearly
averages

The statement given below shows the quinquennial yearly averages in respect of various categories of crimes committed in the district during the period from 1957 to 1966 :—

Sl. No.	Nature of crime	Quinquennial average	
		1957 to 1961	1962 to 1966
1	2	3	4
1. Cognisable crimes		1,308	1,570
2. Rioting		85	91
3. Murder		20	21
4. Kidnapping and abduction		11	9
5. Dacoity		5	4
6. Robbery		12	10
7. House-breaking and thefts		197	306
8. Cheating		14	12
9. Breach of trust		44	39

While the average number of cases of murder, dacoity and robbery remained more or less the same during the two quinquennia, cases of cognisable crimes, rioting and house-breaking and thefts had registered an increase during the quinquennium from 1962 to 1966. This may be attributed, to a certain extent, to the unemployment problem and the high cost of living due to adverse seasonal conditions.

Unnatural deaths under the law have to be reported to the police, so that the real causes can be determined. The police have to send the dead bodies for a thorough *post-mortem* examination. Inquest proceedings are held when witnesses are called to testify to the facts of the case. After these formalities are gone through, the bodies are handed over to the relatives.

The table given hereunder indicates the incidence of unnatural deaths during the years 1959, 1964, 1965 and 1966 :—

Category	1959	1964	1965	1966
Accidental drowning ..	173	193	165	216
Suicidal drowning ..	55	45	76	53
Hanging ..	27	20	12	19
Snake bites ..	4	1	5	1
Burns ..	12	12	6	8
Electric shock ..	5	8	5	8
Motor accidents ..	11	21	27	23
Fall from heights ..	26	20	7	24
Run-over by carts ..	..	1	2	4
Poisoning ..	..	13	14	21
Railway accidents ..	..	..	1	..
Other causes ..	61	49	65	70
Total	376	383	385	447

From the above figures, it is seen that although there was not much variation in the total number of cases registered during 1959, 1964 and 1965, there was an increase during the year 1966. The number of suicides during 1965 had shown a marked increase. The suicides were mainly due to bodily ailments and family quarrels.

The number of cases put up for trial by the Police in respect of offences under the Motor Vehicles Act in 1959, 1964, 1965 and 1966 is shown below :—

Category	1959	1964	1965	1966
Over-speeding ..	207	91	158	94
Use of dazzling lights ..	70	21	16	39
Use of defective lights ..	70	8	4	7
Violation of traffic signals ..	6	81	56	76
Defective vehicles ..	..	..	..	13
Using route without permit ..	113	50	46	140
Driving without licence ..	217	116	103	190
Un-authorised carrying of passengers in goods vehicles. ..	376	594	621	120
Over-loading ..	1,124	428	889	793

It is seen from the above table that cases of overspeeding of motor vehicles were on the high in 1959 and 1965 and cases of unauthorised carrying of passengers in goods vehicles were more in 1964 and 1965. The years 1959 and 1965 had registered by far the largest number of cases of overloading in transport buses. Prompt vigilance by the police had helped to reduce the number of these cases in 1966. Incidence in respect of car accidents had shown a slight increase, while bus accidents had shown a slight decrease in the years 1965 and 1966. The following table gives the figures of motor accidents for the years 1959, 1964, 1965 and 1966 :—

Category of vehicles	1959	1964	1965	1966
1	2	3	4	5
Motor cars	.. 18	7	10	13
Motor buses	.. 14	33	29	23
Motor lorries	.. 53	44	46	49
Motor cycles	.. 3	2	1	1
Jeeps	.. 2	1	3	3
Other vehicles	.. 7	4	7	17

The numbers of persons killed and injured in road accidents during those years were as follows :—

	1959	1964	1965	1966
Killed	.. 10	19	27	23
Injured	.. 104	80	89	95

Detection of cognisable crimes

Crime detection involves perseverance, scientific approach and fool-proof evidence. It is natural to assume that not all cases put up by the Police end in conviction. The percentage of detection of cognisable crimes during the years 1959, 1964, 1965 and 1966 is noted below :—

1959	.. ..	29.0 per cent
1964	.. ..	47.1 per cent
1965	.. ..	81.2 per cent
1966	.. ..	80.7 per cent

The percentage of detection during the years 1965 and 1966 is quite notable when compared with those of 1959 and 1964.

The percentages of detection of grave crimes during 1959, 1964, 1965 and 1966 are given below :—

Nature of crime	1959	1964	1965	1966
Murder	.. 89.0	80.6	89.8	86.6
Dacoity	.. 50.0	60.0	100.0	100.0
Robbery	.. 53.0	50.1	50.0	33.0
House-breaking and thefts	.. 33.0	27.2	23.5	33.0
Ordinary thefts	.. N.A.*	40.0	85.7	N.A.
Offences under Sec. 304-A I.P.C.	.. N.A.	80.0	93.1	87.0

*N.A.— Not available.

The percentage of detection in murder and dacoity cases is considerable. But the same cannot be said in respect of house-breaking and theft cases.

Investigation was refused under Section 157(1) of Criminal Procedure Code in respect of 20 cases in 1964, 23 cases in 1965 and 10 cases in 1966.

Sessions Cases.—The sub-joined table shows the particulars of sessions cases as at the end of 1966 :—

Number pending	Number committed to Sessions during the year 1966	Total	Convicted	Percentage of conviction	Acquitted	Pending trial
..	16	16	5	36	10	1

The total value of property lost and recovered after a thorough investigation during the years 1959, 1964, 1965 and 1966 is given below :—

Year	Value of property		Recovery percentage
	Lost	Recovered	
	Rs.	Rs.	
1959	 1,28,061	57,919	45.0
1964	 2,12,385	52,463	24.75
1965	 5,97,060	1,11,638	18.6
1966	 2,39,454	71,806	30.0

Disposal of cases.—The nature of disposal of prosecuted cases during the years 1959, 1964, 1965 and 1966 is shown in the following table :—

Particulars	1959	1964	1965	1966
1	2	3	4	5
No. of cases decided by courts	826	745	694	1,111
No. of cases which ended in convictions.	268	202	240	643
No. of cases ending in acquittal or discharge.	236	261	312	468
No. of cases compounded	322	202	124	216
No. of cases otherwise disposed of	5	20	18	21

Security cases.—The number of security cases put up in the district during the year 1966 was 20 under Section 109 of the Criminal Procedure Code and 63 under Section 110 of the same Code.

offenders

The Mysore Restriction of Habitual Offenders Act, 1962, is in force in the district. Persons sentenced to substantive terms of imprisonment on not less than three occasions for any of the offences indicated in the Act are classified as habitual offenders. At the beginning of 1966, there were in the district registers, 235 known depredators and 31 habitual offenders. At the end of the year, the figure was 231 and 26, respectively. The descriptions of the 'out-of-view' criminals are published in the weekly crime occurrence sheets and criminal intelligence gazettes for the information of the public. The police conduct also raids to spot out the 'out-of-view' criminals. The subordinate police staff is encouraged by way of rewards for tracing these criminals. The total number of rowdy sheets maintained in the district at the end of 1966 was 146.

Prohibition

Prohibition was first introduced in Tumkur district with effect from 1st April 1950 under the Mysore Prohibition Act, 1948. The District Police were in charge of the enforcement of prohibition in the district. The following tables show the number and nature of prohibition cases booked and fines levied and realised in the district during the years 1958, 1959, 1964, 1965 and 1966 :—

Cases Booked

Year	Illicit distillation	Possession of liquor	Drunkenness	Total
1	2	3	4	5
1958	..	210	924	1,752
1959	..	169	723	1,873
1964	..	77	563	1,160
1965	..	101	894	977
1966	..	139	711	897

Convictions

Year	Fines levied	Fines recovered
1	2	3
	Rs.	Rs.
1958	23,842	21,776
1959	30,952	29,464
1964	42,066	24,338
1965	24,450	21,197
1966	16,959	15,202

It was usual for many addicts to go to Bangalore for drinking. The Government have, however, discontinued prohibition in the district, as also in other parts of the State (except in a few pockets), with effect from the 15th October 1967.

The Suppression of Immoral Traffic in Women and Girls Act, 1956, is in force in the district. No separate or special staff have been appointed to deal with the offences under this Act. The Superintendent of Police and the Deputy Superintendents of Police are the Special Police Officers who deal with such offences. The following statement shows particulars of the cases booked under the Act in the district during the years 1964, 1965 and 1966 :—

Suppression of immoral traffic

Year	No. of cases booked	No. of cases ended in conviction	No. of cases pending trial	No. of cases under investigation
1	2	3	4	5
1964	13	13	..	..
1965	48	30	16	2
1966	21	14	7	..

Organisation of District Police

The Superintendent of Police, Tumkur, is in charge of the police administration of the entire district. He works directly under the Deputy Inspector-General of Police, Central Range, Bangalore. Both of them are responsible to the Inspector-General of Police in Mysore, Bangalore. The District Superintendent of Police is responsible for all matters relating to the Department's internal management and economy, for the maintenance of discipline and regular and punctual performance of all preventive and executive duties in the district. He has to ensure prevention, investigation and detection of crimes. He has to see that the staff posted under him are properly trained and kept efficient.

For purposes of police administration, the district is divided into two sub-divisions, one with headquarters at Tumkur and the other at Tiptur, each under the charge of a Deputy Superintendent of Police, who is responsible for the Police administration in his sub-division. The Deputy Superintendent of Police, Tumkur Sub-Division, is also the Personal Assistant to the District Superintendent of Police, besides being in charge of three circles, viz., Tumkur, Madhugiri and Pavagada. The Deputy Superintendent of Police, Tiptur Sub-Division, is in charge of four circles, viz., Tiptur, Gubbi, Kunigal and Sira.

In 1967, there were seven police circles under the charge of Circle Inspectors at Tumkur, Kunigal, Gubbi, Tiptur, Sira, Madhugiri and Pavagada. One Inspector of Police was attached to the Magistrates' Courts at Tumkur for prosecution work. The Circle Inspectors of Police are responsible for the administration of their respective circles. They have to guide investigations by giving timely instructions to the Station House Officers. They have to investigate personally grave crimes occurring in their circles. The Sub-Inspectors in charge of police stations are responsible for their efficient working and management. They have to detect crimes and preserve peace in their jurisdictions. There

were, in 1967, in all 34 Sub-Inspectors of Police and the break-up of this number was as follows :—

In charge of Stations	..	28
Prosecution work	..	4
Special Branch	..	1
Intelligence Section	..	1
Prohibition duty	..	1
Total	..	35

There were 116 Head Constables and 593 Constables in the district in 1967. In all, there were 27 police stations in the district. These were located at the following places :—

Tumkur Circle.—(1) Tumkur town, (2) Tilak Park, (3) Tumkur Rural and (4) Kora ;

Kunigal Circle.—(1) Kunigal, (2) Huliurdurga, (3) Amruthur and (4) Hebbur ;

Gubbi Circle.—(1) Gubbi, (2) Chelur, (3) Chandrashekharpura, (4) Turuvekere and (5) Dandinashivara ;

Tiptur Circle.—(1) Tiptur, (2) Nonavinakere, (3) Honnavalli and (4) Chiknayakanahalli ;

Sira Circle.—(1) Sira, (2) Kereyagalhalli, (3) Kallambella (4) Huliya ;

Madhugiri Circle.—(1) Madhugiri, (2) Midigeshi, (3) Kodigenahalli and (4) Koratagere ; and

Pavagada Circle.—(1) Pavagada, (2) Y. N. Hoskote and (3) Thirumani.

Inspection.—The Superintendent of Police has to inspect annually the offices of the various Circle Inspectors, Police Stations located in various parts of the district, the District Armed Reserve Force and the District Police Office, while the Deputy Superintendents of Police have to inspect all the offices of the Circle Inspectors in their respective divisions and also the police stations. The Circle Inspectors of Police, in their turn, have to inspect all the police stations in their jurisdiction once in every half-year ending with June and December.

The strength of the Armed Reserve in the district consists of two platoons, the Headquarters Platoon and the Active Platoon.

The Reserve has one Sub-Inspector, two Assistant Sub-Inspectors, seventeen Head Constables and 92 Constables. There are also armourers, tailors, carpenters, drivers and cleaners attached to the Headquarters Platoon. The Active Platoon consists of bell of arms guard, district police office guards, district treasury guard, escort, buglers and reserve at headquarters.

Home Guards

The Home Guards organisation is functioning in the district since the year 1963, and this auxiliary force is under the charge of a Commandant assisted by an Adjutant, one Company Commander and six Platoon Commanders. This organisation has five taluk units at Tumkur, Tiptur, Koratagere, Madhugiri and Chiknayakanahalli. There were 406 Home Guards on the rolls in the district as in March 1968. Out of these, 118 had completed their basic training and the rest were undergoing training. The Home Guards have been of immense help and service to the community in times of need.

No fire service brigades are maintained by the police or other agencies in this district. Whenever there is a need, the force stationed at Bangalore is indented upon. The estimated loss due to fire accidents in the district during 1958 and 1959 and 1964 to 1966 is indicated below :—

Year	Estimated loss
	Rs.
1958	22,468
1959	24,498
1964	76,663
1965	1,86,191
1966	56,060

Vigilance.—The village patels do some vigilance work in close co-operation with the regular police force. Village vigilance committees have been also constituted with respectable persons of various localities. The members of such committees are given the necessary training in vigilance work.

Welfare of Police

There is a District Police Benevolent Fund for which subscriptions are collected and deposited in a savings bank account to be utilised for the benefit of the staff according to the Fund rules. A Police Co-operative Society has been functioning since August 1958. It advances loans to members to meet their urgent needs and also accepts deposits. Educational facilities to the school-going children of the police personnel have been provided in primary schools situated in the new District Armed Reserve lines. A Police Boys' Club has been also started and the boys are trained in drill and games. They regularly take part in drill, and special sports are arranged during the District Annual Sports and the

Republic and Independence Day celebrations. A good number of the police officers and men have been also provided with housing facilities and efforts are being made to extend these facilities to all the police personnel.

The Finger Print Bureau for the Mysore State is located in Bangalore. As soon as a person is apprehended by the police on suspicion of criminal activities in the district, his finger print is forwarded by the Station House Officer to the Bureau, with a search slip, to trace his antecedents. The Bureau then returns the slip to the Station, noting the identity and previous convictions of the individual, if any, on the search slip. The Station House Officer enters particulars of the conviction of the accused, as also of any previous convictions. He has also to fill in a form giving particulars of the person. On receipt of this form at the District Police Office, the Superintendent forwards the entire file to the Finger Print Bureau for test in the jail, if the person is undergoing imprisonment. The Tester attached to the Bureau then compares the prints with the impression of the convict in the jail and has to certify to its correctness or otherwise. If the convict is to be shadowed after release, the fact is noted in a form, and a separate report is sent to the Jail Superintendent and also the Superintendent of Police of the district where the convict resides. On receipt of the record, the Finger Print Bureau allots a serial number to the print and intimates the number and classification to the Superintendent of Police in separate forms. This will then be sent to the Station House Officer for his record, which facilitates him in the future crime-investigation work in his jurisdiction.

All the police stations in the district have small lock-ups for the safe custody of the suspected culprits. The lock-ups have wooden doors fixed with iron bars. The lock-up at Tiptur has been provided with iron doors. There are separate cells for men and women prisoners.

There is a District Intelligence Bureau which works in close co-operation with the District Police Office. This section has one Sub-Inspector of Police and three Head Constables and other staff, and maintains particulars of all professional criminals like known depredators and habitual offenders; in respect of bigger criminals, history sheet dossiers are also maintained with all entries regarding their movements. This Intelligence Section is responsible for the compilation of weekly crime and occurrence sheets, giving particulars of crimes and persons arrested and the properties wanted or seized. This sheet is circulated among the Superintendents of Police of border districts in addition to the Station House Officers of the district. Soon after a crime involving property is reported, the Station House Officer concerned intimates the

District Intelligence Bureau, through a Crime Card, giving particulars of the material objects and the property stolen in the case. Then the Intelligence Section picks up from its records the particulars of the criminals used to pilfer similar objects and pass on the same to the Station House Officer for verifying the complicity of those criminals. This section also deals with the finger prints of the criminals and registration of criminals under the Habitual Offenders Act. The Station House Officers also exchange intelligence in the course of their investigations.

For important occasions like the Independence Day, Republic Day and *Nadahabba*, the District Police draw up programmes to train the Boy Scouts, Girl Guides and *Sevadal* Volunteers in drill and march-past, and a colourful parade is arranged with the co-operation of the public. During the annual District Police Sports, several events are thrown open to the public also.

Cost of Police Force.—The total expenditure for the maintenance of the police force, including the cost of temporary establishment, in the district during 1965-66 was Rs. 16,42,150.

JAILS AND LOCK-UPS

Before the Rendition in 1881, the headquarters town of Tumkur had a jail which was later converted into a District Lock-up. In the early days, this lock-up was under the direct control of the Chief Justice of the Mysore Chief Court (now High Court), who was also the Inspector-General of Prisons. In 1897, the control of the District Lock-up was transferred to the head of the Medical Department. Revised rules for the efficient upkeep of the lock-ups were approved in 1892. In the district headquarters, the administration of lock-ups was entrusted to District Surgeons. In other places, the Amildars of revenue taluks or Sub-Registrars or the Deputy Amildars were in charge. The British Indian Act XXVI of 1870, familiarly called the Prisons Act, was introduced in Mysore in 1879. At present, the management of lock-ups is regulated by the Lock-up Manual of 1917. After the advent of Independence, a separate Prisons Department was created with an Inspector-General of Prisons as its head, in order to pay more attention to the welfare and reform of the prisoners. A new uniform Lock-up Manual for the Mysore State is under preparation.

There are, in all, four lock-ups in the district, one District Lock-up at the headquarters town of Tumkur and the taluk lock-ups at Tiptur, Madhugiri and Pavagada. The capacity of the District Lock-up at Tumkur is 69 (58 men and 11 women) and

that of Tiptur, Madhugiri and Pavagada are 27, 32 and 36, respectively. The District Lock-up at Tumkur is located in the Ediga Mohalla on the Kunigal road and the other three lock-ups are situated very near the Taluk Offices of Tiptur, Madhugiri and Pavagada.

These lock-ups have cells where prisoners are lodged in groups. At day-break, the wards are unlocked and the inmates are let out into the open and all the cells are thoroughly cleaned. During the time the prisoners are let out, they are allowed to have their wash and then the convicts are sent to the work-spots for doing manual labour. The under-trial prisoners are not given any manual labour. Convicts are not generally allowed into their cells during the day except on account of inclemency of weather, sickness or other causes. The District Lock-up at Tumkur and the other lock-ups located at Tiptur, Madhugiri and Pavagada are maintained for short-term convicts sentenced to undergo imprisonment for a month and below and also for lodging under-trial prisoners. Long-term prisoners are sent to the Central Jail at Bangalore. Prisoners in the lock-ups in the district are lodged according to the class recommended by the convicting judicial officers. In the various lock-ups, including the District Lock-up, only 'C' class prisoners are lodged. Women convicts are lodged in these lock-ups in separate cells under the care of women warders.

The prisoners cook their own food and the necessary rations are supplied according to the prescribed scale. The morning meal is taken about 11 A.M. and the evening meal about 5 P.M. The convicts are supplied with two long shirts, two knickers, one cap and one underwear. Women convicts are given two sarees and two jackets. The under-trial and civil prisoners are allowed to wear their own clothes.

The prison management has undergone considerable changes in recent years and the prisoners are now allowed certain amenities, which they were not enjoying before. Formerly, only *dhobi*-sand was allowed for washing clothes; now they are given washing soaps and those who are accustomed to oil-bath are allowed soapnut powder, castor oil or gingelly oil once in a fortnight. On Sundays and festival days, the convicts are allowed hot water baths. Butter milk is supplied at the rate of 8 ozs. daily. The prisoners are also permitted to have postal stationery for carrying on correspondence with their lawyers. On important national and festival days, they are given special meals.

A Prison Panchayat System has been introduced for helping to settle petty grievances of prisoners and for providing amenities as per rules. Prisoners are given incentive wages, ranging from

Amenities to
prisoners

25 paise to 50 paise per day, and the wages so earned are credited to their account. Newspapers and magazines are provided apart from books in the jail library. Indoor and out-door games are provided and the prisoners are also allowed to compete in open tournaments outside the jails. Medical attention is provided by Medical Officers who visit the lock-ups periodically to examine the health of the prisoners and also the sanitation of the lock-ups. Since these prisons are only lock-ups for confining mainly short-term prisoners, no facility for religious teaching or general education has been provided in them. A Board of Visitors consisting of four non-official members has been appointed for each lock-up.

According to rule 4 of the Mysore Lock-up Manual, the Inspector-General of Prisons, who has his headquarters at Bangalore, exercises general control over the District Lock-up at Tumkur and the other lock-ups at Tiptur, Madhugiri and Pavagada. The Deputy Commissioner of the district also exercises supervision over all the four lock-ups. The District Surgeon, Tumkur district, is the officer in charge of the District Lock-up at Tumkur. For purposes of prison administration, he is designated as the District Lock-up Officer and is assisted by a I Grade Head Warder and six other warders. All the members of the staff are provided with rent-free quarters. The lock-ups at Madhugiri, Tiptur and Pavagada are administered by the Sheristedars of the taluks, who are designated as the Lock-up Officers for the purpose. The lock-up at Madhugiri is guarded by one Head Constable and four police constables. The same guard strength is maintained in respect of the other lock-ups at Tiptur and Pavagada.

Expenditure.—The total expenditure for the maintenance of all the four lock-ups in the district in 1965-66 came to Rs. 26,401.

ADMINISTRATION OF JUSTICE

The judicial set-up was re-organised in the erstwhile Mysore State in 1831, after the British Commission took over the administration. The lowest courts of original jurisdiction in the pre-emption period were the Amils' Courts and Town Munsiffs' Courts. Above these courts, the Principal Sadar Munsiff's Court and the Courts of European Superintendents had both original jurisdiction and appellate authority. The Amildars of revenue taluks were invested with powers to decide suits within Rs. 100 and the Town Munsiffs had jurisdiction to decide suits not exceeding Rs. 500. The Principal Sadar Munsiffs appointed in all divisions had powers to decide all original suits of the value exceeding Rs. 100 and below Rs. 1,000. They entertained appeals arising out of the decisions of Amils' Courts. All original suits of the value exceeding Rs. 1,000 were decided by courts of

European Superintendents: The Huzur Adalat was the highest court of appeal attached to the Commissioner.

In 1856, a separate Judicial Commissioner was appointed to assist the Commissioner. Under the new set-up, the Huzur Adalat and the Munsiffs' Courts were abolished. There were only the Judicial Commissioner, Superintendents of Divisions, Deputy Superintendents of Districts, Judges of the Small Causes Courts, European Assistant Superintendents, Indian Assistant Superintendents and Amildars doing judicial work. In 1863, Assistant Superintendents were relieved of civil work and Judicial Assistants were appointed. Later, in 1874, civil judicial work was transferred to Munsiffs. After the Rendition in 1881, the Deputy Commissioners of the districts ceased to have any civil jurisdiction and in their places, District Judges were appointed. Sub-Judges took the place of Judicial Assistants. Those who dispensed civil justice also attended to criminal justice. In 1884, a Chief Court was set up with the Chief Judge as the head of the judicial administration. The Chief Court was the highest court of appeal and had powers of superintendence and control over all the other courts in the State. The Bangalore District Judge's Court then had jurisdiction over the Tumkur district also.

In respect of criminal justice, the Criminal Procedure Code of 1872 was made applicable to the State in the same year. As a step towards the separation of civil and criminal dispensation of justice of the judicial authority, the question of forming separate Munsiffs' Courts engaged the attention of the Government. The civil powers of the Deputy Superintendents of districts were curtailed and in 1879, the scheme of separation of civil and criminal work was completed. Subsequent to the Rendition, the administration of criminal justice was the sole responsibility of the Chief Judge who exercised the powers of a High Court as described in the codes. The criminal courts in the State consisted of Sessions and Assistant Sessions Judges, District Magistrates and Magistrates of the first, second and third classes. Later, in 1907, the Amildars were relieved of their magisterial duties and instead, the Munsiffs exercised criminal jurisdiction also. In all districts, there were Honorary Bench Magistrates to try petty cases. The Sessions Court at Bangalore then exercised jurisdiction over Tumkur district also. The Deputy Commissioner of the revenue district of Tumkur became the District Magistrate.

The present pattern of civil justice in the district is evolved out of many changes, which took place from time to time, having regard to the requirements of the public. For the first time, a new District and Sessions Court was established at Tumkur with effect from the 1st October 1964 having jurisdiction over the

Civil Justice :
District
Court, Tumkur

entire revenue district of Tumkur. The District and Sessions Judge is the highest judicial authority in the district, and the District Court is the principal civil court of original jurisdiction within the local limits of the area. The District and Sessions Judge, Tumkur, exercises control over the Civil Judge's Court, Tumkur, Munsiffs' Courts at Tumkur, Tiptur and Madhugiri and all the Magistrate's Courts in the district. Although, under the Mysore Civil Courts Act, 1964, the District Court is the principal civil court of original jurisdiction in the district, the Civil Judge has also got unlimited pecuniary jurisdiction and hence all original suits and proceedings of a civil nature above the value of Rs. 10,000 are filed in the Civil Judge's Court. The District Court entertains and hears appeals from the decrees and orders passed by the Civil Judge on the original side, the value of which does not exceed Rs. 20,000. In other cases, appeals from the Civil Judge's Court lie direct to the High Court. The District Judge also entertains and tries civil cases under some special enactments. He is the controlling officer on the administrative side in respect of all courts in the district. The District Judges are appointed by the Governor of the State in consultation with the High Court.

At the beginning of the year 1967-68, 82 suits were pending in the District Court, and 211 suits were instituted during the year, making a total of 293 suits for disposal. Out of these, 186 suits were disposed of, leaving a balance of 107 suits at the end of the year. The average number of suits for disposal per year during the period from 1964-65 to 1967-68 was 265 and the average number disposed of each year during the same period was 199.

Civil Judge's
Court, Tumkur

The Civil Judge's Court at Tumkur has jurisdiction over all the revenue taluks comprised in the district, and has appellate jurisdiction over the decisions of the Munsiffs functioning at Tumkur, Tiptur and Madhugiri, in suits and proceedings of a civil nature. This court has unlimited original jurisdiction over suits of the value exceeding Rs. 10,000. It is also invested, with effect from the 1st November 1967, with jurisdiction of a court of small causes in the territorial limits of Tumkur town and taluk, in respect of suits cognisable by such court upto, but not exceeding, the value of Rs. 1,000. The court has also jurisdiction to hear cases under the Land Acquisition Act, Hindu Marriage Act and the Guardian and Wards Act. The Civil Judges are appointed by the High Court by promotion from the cadre of Munsiffs.

The number of suits pending in the Civil Judge's Court at the beginning of 1967-68 was 875, and the number instituted during the year was 517, making a total of 1,392 for disposal. Four hundred and twenty-five suits were disposed of during the year, leaving a balance of 967 suits at the end of the year. During the

quinquennium from 1963-64 to 1967-68, there were, on an average, 1,521 suits per year in this court and, on an average, 630 suits were disposed of in a year.

The Munsiff's Court, Tumkur, exercises jurisdiction over the taluks of Tumkur, Gubbi and Kunigal. This court has powers to entertain all original suits and proceedings of a civil nature upto the value of Rs. 10,000. Cases under Land Reforms Act, 1961, are also being filed in this court. At the beginning of the year 1967-68, 1,857 suits and cases were pending in this court and 3,118 new suits and cases were filed during the year, making a total of 4,975 for disposal. Out of these, 3,009 cases were disposed of, leaving a balance of 1,966 cases at the end of the year. The average number of suits and cases for disposal in this court each year during the quinquennium from 1963-64 to 1967-68 was 4,829 and the average number disposed of was 2,966. The receipts of the court for the year 1966-67 amounted to Rs. 62,972 and the expenditure to Rs. 1,16,611. The Munsiffs are appointed by the Governor, in accordance with the Mysore Munsiffs' (Recruitment) Rules, 1958, in consultation with the State Public Service Commission and the High Court.

Munsiff's Court,
Tumkur

The Munsiff's Court, Madhugiri, has jurisdiction over Madhugiri, Koratagere, Pavagada and Sira taluks. It also entertains all original suits and proceedings of a civil nature, the value of which does not exceed Rs. 10,000. There were 1,218 suits and cases pending at the beginning of the year 1967-68, and 2,166 suits and cases were instituted during the year, making a total of 3,384 for disposal. Out of these, 1,721 suits and cases were disposed of during the year, leaving a balance of 1,663 cases at the end of that year. The average number of cases for disposal per year in this court during the quinquennium from 1963-64 to 1967-68 was 3,416 and the average number disposed of was 2,125. The receipts and expenditure of the court during 1966-67 were Rs. 41,847 and Rs. 67,167, respectively.

Munsiff's Court,
Madhugiri

The Munsiff's Court, Tiptur, exercises jurisdiction over the taluks of Tiptur, Chiknayakanahalli and Turuvekere. The pecuniary jurisdiction of this court is the same as that of the Munsiffs' Courts at Tumkur and Madhugiri. At the beginning of the year 1967-68, 1,033 suits and cases were pending in this court and 2,014 cases were filed during the year making a total of 3,047 cases for disposal; of these, 2,234 cases were disposed of, leaving a balance of 813 cases at the end of that year. The annual average of cases for disposal in this court during the quinquennium from 1963-64 to 1967-68 was 3,001 and the average of cases disposed of per year was 1,959. The receipts of this court during 1966-67 were Rs. 61,237 and the expenditure amounted to Rs. 91,064.

Munsiff's Court,
Tiptur

**Separation of
Judiciary from
Executive**

The administration and control over all the Magistrates' Courts in the district vested, till the 1st June 1956, in the District Magistrate (who was also the Deputy Commissioner). But from that date, the separation of the judiciary from the executive was brought into force and the Magistrates' Courts were brought under the control of Judicial District Magistrates, who also exercised general administrative supervision over them. These Judicial District Magistrates were appointed by the State Government. The Civil Judges were being appointed as Judicial District Magistrates. The Sessions Judge inspected the Court of the Judicial District Magistrate as a nominee of the High Court. The functions of the judicial magistrates and executive magistrates have been separately shown in the schedule attached to the Government Order dated the 29th May 1956, by which the scheme of separation of the judiciary from the executive was introduced. The Civil Judge-cum-Judicial District Magistrate, Tumkur, had first class magisterial powers in respect of cases arising in Tumkur, Gubbi and Kunigal taluks. He had also revisional powers in respect of cases decided by the magistrates under his control.

The scheme of separation of the judiciary from the executive, when it was first introduced in 1956, was designed within the frame-work of the Criminal Procedure Code. It was an arrangement whereby all the functions of a magistrate were divided between two sets of magistrates, namely, judicial and executive magistrates. The judicial magistrates were entrusted with purely judicial functions, while the executive functions were entrusted to the Deputy Commissioner and the revenue officers subordinate to him. Later on, the scheme of separation of the judiciary from the executive was incorporated in the Criminal Procedure Code itself by State amendments under the Code of Criminal Procedure (Mysore Amendment) Act, 1965. Under the present Criminal Procedure Code, as applicable to the State, there is no separate Judicial District Magistrate, his functions having been now vested in the Sessions Judge himself.

**Sessions Court,
Tumkur**

As already stated earlier, before the present Sessions Court was established at Tumkur, the Sessions Judge, Bangalore, was having jurisdiction over Tumkur district also. He used to try the sessions cases relating to Tumkur district at his Tumkur camp. Now, the Sessions Judge, Tumkur, is trying all the sessions cases and hearing all the criminal appeals and revision cases arising in Tumkur district. Nineteen cases were instituted in this Court during 1967-68, of which 12 were disposed of, leaving a balance of seven cases at the end of that year. The average number of cases for disposal in this court, per year, during the period from 1964-65 to 1967-68, was 19 and the average number disposed of was 17.

A Civil Judge's Court was established at Tumkur on the 1st June, 1956. The Civil Judge was also appointed as First Class Magistrate and District Magistrate on the judicial side. He was trying all first class cases arising in the taluks of Tumkur, Gubbi and Kunigal. He continued to try all first class cases till the court of the Second Magistrate, Tumkur, was up-graded to that of a First Class Magistrate in the year 1962. After the introduction of the Code of Criminal Procedure (Mysore Amendment) Act, 1965, from the 1st October 1965, the Civil Judge ceased to be the Judicial District Magistrate and was relieved of criminal work.

The First Class Magistrate's Court, Tumkur, was formerly the court of the Second Magistrate, Tumkur. As already stated, this court was up-graded to that of a First Class Magistrate in 1962 and has jurisdiction to try all criminal cases under the Indian Penal Code and other laws arising in the taluks of Tumkur, Gubbi and Kunigal. At the beginning of the year 1967-68, 456 cases were pending in this court and 3,072 fresh cases were instituted during the year, making a total of 3,528 cases for disposal. Of these, 3,187 cases were disposed of, leaving a balance of 341 cases at the end of that year. The average number of cases for disposal in this court, per year, during the quinquennium from 1963-64 to 1967-68, was 3,567 and the average number disposed of was 3,128. The receipts of the court during 1966-67 were Rs. 33,492 and the expenditure amounted to Rs. 23,025.

**First Class
Magistrate's
Court, Tumkur**

A Special First Class Magistrate's Court was established at Madhugiri in the year 1919. It tries all criminal cases of first, second and third classes arising in the taluks of Madhugiri, Korata-gere, Pavagada and Sira. There were 121 cases pending in this court at the beginning of the year 1967-68, and 1,857 new cases were filed during the year, making a total of 1,978 cases for disposal. Of these, 1,807 cases were disposed of, leaving a balance of 171 cases at the end of that year. The average number of cases for disposal in this court, annually, during the quinquennium from 1963-64 to 1967-68, was 2,369 and the average number of disposals was 2,180. The receipts and expenditure of this court during 1966-67 were Rs. 23,664 and Rs. 26,328, respectively.

**Special First
Class
Magistrate's
Court,
Madhugiri**

The present Munsiff-Magistrate's Court at Tiptur was established in the year 1944 and it now exercises both civil and criminal jurisdiction over the taluks of Tiptur, Chiknayakanahalli and Turuvekere and has first class magisterial powers on the criminal side. At the beginning of the year 1967-68, 132 criminal cases were pending in this court and 1,423 fresh cases were during the year, making a total of 1,555 cases for disposal. Of these, 1,477 cases were disposed of, leaving a balance of 78 cases at the end of that year. The average number of cases for disposal

**First Class
Magistrate's
Court, Tiptur**

in this court, annually, during the quinquennium from 1963-64 to 1967-68 was 2,183 and the average number disposed of was 2,017. The receipts and expenditure of this court, during 1966-67, were Rs. 10,032 and Rs. 92,327, respectively.

**Executive
Magistrates**

The Deputy Commissioner, Tumkur district, is the District Magistrate. The Headquarters Assistant to the Deputy Commissioner is the Additional District Magistrate who can also exercise all the powers of the District Magistrate under the Criminal Procedure Code and any other law for the time being in force. There are three Assistant Commissioners in the district in charge of Tumkur, Tiptur and Madhugiri Revenue Sub-Divisions, who are Sub-Divisional Magistrates. The Tahsildars of taluks are Taluk Magistrates. These subordinate officers are subject to the general control of the District Magistrate. The main duties of these Executive Magistrates are to maintain law and order and to exercise the powers vested in and delegated to them under the Criminal Procedure Code or any other law for the time being in force.

**Bar
Associations**

There are three Bar Associations functioning in the district at Tumkur, Madhugiri and Tiptur. The Bar Association at Tumkur had 51 members in 1967, while those at Madhugiri and Tiptur had 21 and 12 members, respectively. These Associations are registered under the law. The affairs of these Associations are managed by managing committees elected annually by the members. There is a good library attached to the Tumkur Bar Association with facilities of study rooms.

CHAPTER XIII

OTHER DEPARTMENTS

THE work of some of the important administrative and development departments has been dealt with in some of the earlier and later chapters of this volume. In this chapter, a brief account of the organisational set-up of various other departments like Agriculture, Animal Husbandry, Co-operation, Excise, Forests, Industries, Labour, Public Works, etc., has been given. The activities of several of these departments and the progress achieved by them have been dealt with in other chapters and hence mainly their administrative set-up has been explained here.

Until recently, all the agricultural extension and development activities in Tumkur district were being looked after by a District Agricultural Officer, assisted by some technical and ministerial staff. The Agricultural Department of the State was re-organised in January 1967, when a Senior Class I officer designated as the Deputy Director of Agriculture was placed at the head of the Agricultural Department in each district. Thus, all activities connected with the development of agriculture in Tumkur district are now under the charge of a Deputy Director of Agriculture with effect from January 15, 1967. Besides, the district has been divided into two agricultural sub-divisions with headquarters at Gubbi and Madhugiri, each of which is under the charge of an Assistant Director of Agriculture. While the Gubbi Sub-Division consists of Tiptur, Turuvekere, Chiknayakanahalli, Kunigal and Gubbi taluks, the Madhugiri Sub-Division includes Pavagada, Madhugiri, Koratagere and Sira taluks. The district headquarters taluk of Tumkur is looked after directly by the Deputy Director of Agriculture, to whom the Assistant Directors of sub-divisions are subordinate.

At the district-level, the Deputy Director of Agriculture is assisted by four Class II officers designated as Assistant Seed Development Officer, Assistant Manure Development Officer, Assistant Plant Protection Officer and Assistant Agricultural Engineer, and some other technical and ministerial staff. Each of these officers, in turn, is assisted by two to four Field Assistants

besides some ministerial and class IV staff like demonstration *maistries* and attenders. Each Assistant Director of Agriculture is assisted by three Assistant Agricultural Officers, one in charge of seeds, another in charge of manures and the third in charge of plant protection, at the sub-divisional level, besides necessary ministerial and class IV staff. Two to four Field Assistants are attached to each of the Assistant Agricultural Officers. For purposes of implementing the soil conservation scheme, the district has been again divided into two sub-divisions, with headquarters at Tumkur and Madhugiri, and each of these sub-divisions is under the charge of a Sub-Divisional Soil Conservation Officer.

Since the district has been brought under the Intensive Agricultural Area Programme and the High Yielding Varieties Programme with a view to achieving quick and tangible results in agricultural production, the services of all Gramsevakas in the community development blocks in the district have been made available to the Agricultural Department, and the Block Development Officers are required to implement the agricultural programmes in their respective jurisdictions in a full measure. For this purpose, each Block Development Officer is given the assistance of an Agricultural Extension Officer and Additional Gramsevakas. There are also Additional Agricultural Extension Officers in some of the bigger blocks. There are three Seed Farms in the district, one each at Hirehalli, Mathighatta and Ungra. Each of these Seed Farms is under the charge of a Farm Manager.

The main functions and duties of the staff of the Agricultural Department in the district are to give technical advice to the cultivators in order to step up production of different crops and to improve their quality, and also to carry on propaganda on scientific methods of agriculture. The Department also arranges for the supply of improved seeds, implements, chemicals and fertilisers, green manure seeds and the like. The services of tractors and bulldozers are also made available by the Department to interested cultivators. Under the Intensive Agricultural Area Programme, loans and subsidies and other kinds of assistance are also given to the cultivators for pursuing improved agricultural practices.

Animal
Husbandry
Department

The animal husbandry and veterinary activities in the district are being attended to by the District Officer, Animal Husbandry and Veterinary Services, who is directly responsible to the Director of Animal Husbandry and Veterinary Services in Mysore, Bangalore. He supervises the working of the various veterinary institutions in the district and guides the veterinarians who are in charge of the veterinary institutions in the discharge of their functions. The main functions of the Department in the district are to take care of the general health of the livestock, treatment

against various livestock diseases, prevention of contagious diseases and breeding of improved stocks of animals and birds. The Department has also to arrange for castration of scrub bulls and upgrading of the local nondescript cattle through natural or artificial insemination methods.

The District Officer is assisted in his duties by Veterinary Assistant Surgeons located in all taluk headquarters. There are also two Veterinary Assistant Surgeons in the district headquarters and one in the Key Village Block, Kunigal. There are Rural Veterinary Dispensaries in almost all hobli headquarters manned by trained veterinarians called Stockmen, who work under the control and supervision of the Veterinary Assistant Surgeons of the respective taluks. There is also a Horse-Breeding Station (Stud Farm) at Kunigal manned by a Superintendent, who is also directly responsible to the Director of Animal Husbandry and Veterinary Services. He is assisted in his duties by two Veterinary Assistant Surgeons and some other technical staff.

There are two Commercial Tax Officers and four Assistant Commercial Tax Officers in the district to attend to the work of assessment under the Sales Tax Act and other statutes. One of the Commercial Tax Officers is designated as Additional Commercial Tax Officer and both of them are at Tumkur. Of the Assistant Commercial Tax Officers, one is at Tumkur, two are at Tiptur and the other at Madhugiri. Both the Commercial and Assistant Commercial Tax Officers are directly responsible to the Deputy Commissioner of Commercial Taxes, Bangalore Division, Bangalore. The Commercial Tax Officer, Tumkur, exercises jurisdiction over dealers in Tumkur town, while the jurisdiction of the Additional Commercial Tax Officer extends to all the taluks in the district except the taluks of Madhugiri, Pavagada and Sira, which come under the jurisdiction of the Commercial Tax Officer, Chitradurga. The dealers whose turnover is more than Rs. 40,000 per annum are assessed by the Commercial Tax Officers, while the dealers whose turnover is less than Rs. 40,000 are assessed by the Assistant Commercial Tax Officers.

Commercial
Taxes Department

The Assistant Commercial Tax Officer, Tumkur, exercises jurisdiction over Tumkur taluk including Tumkur town and the taluks of Kunigal and Gubbi, while the two Assistant Commercial Tax Officers at Tiptur have jurisdiction over Tiptur taluk including Tiptur town and Chiknayakanahalli and Turuvekere taluks. The Assistant Commercial Tax Officer, Madhugiri, has jurisdiction over Madhugiri, Pavagada, Sira and Koratagere taluks.

The Commercial Tax Officers and the Assistant Commercial Tax Officers are independent registering and assessing authorities.

The Acts and rules administered by the Commercial Taxes Department in the district are the Mysore Sales Tax Act, 1957, the Mysore Sales of Motor Spirit Taxation Act, 1957, the Mysore Entertainments Tax Act, 1958, and the Central Sales Tax Act, 1950, and the rules made under the respective Acts. The Commercial Tax Officers are the appellate authorities under the Mysore Entertainments Tax Act, while the Assistant Commercial Tax Officers are also the Entertainment Tax Officers under the Act.

**Community
Development
Organisation**

The Divisional Commissioner, Bangalore Division, Bangalore, is designated as the Joint Development Commissioner for the purpose of implementing the Community Development Programme in the districts coming under his jurisdiction. The State Government have delegated many of the powers of the Development Commissioner to the Joint Development Commissioner. The Deputy Commissioner of Tumkur has been designated as the Deputy Development Commissioner for the effective implementation of the programme in the district. The progress reports of all the blocks are reviewed by the Deputy Commissioner and, after approval, sent to the Development Commissioner and the Divisional Commissioner once a month. The heads of the various development departments are responsible for the proper execution of the several programmes in the development blocks. They prepare and implement block-level programmes through their respective District Officers in the district. As already stated elsewhere, the entire district has been covered under the Community Development Programme.

All the development blocks in the district come under the jurisdiction of the Deputy Commissioner. In this work, he is assisted by a District Development Assistant of the rank of Assistant Commissioner and some ministerial staff in the district headquarters and by Block Development Officers or Deputy Block Development Officers in the blocks. There are, in all, 10 development blocks in the district, including full, half and quarter blocks. According to the standard staff pattern of the development blocks, each full block consists of the following Extension Officers: (1) Agricultural Extension Officer, (2) Animal Husbandry Extension Officer, (3) Rural Engineering Extension Officer, (4) Co-operative Extension Officer, (5) Industrial Extension Officer, (6) Panchayat Extension Officer, (7) Social Education Organiser and (8) Mukhyasevika. Of these, the post of Animal Husbandry Extension Officer has since been abolished. In addition to these, there are Gramsevaks and Gramsevikas at the village-level, at the rate of ten Gramsevaks and one Gramsevika for each full block. These village-level workers are trained in the fundamentals of agriculture, animal husbandry, co-operation, rural engineering, health and sanitation and crafts. They are required to advise and guide the villagers in various aspects of rural development.

Until recently, the Assistant Registrar of Co-operative Societies, Tumkur, was the officer in charge of the administration of the Co-operative Department in the district. With the re-organisation of the department in 1966, a Deputy Registrar of Co-operative Societies was appointed for the district, with two Assistant Registrars under him, one at Tumkur and the other at Tiptur. The Deputy Registrar is responsible to the Joint Registrar of Co-operative Societies, Bangalore Division, Bangalore. While the Deputy Registrar is charged with the responsibility of promoting the co-operative movement in the district as a whole, the Assistant Registrars are responsible for the development of the movement in their respective jurisdictions. The Deputy Registrar is also the *ex-officio* Registrar of Money-Lending and, in that capacity, he is empowered to issue licences to money-lenders and pawn-brokers and to regulate the money-lending transactions in the district.

The Deputy Registrar is assisted in his duties by three District Auditors, one Senior Auditor, three Senior Inspectors of Co-operative Societies—one each for consumers' co-operatives, housing and statistics—and some other executive and ministerial staff. There is also another Senior Inspector and a Co-operative Extension Officer to look after the farming aspect of the work, with their headquarters at Kunigal.

The Assistant Registrars inspect the co-operative societies in their jurisdictions and supervise their working. They have also powers to register co-operative societies (except special types of societies), to amalgamate them wherever necessary, to hear and dispose of disputes arising from the societies, to conduct enquiries and execute decrees. The Assistant Registrar, Tumkur, was being assisted in his duties, in 1968, by seven Inspectors—one attached to the District Co-operative Central Bank, one for Marketing, one for Arbitration, one for Land Development Banks, one for Reserve Bank of India loans, one General Inspector and one attached to the office—while the Assistant Registrar, Tiptur, had under him two Inspectors—one for marketing and another for general affairs. At the block-level, the Assistant Registrars are assisted by Co-operative Extension Officers. Both the Assistant Registrars are directly responsible to the Deputy Registrar, who heads the departmental set-up in the district.

On the audit side, there is a Special Auditor for Co-operative Societies in the district at Tumkur, who is also directly responsible to the Deputy Registrar of Co-operative Societies. He has the overall responsibility for the audit of all the co-operative societies in the district. He is assisted by four Auditors of senior grade, 15 Senior and two Junior Auditors and some ministerial and class

IV staff. The Inspectors of Co-operative Societies and the Co-operative Extension Officers have also to inspect all the societies in their respective circles. They are required to inspect at least six societies in a month. They should also arrange to convene general body meetings of all the societies in their jurisdictions, after the completion of the annual audit which is conducted by the auditors of the Department.

**Employment
and Training
Department**

The Department of Employment and Training was created in the year 1964. Prior to that, the functions of this department were being attended to by the Department of Labour. After the bifurcation, a separate Directorate was created with a Director of Employment and Training as its head at the State-level. The Department maintains an Employment Exchange at Tumkur under the charge of a District Employment Officer. The main function of the Employment Exchange is to bring together employers needing workers and workers seeking employment, so that the employers could find suitable workers and the workers suitable jobs. (See also Chapter IX). The District Employment Officer is responsible to the Director of Employment and Training. He is assisted in his duties by a Junior Statistical Officer, an Employment Information Assistant and some ministerial staff.

**Excise
Department**

The Deputy Commissioner, Tumkur, is in charge of the administration of the Excise Department in the district. He is responsible to the Excise Commissioner in Mysore, Bangalore, in so far as this aspect of his work is concerned. Till October 1967, he was being assisted in this work by a District Inspector of Prohibition and Excise and an Assistant Inspector. But consequent on the relaxation of prohibition by the State Government with effect from 15th October 1967, the set-up of this department in the district has been re-organised and expanded. The Deputy Commissioner is now assisted by an Assistant District Excise Officer, who acts as his Headquarters Assistant in all excise matters. The latter is, in turn, assisted by an Excise Inspector for Prosecution and some ministerial staff in the district headquarters and five Excise Inspectors, 15 Assistant Inspectors and 69 Excise Guards in other places.

For purposes of excise administration, the district has been divided into three ranges, with headquarters at Tumkur, Tiptur and Madhugiri, under the charge of an Excise Inspector each. These ranges have been further sub-divided into 15 sub-ranges, each under the charge of an Assistant Excise Inspector. There is an arrack-bonded depot at each taluk headquarters. The Assistant District Excise Officer exercises certain independent powers under the excise laws. He also controls and exercises supervision over all the excise staff in the district. The Excise

Inspectors are empowered to issue tree tapping licences and transport permits, to inspect liquor shops, date groves and licensed liquor manufacturing units and also to book cases in respect of contravention of excise laws. They are required to ensure proper assessment and collection of excise duties and also prevention of malpractices. The duties of the Assistant Excise Inspectors include inspection of arrack depots and shops, marking of date trees and detection of excise offences in their respective jurisdictions.

There is an Assistant Director of Fisheries at Tumkur, who is in charge of the administration of the Fisheries Department in the district. He is responsible to the Director of Fisheries in Mysore, Bangalore. To ensure planned development of fisheries, the district has been divided into two divisions, with headquarters at Tumkur and Gubbi. The Gubbi Division consists of Gubbi, Turuvekere, Tiptur and Kunigal taluks, while the Tumkur Division comprises Tumkur, Koratagere, Madhugiri, Sira, Pavagada and Chiknayakanahalli taluks. Each of these divisions is under the charge of an Assistant Superintendent of Fisheries. Each Assistant Superintendent of Fisheries is assisted in his work by two Assistant Inspectors of Fisheries, four fishery watchers and two fishermen. There are also two Fisheries Extension Officers attached to the community development blocks in the district. Of these, one is stationed at Kunigal and the other at Turuvekere. They are assisted by two fishermen each.

**Fisheries
Department**

The important functions of the Department in the district are—survey of cultivable waters, fish-seed collection, rearing and stocking of fish, management of fish farms, conservation and exploitation of fishery resources, fishery extension work, demonstration of fishing in deep tanks and reservoirs, organising fishermen's co-operatives, fish marketing and the like.

The Deputy Commissioner of the district is in charge of the work relating to procurement, storage, movement and distribution of foodgrains in the district. He is the licensing authority in respect of the following statutory orders which are in force in the district at present:—

**Food and Civil
Supplies
Department**

- (1) Mysore Foodgrains Dealers' and Millers' Licensing Order, 1958.
- (2) Mysore Sugar Dealers' Licensing Order 1959, and
- (3) Rice Milling Industry (Regulation) Act, 1958.

His functions in this connection comprise, among other things, keeping in touch with the supply position and price-trends of foodgrains in the district, authorising the opening of fair price depots wherever necessary, equitably allocating the foodgrains allotted

to the district, procurement of foodgrains and regulating their supplies.

The Deputy Commissioner is also in charge of the work of civil supplies in the district. In so far as this aspect of his work is concerned, he has to attend to all items of work relating to the control and distribution of several essential commodities like kerosene, diesel oil, vegetable oils, textiles, drugs, baby-foods, soaps, matches, paper and stationery, cycle tyres and tubes, under the Essential Commodities Act, 1955. The Deputy Commissioner is assisted in his work relating to food and civil supplies by a whole-time Food and Civil Supplies Assistant of the rank of Assistant Commissioner and a Special Tahsildar. There is also an Assistant Inspector of Food and Civil Supplies to attend to the civil supplies aspect of the work. The Tahsildars of taluks also attend to the food supplies work of the Department in their taluks, as may be entrusted to them from time to time.

**Forest
Department**

The Divisional Forest Officer is the officer in charge of the Forest Department in the district. He is directly responsible to the Conservator of Forests, Bellary Circle, Bellary. The forests in the district are divided into units called ranges, and there are, in all, five ranges, viz., Tumkur, Madhugiri, Bukkapatna, Tiptur and Kunigal, each under the charge of a Range Forest Officer. The Tumkur Range covers Tumkur taluk and some parts of Gubbi and Koratagere taluks, the Madhugiri Range Madhugiri and Pavagada taluks and some parts of Koratagere taluk, the Bukkapatna Range Sira taluk and some parts of Chiknayakanahalli and Gubbi taluks, the Tiptur Range Tiptur and Turuvekere taluks and some parts of Chiknayakanahalli and Gubbi taluks and the Kunigal Range the Kunigal taluk. Each Range Forest Officer is assisted by protective and office staff to carry on the range administration.

There are, in all, five Range Forest Officers, 14 Foresters and 68 Forest Guards in the Tumkur Forest Division. There are five forest lodges in the district under the control of Range Officers and a care-taker is attached to each of them. The main functions of the Forest Division include afforestation of the depleted State Forests, conservation and maintenance of plantations and village forests with a view to providing timber, fire-wood and minor forest produce to the people and protection of whatever natural vegetation that exists in the area. During the successive Five-Year Plan periods, a considerable area has been brought under artificial regeneration and afforestation schemes and this work is being continued even now.

**Horticulture
Department**

For purposes of horticultural development in the district, there is an Assistant Coconut Development Officer at Tiptur. He

is an independent officer in the district and is directly subordinate to the Director of Horticulture in Mysore, Bangalore. The Assistant Coconut Development Officer visits the places where his services are required in connection with the development of horticulture and gives advice and technical help in respect of cultivation of fruits, vegetables, flowers, coconut, arecanut and cashewnut, maintenance of orchards, farms, gardens and parks, and introduction of new varieties of fruits, flowers and vegetables suited to the local climatic conditions. He does also propaganda work by organising exhibitions and issuing good quality seeds and plants to the cultivators in local *jatras* and other public gatherings. He helps in the preparation of layouts of bungalow and kitchen gardens and inspects lands for establishing fruit and vegetable gardens. Besides, he also takes measures for control of pests and diseases of horticultural plants in the district.

The Assistant Coconut Development Officer is assisted in his duties by Horticultural Assistants, one in each taluk, and some ministerial staff. The Horticultural Assistants are responsible for the management of horticultural farms, development and extension of horticultural crops and protection of such crops against pests and diseases in their respective taluks. They are assisted in their field work by one or two Field Assistants.

The Assistant Director of Industries and Commerce, Tumkur, is the officer who is in charge of the work of the Department of Industries and Commerce in the district. He is responsible to the Director of Industries and Commerce in Mysore, Bangalore. The functions of the Assistant Director of Industries and Commerce include the undertaking of industrial surveys, the collection of statistical information, the drawing up of schemes and plans for the development of industries and the supervision of the activities of rural artisan training institutions, model craft centres and sales emporia of the Department; he also exercises supervision over the activities of industrial co-operative societies and *mahila samajas* receiving assistance from the Department and control over the work of the Industrial Extension Officers in the development blocks. He has also to implement the plan schemes pertaining to several industries, such as, handlooms, handicrafts, coir and other small-scale industries, khadi and village industries, recommend deserving cases for supply of machinery under the hire-purchase scheme from the National Small Industries Corporation, guide the small-scale industrialists in the matter of location and procurement of raw materials, give technical guidance to the industrialists and inspect loan records under the Mysore State Aid to Industries Act and other enactments.

**Industries and
Commerce
Department**

The Assistant Director of Industries and Commerce is assisted in his work in the district headquarters by a Senior Industrial

Supervisor, a Junior Industrial Supervisor, a District Weaving Supervisor, two Weaving Demonstrators and some ministerial staff. There are also ten Industrial Extension Officers attached to the community development blocks in the district to look after the arts, crafts and other industrial programmes in the blocks. Although they work under the respective Block Development Officers, they are under the technical control of the Assistant Director.

The Industrial Supervisors and Extension Officers are empowered to supervise and inspect, as and when necessary, all the rural industrial co-operative societies and other institutions like the handloom emporia, *mahila samajas* and craft societies, and prepare statistical data relating to industrial schemes, in their respective jurisdictions. The District Weaving Supervisor looks after the work relating to the textile branch with the help of the Weaving Demonstrators.

Under the Rural Industries Project, Tumkur-Gubbi, there is a separate office at Tumkur, headed by a Project Officer. The objective of this project is intensive development of industries in Tumkur and Gubbi taluks. The Project Officer is assisted in his duties by two Technical Assistants (one Mechanical and another Textiles), two Extension Officers (Industrial) and necessary ministerial staff.

**Information
and Tourism
Department**

The officer representing the Information and Tourism Department in the district is the District Publicity Officer. He is directly responsible to the Assistant Director of Publicity and Information, Bangalore Division, Bangalore. The District Publicity Office at Tumkur, which was started in March 1966, has an Information Centre attached to it. The main function of the Department in the district is to publicise the various developmental activities and welfare measures of the Government among the people with a view to enlisting their co-operation and active participation in the task of national development. For this purpose, various media of publicity and propaganda, such as, film shows, exhibitions, press releases, etc., are made use of. There are also two Radio Supervisors of the Department in the district, one at Tumkur and the other at Madhugiri, to look after the installation, repairs and maintenance of community radio sets in the rural areas of the district. As at the end of March 1968, there were 204 community radio sets and 44 Radio Rural Forums in the district. Both the Radio Supervisors are directly responsible to the Assistant Radio Engineer, Bangalore Division, Bangalore.

**Labour
Department**

Until recently, the Assistant Commissioner of Labour, Bangalore Division, Bangalore, was the officer in charge of the administration of the Labour Department in Tumkur district. However,

from June 1968, the district is placed under the jurisdiction of the Assistant Commissioner of Labour, Mysore Division, Mysore. He is responsible to the Commissioner of Labour in Mysore, Bangalore, and has jurisdiction over three districts, *viz.*, Tumkur, Mandya and Mysore. He is assisted in his work by a Labour Officer, who has also jurisdiction over these three districts (including Tumkur). Besides, there are three Labour Inspectors in Tumkur district, one each at Tumkur, Tiptur and Madhugiri. The Assistant Commissioner of Labour has to enforce the various labour laws in the districts coming under his jurisdiction. He has to safeguard the rights and privileges of the employees in the various industrial establishments located in his jurisdiction. If industrial disputes occur, by virtue of the conciliation powers vested in him under the Industrial Disputes Act, 1947, he has to mediate and bring about an amicable settlement and strive to maintain cordial relations between the employers and employees. He is also an appellate authority under section 39 of the Shops and Commercial Establishments Act, 1961, Additional Registrar under the Trade Unions Act, 1926, Certifying Officer under the Standing Orders Act and *ex-officio* Inspector under some other Acts.

The Labour Officer supervises and guides the work of the Labour Inspectors in the district. Besides, as Additional Inspector under the Factories Act, Payment of Bonus Act and Mysore Industrial Establishments (National and Festival Holidays) Act, he inspects the various factories and establishments so as to ensure that the provisions of these Acts are implemented by the employers. He also attends to the work relating to the administration of the Maternity Benefits Act, Workmen's Compensation Act, Indian Trade Unions Act, Industrial Employments (Standing Orders) Act and the Working Journalists' (Conditions of Service and Miscellaneous Provisions) Act in the district. He is also a Conciliation Officer under the Industrial Disputes Act. The Labour Inspectors look after the enforcement of the Mysore Shops and Commercial Establishments Act, the Minimum Wages Act and other labour laws in the district. They work under the administrative control of the Labour Officer. There is also an Inspector of Factories for Mysore Division, who looks after the enforcement of the provisions of the Factories Act in his jurisdiction, including Tumkur district.

The work of the Survey, Settlement and Land Records Department in the district is under the charge of an Assistant Superintendent of Land Records, who is directly responsible to the Superintendent of Survey, Settlement and Land Records, Bangalore Division, Bangalore. The Assistant Superintendent is assisted in his duties by three Supervisors, each in charge of three taluks and 14 Surveyors, at the rate of one to three for each taluk, besides the necessary ministerial and class IV staff. In

**Survey,
Settlement and
Land Records
Department**

addition, under the plan schemes, there is also a temporary establishment of two Supervisors and 15 Surveyors in the district, whose function is to bring the record of rights up-to-date.

There is another Assistant Superintendent of Land Records at Tumkur to carry out the reclassification work and to detect encroachments on Government lands. He is also assisted by some Surveyors and ministerial and class IV staff. There is also another temporary establishment at Madhugiri, which is headed by an Additional Assistant Superintendent of Land Records, with Madhugiri taluk as his jurisdiction.

Marketing Department

The Marketing Department in the district is under the charge of a District Marketing Officer. He is directly responsible to the Deputy Chief Marketing Officer, Bangalore Division, Bangalore. He is assisted in his duties by a Marketing Inspector and some ministerial staff. There are two primary grading units in the district, one at Tumkur and the other at Tiptur, for grading agricultural commodities, and an oil sub-packing station at Tiptur for grading coconut oil. Two Graders are attached to each primary grading unit and a Laboratory Assistant to the oil sub-packing station.

The main functions of the Marketing Department in the district include, among other things, conducting of market surveys, compilation of market rates of regulated and other important commodities and supervision of regulated markets in the district. The Department is also required to collect data on agricultural marketing and make them available to the authorities concerned.

There is also an Assistant Controller of Weights and Measures at Tumkur to look after the administration of the Weights and Measures (Enforcement) Act, 1958, in the district. He is directly responsible to the Joint Controller of Weights and Measures, Bangalore. He is assisted in his duties by two Inspectors of Weights and Measures, one stationed at Tumkur and the other at Tiptur, and some ministerial staff. At the State-level, the Registrar of Co-operative Societies in Mysore, Bangalore, is the authority concerned with the administration of both these aspects of work, for which purpose he is also designated as Chief Marketing Officer and Controller of Weights and Measures, respectively.

Public Works Department

There was only one division of the Public Works Department in the district till 1st August 1960. From that date, one more division was created and now there are two Public Works Divisions in the district under the charge of an Executive Engineer each, with their headquarters at Tumkur and Madhugiri, respectively. The Executive Engineer, Tumkur Division, has jurisdiction over

five taluks, viz., Tumkur, Gubbi, Kunigal, Tiptur and Turuvekere. The Executive Engineer, Madhugiri Division, has jurisdiction over the remaining five taluks, viz., Sira, Madhugiri, Koratagere, Pava-gada and Chiknayakanahalli. Both these officers are under the control of the Superintending Engineer, Bangalore Circle, Bangalore, in all administrative and technical matters.

The main functions of the Executive Engineer are the construction and maintenance of Government buildings, roads, bridges and irrigation works within his jurisdiction. (The public health works in the district are, however, looked after by the Executive Engineer, Public Health Engineering Division, Bangalore). The Executive Engineer is empowered to accord administrative approval, as well as technical sanction, to works upto Rs. 50,000 in each case. This is in regard to original works, which are specifically provided for in the budget and included in the Plan programme. He can entrust all works costing Rs. 10,000 or more to contractors after calling for tenders. Works costing less than Rs. 10,000 can be entrusted by him either after calling for tenders or straightaway, at rates not exceeding the current schedule of rates, to local contractors who are duly registered for taking up such works. He also scrutinises the estimates of works prepared by other departments and local bodies. The Executive Engineer has been invested with a wide range of powers under the Public Works Code, the Manual of Financial Powers and other Government Orders issued from time to time, in order to enable him to carry out efficiently and expeditiously the various civil works entrusted to his care. He is also vested with powers to disburse money on P.W.D. account and maintain and render accounts direct to the Accountant-General.

The Executive Engineer is a touring officer who has to go round his areas for purposes of inspection of roads, buildings, bridges, irrigation works, canals and the like. He is the *ex-officio* professional adviser to all departments in respect of public works. He is also a member of the Regional Transport Authority and other similar committees in the district. The powers of the Executive Engineer, with reference to repairs and special repairs of works, have also been specified. He has powers to accept tenders upto Rs. one lakh provided the excess, if any, of the tender amount does not exceed 8 per cent over the sanctioned estimate as recast on the basis of current schedule of rates. In addition to these various functions, the Executive Engineer has also to perform the functions of an Irrigation Officer under the Mysore Irrigation Act, 1965.

The Executive Engineers are assisted by Assistant Engineers, Junior Engineers, Supervisors and some ministerial staff. There is an Assistant Engineer in each taluk headquarters in charge of a

sub-division to assist the Executive Engineer in the execution of public works. The Tumkur Division has one special sub-division under the charge of an Assistant Engineer at Marconahalli for the construction of Mangala Reservoir. There is also an Additional Assistant Engineer in Madhugiri Division for investigation of minor irrigation works.

Each Executive Engineer in the district is assisted in his work, in the Divisional office, by one Personal Assistant (of the status of Assistant Engineer), one Junior Engineer, two Supervisors, three Draughtsmen, one Tracer and about 20 ministerial and class IV staff.

The Assistant Engineers are empowered to execute all public works in their respective jurisdictions. They have to check-measure all the works and are responsible for the satisfactory execution of the works in their jurisdictions. They are members of the Block Development Advisory Committees in their respective jurisdictions. There are six Assistant Engineers in charge of the six sub-divisions, under each Executive Engineer in the district. Each Assistant Engineer is assisted in his work by two Junior Engineers, one Overseer, three Sub-Overseers, one Draughtsman and about half a dozen ministerial and class IV staff.

**Registration
and Stamps
Department**

The administration of the Registration and Stamps Department in the district is looked after by the Deputy Commissioner himself in his capacity as the *ex-officio* District Registrar and Collector of Stamps. In so far as these aspects of work are concerned, the Deputy Commissioner is responsible to the Inspector-General of Registration and Commissioner of Stamps in Mysore, Bangalore. He is assisted in this work by a Headquarters Assistant and some ministerial staff. Besides, there is a Headquarters Sub-Registrar at Tumkur and Sub-Registrars in all other taluk headquarters, all of whom are responsible to the District Registrar through the Headquarters Assistant.

The District Registrar exercises general control and superintendence over all the Sub-Registrars in the district. He can also, at his discretion, receive and register documents, which might be registered by any Sub-Registrar. The deposit of wills has to be made only at the District Registrar's office. The District Registrar is empowered to hold enquiries and pass orders on appeals preferred by the public against the orders of the Sub-Registrars. The Headquarters Assistant to the District Registrar is also the Inspector of Registration and, in that capacity, he has to inspect all the Sub-Registrars' offices in the district. The Sub-Registrars are responsible for registration of documents and are also *ex-officio* Marriage Registration Officers under the Special Marriages Act, 1954.

As Collector of Stamps, the Deputy Commissioner exercises such of the powers and functions as are conferred on him by the Mysore Stamps Act, 1957, and the Mysore Stamps Rules, 1958. The Headquarters Assistant to the District Registrar and his staff assist the Deputy Commissioner also in this work. The Collector of Stamps is empowered to take suitable action under various sections of the Mysore Stamps Act. He has to deal with documents which are brought to him for adjudication and to fix stamp duty and penalty on documents impounded and forwarded by Sub-Registrars.

The Deputy Commissioner, Tumkur, is in charge of the work of the Religious and Charitable Endowments Department in the district. He is the Chief Muzrai Officer of the district and, as such, has control over all the muzrai institutions in the district. He is responsible to the Commissioner for Religious and Charitable Endowments in Mysore, Bangalore, in respect of muzrai matters. He exercises supervision over the administration of the affairs relating to the muzrai institutions in his jurisdiction in accordance with the provisions of the Mysore Religious and Charitable Endowments Act and the rules made thereunder. The three Assistant Commissioners in the revenue sub-divisions and the ten Tahsildars in the taluks, who are subordinate to the Deputy Commissioner, also exercise the powers and perform the duties of Muzrai Officers in their respective jurisdictions. The Tahsildars, as Taluk Muzrai Officers, inspect all muzrai institutions in their respective taluks, and they have powers also to enquire into the claims of the temple servants and to exercise disciplinary control over them.

**Religious and
Charitable
Endowments
Department**

The district has an Assistant Director of Sericulture at Kunigal, who supervises the sericultural activities in the area. He is responsible to the Director of Sericulture in Mysore, Bangalore. He is also in charge of the sericultural activities in some of the adjoining taluks of other districts. The Assistant Director is assisted in his duties by some technical staff, such as, Sericultural Assistants, Sericultural Inspectors, Sericultural Demonstrators and Sericultural Operatives, besides some ministerial staff.

**Sericulture
Department**

There are two Government Silk Farms in the district, one at Kunigal and the other at Bilidevalaya. The Silk Farm at Bilidevalaya is under the charge of a Sericultural Assistant, assisted by one Senior Sericultural Inspector, four Sericultural Inspectors, 12 Sericultural Demonstrators and 14 Sericultural Operatives, while the Silk Farm at Kunigal is also under the charge of a Sericultural Assistant but assisted by only one Sericultural Inspector, one Sericultural Demonstrator and six Operatives.

The district has been divided into five sericultural circles with their headquarters at Kunigal, Santhemavathur, Huliurdurga, Kempanahalli and Hebbur, and each of these circles has a Government Cocoon Market and a Government Grainage. Each of these circles is under the charge of a Sericultural Inspector, assisted by Sericultural Demonstrators and/or Sericultural Operatives. Each sericultural circle has been further sub-divided into ranges and each range is under the charge of a Sericultural Demonstrator. There are, in all, 27 such ranges in the district. The duties of the technical staff of the Department in the district comprise, among other things, inspection of silkworm rearing and mulberry gardens, propaganda work, offering of technical advice and guidance to the sericulturists, preparation and distribution of disease-free and foreign-race layings, supervision over the work of silk farms, grainages and other sericultural centres.

**Social Welfare
Department**

There is a District Social Welfare Officer at Tumkur, who is responsible for the implementation of the several schemes formulated for the welfare of Scheduled Castes, Scheduled Tribes and other Backward Classes in the district. While he works under the direct supervision of the Deputy Commissioner, Tumkur, he is under the administrative control of the Director of Social Welfare in Mysore, Bangalore. At the taluk level, the District Social Welfare Officer is assisted in this work by a Social Welfare Inspector, stationed in each of the taluks. The Department also runs several social welfare institutions in the district such as nurseries-cum-women welfare centres, hostels for boys and girls, tailoring centres for women, *ashram* and residential schools, agricultural colonies and the like for the benefit of the above mentioned classes of people.

The Director of Social Welfare is also the *ex-officio* Chief Inspector of Certified Schools. For looking after this aspect of the work in the district, there is a Probation Officer at Tumkur. He is responsible to the Regional Probation Superintendent at the State headquarters through the Senior Inspector of Certified Schools, Bangalore.

**State Accounts
Department**

The Assistant Controller, Local Audit Circle, Tumkur, is the officer who is in charge of the administration of the State Accounts Department in the district. He is responsible to the Controller of State Accounts in Mysore, Bangalore. He has jurisdiction over both Tumkur and Hassan districts. The main functions of the Assistant Controller are—the auditing of the accounts of all local bodies in his jurisdiction, including Municipalities, Taluk Development Boards, Village Panchayats, Municipal and Taluk Board High Schools, Regulated Markets, Aided Hostels and Bharat Scouts and Guides. The Assistant Controller is assisted in his duties by three Accounts Superintendents—one to look after

audit work in Tumkur district, another in Hassan district and the third to look after audit work of the Village Panchayats—22 Accounts Clerks and some other ministerial and class IV staff. There is also a Probationary Accounts Superintendent attached to this circle.

The nomenclature of the Statistics Department was changed to "Bureau of Economics and Statistics" with effect from 20th March 1968, in keeping with the nature of the duties and functions that are being performed by the department. The administration of this department in the district is looked after by a District Statistical Officer, who is responsible to the Director, Bureau of Economics and Statistics, Bangalore. This officer has to collect all essential statistical data about the district from various Government departments, semi-government organisations and private bodies, and correlate and analyse them. He has to furnish those facts and figures to the head office for processing and publication. Besides compilation of general statistics, the Department has also undertaken some other schemes in the district, such as, collection of vital statistics, conducting of crop estimation surveys on food and non-food crops, national sample survey and the like. The District Statistical Officer is being assisted in his duties by four Senior Statistical Assistants, seven Junior Statistical Assistants, 11 Enumerators, one Computer, 10 Progress Assistants attached to community development blocks and some ministerial staff.

**Statistics
Department**

Prior to 1958, the administration of the Transport Department in the district was being looked after by the Regional Transport Officer of Bangalore Division, comprising five districts, with his headquarters at Bangalore. From 1st January 1958, as a result of the re-organisation of the Motor Vehicles Department, each revenue district was formed into a separate region and Tumkur district, like other districts, became an independent unit under a separate Regional Transport Officer, and has been functioning as such since then. The Regional Transport Authority of the district, which is a quasi-judicial body, is headed by the Deputy Commissioner, who is its chairman, and consists of two official and one non-official members. The Regional Transport Officer, Tumkur, is its secretary. He is the executive officer exercising the powers delegated to him by the Regional Transport Authority and also carrying out the administrative functions delegated to him under the Motor Vehicles Act. Though he works under the control of the Deputy Commissioner, he is responsible to the Commissioner for Transport in Mysore, Bangalore, in all technical and administrative matters. He is the registering authority for the district in respect of all motor vehicles and also the licensing authority in respect of drivers' and conductors' licences. He is also responsible for collection of taxes under the Motor Vehicles Taxation Acts. The Regional Transport Officer is assisted in his

**Transport
Department**

duties by two Inspectors of Motor Vehicles and some ministerial staff. His duties also include conducting of surprise checking of motor vehicles, conducting of route surveys in respect of traffic potentialities of various routes, etc.

A 30-ton capacity weigh-bridge was established in the district during 1964 to check the weight of loads the vehicles carry. There are three more Inspectors of Motor Vehicles to look after this weigh-bridge round-the-clock.

Treasury Department

Till 1964, the Deputy Commissioner, Tumkur, was the head of the Government Treasuries in the district, and the District Treasury Officer was directly responsible to him. But in 1964, the Deputy Commissioner was relieved of this additional charge of treasury functions and the District Treasury Officer was given the full charge of the Treasury Department in the district. He is now directly responsible to the Director of Treasuries in Mysore, Bangalore, which post was created in 1964 consequent on the re-organisation of the Treasury Department. The District Treasury Officer is assisted in his duties by a Head Accountant, a Deputy Accountant-cum-Stamp Head Clerk and some other ministerial and class IV staff. There is a taluk treasury in all taluk headquarters, each under the charge of a Sub-Treasury Officer. The Sub-Treasury Officers are responsible to the District Treasury Officer, who apart from supervising the District Treasury, is also empowered to inspect the taluk treasuries and supervise the work of the Sub-Treasury Officers. Since all the treasuries in the district are bank-treasuries, only pensions and savings bank cash transactions are handled by them, while the other Government cash transactions are done by the State Bank of Mysore.

CHAPTER XIV

LOCAL-SELF GOVERNMENT

THE history of local self-government in the district may be traced back to the year 1864-65 when the first Municipal Committee was established in the district headquarters town of Tumkur. That Municipal Committee began to deal, for the first time, with the civic problems of the area. Later, such committees were also set up at the taluk headquarters towns and some of the big villages. In these committees, influential men with experience began to devote their attention to the several local problems. Several of the Government departments working in the district were represented on these committees and the number of members so nominated did not exceed one-third of the total number of members. The State Government introduced, as and when necessary, suitable regulations to conduct the day-to-day affairs of these civic bodies. In the rural areas, where some practical difficulties existed in respect of forming regular municipal boards, the regulations were applied and enforced through revenue officers. The next stage in the development of local self-governing institutions was the allocation of funds. The income from *mohatarfa* tax in Tumkur town was assigned to the Municipal Committee. The levy of a tax on houses of individuals, who had been formerly exempted from *mohatarfa* tax, was also later authorised. In 1879, the system of municipal taxation was revised and only a single tax was ordered to be levied on all residential houses, except those exclusively used for religious and charitable purposes.

Originally, the administration of local funds was entrusted to the District Fund Circle in the district. The Circle was administered by a board presided over by the district's highest revenue officer and consisting of seven non-official members and of *ex-officio* members composed of the Senior Assistant Commissioner, Executive Engineer, Civil Surgeon and all the Amildars of the taluks in the Circle. As a measure of improvement, the Mysore Local Boards Regulation II of 1902 was ushered in, superseding all previous orders. Under this Regulation, Taluk Boards were established in all the ten taluks of the district. In the same year,

Early
history

Local Boards
Regulation,
1902

another local self-governing institution, called the District Board, was also constituted consisting of elected representatives from the taluks. In the early years, 76 per cent of the local cess on *abkari*, forest and other items, except land revenue, constituted the finances of the local funds. This was reduced to 67 per cent in 1908. The District Board ran schools and dispensaries and looked after the roads in the interior. The sanitation and public health needs of the district, except in areas where municipalities existed, were also attended to by the District Board.

Village Panchayats

Prior to the constitution of village panchayats in big villages or groups of villages, village improvement committees were in existence for some time. It was intended to place on a statutory basis all these committees, which had attained a fair amount of efficiency, and to notify them as panchayats. The majority of the members of these panchayats were to be elected including its chairman. The panchayats were also given some financial autonomy subject to a general supervision by the Taluk Boards. The panchayats, besides having their own funds accruing from house-tax, taxes on vacant village sites and other items, were also to have a definite portion of the local cesses from *mohatarfa* apart from any Government contributions they might receive. Each panchayat consisted of not less than five and not more than twelve members, half of whom were elected. The obligatory functions of the panchayats were looking after village sanitation, communications and general welfare of the rural population.

Increase in elected seats

When the Municipal Committees were firmly established, the Government, as a matter of policy, set about reforming the pattern and structure of municipal committees. In February 1914, a committee was appointed to consider improvements necessary in the constitution and functions of local bodies. In May 1914, a second committee was set up to investigate the scope of operation and organisation of local funds and propose measures for their revision and for placing local finances on a satisfactory footing. The reports of these two committees were published in 1915 and, in the wake of these important reports, a Local Boards Conference was held in June 1915 to discuss the whole question of reforms in local self-government. As a result of the deliberations of this conference, the Government passed orders effecting certain changes in the municipal administration. All the non-regulation municipalities were converted into classified local self-governing bodies called City, Town and Minor Municipalities according to their population and importance. The introduction of an elected majority in major municipalities and an increased elected element in other municipalities formed a particular feature of these reforms. Gradually, the control of primary education was transferred to local bodies. The number of elected seats on the town municipal councils was increased from one-third to one-half of the total

strength of the councils. The strength of the *ex-officio* councillors on the town municipal councils was reduced as the years went by.

With a view to improving the working of the local bodies, a new regulation called the Mysore Local Boards and Village Panchayats Regulation VI of 1918 was passed. Under the provisions of this law, the number of members in the District and Taluk Boards was increased in order to provide for an elected majority in them and independent powers were given to the Taluk Boards subject to a general control by the District Board. The Taluk Boards were also allotted separate funds. This Regulation also authorised the village panchayats to undertake ordinary maintenance of roads, sanitation, water supply, drainage and other improvement works. The panchayats were also empowered to levy a cess for any of these purposes. By another regulation called the Mysore Local Boards and Village Panchayats Amending Regulation of 1921, the development of the areas, with particular attention to education, agriculture and industries, was included in the administrative purview of the District Board. The Regulation also empowered the Board to levy an education cess not exceeding one anna in the rupee on all items of revenue.

Later
Legislations

In 1923, a conference of local bodies in the State was held for suggesting measures to the Government for improving the working of the local self-governing institutions. The Government accepted the recommendations of the conference for abolishing the Taluk Boards and Village Improvement Committees and for placing the village panchayats on a statutory footing. It had been found that the Taluk Boards did not possess adequate resources to undertake any substantial development works and their working had not been satisfactory. They were, therefore, abolished in 1927. The District Boards Act was amended and the constitution of village panchayats was regulated by a separate enactment passed in the same year. It was laid down that the panchayats should have 5 to 12 members, at least half of whom were to be elected. The chairman of the panchayat was to be nominated by the Government in the initial stages and the right of election of the chairman was conceded to such of the panchayats as were found to be working satisfactorily. In order to enable the panchayats to function efficiently, they were empowered to levy certain taxes as already stated. They were to function under the guidance of the Amildar.

Taluk Boards

With a view to investing the local bodies with the management and control of elementary education, the Elementary Education Act, 1930, was passed and primary education became the responsibility of the local authorities with effect from 1st July 1931. By an amendment effected in 1932-33 to the legislation relating to municipalities, wider suffrage was introduced for minor municipalities

also and the elected element in the municipal councils was increased. These measures helped to improve the working of these institutions to a certain extent.

After the attainment of Independence several far-reaching changes were introduced in order to improve the administration of local self-governing bodies. The most striking among them was the introduction of adult suffrage in all municipal and panchayat areas and the total elimination of the nominated element in the constitution of the councils. According to the provisions of the Town Municipalities Act, 1951, the distinction known as major and minor municipalities was abolished. The privilege of electing their presidents and vice-presidents was extended to all the town municipalities.

**Mysore
Municipalities
Act, 1964**

With a view to bringing about uniformity in respect of municipal administration throughout the new Mysore State, a new statute called the Mysore Municipalities Act, 1964 (Mysore Act XXII of 1964), was passed and it came into force from 1st April 1965. This new regulation introduced several changes in the municipal administration. Under the Mysore Town Municipalities Act, 1951, 15 councillors were being elected if the population of the town did not exceed 10,000, and 20 councillors, if the population exceeded 10,000. But under section 11 of the new Act, the number of councillors to be elected is 15, if the population of the town does not exceed 20,000. It also provides for an increase of four members for every 10,000 of population in excess of 20,000. While under the 1951 Act, the term of office of the president and vice-president was two years from the date of election, the new Act has provided for a term of four years. It is, however, open to the Municipal councils concerned, under the new Act, to hold elections to the offices of president and vice-president every year. Under Section 340 of the 1964 Act, the Chief Officer has been given the right to attend the meetings of municipal councils or any of its committees and to take part in the discussions, without, however, the right to move any resolution or to cast a vote. Formerly, the Chief Officer had no such right; but he was allowed only to give an explanation in regard to any subject under discussion at such meetings with the prior permission of the president or by virtue of a resolution passed to that effect at any meeting of the municipal council or of any committee. Elections to the municipalities are now being held and the municipal councils reconstituted under the provisions of the new Act.

MUNICIPALITIES

There are eleven town municipalities in the Tumkur district, viz., Tumkur, Kunigal, Gubbi, Madhugiri, Koratagere, Sira,

Pavagada, Y.N. Hoskote, Tiptur, Chiknayakanahalli and Turuvekere. The municipal councils consist of representatives of different delimited divisions of the municipal areas. These civic representatives are called members and they are empowered to elect, from amongst them, the president and the vice-president. Elections are held every four years on the basis of adult franchise. The main duties of the president are to preside over the meetings of the municipality and to watch over the financial and executive administration. He also exercises supervision and control over the acts and proceedings of all officers and officials of the municipality. The vice-president performs all the functions of the president in his absence. The Municipal Act has laid down various important functions which include matters relating to sanitation, health, maintenance of roads, regulation of markets and sale of goods, provision of educational and recreational facilities, safety and public convenience. The other functions include establishment and maintenance of parks, gardens, libraries and rest houses. A statement showing the receipts and expenditure of the eleven municipalities in the district for the years 1965-66, 1966-67 and 1967-68 is appended at the end of the chapter.

The Town Municipal Council of the headquarters town of the district is the oldest in the district. It was established first as a Municipal Committee in 1864-65. The jurisdiction of the Municipality extends to $7\frac{1}{2}$ square miles and it had a population of 47,277 according to the 1961 Census. The municipal area had 8,286 houses in 1961; the rates and taxes collected during 1967-68 amounted to Rs. 5,84,870 and the income from other sources was Rs. 3,74,520. The present Municipal Council was reconstituted with effect from 10th August 1964 for a period of four years as per a Government Order dated the 10th August, 1964 and the term has since been extended upto the end of December 1968. The Council consists of 20 elected members, out of whom one is elected for a reserved seat.

**Tumkur
Municipal
Council**

Water supply.—Protected water is supplied to the inhabitants of the town through taps. There were, during the year 1967-68, 4,019 house taps and 480 public taps in the town. The sources of water supply to the town are the Maidala tank and 16 bore-wells. Out of these wells, six are situated in Kunigal road and 10 are located in Belagumba road. Improvement works at an estimated cost of Rs. 4,12,000 were completed a few years back by the Public Works Department, with a view to bettering the water supply position in the town. The Public Works Department completed also the works in connection with the harnessing of the bore-wells at the Kunigal gate at an estimated cost of Rs. 1,62,000 and arrangements were made to supply water to the people of the town from this source also. The scheme for enhancing water

supply to the town by harnessing the bore-wells in Devarayana-durga road has also been implemented by the Municipality.

Public health and sanitation.—The two Health Inspectors, one in the senior and another in the junior scale, are working in this Municipality. Four lorries have been maintained, of which three are allotted exclusively for conveyance of rubbish, etc., to Maralur and Belagumba compost-yards for keeping the town in a sanitary condition. The other lorry is used for watering the roads, conveyance of materials for road works, etc., and is allotted to the public works section. A full-time vaccinator is employed by the Municipality for attending to vaccination work in the town. He also maintains the births and deaths register. The Municipality is also maintaining a separate staff for attending to the work of spraying of anti-malaria and other disinfectants, for chlorination of wells, etc. There were 25 public lavatories during 1967-68 and six carts were maintained for the removal of night soil. There were 111 sweepers and six daffedars apart from the two Health Inspectors, on the conservancy staff of the Municipality. The town has had no underground drainage system. A survey for effecting underground drainage has been completed and steps are being taken to implement this scheme at a cost of Rs. 8 lakhs.

Other public amenities.—There are six municipal parks in the town and the Municipality spent about Rs. 7,000 for their up-keep during the year 1967-68. The Government Horticultural Department also assists the Municipality in their proper maintenance. There are three vegetable markets in the town, of which the Sri Krishnarajendra Vegetable Market is the biggest, catering for the major portion of the population. The other two market buildings are in Someshwarapura and B. G. Palya, situated at a little distance from the extensions. The town was electrified in the year 1928 and there were 1,045 street lights within the limits of the town, in July 1968. Of these, 751 were goose-neck, 21 ornamental, six five-way cluster and 261 fluorescent tube lights. The expenditure under power and lighting had increased by over 50 per cent in recent years. The Municipality has not maintained any educational institution, but it is giving an annual grant of Rs. 25,000 to the Siddhaganga Institute of Technology, besides grants-in-aid to various other institutions, libraries, societies and reading rooms. The total road mileage under the municipal administration is about 158, of which, about one mile is cement-concreted, 36 miles are tarred, 61 miles are metalled and 60 miles are *katcha* roads. About 75 jutkas, 800 carts and 3,000 cycles ply daily within the municipal limits.

The Tiptur Town Municipal Council was first established in the year 1921. There were twenty members on the Council then, of whom three were *ex-officio* members, they being the Amildar

Tiptur
Municipal
Council

of the taluk, local Sub-Assistant Surgeon and the Public Works Department Overseer. Four other councillors were also being nominated by the Government and the remaining thirteen were being elected by the rate-payers of the town. The Amildar used to preside over the meetings of the Council. This system continued till the year 1931 when the members of the Council were allowed to elect their own president and vice-president from amongst themselves. In accordance with the provisions of the Town Municipalities Act of 1933, a Chief Officer was appointed for the Municipality. The Municipality was later re-constituted in accordance with the provisions of the Town Municipalities Act, 1951. Elections to the Municipal Council were held on the basis of adult franchise and twenty members were elected at the rate of one member for each division, the entire town area being divided into twenty divisions. One seat was reserved for the Scheduled Castes. Later, in 1960-61, the town was delimited into four divisions and each division was required to elect five members to the Council as its representatives. One seat continues to be a reserved seat for the representation of the scheduled Castes on the Council. The population of the town was 15,558 according to the 1961 Census. The jurisdiction of the Municipality extends to 1.50 square miles. The town area had 2,780 houses in 1961 and the municipal rates and taxes collected during 1966-67 amounted to Rs. 8,04,648.

As in July 1968, there were two extensions in the town with good lay-outs. The extension that is situated to the west of the town is called the Sri Krishnarajendra Extension, while the one located on the southern side of the town is known as Gandhinagar Extension. Houseless persons are purchasing sites in these extensions for constructing houses, and some of them have already erected their own buildings.

Water supply.—Water is being supplied to the inhabitants of the town from eleven bore-wells equipped with three air compressors—one of 80 H.P. and two of 60 H.P. each. The daily average supply of water per head is 15 gallons. Three over-head tanks have been constructed in Krishnarajendra and Gandhinagar extensions and in the town, having a capacity of 75,000, 25,000 and 24,000 gallons, respectively. There were 132 public taps and 1,354 private connections in the town limits in July 1968.

Health and sanitation.—The town has no underground drainage system. Surface drains have been provided throughout the municipal area. There is a proposal to construct underground drains at an estimated cost of about Rs. 20 lakhs by taking a loan from the Government. Two Health Inspectors, assisted by two daffedars and 51 scavengers are in charge of the sanitation

work. The Municipality is maintaining a lorry and three night-soil carts for transporting rubbish and night soil outside the municipal limits.

Other public amenities.—The Municipality is running a nursery school known as Gayathri Shishuvihar. It is also giving grants for the maintenance of a public reading room, a Sanskrit Pathashala and the Karnataka Sangha in the town. There are three parks in the town; one is situated in the Municipal office compound itself, the second in the Krishnarajendra Extension and the third in the Gandhinagar Extension; radio sets have been installed in these parks to provide entertainment to the people in the evenings.

The town was electrified on 10th January 1941. As in July 1968, there were 314 street lights, including 80 mercury vapour lamps.

Roads and conveyances.—The total road mileage under the jurisdiction of the Municipality was about 13, of which, six miles were tarred and the rest were metalled or *katcha*. The number of vehicles plying on the roads daily, on an average, was—motor cars 45, lorries 35, cycles 1,500, motor cycles 10, jutkas 13, and bullock-carts 200.

The Kunigal Town Municipal Council was first established in the year 1918. In 1957, it was re-constituted in accordance with the provisions of the Town Municipalities Act, 1951. Elections were held on the basis of adult franchise for the 15 seats on the Council. The population of the town was 10,566 according to the 1961 Census, and the Municipal Council had jurisdiction over an area of 2.50 sq. miles. There were 1,948 houses in the town in 1961. The municipal area has been divided into five divisions, each division returning three members to the Municipal Council. There is no special representation for women or any other interest on the Council. The Municipal Council was re-constituted in accordance with the provisions of the Mysore Municipalities Act, 1964, in June 1968.

Water supply.—Protected water is supplied to the people of the town through taps from five bore-wells. Two over-head tanks each with a capacity of 10,000 and 5,000 gallons of water, have been constructed by the Municipal Council with a view to further improving the water supply position. There were 120 public taps and 400 private connections in the town in July 1968.

The town has no underground drainage system. Surface drains have been provided throughout the municipal area. The sanitation staff consists of a Senior Health Inspector, a conservancy

daffedar, 18 sweepers and three scavengers. The Council has entered into a contract for the removal of rubbish and night soil to the compost yard.

Other amenities.—The Municipality is running a nursery school, which is under the charge of a mistress and a conductress. The Government also provide grants to the school. There is a municipal park in the town with a community radio set; another radio set has also been installed in the A.K. Colony. The town was electrified during the year 1938. There were 150 street lights in the town in July 1968. In 1968, the total road mileage under the jurisdiction of the Municipal Council was 9.33, of which 2.70 miles were tarred and 6.63 miles were *katcha*. The daily average number of vehicles plying within the municipal limits in 1968 was—buses 90, cycles 400, bullock carts 200 and jutkas 2.

The Chiknayakanahalli Town Municipal Council was first established in the year 1918 as a Minor Municipality. It was reconstituted in the year 1951 in accordance with the provisions of the Town Municipalities Act, 1951. Elections were held on the basis of adult franchise and fifteen councillors were elected at the rate of one member from each of the fifteen divisions of the town. The town has now been divided into five territorial divisions and three members have been elected from each division as per the new Act of 1964. There is provision for reservation of a seat for the Scheduled Castes and another for ladies. The Council was reconstituted in August 1968 in accordance with the provisions of the Mysore Municipalities Act, 1964. The population of the town was 10,375 according to the census of 1961. The Council had jurisdiction over an area of 1.40 square miles and there were 2,595 houses in the town in 1968. New extensions have been laid out to the north and south of the town.

Chiknayaka-
nahalli
Municipal
Council

Protected water is supplied from seven borewells equipped with air compressors. In 1968, there were 175 public taps and 450 private connections in the town. Sylk pattern 'U' shaped drains have been provided in the town area at a cost of Rs. 50,000. A Junior Health Inspector, assisted by two conservancy daffedars, 23 sweepers and five scavengers, was in charge of the sanitation work in the town in 1968. The Municipality is giving a grant towards maintenance of a *Shishuvihar* established by the local *Mahila Samaj*. A reading room is being run by the Municipality with Government aid. The Council is maintaining also two parks for the recreation of the public.

The town was provided with electric lights on the 15th May 1960. In 1968, there were 250 street lights in the town area. In that year, the Municipal Council was maintaining 26 kilometres of roads, of which 5½ kilometres were tarred, 8 kilometres metalled

and the rest were *katcha*. The average number of the various vehicles plying daily within the municipal limits was—buses 30, lorries 20, motor cars 2, motor cycles 15, cycles 300 and bullock carts 300.

Sira Municipal Council

The Town Municipal Council, Sira, was first established in 1906 and the boundaries of the town were fixed in the year 1918. The Municipality was reconstituted in 1951 in accordance with the provisions of the Town Municipalities Act, 1951. The elections were last held in March 1965 and 20 members were returned to the Council at the rate of one member for each division, the town being then divided into twenty divisions. One seat had been set apart for the Scheduled Castes. The Municipal Council has jurisdiction over an area of one square mile, and there were 2,567 houses in the town in 1961. The population, according to the census of 1961, was 15,408 persons. The main items of revenue were from octroi and *mohatarfa*, which were expected to yield Rs. 91,000 and Rs. 24,000, respectively, during 1967-68.

Water supply.—Protected water is supplied to the people from six bore-wells. The total daily average supply was formerly 80,000 gallons, but due to some defects in the machinery, the supply has now been temporarily reduced to 24,000 gallons. There are 133 public taps and 412 private water connections in the town. In order to provide sufficient supply of water to the citizens, the Council has finalised a scheme for getting water from the Kallukote valley, which is at a distance of about one-and-a-half miles from the town. The estimated cost of this scheme is rupees seven-and-a-half lakhs. A test well sunk in the valley disclosed that the yield of water per hour was about 50,000 gallons. The scheme was awaiting sanction of Government.

Health and sanitation.—The Municipal Council is maintaining one Junior Health Inspector, two conservancy peons and 32 sweepers and scavengers to look after the general sanitation of the town. A tractor is also maintained for the removal of rubbish. The drainage provided in the town at an estimated cost of Rs. 30,000 is of the Sylk pattern and also of box type.

Education.—With Government aid, the Municipality is running a combined Higher Secondary School and it spends about Rs. 10,000 per year for the purpose. There are two parks in the town maintained by the Municipality; one is situated in the town hall compound and the other on the Sira-Madhugiri road. The town was provided with electricity on the 17th August 1951. There were, as in July 1968, 441 street lights, five suspension lights and two ornamental bunch lights within the municipal limits. The Council was maintaining, in that year, 18 miles of roads, of which 3 miles were tarred, 10 miles metalled and the rest were

katcha roads. About 100 buses, 200 lorries, 100 cycles and 50 carts run on these roads daily.

The Gubbi Town Municipal Council was first constituted as a Minor Municipality in August 1909. It was later reconstituted under the Town Municipalities Act, 1951. According to the 1961 Census, the town had a population of 8,543, and there were 1,395 houses. The area of the Municipality is 2.10 square miles. Prior to 1960, there were fifteen divisions in the town, each division returning one member to the Council. Now, the town has been divided into only three divisions and five members are elected from each division. In the third division, one seat has been reserved for the Scheduled Castes. There are three extensions in the town. A new extension for the Harijans has also been formed; a number of sites have been granted and many of the grantees have constructed their houses.

The town has no underground drainage system. But surface drains have been provided throughout the municipal area. Protected water is provided to the people and about 30,000 gallons of water are being supplied daily. There are about 220 house connections and about 100 public taps in the town. There is also a vegetable market maintained by the Council.

One Higher Secondary School, preparing students from the VIII to XI standard examinations, is being run by the Municipality with Government aid. Arrangements have been completed for starting a Girls' High School from next year. There is a municipal park in the town hall compound; a library and a reading room are also maintained in the town hall.

Electric lights were provided for the town in December 1934. There were 220 street lights, including 20 fluorescent tube lights, in the town in 1968. The Municipal Council is maintaining eleven miles of roads, of which one mile is tarred and the rest metalled. About 150 carts, 400 cycles and three jutkas are plying within the municipal limits daily.

Till the year 1952, the Turuvekere Municipal Council was functioning as a Minor Municipality. It was raised to the status of a Town Municipality in 1952 in accordance with the provisions of the Mysore Town Municipalities Act, 1951. The area of the Municipality is 1.30 square miles and the population of the town, according to the 1961 Census, was 4,983, and there were 928 houses. There were fifteen members in the Council, elected under the 1951 Act, from three divisions of the town, each division returning five members. Two seats were reserved in the I division for the Scheduled Castes according to the Town Municipalities Act, 1951. The Municipal Council is to be reconstituted shortly in accordance

with the Mysore Municipalities Act, 1964. With a view to relieving congestion and removing the slums from the town, three extensions have been formed, namely, Vinobanagar, Subramanya Extension and Gandhinagar.

Water supply.—At present, chlorinated water is being supplied to the town from eight deep drawing wells. There were 49 public taps and 352 private connections, in 1968. There is also a drinking water pond in the town. In addition, there are 35 private wells and a big tank whose water is also being utilised for other household purposes. A scheme for the supply of protected water has been sanctioned by the Government, who have allotted a loan of Rs. 3,90,000 for the purpose. The work which has been entrusted to the Public Works Department authorities has rapidly progressed. Three bore-wells have already been sunk and the work of constructing over-head water tanks has also been completed. After the completion of the scheme, about 10 gallons of protected water, per head, are expected to be supplied daily.

There is no underground drainage system in the town. It has only surface drains of the Sylk pattern and of box type. The Council has purchased a tractor with a trailer at a cost of Rs. 33,000 to remove the rubbish from out of the town limits, which is utilised for manufacturing compost. There are 15 sweepers and three scavengers in the Municipality, under the charge of a Junior Health Inspector who attends to sanitation of the town. The Junior Health Inspector maintains the register of births and deaths, and submits monthly returns to the Director of Economics and Statistics. He also attends to vaccination work.

The Municipality is running a High School, aided by the Government under the grant-in-aid rules, and also a *Shishuvihar*. The Council is maintaining a park in front of the town hall. The town was electrified during 1952. There were 150 street lights, including seven fluorescent lamps, in 1968. The Municipal Council is maintaining 30 kilometres of roads, of which four kilometres are black-topped, 16 kilometres metalled and the rest are *katcha*. The daily average number of various conveyances moving on the roads within the jurisdiction of the Municipality is—buses 18, lorries 15, cars 3, cycles 125 and carts 90.

The Town Municipal Council, Madhugiri, was constituted under the Town Municipal Regulations of 1928. The town is situated in a compact place surrounded by hills all round, Madhugiri hills, with the old fortress, being the highest among them. It is the headquarters of the sub-division consisting of four taluks. It is also a divisional headquarters of the Public Works Department, with an Executive Engineer in charge of the division. Under the Town Municipalities Act, 1951, the Municipal Council

was reconstituted and it consisted of 15 elected members, two seats being reserved, one for the Scheduled Castes and the other for women. The present jurisdiction of the Municipality extends to 1.20 square miles and the population of the town, according to the 1961 Census, was 11,275 and it had 3,010 houses during 1966-67.

Extensions have been formed adjoining the high school and middle school playgrounds. An extent of 18 acres of land has been converted into sites and disposed of in public auctions and also for upset prices. Drains, roads and sanitary arrangements have been made in the extensions and protected water is also supplied. The main sources of water supply to the town consist of three bore-wells, two situated at Lingenahalli and one near the *Pravasi Mandir* and a deep well in the extension. Over 30,000 gallons of water are distributed through two over-head tanks of 25,000 and 4,000 gallons capacity, respectively. Since this is found to be inadequate for the growing population, details of a comprehensive scheme for water supply at an estimated cost of Rs. 2.26 lakhs are being worked out. There were 80 public taps and 340 private connections in the town in 1968.

Health and sanitation.—The town has the following types of surface drains :

(i) Box drains	..	..	4,623 R.ft.
(ii) Sylk pattern drains	..	..	46,700 R.ft.
(iii) 'L' shaped drains	..	..	3,945 R.ft.

A Senior Health Inspector looks after the sanitation arrangements in the town. He also conducts vaccinations and maintains the register of births and deaths, submitting monthly returns to the Director of Economics and Statistics. There are 28 sweepers, eight scavengers and a daffedar on the conservancy staff. A tractor, together with a trailer, has been purchased by the Municipality for the removal of rubbish from the town.

Other amenities.—The Municipality is not maintaining any educational institution, but is giving a grant of Rs. 150 annually to the *Shishuvihar* run by the local *Mahila Samaj*. It is maintaining a park near the town hall and also a fountain in the centre of the park. The town was electrified in the year 1942 and there were 232 street lights, 15 fluorescent fittings, 15 mercury lamps and one ornamental cluster light in the town, in 1968. During the year 1966-67, a sum of Rs. 33,425 was paid towards lighting and power charges. The Municipality is maintaining about 10 kilometres of roads, of which 1.4 kilometres are tarred, 5.7 kilometres metalled and the rest *katcha*. The daily average of the various types of conveyances moving on the roads within the municipal limits is—buses 56, lorries 20, cars 20, cycles 400 and carts 75.

Pavagada
Municipal
Council

The Town Municipal Council, Pavagada, was functioning as a Minor Municipality till the year 1951. In that year, it was raised to the status of a Town Municipality in accordance with the provisions of the Town Municipalities Act of 1951. The town was divided into four divisions, three divisions electing four members and one division electing three members. The Municipal Council was reconstituted with effect from the 7th August 1964. There are 15 elected members on the Council, of whom two belong to the Scheduled Castes. The area of the Municipality is 0.30 square mile and the population of the town, according to the 1961 Census, was 5,913, and there were 996 houses.

Water is supplied to the town from five bore-wells. There were 30 public taps and 76 private connections in the town, in 1968. The town has mainly box-shaped Sylk pattern surface drains. Some areas have 'V'-shaped drains also. There is a Health Inspector who attends to sanitation and vaccination work and maintains the births and deaths register.

The Municipality is running a Higher Secondary School, providing instruction upto XI standard classes, and also a *Shishuvihar*. The town was electrified in 1957 and it had 102 street lights in 1968. The Municipality is maintaining 22 miles of roads, of which four miles are tarred and the rest *katcha*. The average number of the various types of conveyances plying on the roads daily is—lorries 8, buses 33, carts 7, cycles 155 and carts 113.

Y. N. Hoskote
Municipal
Council

The Town Municipal Council at Y. N. Hoskote (Yellappa Nayakana Hoskote) was constituted in August 1954, in accordance with the Town Municipalities Act, 1951. There are 15 elected members. The area of the Municipality is 0.80 square mile and the population of the town, according to the census of 1961, was 4,790. The town is now divided into four electoral divisions—'A' division returning three, 'B' division four, 'C' division five and 'D' division three members to the Council. The town is well-planned and contains two extensions on its eastern and western sides. There were 741 houses in the town in 1961.

Water supply.—The town is situated in a rocky area surrounded by hills. The average rainfall in the town is only 10 to 12" in the year and the people are finding it extremely difficult to obtain adequate supplies of water for their daily needs. The present sources of water supply to the town consist of 12 deep drawing wells. People have to draw water from a depth of 70 to 80 feet with great difficulty. The Government sanctioned a grant of Rs. 18,750 for the construction of an over-head tank in the town under an emergency water supply scheme. There were 39 public taps and 61 private connections in the town in October 1968. The Government have also sanctioned a loan of

Rs. 1,75,000 for sinking two new wells in 'C' and 'D' divisions and deepening a well situated in Shankaramatha.

The town has been provided with box-type and 'V'-shaped Sylk pattern surface drains. There is a Health Inspector who supervises the sanitation work in the town, which is attended to by eight sweepers and one daffedar. He maintains the births and deaths register and also attends to vaccination work. The Municipality is running a *Shishuvihar*; fifty per cent of the maintenance cost of this institution is met by the community development block, Pavagada. The town was electrified on 15th August 1957. There were 106 street lights in the town, including two tube lights, in October 1968. The total road mileage under the municipal administration is three miles and three furlongs, of which four furlongs are tarred, two miles and four furlongs metalled, the rest being *katcha* roads. The average number of the various categories of vehicles plying within the municipal limits daily is—buses 15, lorry 1, cycles 121 and carts 100.

The Town Municipal Council, Koratagere, was first constituted as a Minor Municipality on the 1st January 1947, in accordance with the Mysore Minor Municipalities Act, 1938. It was later reconstituted in accordance with the Town Municipalities Act, 1951, with 15 members on the Council. The area of the Municipality is 0.90 square mile and the population of the town, according to the 1961 Census, was 4,301. There were 809 houses within the municipal limits in 1961.

Koratagere
Municipal
Council

Water supply.—The source of water supply to the town consists of a big well, situated near the Suvarnamukhi river. An electric motor pump has been installed near the well, which pumps water direct to the R.C.C. tank constructed close by, and from there, protected water is supplied to the people through taps. There were 270 house connections in the town, while the number of public taps was 59, in October 1968. The daily consumption of water is about 40,000 gallons.

The town has 'V'-shaped Sylk pattern surface drains. Box-type drains have also been provided in a few areas of the town. The Municipality has a Health Inspector, who supervises the sanitation work in the town, which is attended to by twelve sweepers. He maintains the register of births and deaths and attends to the vaccination work also. There is a municipal park near the town hall. The town was electrified in the year 1947, and there were 112 street lights, in October 1968. The total road mileage under the municipal administration was four, of which two furlongs were tarred, two miles and two furlongs metalled, the rest being *katcha* roads. The average number of the various

categories of vehicles plying within the municipal limits, daily, was—car 1, lorry 1, taxi 1, motor cycles 5, cycles 260 and carts 80.

VILLAGE PANCHAYATS

A new regulation called the Mysore Village Panchayats and Local Boards Act, 1959, came into force in the year 1959. As a result, the District Boards were abolished and a three-tier development-oriented system of local self-governing institutions was introduced, consisting of Village Panchayats, Taluk Development Boards and the District Development Council. It was envisaged that a panchayat should be established in every revenue village or a group of villages, having a population of not less than 1,500, but not more than 10,000. Each panchayat should have not less than 11 and not more than 19 members, with reservation of seats for the Scheduled Castes and Tribes in proportion to their population. Two seats are reserved for women in each panchayat. The Government have powers to notify a village panchayat as a town panchayat, if the population of the place is more than 5,000.

Re-constitution of Panchayats.—Panchayat elections were held in the district in March and June 1968, and 560 village panchayats were reconstituted in accordance with the Mysore Village Panchayats and Local Boards Act of 1959. These panchayats cover 2,444 *chirak* and 281 *bechirak* villages, having a total population of 12,28,413 and consist of 7,223 members, including 1,125 members belonging to the Scheduled Castes and Tribes and 1,125 lady members. All the panchayats have their chairmen and vice-chairmen elected under the relevant provisions of the Act. A statement giving particulars about the re-constituted panchayats, taluk-wise, is appended at the end of the chapter.

Village Accountants have been appointed as *ex-officio* Secretaries to many of the panchayats. Wherever village accountants and village officers, who are trained and duly qualified, are not available, village-level workers are appointed as Panchayat Secretaries, on a temporary basis, in addition to their own work. During the year 1966-67, 415 Panchayat Secretaries were working in the district. The panchayats conducted 4,058 meetings during the year, of which 1,376 meetings were adjourned for want of quorum. The average attendance of members was about eight per meeting. All the panchayats have formed three committees, namely, Agricultural Committee, Health Committee and Village Industries Committee. The average attendance of members at these committees was about five. The panchayats are assigned about 85 per cent of the land revenue of the area so as to enable them to carry on the duties entrusted to them.

Seventy-eight panchayats undertook construction of 87 drinking water wells at a total cost of Rs. 1,03,830 during 1966-67. In all, 122 panchayats repaired 149 wells at a total cost of Rs. 63,813. Seventy-one panchayats formed about 78 kilometres of roads at a total cost of Rs. 23,344; 33 panchayats took up construction of about 1,342 metres of new drains; 92 panchayats were having cattle pounds and a sum of Rs. 20,424 was derived as income from them during the year. During the same year, 315 panchayats prepared Agricultural Production Plans and made efforts to implement them. About 38,200 cultivators participated in the Plan programme and an extent of 1,29,630 acres of land were sown with ragi and jowar, and 37,729 acres with paddy. For this purpose, the cultivators were supplied with 2,550 quintals of improved seeds of ragi and jowar, and 6,736 quintals of paddy. In addition, about one lakh tons of fertilizers were also supplied. Due to unfavourable seasonal conditions during the year, however, the targets fixed for production could not be fully achieved.

Other ameliorative measures.—Two hundred and thirty-three panchayats, in all, contributed a total sum of Rs. 26,195 as grant-in-aid to *Mahila Samajas*, *Shishuvihars* and mid-day meals schemes, during the year 1966-67; 276 panchayats are maintaining libraries in the district. Twelve panchayats obtained grants for afforestation and for construction of bus-stands and hotel buildings. One panchayat in Kunigal taluk obtained a loan of Rs. 5,000 and also a grant of Rs. 5,000 for constructing a vegetable market. Another panchayat in Koratagere taluk obtained a total sum of Rs. 10,000 as loan and grant for constructing a hotel and shop buildings.

Financial position.—At the beginning of the year 1966-67, the arrears of panchayat taxes, fees and the like stood at Rs. 11,43,851. The demand for the year was Rs. 4,31,332 and the collections, as disclosed by the annual reports, amounted to Rs. 2,51,985, leaving a balance, as on 31st March 1967, of a large sum of Rs. 13,23,199. The total income of the panchayats from all sources, during the year, was Rs. 16,91,349 and the expenditure, Rs. 16,75,576. A statement of income from different sources and expenditure under different heads is appended at the end of the chapter.

TALUK DEVELOPMENT BOARDS

In place of the old District Board of Tumkur, Taluk Development Boards have been established, one for each revenue taluk, excluding the areas served by the Town Municipalities. The taluks having a total population of a lakh and above are provided with a Board consisting of 19 members. In other taluks, where the total population is less than a lakh, the Board consists of 15 members. The members of the Taluk Development Board are

elected on the basis of adult franchise. For purposes of election, the revenue taluk area is divided into a number of constituencies. Seats are reserved for the Scheduled Castes and Tribes in proportion to their population. In each Taluk Board, not more than two seats are also reserved for women.

Under the relevant provisions of the Mysore Village Panchayats and Local Boards Act of 1959, the Taluk Development Boards have to supervise and guide the work of the panchayats. Effective co-ordination is envisaged between the panchayats and the Taluk Development Board. A sizeable grant, i.e., to the extent of 25 per cent of the land revenue of the area is assigned by the Government to the Taluk Boards to carry on the duties entrusted to them. The entire local cess on land revenue and the water cess collected in the area are also assigned to the Board. In addition to this, the Taluk Boards have powers to levy a duty on transfer of immovable properties in the shape of an additional stamp duty and a tax on animals brought for sale. The Block Development Officers are the Chief Executive Officers of these Boards.

Elections.—Elections to all the 10 Taluk Development Boards were held in 1960 and also later in 1968. In the 1960 elections, 168 members were elected, of whom 80 belonged to the Scheduled Castes and Tribes. In all, there were 15 lady members. The following table shows the strength of members in each of the Taluk Boards :—

Sl. No.	Taluk Board	Number of members		
		General	Scheduled Castes and Tribes	Women
1.	Tumkur	13	4	2
2.	Kunigal	13	2	2
3.	Gubbi	14	3	2
4.	Turuvekere	12	2	1
5.	Chiknayakanahalli	12	2	1
6.	Tiptur	12	2	1
7.	Madhugiri	13	4	2
8.	Sira	13	4	2
9.	Koratagere	11	3	1
10.	Pavagada	10	4	1
Total		123	30	15

The Taluk Development Boards have constituted, under Section 124 of the Act, functional sub-committees, and, in all, there

are 140 such sub-committees relating to various development works.

Achievements.—All the Taluk Development Boards took up new works of formation of roads and construction of causeways and culverts and incurred an expenditure of Rs. 1,56,487 on them during the year 1966-67. The several Taluk Boards, except those of Koratagere and Tumkur, constructed primary school buildings at a total cost of Rs. 65,269 during the year. Besides several allopathic dispensaries, the Taluk Boards also maintain Ayurvedic and Unani dispensaries. A total sum of Rs. 54,095 was spent on them during the year by all the Taluk Boards, except those of Pavagada and Sira. The Taluk Boards of Tumkur, Kunigal and Gubbi incurred also a total sum of Rs. 1,71,522 for the maintenance of high schools in their jurisdictions. A sum of Rs. 1,52,264 was spent by the Taluk Boards of Madhugiri, Tiptur, Chiknayakanahalli, Kunigal, Gubbi and Turuvekere towards measures for the amelioration of persons belonging to the Scheduled Castes and Tribes. Extension of co-operation for the implementation of Plan and non-Plan schemes is a major responsibility of the Taluk Boards. They spent a total sum of Rs. 7,02,003 during the year 1966-67 for this purpose. Three statements showing the income and expenditure and financial position of all the Taluk Boards under each budget head for the year 1966-67 are appended at the end of the chapter.

DISTRICT DEVELOPMENT COUNCIL

In accordance with the provisions of Section 187 of the Mysore Village Panchayats and Local Boards Act of 1959, the State Government constituted a District Development Council for the Tumkur district with effect from 1st April 1960. This body scrutinises and approves the budgets of the Taluk Development Boards and guides and co-ordinates their work. It is presided over by the District Deputy Commissioner and consists of members of Parliament elected from the district and members of the State Legislature, also elected from the district, presidents of all the Taluk Boards, officers of various development departments, together with a member of the Scheduled Castes and a lady member. The total number of members during 1966-67 was 44.

The Council reviews the progress of various schemes under taken by the Taluk Development Boards, Village Panchayats and various Government Departments, and watches their implementation. In short, it is an advisory and co-ordinating agency for all the developmental works pertaining to the district. The Council has constituted three sub-committees to look after agricultural development, social education and rural arts and crafts.

Statement showing the number of Village Panchayats and the number of members elected and nominated in various taluks of Tumkur district in 1968-69.

Sl. No.	Name of Taluk	Number of Village Panchayats	No. of members elected and nominated	No. of Scheduled Casts and Tribe members	No. of women members
1.	Tumkur ..	72	942	179	147
2.	Kunigal ..	69	895	104	138
3.	Gubbi ..	58	750	112	116
4.	Tiptur ..	50	646	87	100
5.	Turuvekere ..	51	651	80	102
6.	Madhugiri ..	63	819	184	127
7.	Koratagere ..	33	437	87	66
8.	Sira ..	66	815	172	131
9.	Pavagada ..	56	712	180	112
10.	Chiknayakanahalli	42	556	94	86
Total ..		560	7,223	1,279	1,125

Statement showing the income of Taluk Development Boards in Tumkur district during the year 1968-69

Sl. No.	Name of Taluk Board	Land Revenue assigned by Government		Rates and taxes		Revenue derived from T.B. property and other sources		Miscellaneous	Education	Grants and contributions	Total
		Rs.	P.	Rs.	P.	Rs.	P.				
1.	Tumkur	82,593-00	..	22,000-00	..	25,000-00	..	..	41,000-00	1,000-00	7,000-00 1,78,593-00
2.	Kunigal	67,352-00	..	30,000-00	..	19,000-00	..	2,900-00	24,935-00	2,000-00	15,500-00 1,61,687-00
3.	Gubbi	42,181-00	..	19,454-00	..	15,215-00	..	18,700-00	51,409-00	76,678-00	34,839-00 2,58,476-00
4.	Madhugiri	428,94-61	..	35,097-74	..	6,483-50	..	769-11	31,063-86	1,786-01	79,923-16 1,98,017-99
5.	Turuvekere	35,738-00	..	55,716-00	..	10,417-00	..	95-00	..	..	.. 1,02,921-00
6.	Chiknayakanahalli	35,376-00	..	57,935-00	..	9,304-00	..	4,241-00	36,170-00	33,795-00	23,914-00 2,00,735-00
7.	Tiptur	53,155-00	..	15,100-00	..	4,625-00	..	24,137-00	89,500-00	3,600-00	7,200-00 1,92,317-00
8.	Sira	41,878-00	..	15,105-00	..	2,834-00	..	1,228-00	15,000-00	2,195-00	29,953-00 1,08,293-00
9.	Koratagere	25,737-48	..	15,237-98	..	11,329-00	..	1,604-00	..	..	1,00,923-15 1,54,931-61
10.	Pavagada	31,942-00	..	21,250-00	..	1,860-00	..	18,391-00	..	3,095-00	6,144-00 82,672-00
Total		4,58,847-09	..	2,86,896-72	..	1,06,067-60	..	72,920-11	2,84,177-86	1,24,149-01	3,05,396-31 16,38,423-60

Income and expenditure of Village Panchayats in Tumkur district during the year 1966-67

Heads	Income		Heads		Expenditure	
	Rs.	P.			Rs.	P.
1. Rates and taxes levied	..	3 04 615.27	1. General Administration	..	2,27,258.12	
2. Revenue derived from Panchayat property	..	49 758.48	2. Public safety	..	1 35 673.68	
3. Miscellaneous	..	3 06 478.77	3. Public works executed by Public Works Department	..		
4. Education	..	2 700.00	4. Public works executed by Panchayats	..	7,10,948.18	
5. Grants and contributions at 30 % of land revenue grant	..	5 13 737.00	5. Public Health	..	37,382.00	
6. Grants and contributions at 5% of land revenue grant	..	29 324.00	6. Civic amenities	..	1,25,553.77	
7. Other grants and contributions	..	4 84 735.58	7. Education	..	28,142.01	
Total	..	16,91,349.10	8. Grants-in-aid and contributions	..	46,548.00	
			9. Miscellaneous	..	3,64,970.32	
			Total	..	16,75,576.08	

Statement showing the expenditure incurred by Taluk Development Boards in Tumkur district during the year 1966-67

Sl. No.	Name of Taluk Board	General Administration	Public works executed by Taluk Boards	Public Health	Civic amenities	Education	Contributions and grants-in-aid	Miscellaneous	Debt Head	Total
		Ra. P.	Ra. P.	Ra. P.	Ra. P.	Ra. P.	Ra. P.	Ra. P.	Ra. P.	Ra. P.
1	Tumkur	21,100-00	33,750-00	25,010-00	8,700-00	43,600-00	22,900-00	2,650-00	7,000-00	1,64,710-00
2	Kunigal	18,550-00	64,000-00	15,010-00	19,250-00	43,500-00	5,200-00	18,400-00	12,000-00	1,95,910-00
3	Gubbi	8,087-00	59,008-00	9,797-00	2,204-00	70,654-00	6,263-00	70,725-00	27,950-00	2,55,540-00
4	Madhugiri	11,777-24	1,07,130-89	1,01,141-99	2,698-70	33,275-19	25-00	..	21,528-88	2,82,575-89
5	Turavakere	10,675-00	37,774-00	23,647-00	6,666-00	..	2,025-00	1,418-00	5,000-00	87,205-00
6	Chiknaya-kana-halli	11,231-00	76,992-00	5,745-00	7,304-00	62,338-00	2,117-00	15,604-00	34,472-00	2,15,863-00
7	Tiptur	17,215-00	27,500-00	41,830-00	3,280-00	88,500-00	1,075-00	6,550-00	7,000-00	1,92,950-00
8	Sira	25,402-00	14,604-00	44,301-00	5,213-00	..	4,798-00	166-00	25,708-00	1,30,190-00
9	Korata gere	11,186-80	17,417-00	13,119-00	2,223-00	..	10,675-00	179-00	48,008-00	1,02,807-80
10	Pavagada	35,300-00	21,600-00	33,275-00	4,250-00	..	1,600-00	5,200-00	3,600-00	1,04,935-00
Total		1,70,524-04	4,59,775-89	3,12,875-99	61,906-70	3,46,897-19	56,676-00	1,20,892-00	1,92,268-88	17,32,576-69

Statement showing the financial position of Taluk Development Boards in Tumkur district for the year 1966-67

Sl. No. of Taluk Board	Opening cash balance	Income during the year	Total	Expenditure during the year	Closing cash balance
	Ra. P.	Ra. P.	Ra. P.	Ra. P.	Ra. P.
1. Tumkur	..	2,46,582-36	2,50,918-23	2,21,403-44	29,514-79
2. Kunigal	..	1,21,796-94	2,55,688-40	1,93,894-47	61,793-93
3. Gubbi	..	2,03,258-00	4,48,631-47	2,79,064-64	1,67,576-83
4. Madhugiri	..	60,626-31	1,98,017-99	1,91,575-89	67,058-41
5. Turuvekere	..	21,745-00	1,51,010-00	1,47,900-00	24,855-00
6. Chiknayakanahalli	..	26,603-00	2,14,100-00	2,39,703-00	23,771-19
7. Tipptur	..	20,597-00	1,92,817-00	1,93,010-00	20,404-00
8. Sira	..	26,962-00	1,35,755-49	1,62,717-49	45,673-73
9. Koratagere	..	26,061-27	1,63,051-79	1,89,113-06	98,301-69
10. Pavagada	..	51,888-03	1,33,262-26	1,85,150-29	76,775-25
Total	..	5,62,873-42	18,11,851-82	23,74,725-24	6,15,724-82

T.D.G.

Statement showing the receipts and expenditure of the Town Municipal Councils in Tumkur district from 1965-66 to 1967-68

Sl. No. of Town Municipal Council	1965-66		1966-67		1967-68	
	Receipts	Expenditure	Receipts	Expenditure	Receipts	Expenditure
	Ra.	Ra.	Ra.	Ra.	Ra.	Ra.
1. Tumkur	11,83,548	11,97,931	14,47,580	14,20,145	16,40,630	14,99,190
2. Kunigal	1,10,871	1,21,236	1,77,796	1,69,846	2,03,515	1,78,483
3. Gubbi	1,17,704	1,23,768	1,64,439	1,62,981	1,90,609	1,96,711
4. Tipptur	4,30,611	4,00,194	5,48,925	5,47,710	6,51,849	6,65,765
5. Chiknayakanahalli	1,55,308	1,62,837	2,09,855	1,92,120	2,12,050	1,99,700
6. Turuvekere	1,69,682	1,99,567	1,41,953	1,60,834	1,77,846	1,76,535
7. Madhugiri	1,85,121	1,49,898	2,58,595	2,44,814	2,57,545	2,62,000
8. Sira	2,13,079	2,36,536	2,62,125	2,42,571	2,62,585	2,67,961
9. Koratagere	54,757	56,610	79,445	76,735	94,529	79,840
10. Pavagada	1,02,670	81,517	1,22,225	1,07,527	1,29,130	1,24,320
11. Y. N. Hoakote	34,804	31,084	68,310	64,861	92,825	79,263

CHAPTER XV

EDUCATION AND CULTURE

Early history

IN the old days, the system of education in the State, as in other parts of India, was Vedic and the teaching was mainly oral, the pupils committing to memory long passages from various works. It was more or less vocational, the Brahmins, Kshatriyas and Vaishyas learning their respective duties. Teaching was mainly in the hands of priests. The education of the Brahmins was more academic than that of the others. The curriculum included not only the Vedas, but also literature, grammar, etymology, mathematics, logic, ethics and astronomy, besides, at times, the practical arts like singing and dancing.

The education of the Kshatriyas was more vocational than academic and included military training. The Vaishya education was more domestic than institutional, the boy learning his trade from the father, besides the general education he received in a *gurukula*. The crafts were mostly hereditary and the skill in them was handed down from the father to the son; the teacher and the taught being the father and the son, the teaching was informal. However, knowledge of reading and writing was not required in a majority of crafts. But, in some of these occupations, certain works containing the traditional rules were learnt by rote. In Tumkur district, there were several centres of learning as evidenced by the existence of ancient temples and *agharas*.

Muslim education had received great encouragement during the days of Haidar Ali and Tipu Sultan, particularly the latter. The *maktab* was a primary school attached to a mosque, where the learning of the Koran formed the main item of education, while the *madrasa* was a school of higher learning.

Modern beginning

Education was almost entirely a private activity in the State until as late as 1838. Teaching in those days was organised mostly by religious leaders and priests. It was in the year 1838 that the then ruler of Mysore, Sri Krishnaraja Wodeyar III, established a free English School at Mysore, the first of its kind in the State. Systematic activity in the field of education, however, began in the State as elsewhere in the rest of India, after

Sir Charles Wood's Despatch of 1854. The structure of education was mainly based on the plan formulated in that Despatch by the Directors of the East India Company. Mysore, at that time, was under the direct rule of the British Government. Mr. Devereux, the then Judicial Commissioner of the State, drew up a scheme of education which was accepted by Government with slight modifications. Government then sanctioned, in the year 1868, what was known as the Hobli School system of education proposed by Mr. Rice, under which a school was established in every hobli of the taluk, where the people expressed a desire to have a school and agreed to provide a school building for the purpose. A superior 'Vernacular' school was also established in the headquarters of each taluk by about 1871-72. The main features of the progress of education in the district, upto 1900, were the establishment of a school at Tumkur teaching upto the high school standard, the opening of the District Normal School for the training of teachers and the establishment of the Empress Girls' School, one of the earliest institutions for the education of girls. This girls' school was raised to the status of a high school in the year 1922-23.

There was a steady progress in the field of education in all directions, after the restoration of the State to the Mysore royal family. The period from 1911 to 1916 saw another land-mark in the history of education in the State. New ideals were adopted and an element of compulsion was introduced in some selected centres in respect of primary education. Of equal importance was the introduction of the secondary school leaving certificate system, a reform which was long considered necessary and which had already been adopted in other parts of India. The Mysore University was the first University to be established in a Princely State. The educational services were re-organised and the scales of pay of the tutorial staff were considerably revised.

It is worthwhile studying the trends of literacy in earlier years before dealing with the present position in the district. The main purpose of primary education in olden days was not so much as to secure a permanent literacy, but to equip the individual with the means to improve himself. The actual enumeration of literates in the district was based on those who were able to read and write any simple letter in any language spoken in the district. In 1891, the census reports divided the population in respect of literacy into three categories, namely, "learned", "literate" and "illiterate". In practice, however, there was some confusion in enumerating "learned" and the "illiterate". In consequence, there could be no satisfactory comparison with the statistics of 1891. It was, therefore, decided in 1901 to confine the entries to the two categories of "literate" and "illiterate". But the figures of that year were vitiated for comparative purposes for a different reason. In the definition, no definite criterion of literacy was prescribed. A clear definition was first adopted only in 1911,

Growth of literacy

when only those, who could write a letter to a friend and read the answer to it, were considered as literate. This resulted in excluding many who could only piece together their signatures.

In the 1951 Census, the test for literacy was the ability to read and write a simple message in some language or other. The term "literate" referred to persons who could read and write but who had not passed any examination, and "illiterates" included partly literates who could read but not write. The 1961 Census had the following definition of literacy: "Literate is a person who can both read and write. The test for reading is ability to read any simple letter either in print or manuscript. The test for writing is ability to write a simple letter." It would be difficult to say, however, if in each case shown as "literate", literacy has reached a fairly good level of reading and writing, although in the method of classification, the definition as laid down has been satisfactorily applied.

Literacy
through the
decades

The percentage of literacy in Tumkur district was very low till 1941. It was only during the decades from 1941 to 1951 and from 1951 to 1961 that substantial progress was achieved. The following table indicates the population, number of literates and percentage of literacy in the district during the decades from 1911 to 1941 :—

Year	Population	No. of literates	Percentage of literacy
1911	7,39,276	42,998	5.8
1921	7,76,971	52,367	6.7
1931	8,63,227	72,308	8.3
1941	9,55,809	1,09,060	11.4

Statements indicating the comparative position with regard to the total number of literates in 1951 and also in 1961, and the percentage of literacy in the district, both according to taluks as well as towns, are given in the Appendix. It is interesting to note that in the year 1951, the number of literate persons had gone up to 2,01,285 in the district, of whom 1,62,074 were men and 39,211 women, the total percentage of literates being 17.5. The corresponding figures, according to the 1961 Census, were 3,09,592 literates, of whom 2,37,598 were men and 71,994 women, the total percentage of literates being 22.6. The percentage of literates in the urban areas of the district, which had been 44.3 in 1951, had risen to 48.7, according to the 1961 Census. The

reasons for disparity in the percentage of literacy in the rural and urban areas are obvious. Though the number of primary schools has increased in the villages, mostly the younger generation is benefited from them, while those, who were illiterate or semi-literate, by and large, continued to be so.

The percentage of literacy among males in the district, which was 27.5 in 1951, had risen to 33.9 in 1961. Likewise, the literacy percentage among females also increased from 6.9 in 1951 to 10.7 in 1961. Statements giving particulars of population, number of literates and percentage of literacy, both among males and females, for 1951 and 1961, are given below :—

Year	Males			Females		
	Population	No. of literates	Percentage of literacy	Population	No. of literates	Percentage of literacy
1951	5,87,989	1,62,074	27.5	5,63,374	39,211	6.9
1961	6,99,191	2,37,598	33.9	6,68,211	71,994	10.7

Especially, in the urban areas of the district, there has been a remarkable progress in literacy. The percentage of literacy there, among males, was as high as 59.2, while in respect of females, it was 37.0 in 1961.

It can be seen from the above particulars that more and more people are getting the benefits of literacy which is becoming indispensable in the modern days. A very important factor, which has contributed to this happy state of affairs, is the transfer of political power to the people. As a consequence of this, people have become increasingly aware of the handicaps of illiteracy. The policy of the State Government, to provide all possible facilities for the educational advancement of the people, has helped the spread of literacy and improvement of literacy-standard, a great deal, in the district.

The number of literates, as given in the census reports of 1961, was 3,09,592, of whom 2,37,598 were males and 71,994 females. This, of course, is subject to the general remark that these figures do not include the semi-literates of both sexes. The literates who had not passed any examination and those who had passed an examination below the primary or junior basic examination (including those who had failed in primary or junior basic examination), have been included in the category of "literate without educational level" while all the other literates, who had

Educational
levels

passed primary or junior basic or any higher examination, have been included in the respective categories. The following statement shows the number of literates without educational level and of persons who had passed any institutional examination, academic, vocational or technical, in the *urban areas* of the district, according to the census of 1961 :—

<i>Educational levels</i>		<i>Persons</i>	<i>Males</i>	<i>Females</i>
Literates (without educational level)	..	44,308	26,337	17,971
Primary or Junior Basic	..	12,759	8,081	4,678
Matriculation or Higher Secondary	..	9,300	7,677	1,623
Technical diploma not equal to degree	..	68	68	..
Non-technical diploma not equal to degree	..	12	5	7
University degree or post-graduate degree other than technical degree	..	888	798	90
Technical degree or diploma equal to degree or post-graduate degree—				
Engineering	..	127	127	..
Medicine	..	67	59	8
Agriculture	..	22	22	..
Veterinary and dairying	..	2	2	..
Technology	..	4	4	..
Teaching	..	113	100	13

The statement given below indicates the number of literates without educational level, and persons who had passed primary or junior basic, matriculation and other examinations, in the *rural areas* of the district in 1961 :—

<i>Educational levels</i>		<i>Persons</i>	<i>Males</i>	<i>Females</i>
Literates (without educational level)	..	2,17,782	1,73,209	44,573
Primary or Junior Basic	..	16,020	13,444	2,576
Matriculation and above	..	8,111	7,665	446

Promotion of
women's
education

In the past, women did not evince as much interest as men in matters relating to education. It was mainly due to certain social customs and practices which were in vogue at that time. But as people became more and more enlightened, Government felt the necessity of giving increased facilities for women's education in the State. These facilities included opening of separate schools for women at all levels, liberal grant of half-freeships to all girls in addition to freeships and scholarships already available,

and providing courses of studies in domestic science and fine arts, which enabled girls to be better equipped for later life. It was proposed to introduce these courses in as many schools as possible under the development programmes in the Five-Year Plan schemes, so that the benefit may be availed of by as many girls as possible.

There is a District Educational Officer who is responsible for the administration and control of all primary, basic and middle schools in the district. In addition, he is responsible for the release of grants to aided high schools, orphanages and aided hostels in the district. He is assisted by two Assistant Educational Officers in charge of primary education, one at the headquarters, and the other at Tiptur. There is also another Assistant Educational Officer at headquarters to assist the District Educational Officer. The Deputy Director of Public Instruction, Bangalore Division, is in charge of the administration and control of all secondary and teachers' training institutions in the district. There are 12 Range Offices in the district, one in each taluk headquarters, and two Urdu Range Offices located at Tumkur and Gubbi. Each of these Range Offices is under the control of an Inspector of Schools, who is assisted by Deputy Inspectors in the inspection of schools.

GENERAL EDUCATION

A special committee was appointed by Government in the year 1936, to enquire into the problems relating to nursery schools and its suggestions helped to lay the foundation for a correct type of nursery education so necessary to promote the physical and mental development of the children.

Pre-primary or nursery education in the State is, for the most part, managed by private organisations. The general policy of Government in this respect is one of encouragement and assistance rather than of direct initiative. Private agencies and local bodies are helped with grant-in-aid for starting kindergarten and nursery schools. These schools are meant primarily for the development of the educational instincts in children of the age group of three to five years. The nursery schools, in the past, were mostly confined to urban areas and catered, generally, to the educationally advanced communities which were able to meet the necessary expenditure on that account. With a view to popularising these institutions in the rural areas also, Government liberalised the rules of grant-in-aid, according to which the institutions in the rural areas get grant-in-aid upto 70 per cent of the total expenditure, while those in urban areas get only 50 per cent. A condition of the grant-in-aid is that at least one-third of the seats in those institutions should be made available to poor children

who are not in a position to pay fully for this type of education. The average cost incurred per child in the nursery schools was about Rs. 25 per annum.

There were five recognised nursery schools in Tumkur district in 1956. This number had increased to eight in 1961, with a pupil strength of 450. Since then, there has been a further increase in the number of pre-primary institutions. Four more institutions were started during the years from 1961 to 1967. As on 1st March 1968, there were twelve recognised nursery schools in the district with a total pupil strength of 955 (512 boys and 443 girls). Of these twelve institutions, five were in Tumkur town, three in Madhugiri town, two in Tiptur, one in Turuvekere and one in Banavara of Turuvekere taluk.

Primary Education

Under the Mysore Elementary Education Regulation of 1930, the Local Education Authorities in the State were charged with the responsibility for the expansion and development of elementary education within their respective limits of jurisdiction. The Act also empowered these authorities to augment their resources by levying an education cess or additional education cess on certain items of State revenue. It also enjoined that these bodies should submit to the Government a programme of compulsory education of all children between the ages of six and twelve. Unfortunately, the great economic depression of 1931-32 did not permit the Local Education Authorities to take any action in respect of the expansion of primary education. With a view to reviewing the position and suggesting ways and means of securing better results, a committee of officials and non-officials was constituted by Government in the year 1937. The survey made by the committee revealed that little progress had been made during the ten years ending with 1937, either in the expansion of elementary education or in combating illiteracy. After a detailed investigation into the several issues involved, the committee was of the opinion that in the interest of developing primary education in the State, it would be far better if Government resumed charge of it, as education of the masses was the primary concern of the Government.

With a view to implementing the recommendations of the committee, the new Elementary Education Act of 1941 was passed in February 1941. The control over primary education was resumed by the Government with effect from the 1st July 1941. The Act aimed at providing a school for each village with a population of 500 or more in *maidan* areas and 300 or more in *malnad* areas. As a result, there was a considerable increase not only in the number of schools, but also in the number of pupils seeking admission to the institutions. But unfortunately, however, many of the pupils did not remain in the schools

for the full four-year course and as a result, wastage and stagnation were on the increase. Government, therefore, felt the necessity of introducing compulsion so as to keep the children in the schools for the full four-year course. But it was decided that this should be done only by stages. The curriculum of studies in primary schools in the old Mysore State provided for teaching subjects such as drawing, singing, nature study and gardening in addition to language, arithmetic, history, geography and civics.

The term "primary education" underwent a change in its connotation. Till the year 1954-55, it was known as the primary school education of four years' duration, leading to a four-year middle school education, which was termed as the lower secondary stage. The Educational Reforms Committee set up by the Government recommended, in its report submitted in the year 1953, that the duration of the primary education should be increased from four to six years, as it considered four years as too short a period to produce permanent literacy. It was also felt that the aim of primary education, besides imparting permanent literacy, should also enable the pupils to become normal democratic citizens. In deciding upon the duration, the committee was of the opinion that it was practicable for the State to provide a purposeful education of six years instead of eight years. * Later changes

But the Central Advisory Board of Education, keeping the Constitutional directive in view, recommended to the State Governments that the duration of the primary education should be of eight years, leading to a four-year secondary and three-year degree courses. Accordingly, orders were passed that primary education should be re-organised and that it should be an integrated course of eight years, of basic pattern, and that the existing middle school course of four years should be merged with the primary school course. Thus, the duration of primary education in the State had come to be of eight years, covering both primary and middle school classes. The middle school classes were renamed as primary V, VI, VII and VIII classes in 1955-56. The primary and middle schools, however, continued to be different institutions, except in the case of new type middle schools, which had all the eight classes. As a result of this change, statistics of middle schools, which were being given under "secondary education" previously, began to be included under "primary education." The old lower secondary public examination was abolished so as not to burden the young pupils with a public examination at such a tender age.

After the formation of the new Mysore State in 1956, it was found that the pattern of pre-college education varied from region to region. In order to achieve uniformity, a special Educational

Integration Advisory Committee was set up during December 1956 to review various aspects of the question and to evolve measures to bring about uniformity in the pattern of pre-college education. The recommendations of this committee were accepted by the Government, who passed final orders in the year 1959, ushering in a new era in the State's educational policy. According to this decision, the primary and secondary stages of education were reorganised on the basis of a seven-year course of primary and a four-year course of higher secondary education. Under this new pattern, the junior primary schools consist of standards I to IV, while the up-graded primary-cum-new type middle schools have all the standards from I to VII; the senior primary schools and middle schools have standards V to VII. There is no public examination at the end of the course.

Progress of Primary Education

There has been a remarkable progress in the field of primary education in the district. There were only 851 institutions in the district during 1940-41. This number increased to 977 by the year 1943-44, to 1,386 by 1956-57 and to 1,412 in 1960-61. The table given below indicates the number of primary schools for boys as well as for girls and also the number of pupils who were studying in these institutions during the years 1940-41, 1943-44, 1956-57 and 1960-61 in the district:—

Year	Number of Schools			Strength of Pupils		
	Boys' schools	Girls' schools	Total	Boys	Girls	Total
1940-41	817	34	851	26,517	8,388	34,905
1943-44	942	35	977	34,023	12,951	46,974
1956-57	1,345	41	1,386	47,533	24,405	71,938
1960-61	1,388	24	1,412	48,543	21,766	70,309

The district made further noteworthy progress in the field of primary education during the period from 1960-61 to 1967-68. As a result of effective implementation of the compulsory primary education scheme, the student-strength increased rapidly in the several standards of primary schools, and additional primary schools were opened at a number of new places. The number of teachers in primary schools also increased proportionately with the increase in the number of institutions. The following table shows the comparative position of the number of primary schools, the strength of pupils and teachers in the district during the years 1960-61 and 1967-68:—

Year	No. of Schools	Number of Pupils			Strength of Teachers		
		Boys	Girls	Total	Men	Women	Total
1960-61	1,412	48,543	21,766	70,309	1,546	146	1,692
1967-68	1,903	58,886	47,150	1,06,036	2,367	266	2,633

As already stated above, junior primary schools are those institutions which had standards I to IV. There were 1,903 such institutions, including those which had Urdu medium, in the district, as on the 31st March 1968. Out of these, 1,903 institutions, 1,681 boys' and 18 girls' schools had Kannada as the medium of instruction. The following statement gives the number of Kannada Junior Primary Schools for boys, the number of pupils and teachers, taluk-wise, in the district, as on the 31st March 1968:—

Sl. No.	Name of Taluk	No. of Schools	No. of Teachers		Number of Pupils		
			Men	Women	Boys	Girls	Total
1.	Chiknaya-kanahalli	162	198	9	6,533	3,584	10,116
2.	Gubbi	192	224	16	5,595	4,288	9,883
3.	Koratagere	130	176	7	3,690	2,691	6,381
4.	Kunigal	173	194	14	5,963	4,607	10,570
5.	Madhugiri	171	235	1	5,960	4,968	10,928
6.	Pavagada	134	162	2	4,496	2,266	6,762
7.	Sira	203	246	6	5,567	3,845	9,412
8.	Tiptur	155	178	10	4,668	3,518	8,186
9.	Tumkur	223	326	42	7,204	6,259	13,463
10.	Turuvekere	138	189	8	4,029	3,012	7,041
Total		1,681	2,128	115	53,704	39,038	92,742

Girls' Schools.—There were eighteen junior primary schools for girls with Kannada as the medium of instruction. These institutions were situated in Madhugiri, Chiknayakanahalli, Gubbi, Koratagere, Tiptur and Tumkur taluks, with a total strength of 2,462 girls and 419 boys. Forty-four men teachers and 34 women teachers were in charge of these schools, as on the 31st March 1968.

Urdu Schools.—There were 204 Urdu Junior Primary Schools in the district as on the 31st March 1968—187 for boys and 17 for

girls. One hundred and ninety-five men teachers and one hundred and seventeen women teachers were in charge of these institutions, which had a total pupil strength of 4,763 boys and 5,650 girls.

Upgraded Primary Schools

Upgraded primary schools have either standards I to VII or only V to VII. There were 330 such institutions in the district as on the 31st March 1968, which included also schools with Urdu as the medium of instruction. Of these 330 schools, 297 institutions for boys and six institutions for girls had Kannada as the medium of instruction. The statement given below furnishes particulars of the upgraded primary schools for boys, having Kannada as the medium of instruction, the number of teachers and pupils, taluk-wise, in the district, as on the 31st March 1968 :—

Sl. No.	Name of Taluk	No. of Schools	No. of Teachers		No. of Pupils		Total
			Men	Women	Boys	Girls	
1.	Chiknaya-kanahalli	37	125	14	2,215	2,178	4,393
2.	Gubbi	31	123	4	3,594	2,291	5,885
3.	Koratagere	24	106	4	2,318	1,461	3,779
4.	Kunigal	19	69	2	1,295	1,036	2,331
5.	Madhugiri	24	81	1	2,494	1,607	4,101
6.	Pavagada	23	93	2	2,421	1,029	3,450
7.	Sira	42	161	7	3,941	2,251	6,192
8.	Tiptur	36	128	11	3,198	2,128	5,326
9.	Tumkur	31	131	16	3,186	2,053	5,239
10.	Turuvekere	30	115	4	2,684	1,688	4,372
Total		297	1,132	65	27,346	17,722	45,068

Girls' Schools.—There were only six upgraded primary schools for girls in the district which had Kannada as the medium of instruction. They were situated in Pavagada, Madhugiri, Koratagere, Sira and Tiptur taluks and had 33 men and 15 women teachers. The total student-strength in these schools was 1,519 girls and 190 boys.

Urdu Schools.—There were 27 upgraded primary schools in the district with Urdu as the medium of instruction, on the 31st March 1968. The total number of pupils studying in these institutions was 2,239 boys and 1,954 girls. One hundred and three men teachers and 38 women teachers were in charge of these schools.

New-type middle schools have all the seven classes from standard I to VII. There were 78 such institutions in the district as on the 31st March 1968, with a total pupil strength of 9,867 boys and 9,248 girls, under the charge of 520 men teachers and 64 women teachers. This number included also institutions with Urdu as the medium of instruction. The statement given here-under furnishes particulars of new-type middle schools for boys, having Kannada as the medium of instruction, the number of teachers and pupils, taluk-wise, in the district, as on the 31st March 1968 :—

Sl. No.	Name of Taluk	No. of Schools	No. of Teachers		No. of Pupils		Total
			Men	Women	Boys	Girls	
1.	Chiknayakanahalli	8	55	7	1,252	936	2,188
2.	Gubbi	8	59	..	928	485	1,413
3.	Koratagere	..	..	..	..	..	..
4.	Kunigal	6	48	1	1,161	748	1,909
5.	Madhugiri	10	77	..	1,661	1,012	2,673
6.	Pavagada	5	31	..	756	348	1,104
7.	Sira	..	..	..	..	..	..
8.	Tiptur	9	55	8	1,383	1,005	2,388
9.	Tumkur	14	98	10	1,638	1,093	2,731
10.	Turuvekere	7	46	..	864	621	1,485
Total		67	469	26	9,643	6,248	15,891

Girls' Schools.—There were only six new-type middle schools for girls in the district, which had Kannada as the medium of instruction. They were situated in Kunigal, Pavagada, Chiknayakanahalli, Koratagere and Turuvekere taluks, and had a total pupil-strength of 2,220 girls, under the charge of 37 men teachers and 24 women teachers.

Urdu Schools.—In addition to the above-mentioned institutions, there were two Urdu New-Type Middle Schools for boys and three such institutions for girls in the district, with a total strength of 224 boys and 780 girls, under the charge of 14 men teachers and 14 women teachers.

Universal, compulsory and free primary education has been accepted as one of the main educational policies of the State. The Mysore Elementary Education Regulation of 1913 had provided for an element of compulsion in some selected centres. The Regulation also prohibited employment of children of the compulsory age-group. A School Committee was appointed for each of the selected centres to enforce the provisions of the Regulation, and

New-Type
Middle Schools

Compulsory
Primary
Education

attempts were made to expand gradually the area of compulsion. However, in the year 1926, the whole question was reviewed and compulsory education was deferred temporarily, as the Government felt that the improvement of the then existing schools was of greater importance than a rapid extension of compulsion.

With the resumption of control over primary schools in the year 1941, the Mysore Elementary Education Act of 1941 was enacted, which specifically provided for the introduction of compulsion. In view, however, of the financial, administrative, social and economic difficulties, it was considered inexpedient to launch upon a plan of universal compulsion. On the other hand it was felt that it would be practicable to start with a legislative provision for the compulsory attendance of pupils who voluntarily joined the primary schools. Accordingly, the Elementary Education Amendment Act of 1944 was introduced under which it was obligatory on the part of parents or guardians who voluntarily admitted their children into primary schools, to keep them there until the completion of the course or until the age of 12, whichever was earlier. The Act provided for the introduction of the compulsory attendance scheme throughout the former Mysore State within a period of ten years.

Compulsory Attendance Scheme

The Compulsory Attendance Scheme was introduced, in the first instance, from the school-year 1945-46 beginning with one taluk in each district, and the scheme was gradually extended at the rate of one more taluk in each year in each district, in the subsequent three years, in accordance with the policy of providing for the introduction of the scheme throughout the State within a period of ten years. With a view to exercising an effective supervision over the schools in the compulsory attendance areas, additional Inspectors of Schools were appointed. Attendance Officers were also appointed to check effectively the attendance of pupils and watch their continuance in the schools till they completed the full primary school course.

The Compulsory Attendance Scheme, which envisaged that the children once admitted to a primary school should be retained until they completed the course, had certain defects. The children, who did not seek admission to a primary school, were not affected by this scheme. They could not be compelled to attend the school. Even if the pupils once admitted to the school dropped off subsequently, there was no effective machinery to compel the parents to send such children to school. As a result of repeated representations made in the Legislature and with a view to introducing total compulsion in certain selected areas, it was decided by Government that the provisions in regard to compulsory education contained in Chapter VI of the Elementary Education Act of 1941 should come into force from the 1st August 1947.

The scheme continued to be in force only in limited areas in each district, but it was not quite effective, the reasons being:

- (i) non-extension of compulsion to other areas in phased programme;
- (ii) lack of co-operation from the parents in sending their children to schools regularly;
- (iii) lack of adequate incentives to poor children; and
- (iv) very light penalty for defaulting.

One of the most important programmes included in the Third Five-Year Plan was the expansion and improvement of primary education, making it universal, free and compulsory. The Union Government decided that a beginning should be made from the year 1961-62 and that at least 90 per cent of the children of the age-group 6-11 should be brought into the schools by the end of 1965-66. Mysore State took up this task in right earnest. It decided to implement the compulsory education scheme in stages, starting with children of the age-group 6-7 during 1961-62, and extending it to the next age-group in succeeding years, so that by the end of the Third Five-Year Plan period the whole of the age group 6-11 would have been covered. For this purpose, the Mysore Compulsory Primary Education Act, 1961, was passed by the State Legislature in April 1961 and its provisions were brought into force with effect from the 1st August 1961 throughout the State. Rules under the Act were also framed for the effective implementation of the Act. The main provisions of the Act are the following:—

- (i) establishment of primary schools within a walking distance of one mile from the home of every child in the State;
- (ii) making it the responsibility of every parent to cause his children to attend an approved school;
- (iii) appointment of attendance authorities to enforce enrolment;
- (iv) prevention of employment of children which would keep them away from attendance at schools; and
- (v) constitution of Primary School Panchayat Courts to try offences contravening the provisions of the Act.

On the model of the National Seminar on Compulsory Primary Education held in Delhi with representatives from all the States attending it, a State-level Seminar was also held in the State in April 1961. Some of the important recommendations of the Seminar, which were accepted, were the following:—

Compulsory
Primary
Education Act,
1961

- (i) opening of schools in all villages having a minimum population of 500 or where the minimum number of students are available ;
- (ii) provision of additional teachers to existing schools ;
- (iii) provision for incentive schemes like mid-day meals, supply of books, attendance scholarships, etc. ;
- (iv) constitution of a School Betterment Committee for each school ; and
- (v) making the Taluk Boards and the Municipalities share the responsibilities connected with the implementation of compulsory education.

Enumeration of children

Enumeration of children of the age-group 6—11 is being conducted every year to assess the number of children who should be enrolled. The number of children enumerated and enrolled and the percentage of enrolment for the years 1964-65, 1965-66 and 1966-67 are shown in the statement given below :—

Year	No. of children enumerated			No. of children enrolled			Percentage of enrolment		
	Boys	Girls	Total	Boys	Girls	Total	Boys	Girls	Total
1964-65	92,090	85,995	1,78,085	74,029	63,599	1,37,628	82	76	79
1965-66	94,087	84,998	1,79,085	91,937	78,289	1,70,226	98	92	96
1966-67	1,11,777	97,568	2,09,345	1,07,774	90,171	1,97,945	96	92	94

It is seen from the above statement that the enrolment of children in the district has been very encouraging and that the target of 90 per cent has even been exceeded. The percentage of enrolment, which was only 79 during 1964-65, showed a remarkable improvement in 1965-66, reaching the figure of 96, an increase of 17 per cent.

Change in syllabi

As already stated earlier, the Educational Integration Advisory Committee recommended a seven-year primary (basic) education followed by a four-year higher secondary education. A Curriculum Committee was appointed to formulate the outlines of the primary school course and various syllabus sub-committees were also appointed to draw up detailed syllabi for the subjects and activities in primary schools. The draft syllabi prepared by these sub-committees were published with a view to eliciting opinions, criticisms and suggestions from educationists and others who were interested in the field of education. An *ad-hoc* committee was

then appointed to go through the opinions, views and suggestions and to finalise the draft syllabi. The recommendations of this committee were accepted by the Educational Integration Advisory Committee.

Government approved the finalised syllabi, and the revised syllabi of standards I and II were introduced in all primary schools in the State from the school year 1959-60, those of standard III and IV from 1960-61 and those of V and VI from the year 1961-62. The new syllabus of standard VII was introduced in all schools from the year 1962-63. A broad-based general education, consisting of a language study, core subjects (general mathematics, general science and social studies), arts and crafts, common activities and physical education, is imparted in the seven-year primary course. Kannada, the regional language, is made an additional optional subject in non-Kannada schools from standard IV and onwards. English is introduced from standard V and Hindi from standard VI.

Basic education gained importance after the dawn of Independence. The principle underlying the scheme is that education must be based on some suitable craft in common usage in the locality. This system of education provided full and free scope to the physical, cultural and social development of the pupils, so as to enable them to contribute their utmost to the well-being of the society. Crafts such as agriculture, gardening, spinning and weaving, sericulture, wood-craft, smithy, laundering and poultry-keeping are taught in these institutions. Usually, experienced teachers in service, who had training in general principles and methods of education, were given an intensive training in basic education either at Wardha, Shantiniketan or Dharwar, and on their return, they trained other teachers to enable them to impart instruction in basic primary schools. The teachers for these schools are mostly drawn from the Basic Training Institution at Vidyanagar which was founded in the year 1947. Children in these basic schools are given training in crafts for three hours a day and the rest of the time is devoted to music, drawing and art, physical education and cultural activities. Mid-day lunch is provided to all the pupils in these schools. Health education and training in citizenship are the special features in these institutions.

There were 98 junior basic schools and 37 senior basic schools in the district, as on the 31st March 1968. The junior basic schools are junior primary schools with standards I to IV, in which crafts are also taught. Likewise, senior basic schools are senior primary schools with either standards I to VII or V to VII, in which crafts are also taught. Particulars of the junior basic and senior basic schools in the district, as on the 31st March 1968, are given below :—

Type of Institution	No. of schools	No. of Students			Strength of Teachers		
		Boys	Girls	Total	Men	Women	Total
Junior Basic ..	98	6,585	4,788	11,373	261	33	294
Senior Basic ..	37	2,746	1,881	4,627	129	14	143
Total ..	135	9,331	6,669	16,000	390	47	437

SECONDARY EDUCATION

Secondary education in the State formerly consisted of two stages, the middle or the lower secondary stage of four years' duration commencing after a four-year primary course, and the high school stage of three years following the middle school course. The middle schools and high schools were generally separate institutions. A public examination was held at the end of each of the above two stages. Only those, who passed the middle school examination, were eligible for admission to a high school, except in the case of girls who were given the option either to take the public examination or an integral middle school examination. In the year 1954, the public examination at the end of the middle school stage was abolished, the reason being not to burden the pupils at the tender age of 11 to 13 with the severe strain of a public examination. Instead, class examinations were ordered to be conducted, retaining all the formalities of a public examination, but without its severity and consequent nervous strain.

Earlier reform

Earlier, in the year 1937, there was an educational reform, which resulted in the high school course being modified in certain respects, without, however, altering its essential character. In addition to the general subjects, a number of vocational subjects were also introduced. Provision was made for diversified courses at the secondary stage as an alternative to the academic courses leading to the University, with a view to giving pupils, taking these courses, practical training, which would enable them to take up useful avocations in life and thus prevent the indiscriminate rush to the University. But the actual results, however, fell short of expectations owing to certain defects in the working of the scheme. Though a variety of practical courses were provided under the optional group, it was found to be not feasible to introduce these subjects in the schools, because of the prohibitive cost involved.

The Educational Reforms Committee, set up by the Government to suggest improvements in the system of education, made certain recommendations. Keeping in view the resolutions of the Central Advisory Board of Education and the University Grants Commission in regard to the duration of the degree courses, the Government directed, in their order of 1955, that secondary education should be both terminal and preparatory for students entering Universities or higher technical institutions, and that diversification of studies should be the principal objective. Thus, during the year 1955-56, the connotation of "secondary education" underwent a change. The term was applied hitherto to education in the four-year middle schools followed by a three-year high school course, where English was taught throughout. But, as a result of the educational reforms, secondary education meant only a three-year high school course following an eight-year integrated primary school course which included the middle school classes.

As a next step in the reforms, it was proposed to extend the high school course by one year and make it a four-year higher secondary course, the passing of which would enable the pupils to enter the University for a three-year degree course or any technical institution for degree or diploma courses. Consequent on the expansion and development of primary education, it naturally followed that greater facilities had to be provided for education at the high school stage. Local authorities and private agencies were, therefore, encouraged to the maximum extent possible to start new high schools.

Kannada, the regional language of the State, was tried as the medium of instruction in certain selected high schools from the year 1931-32. The experiment proved a success and it was introduced in certain other institutions also. By the year 1937, all non-language subjects were taught in the Kannada medium in all Government high schools having more than one section in each class. There was then only one section in each high school with the English medium, the other sections having the Kannada medium. Only pupils, whose mother-tongue or second language was not Kannada, were admitted to the English medium section, the others invariably being admitted to Kannada medium sections. It was stated that pupils taught in the regional language fared better than others, because they could grasp the subject-matter better and could express themselves better in their own familiar language.

However, as courses of higher education had only the English medium of instruction, pupils, who wanted to pursue their studies further, were inclined to seek admission only to English medium sections. The demand for admission to English medium sections

became greater and Government, therefore, ordered that wherever necessary, a second English medium section may be opened to accommodate such pupils. This, however, led to the criticism that the Government were not giving adequate encouragement for the development of the regional language. It was then ordered, in 1951-52, that in high schools having more than one section in a class, generally only one section was to have the English medium, the other sections having the Kannada medium. But the educational authorities had the discretion to open additional English medium sections, if there was need for the same.

New pattern

As stated earlier, one of the main recommendations of the Mysore Educational Integration Advisory Committee was that there should be a uniform four-year course of higher secondary education throughout the new Mysore State. The accepted all-India pattern was also an eleven-year course of pre-college education, which included a four-year higher secondary education. Accepting the recommendations of the Committee, the Government passed orders that there should be a four-year course of higher secondary education and that it should be preferably organised in a single institution known as the Higher Secondary School or Multi-purpose High School. The new scheme of secondary education took effect from the school-year 1960-61. According to the revised syllabi, the subjects of study for higher secondary education are:—

Group A (General Education subjects)

- (1) Languages—Kannada, Telugu, Urdu, Persian, Arabic, Sanskrit, Hindi, Tamil, Marathi, Prakrit or Pali.
- (2) English
- (3) Hindi
- (5) Social Studies
- (4) General Science
- (6) General Mathematics
- (7) Crafts
- (8) Physical Education, and
- (9) Music, Dance or Drawing and Painting (only during VIII Standard).

Group B (Vocational and other subjects—from IX Standard onwards).

- (1) Humanities,
- (2) Science,
- (3) Technical,
- (4) Agriculture,
- (5) Commerce,

- (6) Home Science,
- (7) Fine Arts, and
- (8) Fisheries Technology.

Even this syllabi have been further revised abolishing the electives and this new syllabi will come into force from the academic year 1969-70.

Secondary education in the State has been made free for all students, irrespective of the income of their parents, with effect from the school year 1966-67.

There were only three high schools for boys and one high school for girls in the district during 1948-49, with a total pupil strength of 1,478 boys and 154 girls. During the next decade, there was a rapid increase both in the number of institutions and the strength of pupils. The number of high schools had increased to 29 by 1956-57—27 high schools for boys and two high schools for girls. The number of students studying in these institutions had correspondingly risen to 5,663 boys and 754 girls. In the next five years, there was a further increase both in the number of institutions and students. During 1960-61, there were 37 high schools for boys and three high schools for girls, with a total student strength of 8,168 boys and 1,354 girls. These institutions were under the charge of 346 men teachers and 29 women teachers. Since then, there has been a steady further expansion in high school education. High Schools

During the year 1966-67, there were 100 high schools in the district, 90 for boys and ten for girls. Of the 90 high schools for boys, seven were Government schools and they were located at Tumkur, Madhugiri, Koratagere, Kunigal, Tiptur, Patnayakana-halli and Chikkanahalli (Sira taluk). The institutions at Tumkur and Madhugiri were higher secondary schools.

The scheme of starting high schools by the Municipalities was initiated in the year 1928 and it gained momentum in subsequent years. The local bodies also began to realise their responsibilities in the sphere of secondary education and sought permission to start and maintain new high schools. The Government, with a view to helping them, liberalised the system of maintenance and building grants. There were four municipal high schools in the district during 1966-67, and all these were higher secondary institutions. They were situated at Gubbi, Turuvekere, Pavagada and Sira. Municipal High Schools

The District Boards also came forward, in 1948-49, to start new high schools. They evinced keen interest in the development of secondary education in the rural areas. The Taluk Boards District and Taluk Board High Schools

took over the management of these high schools after the abolition of the District Boards. There were sixteen Taluk Board High Schools in the district during 1966-67, of which one was a girls' institution located at Kunigal. The other 15 boys' institutions were located at the following places: (1) Godekere, (2) Huliya (both in Chiknayakanahalli taluk), (3) Nagavalli (Tumkur taluk), (4) Midigeshi (Madhugiri taluk), (5) Huliurdurga, (6) Nagasandra (both in Kunigal taluk), (7) Nonavinakere, (8) Biligere, (9) Honnavalli, (10) Hongalakshmi-Kshetra (7 to 10 in Tiptur taluk), (11) Kadaba, (12) Chandrashekharpura, (13) Chelur (11 to 13 in Gubbi taluk), (14) Mavinakere and (15) Dabbeghatta (both in Turuvekere taluk).

Aided High Schools

Several public associations are running high schools in the district, for which they receive Government grants as laid down in the Mysore Educational Grant-in-aid Code. The maximum grant admissible is 85 per cent of the net authorised cost of maintenance in rural areas and towns with a population of less than 50,000, while for bigger towns, the grant is 80 per cent. The Education Department fixes the quantum of grant once in three-years on the basis of the average authorised expenditure of the institution for the previous year. In addition, building and equipment grants are also given in deserving cases. These institutions are regularly inspected and their accounts are subject to audit. There were 57 such aided boys' high schools and seven girls' high schools in the district during 1966-67. The taluk-wise distribution of these boys' institutions was as follows: (1) Tumkur-13; (2) Koratagere-5; (3) Chiknayakanahalli-6; (4) Pavagada-5; (5) Kunigal-6; (6) Tiptur-3; (7) Gubbi-5; (8) Madhugiri-4; (9) Sira-5, and (10) Turuvekere-5. Of these high schools, two were higher secondary institutions, situated at Siddhaganga and Chiknayakanahalli.

Unaided High Schools

Unaided high schools are proprietary in character and are managed by private individuals or associations. They do not get any grant from Government, but are maintained by private donations and contributions and the fee income derived from the pupils. These institutions also follow the courses of studies and syllabi prescribed by the Education Department and prepare pupils for the public examinations. There were seven unaided high schools in the district, all for boys, during 1966-67. They were located at (1) Mangalavada, (2) Rangasamudra (both in Pavagada taluk), (3) Tumkur, (4) Surugenahalli, (5) Kondli Cross, (6) Doddaguni (from 4 to 6 in Gubbi taluk) and (7) Manikekere (Tiptur taluk).

The table given below shows the strength of pupils and teachers in the various high schools for boys in the district, management-wise, during 1966-67:—

TUMKUR DISTRICT

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Management	No. of Schools	No. of Pupils		No. of Trained Teachers		No. of Untrained Teachers	
		Boys	Girls	Men	Women	Men	Women
Government ..	7	5,021	818	176	1	22	..
District and Taluk Boards	15	2,795	613	38	..	57	2
Municipal Aided ..	4	1,826	768	30	..	25	6
Un aided ..	57	12,366	4,259	126	3	294	28
Total ..	90	22,008	6,458	370	4	398	36

There were ten high schools exclusively for girls, as on 1st January 1968. Of these, two were Government institutions at Tumkur and Tiptur, one Taluk Board institution at Kunigal and seven aided institutions at Tumkur (two schools), Chiknayakanahalli, Tiptur, Madhugiri, Sira and Turuvekere. In places where there are no separate schools, girls are admitted to boys' institutions, separate seating arrangements being made for them. In the syllabus of studies, provision has been made for teaching the girls domestic science and arts under the optional group. Free-ships and scholarships were given to girls to encourage them to pursue education and this helped to increase the number of girls in high schools during the past decade. The table given below shows the strength of pupils and teachers in the girls' institutions in the district, management-wise, as on the 1st January 1968:—

Management	No. of Schools	No. of Pupils		No. of Trained Teachers		No. of Untrained Teachers	
		Boys	Girls	Men	Women	Men	Women
Government ..	2	..	1,893	20	7	2	2
Taluk Boards ..	1	..	37	..	1	..	2
Aided ..	7	..	337	5	22	5	11
Total	10	..	2,267	25	30	7	15

COMMERCE EDUCATION

Commerce education is imparted in three types of institutions, namely, high schools, colleges and private commercial schools. There is a Commercial Arts group in the S.S.L.C. scheme in high schools, which includes subjects like Accountancy, Banking, Practice of Commerce, Co-operation and Typewriting.

A candidate for the S.S.L.C. examination, with Commercial Arts as optionals, has to choose any two of the above mentioned subjects. Commerce education, at the college level, is imparted as a continuation course for those who had taken these subjects in the high school.

The commerce schools conduct classes generally in the mornings and evenings and prepare candidates for the various commerce examinations held by the Government. Many of these institutions receive maintenance grants from the Education Department. The Board for Commerce Education and Examinations, constituted by Government, prescribes the courses of studies for these examinations and conducts them. The Director of Public Instruction is the *ex-officio* President of the Board and a Senior Assistant Director is its *ex-officio* Secretary. The Board grants certificates and diplomas to successful candidates. There were eight such commerce institutions in the district, all under private management, during the year 1967-68, in which 786 boys and 163 girls were studying under the guidance of 18 teachers. The table given hereunder shows the names of the institutions and the number of students and teachers in each of them :—

Sl. No.	Name of the Institute	Date of establishment	Number of Students			No. of Teachers
			Boys	Girls	Total	
1.	Sri Rama Institute of Commerce, Tumkur	28-7-1948	93	23	116	3
2.	Sri Narasimha Institute of Commerce, Tumkur	23-6-1951	181	43	224	3
3.	Sri Krishna Institute of Commerce, Tumkur	16-1-1956	126	42	168	2
4.	Tagore Institute of Commerce, Tiptur	10-10-1963	122	19	141	3
5.	Sree Krishna Institute of Commerce, Madhugiri	8-7-1964	89	8	97	1
6.	Sri Vasavi Institute of Commerce, Kunigal	27-6-1964	33	12	45	2
7.	Sree Anasuya Institute of Commerce, Tiptur	1-2-1966	56	8	64	2
8.	Sri Siddhaganga Institute of Commerce, Tumkur	13-2-1967	86	8	94	2
Total			786	163	949	18

HIGHER EDUCATION

Though the Mysore University was established as early as 1916, there had been no facilities for higher education in Tumkur district until the year 1940, when an Intermediate College was established in Tumkur town. In addition to this college, which has since been upgraded, there are now three other colleges in the district, namely, Kalpataru College, Tiptur, Sri Siddhaganga College of Science, Tumkur, and Sri Siddhaganga Evening College, Tumkur. Brief accounts of these institutions are given below.

The first foundation for collegiate education in the district was laid by the establishment of an Intermediate College at Tumkur in the year 1940, with an initial enrolment of 149 students. The courses then available to the students were the following :—

- (1) Physics, Chemistry and Mathematics
- (2) Physics, Economics and Mathematics
- (3) Chemistry, Botany and Zoology
- (4) Chemistry, Botany and Geology
- (5) History, Economics and Logic

The College was upgraded as a First Grade College in the year 1948 by introducing a B.Sc. degree course with Physics, Chemistry and Mathematics as optional subjects, in addition to the Intermediate course. The total strength of the College then was 735. Subsequently, a B.A. degree course was also introduced in the year 1951 and another B.Sc. degree course, with Chemistry, Botany and Zoology, in the year 1955. With the abolition of the intermediate and the two-year degree courses by the Mysore University, the Pre-University and the three-year B.A. and B.Sc. degree courses were started in 1958 and 1959 respectively. The total strength of the students in the College during the year 1959-60 was 1,635 (pre-university—729 and degree—906). The teaching staff of the College during that year consisted of two Professors, six Readers and 43 Lecturers.

The College is now offering the following combinations of optional subjects for the various courses ;

PRE-UNIVERSITY—ARTS

- (1) History, Economics and Logic
- (2) History, Economics and Hindi
- (3) History, Economics and Persian
- (4) History, Economics and Commerce
- (5) History, Economics and Political Science.

PRE-UNIVERSITY—SCIENCE

- (1) Physics, Chemistry and Mathematics
- (2) Physics, Chemistry and Biology
- (3) Chemistry, Botany and Zoology
- (4) Physics, Mathematics and Geology
- (5) Chemistry, Botany and Geology

B.A. DEGREE

*Major**Minor*

- | | | |
|-------------------------------------|----|-------------------|
| (1) History and Economics | .. | Political Science |
| (2) Economics and Political Science | .. | Sociology |
| (3) Economics and Sociology | .. | Political Science |
| (4) English and Sociology | .. | Political Science |
| (5) Kannada and Sociology | .. | Political Science |
| (6) Hindi and Sociology | .. | Political Science |
| (7) Sanskrit and Sociology | .. | Political Science |
| (8) Kannada and Sociology | .. | History |
| (9) Urdu and Sociology | .. | Political Science |

B.Sc. DEGREE

*Major**Minor*

- | | | |
|-----------------------------|----|-------------|
| (1) Physics and Chemistry | .. | Mathematics |
| (2) Physics and Mathematics | .. | Chemistry |
| (3) Physics and Geology | .. | Mathematics |
| (4) Botany and Zoology | .. | Chemistry |
| (5) Botany and Geology | .. | Chemistry |

Apart from the optional subjects mentioned above, Kannada, Sanskrit, Urdu, Hindi, Telugu and Persian are taught in the pre-university classes and Kannada, Sanskrit, Urdu, Hindi and Telugu in the degree classes, under Part II.

The year 1966-67 saw an important development in the history of the College when it was shifted to an imposing and spacious building, constructed at a cost of about 15 lakhs of rupees on a 75-acre plot on the Bangalore-Tumkur road, in June 1966. The first year of the three-year B.Com. degree course was also started during the year 1967-68.

With a total strength of 1,910 students during the year 1967-68 (including 227 girl students) and a teaching staff of 71 (including two Professors, six Readers and 63 Lecturers and Demonstrators), the College is one of the biggest institutions affiliated to the Mysore University. The College, which was under the administrative

control of the Mysore University, was transferred to the Government in June 1960, and is now under the control of the Director of Collegiate Education.

Consequent on the shifting of the Government College to its new buildings, situated about one and a half miles away from the town, it was found necessary to start a college near the town for the benefit of the girl students, who were finding it very difficult to prosecute their collegiate studies in the Government College for want of conveyance facilities. The Sri Siddhaganga Education Society, which was founded in 1963 with the object of promoting education and culture among all communities, irrespective of caste or creed, started the Sri Siddhaganga College of Science for Women in 1966, offering, at first the pre-university course. It was affiliated to the University of Mysore during the same year. The College was upgraded in 1967 to the status of a first grade college and was also made a co-educational institution in that year. The College is now offering the following courses of studies :—

PRE-UNIVERSITY—ARTS

History, Economics and Logic

PRE-UNIVERSITY—SCIENCE

- (1) Physics, Chemistry and Mathematics
- (2) Physics, Chemistry and Biology
- (3) Chemistry, Botany and Zoology

B.Sc. DEGREE

Physics and Mathematics (Major) and Chemistry (Minor)

There were 391 students in the Pre-University course, as on the 1st March 1968, and 76 students in the I Year B.Sc. classes. Out of the total strength of 467 students, 100 were girls. The staff of the College consisted of one Principal and Professor, one Reader and 15 Lecturers.

Realising the necessity for an Evening College to serve the needs of hundreds of employed young men and women, the Sri Siddhaganga Education Society started the Sri Siddhaganga Evening College in the year 1967. Candidates should have completed the age of 19 years for seeking admission to this College. The working hours of the College are between 6-30 P.M. to 9 P.M. each day except on Sundays and general holidays. The College is now offering only the Pre-University course in Arts with the following combinations of subjects :—

- (1) History, Economics and Logic
- (3) History, Economics and Commerce
- (3) History, Economics and Kannada

One hundred and twenty-three students were studying in the College, as on the 1st March 1968, of whom 22 were women. The staff of the College consisted of one Principal and Professor and nine Lecturers.

Kalpataru
College, Tiptur

The Kalpataru College at Tiptur was established in July 1962. It is being run by the "Kalpataru Vidya Samsthe," which was registered under the Mysore Societies Act on the 30th December 1961. Immediately after the registration, the local Town Municipal Council donated a sum of Rs. 50,000 and enabled the management to buy 16 acres of land on the Bangalore-Honnar road for the College campus. Sri A. C. Pallagatti, a philanthropist and social worker, donated a sum of Rs. 1,10,000 and gave a lead to the others in this direction. With the assistance of the University Grants Commission and the State and the Central Governments, the College has made considerable progress within a short span of four years. Two boys' hostels, a girls' hostel, a library and an auditorium have been built and the construction of a sports pavilion, a gymnasium, a swimming pool, a health centre and a prayer hall is in progress. It is the aim of the management to make the College a residential institution with all modern amenities.

This institution is now a full-fledged first grade college offering Pre-University, B.A., B.Sc., and B.Com courses. It is a co-educational institution. The student-strength of the College has been increasing steadily. From 205 in 1962-63, the number had gone up to 815 in 1966-67. With the increasing strength of students and teachers and introduction of new courses of studies, the number of subjects taught has also grown. From 12 in 1962-63, it had increased to 43 in 1966-67. The College offers the following courses of studies with the subjects mentioned against each of them :—

PRE-UNIVERSITY COURSE

- Arts :** History, Economics, Logic or Political Science
- Science :** (1) Physics, Chemistry and Mathematics
(2) Physics, Chemistry and Biology
(3) Chemistry, Botany and Zoology
- Commerce :** History, Economics and Commerce

B.A. DEGREE

Any two major subjects and one minor subject from the following combinations :—

- (1) History, Economics and Political Science
- (2) Economics, Psychology and Political Science
- (3) Sociology, Psychology and Political Science
- (4) Psychology, Kannada and Political Science

B.Sc. DEGREE

Any two major subjects and one minor subject from the following combinations of subjects :—

- (1) Physics, Mathematics and Chemistry
- (2) Statistics, Mathematics and Economics
- (3) Statistics, Psychology and Mathematics
- (4) Zoology, Botany and Chemistry

B.Com. DEGREE

First Examination—

- (1) Accountancy
- (2) Economic Development of India
- (3) Economic Analysis
- (4) Commercial Geography

Final Examination—

Group I

- (1) Business Organisation
- (2) Secretarial Practice
- (3) Elements of Statistics
- (4) Commercial Law

Group II

- (1) Advanced Accounting
- (2) Banking and Banking Law

Special Papers

- (1) Cost Accounting
- (2) Auditing and Income-tax Accounts

As on the 1st March 1968, the student-strength of the College was 1,066—958 boys and 108 girls—as per particulars given below :

Courses	Boys	Girls	Total
Pre-University	526	63	589
B.A. Degree	63	10	73
B.Sc. Degree	312	35	347
B.Com. Degree	57	..	57
Total	958	108	1,066

The staff of the College consisted of one Professor, 11 Readers, 22 Lecturers, eight Demonstrators and four Tutors. The library attached to the College contained about 8,000 books. The boys' hostels accommodate about 120 boys and the girls' hostel about 25 girls.

Mysore-California Teacher-Exchange Programme

The Mysore-California Teacher Exchange Programme is one of the most ambitious projects sponsored by the College. The objects of the programme are :—

- (1) to promote cultural and educational exchanges between India and America, and
- (2) to promote Indo-American goodwill and understanding.

The idea of this Teacher-Exchange Programme took shape in 1963 when Prof. Selden C. Manefee of Fair Oaks, California, was on the staff of this College as a Visiting Professor of Sociology. Under this Programme, Prof. Clyde L. Putnam and Mrs. Esther Putnam worked in this College as Professor of Mathematics and Librarian, respectively, during 1965-66. Their counterpart at the Sacramento City College was Dr. Nelivigi, Principal of the K.I.E. Society's College of Arts and Science, Bangalore. As a gesture of friendship and goodwill, many educational institutions of California have gifted several hundreds of books to the Kalpataru College Library.

TECHNICAL AND PROFESSIONAL EDUCATION

There are three technical and professional institutions in the district, namely, Sri Siddhaganga Institute of Technology, Tumkur, the Polytechnic, Tumkur, and the Vidyodaya Law College, Tumkur. Brief descriptions of these institutions are given below.

Sri Siddhaganga Institute of Technology

The Sri Siddhaganga Institute of Technology (formerly known as Sri Siddhaganga College of Engineering) was established in the year 1963-64 by the Sri Siddhaganga Education Society. The Institute is run in its own permanent buildings, constructed on a 50-acre plot of land on the outskirts of Tumkur town. It is managed by a Board consisting of prominent persons from various walks of life. The Institute offers (1) a five-year integrated degree course in engineering of the University of Mysore in Civil, Mechanical and Electrical branches, and (2) a four-year condensed B.E. degree course in those branches, for those who have passed the three-year diploma course. It may be mentioned in this connection that this condensed course is offered only in this institution, from among all the three Universities in the State. The intake for the integrated course is 120 per year (40 in each branch), while that for the condensed course is 60 (20 in each branch).

The Institute has plans to start new courses in engineering, namely, (1) Metallurgy, (2) Chemical Engineering, (3) Electronics and (4) Industrial Engineering.

The strength of the students during 1966-67 was 470 and it increased to 599 during the next year. The strength of the tutorial staff was also enhanced from 35 in 1966-67 to 49 in 1967-68, which included a Principal, two Professors, seven Readers and 32 Lecturers. The Institute has been provided with well-equipped laboratories and workshops and furniture, and the students are given practical training in the Institute itself, without the necessity of going to any other institution for the purpose. The library contains books valued more than Rs. 42,000. In addition to this, the Institution of Engineers (Mysore Centre) and Sri Ram-narayan Chellaram's Book Bank have presented books worth more than Rs. 5,000. Accommodation was provided to 280 students in the College hostel during 1966-67. As this was found to be inadequate, facilities were increased so as to accommodate 320 students—to meet the growing demand of students who came from several parts of India, including Kerala, the Punjab, West Bengal and Rajasthan.

A Polytechnic was started at Tumkur in the year 1958, offering courses, at the diploma-level, in Civil, Mechanical and Electrical Engineering. One hundred and twenty students are admitted each year—40 each in Civil, Mechanical and Electrical Engineering. There were 291 students studying in the three courses during the year 1967-68, as per particulars furnished below :—

Course	Year			Total
	I	II	III	
Civil	31	15	32	78
Mechanical	39	44	35	118
Electrical	39	32	24	95
Total	109	91	91	291

The staff of the Polytechnic consisted of one Principal-cum-Head of Section, two Heads of Sections, 12 Lecturers, six Assistant Lecturers, besides other technical staff. There is a well-equipped library consisting of about 3,300 volumes.

The Vidyodaya Law College, Tumkur, was established by the Vidyodaya Education Society in 1958 and is affiliated to the Mysore University. Admission to the College is open to graduates.

Vidyodaya Law College, Tumkur

The institution offers now a two-year course in law leading to the B.L. degree. During the year 1967-68, there were 53 students, including three girl-students, on the rolls. The staff consisted of one Principal and two full-time and six part-time Lecturers, as on the 1st March 1968. Twenty-three out of the twenty-seven students, who had appeared for the B.L. degree examination of 1967 from this College, were successful.

Teachers'
Training
Institutions

The training courses for teachers provided by the Department of Public Instruction are of two grades, namely, the Teachers' Certificate (Higher Grade) and the Teachers' Certificate (Lower Grade). The former is intended for teachers in senior primary or middle schools (classes V to VII) and is of two years' duration. The minimum general educational qualification for this course is a pass in the S.S.L.C. examination. The Teachers' Certificate (Lower Grade) is for teachers in junior primary schools (classes I to IV) and this course also extends over a period of two years. The minimum general educational qualification for admission to this course is a pass in the VII standard examination. There is a public examination at the end of each course followed by a practical examination. The minimum age for admission to the lower course is 16 years, while for the higher course it is 17 years, as on the 1st June of the year of admission. The course of studies includes principles of education, methods of teaching, psychology, school administration, crafts, music, kitchen-gardening and physical education. As on the 1st March 1968, there were five training institutions in the district, two of the basic pattern, namely, the Government Basic Training Institute, Chikkanahalli, Sira taluk, and the Siddhartha Residential Basic Training College, Gollahalli, Tumkur taluk, and three of the non-basic pattern, namely, the Teachers' Training Institute, Tumkur, the Siddhaganga Training College, Tumkur, and the Sri Siddhalingeswara Residential Teachers' Training College, Siddhaganga. Brief accounts of these institutions are given below.

Government
Basic Training
Institute,
Chikkanahalli

The Government Basic Training Institute, Chikkanahalli, was established in the year 1961. It provides training for Teachers' Certificate Higher course of two years. The intake capacity is one hundred students, but actually there were 83 students on the rolls during 1967-68. Three candidates received a stipend of Rs. 25 for a period of 10 months. In 1967-68, the staff consisted of a Superintendent, three graduate teachers, a craft teacher, a Kannada Pandit, a drawing teacher and a drill instructor.

Siddhartha
Residential
Basic Training
College,
Gollahalli

The Siddhartha Residential Basic Training College, Gollahalli, was started in the year 1963. It provides training for the Teachers' Certificate Higher Course of two years. The intake capacity is one hundred students, but actually there were 70 students on the rolls during 1967-68. The staff consisted of a Superintendent, two part-time lecturers and five teachers.

The Teachers' Training Institute, Tumkur, was established by the Government about 50 years back. It provides training for both higher and lower courses. In 1967-68, the intake capacity was 40 for the lower course and 50 for the higher course. There were 78 students in the T.C.L. course and 109 students in the T.C.H. course during 1967-68. The staff consisted of a Superintendent, six graduate teachers, a Kannada pandit, two craft teachers and part-time teachers for music, drawing and physical education.

Teachers'
Training Insti-
tute, Tumkur

The Siddhaganga Training College, Tumkur, was established in 1956 by Sri Shivakumara *Swamigalu* of Siddhaganga *Matha*. It provides training for the two-year T.C. Higher course and has an admission capacity of 100. As on 1st March 1968, there were 149 students, of whom 64 were deputed for training by institutions. Stipends are given to deserving private candidates, at the rate of Rs. 25 each per month, for a period of ten months. In 1968, there were ten teachers on the staff of the College.

Siddhaganga
Training
College,
Tumkur

The Sri Siddhalingeswara Residential Teachers' Training College, Siddhaganga, was founded in 1961 by Sri Shivakumara *Swamigalu* of the Siddhaganga *Matha*, which maintains this institution. It provides training for the two-year T.C. Higher course. In 1967-68, there were 117 students in the first year and 87 students in the second year of the course, and the staff consisted of ten teachers.

Siddhalingesw-
ara Residential
Training
College

ORIENTAL EDUCATION

The Sri Siddhalingeswara Samskrita College, Siddhaganga, was established as early as 1917 by the Siddhaganga *Matha*. The College prepares students for the various public examinations in Sanskrit, conducted by the State Board of Sanskrit Education and Examinations. The duration of the entire course from elementary to the degree-level is of 13 years. Some of the important subjects taught in the institution are *Vyakarana*, *Alankara*, *Tarka*, *Shakti-Vishishtadvaita* and *Jyotishya*. The total number of students in the College was 2,108, who were under the charge of 19 teachers, in 1967-68. The institution was getting a grant of Rs. 59,250 from the Government.

Siddhalingesw-
ara Samskrita
College,
Siddhaganga

The College is conducting also the Kannada Pandit course of four years' duration. The admission qualification for this course is S.S.L.C. There were 18 students in the junior grade and 12 students in the senior grade in this course during 1967-68. The staff consisted of six teachers.

SOCIAL EDUCATION

The need for adult education in the State was recognised and steps were taken by the Government as early as 1910 to encourage the starting of adult schools. These schools were intended mainly to educate artisans, agriculturists and others of 15 years of age and above and were conducted at nights by the teachers belonging to the primary schools. A grant of five rupees per month was being paid to each teacher for this purpose. A large number of adult night schools were opened each year. There was, however, a set-back during the year 1939-40 and several of the night schools were closed, the reasons being that the curriculum was rather too literary and the course too long and 'tedious', extending, as it did, over three years. However, in the year 1940, efforts were again made to give an impetus to re-opening of such schools and to organise mass literacy campaigns.

Wider scope

Adult education, as an organised movement in the State, may be said to have had its origin in the State Literacy Council, which started its work on the 1st January 1942. The Council, in the beginning, confined its activities to conducting night classes for adults. But by the year 1945, the scope of adult education was enlarged so as to include not only literacy, but also follow-up work by using library facilities and partaking in the cultural and social activities. While literacy was undoubtedly important, it was recognised that it was only one of the elements in a wider concept of social education. Social education embodied a comprehensive approach to the solution of the problems of the community. Besides literacy, it included other items of work like recreation for health and happy home life, citizenship training and economic activities. Further, in a democratic set-up, if people were to play their role effectively, it was all the more essential that social education should make people conscious of their rights as well as of their responsibilities and duties to the society.

The main activities of the Mysore State Adult Education Council consist of (i) spreading of literacy, (ii) starting of social education centres, (iii) setting up of rural libraries, (iv) publication of literature for neo-literates and (v) establishment of Janatha Colleges. The Council is conducting also research in social education and is publishing a weekly news-sheet and a monthly 'digest'. It also encourages folk-lore, popular arts and dances.

District Adult Education Committee

The District Adult Education Committee is organising community centres to impart general education to the rural people and to infuse in them a spirit of self-help and social service. These units serve also as cultural centres, where recreational and folk-art programmes are organised. As a part of the general

education scheme, films are also shown. The District Committee is paying special attention to the following items of work :—

- (1) Adult Literacy classes ;
- (2) Cultural and educative film shows ;
- (3) Starting of rural libraries ;
- (4) Establishment of community recreational centres ;
- (5) Arranging students' social service camps, and
- (6) Holding of propaganda meetings and exhibitions.

Adult Literacy Campaign.—Thirty-two adult literacy classes were started in the district during the year 1966-67, of which 28 were for men and four for women. Six hundred and eighty-six persons, of whom 600 were men and 86 women, were admitted into these classes. The number of persons made literate as a result of attending these classes was 408 (356 men and 52 women), the percentage of success being 60.

One of the features of the Council's activities is the holding of social service camps in summer vacation. These camps are held with the co-operation of teachers and students of educational institutions. The duration of each camp is usually one month. Village survey, sanitation, road-laying, encouragement of folk-arts, preparation of compost manure and giving instruction in general education are some of the important activities of these camps. During the year 1966-67, twenty such camps were organised in the district.

Audio-visual education is one of the important programmes taken up by the Council as an adjunct to its fundamental education programmes for the benefit of the adults in rural areas. For this purpose, fully-equipped mobile units tour in the various parts of the district and conduct film shows. Twenty-six film shows were arranged in the district during 1966-67, and 130 propaganda meetings were also held. As a follow-up of the literacy campaign, the Council also maintains a net-work of rural libraries, which play an important role in the social education activities. There were 251 village libraries, during 1966-67, in various parts of the district, containing about 62,000 books of the value of about Rs. 60,000.

The library organisation in the State consists of (1) school libraries, (2) educational libraries, (3) urban and rural libraries and (4) public libraries. A feature of the library movement in the State was the starting of an integrated library service in compact areas under a Government of India scheme of educational development. Each such area was supplied with periodicals, journals and books of interest, which were circulated in the villages of that area. The school libraries and educational libraries were under the

control of the Department of Public Instruction, while the urban and rural libraries were under the control of local authorities. The Government sanctioned liberal grants to these libraries. The public libraries were managed by elected committees.

There were ten public libraries in Tumkur district as on 1st January 1968, namely, (1) Sri Krishnarajendra Library, Tumkur, (2) Bharat Sevalal Free Reading Room and Library, Tumkur, (3) Yuvaka Sangha Free Reading Room and Library, Sriramanagar, Tumkur, (4) Nehru Free Reading Room and Library, Kyatsandra, (5) Friends' Union Library, Gubbi, (6) Lakshmijanardhanaswamy Library, Kadaba, (7) Library and Reading Room, Chiknayakanahalli, (8) Vasavi Pustaka Mandir, Madhugiri, (9) Yuvaka Sangha Reading Room and Library, Nagalapura, Turuvekere taluk, and (10) Anubhava Allama Prabhu Library and Reading Room, Tiptur. Among these, the Sri Krishnarajendra Library, Tumkur, is the largest and a brief description of it is given below :

Sri Krishna-
rajendra
Library,
Tumkur

The Sri Krishnarajendra Library, Tumkur, was started in the year 1918, by the late Sri C. Krishna Rao, retired Deputy Inspector-General of Education, who was its Founder-Secretary. It is managed by a committee of eleven members. There were 10,652 books in the library in English, Kannada and Urdu, as on 1st January 1968. Both the Education Department and the local Town Municipal Council are supporting the institution through annual grants. There are three classes of membership. Nearly 37,000 persons visited the library during the year 1966-67.

Library service

Consequent upon the implementation of the Mysore Public Libraries Act, 1965, in the State, a separate Department of Public Libraries was created in 1966 and it is responsible for organising a comprehensive rural and urban library service in the State. The State Library Authority constituted under Section 3(1) of the Act consisted of 24 members, the State Minister for Education being the *ex-officio* President, and the State Librarian, the *ex-officio* Secretary. Local Library Authorities have been already constituted for three cities, namely, Bangalore, Mysore and Hubli-Dharwar and there is a proposal to constitute such authorities for all the districts of the State. Provision is made in the Act for the collection of library cess in cities and towns and for the grant by Government, of three per cent of the entire land revenue collections of the State. The receipts under these two items are expected to amount to about Rs. 20,48,600 per year for the State as a whole.

Cultural and
literary
activities

Tumkur district, in the field of cultural and literary activities, cannot, however, so well compare with Bangalore, the administrative headquarters, or with Mysore. But the spirit of renaissance of Kannada literature permeated well into the district through men of letters and religious philosophers. It is noteworthy that

the Siddhaganga *Kshetra*, which is in close proximity to the Tumkur town, is a centre of literary activities of the traditional type. The *Gurukula* system of education, where the teacher and the taught have a peculiar bond of philosophic attachment, still continues at this centre of learning. The *Peetha* which is held in high esteem by the Veerashaivas and also by others, is called Sri Niranjana Peetha, and Sri Siddheshwara Swami (12th Swami in the line) was renowned for his austerities and spiritual attainments. According to a legend, he had a call from the Almighty to break open a slit in the mighty rock adjoining the place and this act of his created a perennial water source, which was hailed as a gift of God, and this water source (the Ganga) gave to the place the name of "Siddhaganga". Very near to this, Maharaja Chikkadevaraja Wodeyar installed an image of Sri Siddhalingeswara in 1660. The place is a famous centre of pilgrimage. In 1902, the late Swamiji Sri Adaveeshwaraswami, started a small Sanskrit *Gurukula*, where free education in the ancient texts was imparted. The *Veda Pathashala* attracted young pupils from far and near, and to house them, a free hostel was also constructed.

In 1917, this Sanskrit institution was further developed and highly learned pandits were appointed as teachers. When Sri Shivakumara Swamigalu, who has the advantage of both English and Sanskrit education, became the head of the *Peetha* in 1930, he set about developing at the centre both Sanskrit learning and modern education. The *Pathashala* was developed into a *Mahapathashala* or college, and several institutions were established, as already narrated, to serve the cause of education without distinction of caste and creed. The Swamiji is propagating cultural and spiritual ideas by his learned discourses. A branch of the Sri Shringeri *Matha* is located at Hebbur, and the head of this institution is known for his philosophic discourses on *Advaita*.

Gubbi Mallanna was an author of repute, who was proficient both in Kannada and Sanskrit languages. He was born in 1475. Among his important works, mention may be made of *Gana Bhashya Ratnamale* and *Vathulagama Vyakhyana*.

Gubbi Mallanarya, grandson of Gubbi Mallanna, born in 1513, was also a poet proficient both in Sanskrit and Kannada languages. He became famous as the commentator of *Basava Purana*. He also wrote *Bhava-Chintaratna* and *Veerashaivamarutha Purana*. Shantasha, son of Gubbi Mallanarya, born in 1560, was also famous for his work *Thontada Siddheshwara Purana*, containing 1,000 stanzas in *Bhamini-Shatpadi*. Nitturu Nanjayya, who was born in 1725, was also a well-known author. He wrote a commentary on *Shabdamani Darpana* (a Kannada grammatical treatise) and also a famous work in Sanskrit, namely, *Vedanthasara Veerashaiva-Chintamani*. Nanjunda Shivayogi of Mathkur near Siddhaganga,

was a well-known author and artist. Among his important works may be mentioned *Adaveeshwara Geethamanjari*, *Adaveeshwara Bhaktisara*, *Markandeya Vilasa* and *Surabhandeshwara Vyakhyana*.

In recent times, Garani Krishnacharya, who hailed from Madhugiri taluk and who was a Kannada Pandit in the Madras Christian College for a long period, wrote several works like *Mrichchha-Katika*, *Nagananda-Nataka*, *Neethi-Shataka*, etc. B. Somanathaiya, who belonged to Bellave in Tumkur taluk, has written works like *Rajashekhara Charite*, *Srirangapatnada Charite* and *Vignana Deepika*.

Among those, who have produced, in recent decades, works of high literary merit and scholarship, mention may be made of the late Hosakere Chidambarayya, the late Sri Bellave Narahari Shastry, the late Prof. Bellave Venkatanaranappa, the late Prof. T. N. Srikanthaiya and Sri B. Shivamurthy Shastry. Sri Bellave Narahari Shastry was born at Bellave, a village in Tumkur taluk. From his boyhood, Sri Narahari Shastry showed his aptitude for music and drama, and became famous as a playwright. He has produced popular plays in Kannada which are often enacted. *Kabirdas*, *Sri Krishna Parijatha*, *Rukmini Swayamvara*, *Krishna Garudi* and *Rajabhakti Kavyam* are among his works.

The late Sri T. N. Srikanthaiya was a scholar of repute in Kannada, English and Philology. He was a professor in the Mysore and Karnatak Universities. Among his important works, mention has to be made of *Kavya Sameeksha* and *Bharateeya Kavya Meemamsa*. Collections of his lyrical poems called *Olume* and *Rakshasana Mudrike* have won high appreciation. He has also edited *Nambiyannana Ragalegalu* by Harihara.

Prof. B. Venkatanaranappa, who also hailed from Bellave near Tumkur, though a scientist, contributed his share to the growth of Kannada literature. Two of his important works are *Gunasagara* and *Jeeva Vignana*. He edited a number of famous works like *Pampa Bharata*, *Pampa Ramayana* and *Shabdamani Darpana*. He was editing a Kannada magazine called *Vignana*, which dealt with scientific subjects, and was also the Chief Editor of Kannada-English Dictionary. He was the president of the Kannada Sahitya Sammelan held at Jamkhandi in 1937.

Sri B. Shivamurthy Shastry, who was born at Tumkur and had been a teacher and *Keentanakara*, is a noted author of several books, among which are *Veerashaiva Sahitya mattu Itihasa*, *Bidanura Prabhu Shivappa Nayaka* and *Karnataka Sandarshana*. A monthly magazine, *Sharana Sahitya*, is edited by him. He was awarded *Pandita Ratnam* and *Padmashri* in recognition of his services in the literary and cultural fields. He was the president of the Kannada Sahitya Parishat for several years.

The famous architect and sculptor, Jakanachari, and his son, Dankanachari, were, according to a tradition, natives of Kaidala village in Tumkur taluk. (For details See Chapter XIX—Places of Interest under Kaidala).

Classical South Indian music has a universal appeal to the music-minded people of the district. Reputed artists are invited occasionally to give performances, notably at Tumkur, Tiptur and Madhugiri. The Tumkur Gayana Samaja, which was established in 1950, has a membership of 200, and it arranges music concerts periodically. Music and Drama

The Tumkur district nurtured several dramatic troupes, of which Sri Gubbi Channabasaveshwara Krupaposhita Nataka Mandali is the oldest. Sri Chandanna of Gubbi first attempted to stage *pauranic* plays which were enacted in the *Yakshagana* style. He then brought about some reformation to convert these open-air plays into theatrical ones. With the help of some of his close associates, he started the Gubbi Company in 1884 and put on the stage *Kumara Rama Charite*. His late Highness Sri Chamaraja Wodeyar X saw the play personally during his tour of the area and paid well-deserved encomiums. The sponsors of the Gubbi Company were Sri Chandanna, Janab Abdul Aziz Sait and Gubbi Sahukar Neelakanthappa. Later on, *Natakaratna* Gubbi Veeranna took over the management and developed the Company into a prosperous one. Doddappa, Doddananjappa, Doddakannayya, Revanna, Murigeppa and Srimati Rajamma were some of the noted actors in the old days. They enacted some highly popular plays like *Gulebakavali*, *Pandava Vijaya* and *Dharmaraja Charite*. The Company had the good fortune to get the assistance of noted actors like C. B. Mallappa, Gangadhara Rao, Vyasa Rao, G. Nagesha Rao and Hirannaiah and actresses like Srimathi Rajamma and Srimathi Jayamma. As a result of the persistent efforts of Sri G. H. Veeranna and his associates, the Company attained a prominent place in the domain of Kannada drama. It celebrated its diamond jubilee in the year 1948. Sri Chandramouleshwara Krupa Poshita Nataka Sabha of Chiknayakanahalli was yet another dramatic troupe, whose plays were popular. Sri Shankaravilas Nataka Sabha of Tumkur was started in 1905. This troupe was staging plays specially during *jatras* and festivals.

The late actor Hirannaiah, who was a native of Tiptur taluk, developed his talents under the guidance of *Natakaratna* Sri G. H. Veeranna in the Gubbi dramatic troupe. He portrayed the roles of Adimoorthy in *Sadarame* and also the role of a thief in the same drama. He then started the famous Jayagowri-Shankara Nataka Sangha, and put on board *Damaji Panth*, *Devadasi* and other popular plays. He later on went to Mysore and started another troupe, called Sri Hirannaiah Mitra Mandali. The late Sri Hirannaiah was very popular in comic roles. His son, Master Hirannaiah, is now continuing in his father's foot-steps. Among ladies, Srimatis Nagaratna, Tripura-Sundaramma and Jayamma from this district have been popular actresses.

CHAPTER XVI

MEDICAL AND PUBLIC HEALTH SERVICES

Early history

A PRECISE assessment of the medical and public health facilities available in early times in the district is not possible for want of adequate source material. It is well-known that the Ayurvedic system of medicine was practised all over the country from the very early times. The system of medicine had its roots in the vegetation, climate and culture of the country, and it seems to have formed a part of Sanskrit learning. The Ayurvedic doctors (*Vaidyas*) were noted for their knowledge of the medicinal properties of herbs and plants. A good Ayurvedic *Vaidya* was capable of affording relief to his patients with the help of herbs and plants commonly available in the rural areas, without having to depend on costly drugs. Knowledge of several Ayurvedic medicines was common and many household remedies were fairly efficacious for common ailments. In many of the villages, there were at least one or two families well-versed in the Ayurvedic system of medicine. The Muslims brought the Unani system of medicine practised by the *Hakims*. They did not, however, penetrate into the rural areas, their practice being generally confined to the urban areas. They enjoyed not only the patronage of the Muslim population but also that of a considerable section of the Hindus. The Ayurvedic *Vaidyas* continued to carry on their practice both in the urban and rural areas. Even to-day, it is found that a considerable number of people in the rural as well as urban areas are being treated by practitioners of the indigenous systems of medicine.

Advent of
Allopathic
system

With the increasing contact with the East India Company and the British officers, the Western or the Allopathic system of medicine came into vogue in India. The system was ushered in Mysore State after the Fourth Mysore War in 1799, when the British established themselves in the State. After the assumption of the Government of the State by the British in 1831, the Surgeon to the Mysore Commission was in general control of vaccination work. With the establishment of district hospitals in the several divisions a little later, a Civil Surgeon was appointed in each divisional headquarters. This officer was also the Superintendent of local jails and Inspector of all the medical institutions

within the limits of his division. Besides, the medical institutions in the districts were also being inspected by the Deputy Surgeon-General of the Indian Medical Department for Mysore and the Ceded Districts. In addition to this inspection work, he also performed the duties of the Sanitary Commissioner and Registrar of Vital Statistics. In 1880, the Deputy Surgeon-General was withdrawn and his duties, in so far as Mysore was concerned, were transferred to the Surgeon to the Mysore Commission.

The medical set-up of the State underwent a complete change after the rendition. In May 1884, a scheme for the establishment of a local medical service, composed of duly qualified personnel, was introduced. The head of the Medical Department, being the senior-most of the covenanted medical officers, was designated as the Senior Surgeon. The other local medical officers were designated as Surgeons, Assistant Surgeons and Hospital Assistants. In 1888, a new grade of Sub-Assistant Surgeons was created.

The public health administration of the State was also reorganised so as to make it more useful and efficient. In 1887, the Senior Surgeon to the Government was made *ex-officio* Sanitary Commissioner and was entrusted with the responsibility of scrutinising and compiling births and deaths returns, supervision of vaccination work and control of epidemics like plague, cholera and small-pox. Between 1898 and 1902, a special Plague Commission was appointed to check the spread of this deadly disease. The year 1907 saw the re-organisation of the Sanitary Department, when a separate sanitary service was introduced. The State was divided into three divisions, *viz.*, western, eastern and southern, and the Tumkur district was included in the eastern division. A Divisional Sanitary Officer was appointed for each of the divisions. The District Medical Officer in Tumkur was the *ex-officio* District Sanitary Officer. During 1909-10, these posts were abolished and a new cadre of District Sanitary Officers was created. They were placed under the control of the Deputy Commissioners of the districts. In 1917, a full-time Sanitary Commissioner was appointed as the head of the department. Again in 1923-24, in order to effect retrenchment, the post of full-time Sanitary Commissioner was abolished. The Senior Surgeon was again entrusted with the duties of the Sanitary Commissioner, and a new cadre of Chief Sanitary Inspectors was created to take the place of District Sanitary Officers. The latter were made to work directly under the orders of the presidents of District Boards.

It was in 1944 that the post of District Health Officer for Tumkur district was sanctioned. However, the District Medical Officer continued to hold the additional charge of the sanitary office till July 1953. In the beginning, a few Junior Health

After
RenditionDistrict Health
Office

Inspectors were posted to assist the District Health Officer in his work. The strength of personnel of the establishment was augmented from time to time to cope with the increase in the volume of work consequent on the undertaking of several development schemes under the successive Five-Year Plans. With the great importance that is attached to the family planning programme in recent years, the designation of the District Health Officer has been changed into District Health and Family Planning Officer since 1966.

Re-organisation of department

The Medical and Public Health Departments of the State were amalgamated in 1965 and an officer designated as Director of Health Services was appointed as the head of the re-organised department at the State-level. At the district-level, however, there are two wings under two independent district officers, *viz.*, District Surgeon (who is in charge of the District Headquarters Hospital at Tumkur) and the District Health and Family Planning Officer. Both these officers are directly responsible to the Director of Health Services in Mysore, Bangalore.

The District Health and Family Planning Officer, Tumkur, is in charge of the public health and family planning wing of the department at the district-level. He is both a technical and administrative officer and deals with matters relating to public health, such as control of epidemics, malaria eradication, maternity and child welfare, vital statistics, sanitation, health education and laboratory work associated with public health. His functions as Family Planning Officer include propaganda on family planning, advice to couples on the methods and facilities of family planning, supply of contraceptives, conducting of camps for vasectomy and tubectomy operations, loop insertions, etc. Since 1st June 1960, he has been also in overall charge of all the medical institutions at the taluk-level in the district. Under the Family Planning Programme, the District Health and Family Planning Officer is assisted by a Medical Officer of Health, a Lady Assistant Surgeon, two District Extension Educators (one male and one female), two Health Assistants (one male and one female), a Nurse, a Statistical Assistant and a Projectionist. Under the Malaria Eradication Programme, he is assisted by an Assistant District Health Officer, two Health Supervisors, a Senior Microscopist and a Basic Health Worker. Under the Maternity and Child Health Programme, there is a District Nursing Supervisor to assist the District Health Officer. There are also three Reserve Junior Health Inspectors, one Reserve Compounder and some ministerial and class IV staff assisting him and other officers in the district headquarters. Besides these officers and members of the staff at the district-level, several other technical and other staff at the block-level and the medical officers and staff of the several medical institutions at the taluk-level, such as Primary Health Centres and Units, Health Unit-Type Dispensaries, Maternity Hospitals,

Combined Dispensaries and Local Fund Dispensaries are also under the administrative control of the District Health and Family Planning Officer.

In the early days, there was no special agency for the registration of births and deaths in the district other than the village patels. These village officers were required to send monthly returns to the Taluk Office from where they were transmitted to the District Office to be later forwarded to the Sanitary Commissioner's Office. With a view to securing better registration of details regarding births and deaths, rules were revised in 1915-16 by which Inspecting Officers were required to scrutinise the entries in the actual registers. Again, in 1918 a new regulation was introduced to improve the system of collection, compilation and publication of vital statistics. According to this regulation, the entries regarding births and deaths had to be certified by a technical officer after a sample check-up in the area concerned. This proved helpful in correcting the deficiencies to a certain extent. The registration of vital statistics was later made compulsory in a Government Order issued in 1946. Births, deaths and other related statistics are, at present, registered by the village patels in rural areas and sent to the Registrar-General of Births and Deaths through the Tahsildars concerned. In the urban areas, the municipal authorities collect these statistics and send them to the Registrar-General. The Health Inspectors collect the statistics in respect of health-unit areas, and during their visits to villages, opportunity is taken to verify the figures registered by the village patels.

The rise or fall in population of an area can be directly attributed, to a great extent, to the condition of health of the people. There may be other causes like famine and distress conditions, migration of persons from one area to another, etc. The following table gives the variations in the total population of the district for the first six decades of this century:—

Census year	Total population	Increase or decrease	Net variation for sixty years
1901	6,71,953	..	
1911	7,39,276	+ 67,323	
1921	7,76,971	+ 37,695	
1931	8,63,227	+ 86,256	
1941	9,55,809	+ 92,582	
1951	11,51,362	+1,95,553	
1961	13,67,402	+2,16,040	+6,95,449

Births and deaths

From the above figures, it is seen that in the decade 1951-61, the net increase in population was 2,16,040, the highest during the 60-year period. This increase is, by and large, attributable to a falling death rate and a higher birth rate. The subjoined table indicates the number of births and deaths as also the birth and death rates per *mille*, for the period from 1960 to 1965 :—

Year	No. of births	Birth rate per mille	No. of deaths	Death rate per mille
1960	.. 14,503	10.8	5,989	4.4
1961	.. 13,645	10.08	4,850	3.5
1962	.. 13,398	9.9	4,715	3.3
1963	.. 10,348	7.29	3,424	2.41
1964	.. 10,634	7.3	4,444	3.09
1965	.. 10,592	7.2	4,492	3.0

From the foregoing table, it can be seen that in recent years the death rate has been generally falling; so also the birth rate. The fall in the death rate is, to a large extent, due to the intensive preventive and curative measures carried out and a better standard of living. There has been a systematic drive to control epidemics and a large number of people have been vaccinated or inoculated. The fall in the birth rate may be attributed, to a certain extent, to the intensive family planning drive that is being carried out in the district in recent years and the growing consciousness among the people, especially among the educated classes, to limit their families. It may, however, be pointed out that the birth and death rates, as recorded in the district, fall far short of the known rates for India. This evidently shows that there are certain omissions in recording the vital events. (See also Chapter III).

Infant and maternal mortality

Infant mortality was considerably high in the district in the earlier decades of this century. The main causes for these deaths are prematurity, bronchitis, diarrhoea, dysentery, fevers, convulsion, sepsis and respiratory diseases. The infant mortality rate has, however, been considerably reduced in recent years with the introduction of modern system of midwifery and the rapid implementation of maternity and child welfare services under the Plan programmes. The following table gives the number of still-births, infant deaths and the infant mortality rate per *mille* in the district for the period from 1960 to 1965 :—

Year	No. of still births	No. of infant deaths	Infant mortality rate per mille
1960	.. 321	715	49.3
1961	.. 351	524	38.4
1962	.. 333	504	37.6
1963	.. 235	342	33.05
1964	.. 277	432	40.62
1965	.. 174	N.A.	N.A.

N.A.—Not available.

The main causes for maternal deaths are anaemia, haemorrhage, eclampsia and difficult labour. As in the case of infant mortality, the rate of maternal mortality, which was considerably high in the earlier decades, has been greatly reduced in recent years. This is mainly due to the increased facilities provided for the pre-natal, natal and post-natal treatment in the several hospitals, maternity homes and health centres in the district. As per the figures furnished by the Registrar-General of Births and Deaths for Mysore, Bangalore, the maternal mortality rate in the district was fluctuating between 8.5 and 5.8 per *mille* during the period from 1960 to 1965 as could be seen from the following table :—

Year	No. of maternal deaths	Maternal mortality rate per mille
1960	.. 127	8.5
1961	.. 90	6.4
1962	.. 103	7.6
1963	.. 60	5.8
1964	.. 84	7.9
1965	.. 90	8.0

The common diseases for which the majority of patients were treated in the health centres and dispensaries in the district are Common diseases
respiratory diseases and fevers; gastro-intestinal infections, diarrhoea and dysentery are also prevalent to a certain extent. This is largely due to insanitary environmental conditions and the unprotected water supply, especially in the rural areas. Under-nutrition and mal-nutrition also affect the poorer sections of the people, as the district is often subject to scarcity conditions owing to the failure of monsoon. The other diseases from which the people generally suffer in the district are pneumonia, typhoid,

digestive diseases, anaemia, worms, ulcers, skin diseases and the like.

Epidemics

Cholera and small-pox are the two diseases which, at times, assume epidemic proportions in the district. The district has been free from plague in recent years. But small-pox and cholera may be said to be still persisting with sporadic outbreaks in some or the other parts of the district. When an epidemic breaks out, the Health Inspectors and other health workers are alerted to work in close co-operation under the general guidance of the District Health Officer. The Health Inspectors tour in the area in order to gain first hand knowledge of the extent and severity of the epidemic. All the drinking water sources in the area are thoroughly disinfected and the villagers are advised to isolate the sick persons and to evacuate the houses. People living in the infected area are vaccinated or inoculated and are advised against entertaining any relatives or friends. It is the duty of the Health Inspectors to enquire into and ascertain the causes of origin and spread of the epidemic within their jurisdiction and furnish periodical reports to the nearest Medical Officer and also to the District Health Officer. Various conditions injurious to public health are systematically removed so as to minimise the incidence. Special attention is paid to water supply sources and to the disposal of refuse. During the time of fairs and festivals, special staff is requisitioned to control any out-break of epidemics.

Plague

Plague was prevalent in the district almost every year upto 1964. The incidence was high during the years 1961-62 and 1962-63. Cyano-fumigation of rat-burrows and anti-plague inoculations were undertaken to control the disease. Insecticidal spraying of houses by hexidol was also resorted to as a control measure. As a result of the concerted efforts made by the district health authorities to combat this epidemic, the incidence was brought down considerably by 1963-64. The subjoined table shows the number of plague attacks and deaths and the number of anti-plague inoculations done in the district during the period from 1960-61 to 1965-66 :—

Year	Attacks	Deaths	No. of anti-plague inoculations done
1960-61	.. 155	27	N.A.
1961-62	.. 470	69	23,652
1962-63	.. 562	61	48,672
1963-64	.. 30	2	4,221
1964-65	.. 6	Nil	N.A.
1965-66	.. Nil	Nil	Nil

N.A.—Not available

Small-pox has been a major health problem all along in the district and there is no year in which the disease was completely absent. The incidence was heavy during the year 1949 with a gradual decrease in the following six or seven years. But it rose up again in 1957 and 1958. The Government, therefore, set up an Expert Committee in 1959 to suggest ways and means of eradicating both small-pox and cholera in the State. Based on the recommendations of this Committee, large-scale efforts were made through primary vaccination and subsequent planned periodical vaccination to bring the disease under control. During 1962, a unit under the Small-pox Eradication Programme was started in the district and the vaccination programme was intensified throughout the district. The district was brought under maintenance phase in 1964. As a result of these concerted efforts, the incidence of small-pox in the district has been greatly reduced in recent years. The following figures indicate the number of small-pox attacks and deaths in the district from 1965 to 1967 :—

Year	Attacks	Deaths
1965	.. 82	18
1966	.. 301	62
1967	.. 55	18

Small-pox particularly affects children. Vaccination, being the only preventive, is done with a phased programme by the health staff. The vaccinations are done by trained vaccinators who are stationed in the headquarters of each taluk. The vaccination work is carried on after a verification of birth registers. Systematic door-to-door inspection of the entire town or village is conducted for detection of unprotected cases. Each vaccinator is generally required to carry out not less than 3,000 vaccinations in a year. When small-pox breaks out in an epidemic form, the vaccinators have to rush to the infected area and vaccinate all unprotected children and adults. All available staff are mobilised to do intensive vaccination work in that area. Re-vaccination, though not compulsory, is essential for protection against small pox, and hence due attention is paid to re-vaccination work also. The subjoined table shows the number of primary and re-vaccinations done in the district during the years 1965 to 1967 :—

Year	No. of primary vaccinations	No. of re-vaccinations	Total
1965	.. 62,345	2,22,631	2,84,976
1966	.. 63,785	10,13,635	10,77,420
1967	.. 67,372	2,72,728	3,04,106

Cholera

The district is not altogether free from the incidence of cholera also, though it was not very high for several years in the recent past. The incidence was said to be heavy in 1953, as near-famine conditions were then prevalent in the district. Subsequently, the infection was brought under control to a considerable extent by resorting to mass inoculations, by blocking all contaminated sources of water and by treating with chemicals all such water-sources to destroy the infectious germs. The figures given below indicate the number of cholera attacks and deaths in the district during the years 1965, 1966 and 1967 :—

Year	Attacks	Deaths
1965	137	57
1966	92	29
1967	142	50

To bring the incidence under control, as many as 1,39,739 persons were given anti-cholera inoculations during 1965 and all the drinking water sources in the district were chlorinated. The number of persons inoculated during 1966 and 1967 were 12,119 and 42,597 respectively.

Typhoid

Typhoid has been prevalent in the district in a sporadic form. As and when typhoid cases are reported, TAB inoculations are given to the infected people in the affected areas. During 1967-68, the typhoid infection spread in an epidemic form in three villages of Tumkur taluk and a village each in Koratagere and Tiptur taluks. In all, about 250 persons were affected, of whom six persons died. The health authorities undertook prompt preventive measures, such as administering of TAB inoculations, chlorination of sources of drinking water and disinfection of infected houses. The patients were treated on the spot and the epidemic was brought under control.

Malaria

Malaria control work was in progress in Mysore State even much before the inception of the Five-Year Plans. The State, which is a pioneer in this field, started a programme of research and training for eradication of malaria as far back as 1928. However, in the beginning, the malaria control operations were confined to the *malnad* areas which were highly endemic for malaria. Gradually, the services were extended to other areas also, including the district of Tumkur. In Tumkur district, the malaria control work was first started in the year 1937. In that year, the State Government sanctioned a scheme for taking up malaria survey work in the Marconahalli Project area in Kunigal taluk. A blanket treatment, with atabrin, of all the labour and

staff for five days, combined with larvicidal measures, was undertaken. The malaria control work with parisgreen and malariol, which was started in 1937, lasted till 1941. In 1942, a scheme for control of malaria by pyrethrum spraying was sanctioned for a group of seven villages in and around Tavarekere. The spraying work was continued till 1943. In 1945, a Health Unit was established at Marconahalli, covering Marconahalli and the 27 villages situated around it. In 1946, kerosene pyrethrum spraying was taken up in 32 villages. With effect from September 1951, kerosene pyrethrum was changed to residual spraying with D.D.T.

With the launching of the National Malaria Control Programme in the State in 1953, certain parts of the district were included, for D.D.T. spraying, in the Bangalore National Malaria Control Unit. In 1955, two sub-units of the National Malaria Control Unit were located in the district under the administrative control of the District Health Officer. One independent National Malaria Control Unit was sanctioned for the district in 1957 with four sub-units at Tumkur, Kunigal, Tiptur and Madhugiri. The National Malaria Control Programme was switched over to the National Malaria Eradication Programme in April 1958. As a result, the entire district was covered with intensive D.D.T. spraying, and surveillance work was introduced. From April 1962, the programme entered the consolidation phase and from October 1964, it entered the maintenance phase. The malaria surveillance workers paid fortnightly visits to all the houses in their areas, investigated fever cases, took their blood smears and treated them with anti-malaria drugs. The sub-joined table shows the number of positive cases encountered in the district by the surveillance workers, the number of blood surveys conducted and the preventive measures undertaken during the years 1965, 1966 and 1967 :—

Year	No. of positive cases detected	No. of blood-surveys conducted	No. of houses sprayed with DDT.
1965	59	8,305	872
1966	7	3,653	2,042
1967	23	948	400

The incidence of malaria was slightly high in certain parts of the district during 1965 and 1967. The reason attributed for this increase was the importation of labour from outside the State and the movement of the people of the border taluks from and to the neighbouring States. However, prompt measures were taken by the district health authorities to arrest the spread of the disease and liquidate the source of infection.

Leprosy

Leprosy is another disease, which is prevalent to a little extent in the district, mostly in Madhugiri and Pavagada taluks. The cases recorded are being put on Avlosulphone treatment. There is no separate or special institution in the district for the treatment of leprosy. The cases noticed are being treated in the local dispensaries and hospitals. However, a survey to assess the prevalence of the disease in the above two taluks was being conducted by the staff attached to the Leprosy Control Centre at Gauribidanur in Kolar district.

Primary Health Centres and Units

In keeping with the Government policy of extending medical aid to more and more people, a number of primary health centres and units were established in the various rural parts of the district during the successive Five-Year Plan periods. There are, at present (1968), 24 primary health centres and units in the district. Of these, eight are of the erstwhile Mysore pattern and are called primary health units. The rest, *viz.*, 16, are of Government of India pattern and are called primary health centres. The health units of the Mysore pattern generally cover a population of 10 to 15 thousand each, while those of Government of India pattern cover a population of about 60 thousand each. On an average, there are six beds in each primary health centre and two beds in each primary health unit for the treatment of in-patients.

The staff associated with each of the Government of India pattern health centres consists of one Medical Officer of Health, a Health Visitor, a Junior Health Inspector, a Compounder and two class IV workers. Besides, to look after the family planning aspect of the work, there is an Extension Educator, a Computer, a Health Assistant for every 20 to 30 thousand population and an Auxiliary Nurse-Midwife for every 10 thousand population, under the Medical Officer of Health. Similarly, to look after malaria maintenance work, there is a Senior Health Inspector, a Junior Health Inspector and a Basic Health Worker for every 10,000 population.

The staff attached to each of the Mysore-type health units consists of an Assistant Medical Officer of Health, a Junior Health Inspector, a Compounder, three Midwives and three members of class IV staff. The main activities of the primary health units of Mysore pattern consist of preventive and curative services including clinical work, prevention and control of communicable diseases, improvement of environmental sanitation, collection of vital statistics, maternity and child health work, health education, health surveys, proper sanitary arrangements in connection with fairs and festivals and supply of drugs and diet supplements to the needy rural population. The functions of the Government of India pattern health centres are much the same as those of the Mysore-type units.

Allopathic Dispensaries

As already stated earlier, in accordance with a decision taken by the State Government, all the medical institutions in the district at the taluk-level were transferred to the control of the District Health and Family Planning Officer. Thus, in 1968, there were, in all, 45 allopathic medical institutions, mostly dispensaries, in the district, under the charge of the District Health and Family Planning Officer, apart from the primary health centres and units referred to above. Of these, one was a General Hospital, two combined dispensaries, five maternity hospitals, 30 local fund dispensaries, two reduced-scale local fund dispensaries and five health unit type dispensaries. Of these, the General Hospital at Tiptur is the biggest and it had a bed-strength of 50 in 1968. It was manned by a Medical Officer, assisted by a Lady Medical Officer and a staff consisting of three nurses, three midwives, two compounders, one X-ray technician and some class IV staff. The two combined dispensaries have separate women's sections for treating maternity cases. Of these, one is at Madhugiri and has a bed-strength of 14, while the other is at Koratagere with a bed-strength of nine. Each of these combined dispensaries is also manned by a Medical Officer assisted by a Lady Medical Officer, three midwives, two compounders and some members of class IV staff.

The five maternity hospitals are located at Gubbi, Kunigal, Sira, Turuvekere and Pavagada. Each of these hospitals consists of six to ten beds for treating maternity cases and is manned by a Lady Medical Officer who is assisted by three midwives, one compounder and two class IV workers. The local fund dispensaries, in most of the cases, have also been provided with beds, ranging from two to six, for treatment of in-patients in emergency cases. The reduced-scale dispensaries, however, do not have any beds. Usually, the staff attached to a local fund dispensary consists of a Medical Officer, a compounder, a midwife and two class IV workers. Many of these dispensaries are maintained by the local bodies. The health unit type dispensaries are also not provided with beds for treatment of in-patients. These institutions, which are also maintained by Taluk Development Boards, are headed by an Assistant Medical Officer of Health each. There are also one Junior Health Inspector, a compounder, three midwives or auxiliary nurse-midwives and two class IV workers attached to each of these institutions.

A statement showing the location and the number of patients treated in each of the above mentioned medical institutions, which are under the control of the District Health and Family Planning Officer, is appended at the end of the chapter. The total bed-strength of all these medical institutions (other than the General Hospital at Tumkur, which is under the control of the District Surgeon) in the district in 1967-68, was about 270 and the total number of patients treated by them during that

year was about 9.49 lakhs as against about six lakhs treated during 1966-67.

Ayurvedic and Unani Dispensaries

There are also some Ayurvedic and Unani dispensaries in the district, located mostly in the rural areas and catering to the medical needs of the rural population. In 1968, there were 29 such institutions in the district, of which 26 were Ayurvedic dispensaries and the rest Unani dispensaries. These institutions are maintained by the Taluk Development Boards and are manned by qualified Ayurvedic and Unani physicians. The technical control of these institutions, which was with the District Surgeon, Tumkur, upto the end of March 1968, was thereafter transferred to the District Health and Family Planning Officer. A list showing the locations of these Ayurvedic and Unani dispensaries is given at the end of this chapter.

Tuberculosis Centre

A District Tuberculosis Centre has been functioning at Tumkur since February 1964. The object of this Centre is to find out and screen the tuberculosis patients throughout the district, and after necessary sputum and radiological examinations, to treat them at their houses. This Centre is aided by voluntary organisations like the Tuberculosis Association of India and the United Nations International Children's Emergency Fund (UNICEF). The District Tuberculosis Association, Tumkur, and the Mysore State Tuberculosis Association are also rendering help to this Centre in the fulfilment of its objectives. There are also a few in-patient wards attached to this Centre.

The District Tuberculosis Officer, Tumkur, is in charge of this Centre and he is assisted in his duties by an Assistant Surgeon, a Treatment Organiser, a Health Visitor, an X-ray Technician, two Laboratory Assistants, a Staff Nurse, a Compounder and a few ministerial and class IV staff. The administrative control of this Centre, which was with the District Surgeon until recently, was transferred to the District Health and Family Planning Officer in February 1968, so as to integrate more effectively the tuberculosis programme with the other national health programmes. However, the in-patient wards attached to the Centre continue to be under the control of the District Surgeon.

Family Planning Programme

The Family Planning Programme has assumed great importance in recent years, because of the very large increase in the growth of population and the consequent need for checking it. A State Family Planning Board has been functioning in the State since the year 1957. There is a District Family Planning Committee at Tumkur, consisting of both official and non-official members, for implementing the family planning programme in the district. The family planning activities comprise, mainly, family planning services, training of workers and educating the public about the needs and methods of family planning.

The Family Planning Programme was stepped up in the district in 1958-59. In 1960, a regular Urban Family Planning Centre was attached to the headquarters hospital at Tumkur and three rural family planning centres were started at Kunigal, Gubbi and Chiknayakanahalli. Thereafter, more and more rural family planning centres were opened in the various parts of the district, and there were, in all, 16 such centres in the district in 1968. All these centres are attached to the Government of India pattern primary health centres. All these institutions also now provide family planning facilities to the people in their respective areas. A special establishment to look after the family planning programme was created in the District Health Office in 1964.

Facilities have been provided in all bigger medical institutions in the district for conducting vasectomy and tubectomy operations. In order to popularise these surgical methods of family planning, the services of private medical practitioners are also utilised on payment of a subsidy of Rs. 25 per operation. Vasectomy camps are organised in the taluk headquarters, in the primary health centres and also in important village centres. Medical advice on the methods of family planning is given to married persons, who require such advice, and also to those women who, in the opinion of the medical officer, cannot undergo the strain of pregnancy and parturition without danger to their health. Besides, the primary health centres in the district also conduct couple surveys and selected couples are advised, through individual contacts, to adopt temporary or permanent family planning methods. A new device of family planning for women, popularly known as the loop (intra-uterine contraceptive device), was introduced in the district in 1965. Large quantities of contraceptives, such as jellies, diaphragms and *nirodhs* are supplied to all the family planning centres, hospitals and dispensaries in the district for distribution among the people. Intensive propaganda through lectures, film shows, exhibitions, publicity literature, etc., is done throughout the district to educate the public in respect of family planning. In addition, family planning fortnights are organised every year throughout the district, when as many people as possible are covered under the programme. Orientation training camps are also conducted at certain selected centres for providing training to village leaders in respect of family planning campaign. About 40 persons are trained at each such camp.

Vasectomy and Tubectomy

There has been a good response for family planning in the district. As against the set target of 2,920 loop insertions in 1965, as many as 5,154 women availed of this facility in the district, while in 1966, 7,837 women were covered under this programme; however, there was a shortfall in the number in 1967, in that only 4,771 loop insertions were done during that year. Thus,

in all, 17,762 women in the district were covered under this programme since its inception, upto the end of 1967. There are also some persons making use of contraceptives like *nirodhs*, jellies, etc., as a method of family planning. In 1966, there were 1,918 such persons in the district, the number for the subsequent year, i.e., 1967, being 1,730. Similarly, during 1966, the target fixed for sterilisation operations in the district was 4,600; but as against this, as many as 10,581 persons underwent sterilisation operations, mostly vasectomy, thus exceeding the target by $2\frac{1}{2}$ times. The district thus stood first in the State in respect of sterilisation operations during that year. The following table indicates the number of vasectomy and tubectomy operations performed in the district since the inception of the family planning programme :—

Year	Sterilisation operations for		
	Males (Vasectomy)	Females (Tubectomy)	Total
1957	2	..	2
1958	25	..	25
1959	45	..	45
1960	38	1	39
1961	139	..	139
1962	180	22	202
1963	479	22	501
1964	1,112	15	1,127
1965	1,469	20	1,489
1966	10,548	33	10,581
1967	9,377	42	9,419
Total	23,414	155	23,569

It can be seen from the above table that the awareness of the need for family planning is steadily growing among the people in the district, in that more and more persons are coming forward to adopt permanent family planning methods every year.

Maternity and Child Health Services

Domiciliary midwifery is attended to by the auxiliary nurse-midwives and midwives attached to the primary health centres and units, health unit type and local fund dispensaries. Institutional midwifery is attended to in the maternity hospitals at Pavagada, Gubbi, Kunigal, Sira and Turuvekere, as also in the general hospitals at Tumkur and Tiptur. The UNICEF has provided a vehicle each to the primary health centres at Gubbi, Pavagada, Turuvekere and Sira for attending to maternity and child health services in their respective jurisdictions. Besides, in

1967-68, there were also eight maternity and child health centres in the district aided by the UNICEF. They were attached to the medical institutions at Amruthur, Huliurudurga, Nagasandra, Yedavani, Pavagada, Sira, Kunigal and Y.N. Hoskote.

During 1966, near-famine conditions prevailed in the district due to failure of rains. Among the taluks that were worst affected were Tumkur and Gubbi. Lack of nutritious food affected the health of many children, pregnant women and old people in many parts of the district. In order to provide relief to such people, the district health authorities supplied them with large quantities of vitamin tablets and tonics through the several primary health centres in the district. Only those, who were in an advanced state of malnutrition, were selected for treatment under this programme. The quantum of vitamin tablets and tonics supplied were as follows: Multi-vitamin tablets 2,71,000, Vitamin 'C' tablets 63,000, Vitamin 'B' tablets 13,000, Vitamin 'D' tablets 4,000, Polivito-flex 2,000 bottles and Aminaflex 48 bottles.

Health education forms one of the important activities of the Department. The basic health workers, who primarily attend to this aspect of work in the district, utilise every opportunity, especially during village gatherings, to contact the rural populace and talk to them about various health subjects, sometimes giving practical demonstrations, with reference to personal cleanliness, environmental sanitation, chlorination of water, vaccination and D.D.T. spraying, etc. The Department also arranges for the observance of the World Health Day, Leprosy Day, Anti-Fly Week, Family Planning Fortnight and the like in the district so as to impart health education to the people. On such occasions also, the health services authorities make arrangements to give talks, organise exhibitions and screen films on various health subjects in the villages, towns and health unit areas in the district. The beneficial results of this sustained health education programme may be seen in the greater amount of health consciousness amongst the people in recent years and their greater co-operation with the departmental staff as compared to the earlier years.

During 1967-68, only two primary health centres, viz., Amruthur and Holavanahalli, were attending to school health services in the district. One School Health Assistant had been attached to each of these centres to attend to the health problems of the school children within their respective jurisdictions. There was a proposal to extend this facility to all the primary health centre areas in the district in the coming years.

As stated earlier, the District Surgeon is the head of the district headquarters General Hospital at Tumkur. He is also directly responsible to the Director of Health Services in Mysore,

Nutrition Programme

Health Education

School Health Services

District Surgeon

Bangalore. He is both the professional and administrative head of this major medical institution in the district.

General
Hospital,
Tumkur

The General Hospital, Tumkur, which is the major medical institution in the district, had a humble beginning. It is said to have been first established as a dispensary in a small building near the present Deputy Commissioner's office, in the year 1906. The present spacious general hospital building, which was designed by Mr. Koeinsebergher, the then Government Architect, was completed and inaugurated on 30th January 1948 by His Highness Sri Jayachamaraja Wodeyar, the Maharaja of Mysore. This institution had, at that time, a bed-strength of 110, both for male and female patients and for maternity cases as well. It was gradually expanded, with the construction of additional wards, to its present strength of 235 beds. These beds have been distributed among the various sections in the hospital as follows: medical-89, surgical-61, gynaecological-11, maternity-50, paediatric-12 and isolation-12. The specialist services, which are now available in the hospital, are—medical, surgical, gynaecological, E.N.T., ophthalmic, dental and venereal. The total expenditure incurred on this General Hospital during 1967-68 was about Rs. five lakhs.

Besides the District Surgeon, who is the head of this institution, there are, at present (1968), a Resident Medical Officer, 22 doctors, a Nursing Superintendent, 27 nurses, one tutor for the Auxiliary Nurse-Midwives' Training Centre, 21 class III staff—including technicians and 68 class IV workers. The daily average number of out-patients and in-patients treated in this hospital has gradually increased over the years, the important common diseases for which the majority of patients treated being gastro-intestinal and respiratory diseases. While the daily average number of out-patients treated in 1960 was 585.4, it had increased to 700 by 1968. Similarly, the daily average number of in-patients treated, which was 191.5 in 1960, had risen to 270 during 1968. Likewise, there has been a perceptible increase in the number of patients treated in all the sections of the hospital. For example, on the surgical side, 267 major operations were performed in the hospital during 1960; as against this, the number of major operations performed during 1967 was about 450, in addition to the 3,000 minor operations done during the year. Similarly, on the maternity side, as against 1,020 labour cases conducted during 1960, the cases conducted during 1967 had increased to 1,200. About 800 anti-rabic cases were also treated in the hospital during 1967. The number of X-rays taken, screenings done and the radiological and laboratory examinations conducted in the hospital during 1967 were as follows:—

Number of X-rays taken	..	1,500
Number of screenings	..	7,000
Number of other radiological examinations conducted	..	400
Number of laboratory examinations conducted		12,000

As an adjunct to the General Hospital, a School of Nursing Nurses' Training Centre was started in 1961 and, upto 1968, about 50 candidates had been trained in this school. Since more and better facilities are available for training of nurses in the other major hospitals in the State, the School of Nursing at Tumkur is, however, being closed from 1968-69. The hospital has also an Auxiliary Nurse-Midwives' Training Centre attached to it. The Centre, which was established in September 1966, has already trained the first batch of 30 candidates and the second batch of another 30 candidates was undergoing training during 1968. An Auxiliary Nurse-Midwife Tutor is in charge of this Centre.

Family Planning Centre.—An Urban Family Planning Centre was opened in the Hospital in September 1960, with part-time male and female doctors and a social worker. It was re-organised in 1964 and its activities were integrated with the Static Sterilisation Unit which was started in 1965. A Medical Officer is in charge of both these units and he is assisted in his duties by an Extension Educator, a nurse, three family planning workers and one or two members of the ministerial staff. The Centre has recorded appreciable progress in conducting vasectomy and tubectomy operations, loop insertions and distribution of contraceptives. During 1967, 300 vasectomies and 20 tubectomies were conducted in the Centre, besides 200 loop placements.

V. D. Clinic.—A Clinic for the treatment of venereal diseases was started in the hospital in March 1967. An Assistant Surgeon-cum-Health Officer is in charge of this clinic. At an average, about 20 patients are being treated in the clinic daily.

Dental Clinic.—Facilities also exist for the treatment of dental diseases in the hospital. These facilities were first started in April 1961 when an honorary Assistant Medical Officer was posted to the hospital for dental treatment, and since July 1967, a regular Dental Clinic has been functioning in the hospital under the charge of a qualified Dental Assistant Surgeon. The daily average number of patients treated in the clinic is about 30.

X-Ray Unit and Laboratory.—There is a separate X-ray unit with a 200 M.A. X-ray apparatus in the hospital. Besides, a laboratory to provide facilities for the examination of serological and bacteriological examinations, as also examinations of urine, feces and sputum, is also attached to the hospital.

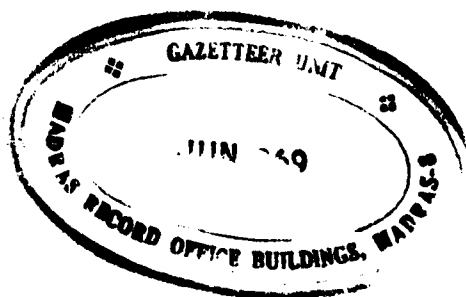
T. B. Wards.—As already stated earlier, the T.B. Wards at the Tuberculosis Centre at Tumkur are under the control of the District Surgeon. The Centre is located in the old hospital building near the Deputy Commissioner's office. There is accommodation for 30 in-patients, 15 for males and 15 for females, and also facilities for thorough investigation, treatment and follow-up of tuberculosis cases. A District Tuberculosis Officer is in charge of this centre and he is assisted by a staff consisting of a staff nurse, a compounder, two laboratory and X-ray attendants and three other class IV staff.

Medical Practitioners

There are no private hospitals and nursing homes in the district. The number of private medical practitioners is also not much. In 1940, there were only three allopathic private medical practitioners in the district and their number had increased to 33 by 1968 (including three lady doctors) of whom 13 were M.B.B.S. and 18 L.M.P. qualified doctors. Besides, there were two dental surgeons practising in Tumkur town. According to the census report of 1951, the total number of registered medical practitioners in the district was 80. Besides, there were also 171 *vaidyas*, *hakims* and other persons practising medicine without being registered. Thus, including a lone dentist, there were, in all, 252 medical practitioners of all categories in the district in 1951. This number had increased to 305 by 1961 as revealed by the census figures of 1961. This number included physicians, surgeons and dentists of Allopathic, Ayurvedic, Homeopathic and Unani systems of medicine, working in both Government, semi-Government and non-Government establishments. Of them, only 12 were women. About 140 of the medical practitioners lived in the urban areas and the rest in the rural areas of the district.

Medical Association

There is a well-organised branch of the Indian Medical Association at Tumkur. It had a total membership of 86 doctors in 1968. It has a building of its own, situated near the General Hospital, Tumkur. The general activities of the Association include organisation of periodical professional conferences of doctors, education of the public on matters of health, general medical check-up, conduct of ante-natal, pre-natal and child guidance clinics and family planning motivation.



Statement showing the location and types of medical institutions in Tumkur district under the control of the District Health and Family Planning Officer and the total number of patients treated by each of them during 1967-68.

Sl. No.	Name and location of the institution	Total No. of patients treated
TUMKUR TALUK		
1.	Primary Health Centre, Kyatsandra ..	31,308
2.	Primary Health Centre, Nagavalli ..	17,772
3.	Local Fund Dispensary, Urdagere ..	9,744
4.	Local Fund Dispensary, Honnudiike ..	10,275
5.	Local Fund Dispensary, Hebbur ..	12,816
6.	Local Fund Dispensary, Bellave ..	5,426
GUBBI TALUK		
7.	Primary Health Centre, Gubbi ..	18,300
8.	Maternity Hospital, Gubbi ..	9,828
9.	Local Fund Dispensary, Muganayakanakote ..	11,234
10.	Local Fund Dispensary, Kadaba ..	11,364
11.	Local Fund Dispensary, Kallur ..	9,804
12.	Local Fund Dispensary, Chelur ..	10,876
13.	Local Fund Dispensary, Hagalvadi ..	7,374
14.	Local Fund Dispensary, Chandrashekharapura ..	5,688
15.	Local Fund Dispensary, Bidare ..	6,804
SIRA TALUK		
16.	Primary Health Centre, Sira ..	16,620
17.	Primary Health Centre, Baragur ..	17,508
18.	Maternity Hospital, Sira ..	7,632
19.	Local Fund Dispensary, Tavarekere ..	9,288
20.	Local Fund Dispensary, Bukkapatna ..	26,544
21.	Local Fund Dispensary, Kallambella ..	16,356
22.	Health Unit Type Dispensary, Pujarimuddanahalli ..	11,184
23.	Health Unit Type Dispensary, Dodda-Agrahara ..	7,944
24.	Health Unit Type Dispensary, Brahmasandra ..	6,086
MADHUGIRI TALUK		
25.	Combined Dispensary, Madhugiri ..	28,908
26.	Primary Health Centre, Hosakere ..	13,524
27.	Primary Health Centre, Kodalapura ..	11,508
28.	Local Fund Dispensary, Kodigenahalli ..	11,080
29.	Local Fund Dispensary, Itakadibbanahalli ..	11,652
30.	Local Fund Dispensary, Midigeshi ..	10,234
31.	Local Fund Dispensary, Badavanahalli ..	7,020
32.	Reduced-Scale Local Fund Dispensary, Byalya ..	7,116

Sl. No.	Name and location of the institution	Total No. of patients treated
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KORATAGERE TALUK

33.	Primary Health Centre, Holavanahalli ..	17,144
34.	Local Fund Dispensary, Koratagere ..	17,508
35.	Local Fund Dispensary, Thovinakere ..	14,088
36.	Local Fund Dispensary, Kolala ..	8,088
37.	Health Unit Type Dispensary, Akkirampura.	8,428

TIPTUR TALUK

38.	General Hospital, Tiptur ..	36,474
39.	Primary Health Centre, Nonavinakere ..	20,172
40.	Primary Health Centre, Biligere ..	11,628
41.	Local Fund Dispensary, Halkurike ..	6,488
42.	Local Fund Dispensary, Honnavalli ..	5,840
43.	Local Fund Dispensary, Hongelakshmi ..	12,360

CHIKNAYAKANAHALLI TALUK

44.	Primary Health Centre, Chiknayakanahalli ..	25,776
45.	Local Fund Dispensary, Timmanahalli ..	10,144
46.	Local Fund Dispensary, Huliya ..	17,700
47.	Local Fund Dispensary, Settikere ..	8,684
48.	Local Fund Dispensary, Handanakere ..	7,462
49.	Reduced-Scale Local Fund Dispensary, Hoi-salakatte ..	3,468

TURUVEKERE TALUK

50.	Primary Health Centre, Turuvekere ..	74,712
51.	Primary Health Unit, Mayasandra ..	10,284
52.	Primary Health Unit, Dandinashivara ..	10,426
53.	Maternity Hospital, Turuvekere ..	8,914
54.	Local Fund Dispensary, Banasandra ..	13,132
55.	Health Unit Type Dispensary, Thandaga ..	6,024

PAVAGADA TALUK

56.	Primary Health Centre, Pavagada ..	26,088
57.	Primary Health Centre, Kotegudda ..	9,996
58.	Maternity Hospital, Pavagada ..	6,428
59.	Local Fund Dispensary, Y. N. Hoskote ..	22,224
60.	Local Fund Dispensary, Mangalawada ..	7,452

Sl. No.	Name and location of the institution	Total No. of patients treated
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KUNIGAL TALUK

61.	Primary Health Centre, Kunigal ..	46,332
62.	Primary Health Centre, Amruthur ..	24,648
63.	Maternity Hospital, Kunigal ..	8,808
64.	Primary Health Unit, Hutridurga ..	6,120
65.	Primary Health Unit, Yedavani ..	8,140
66.	Primary Health Unit, Nagasandra ..	8,592
67.	Primary Health Unit, Ujjani ..	7,020
68.	Primary Health Unit, Huliyaudurga ..	8,620
69.	Primary Health Unit, Kitlanagamangala ..	6,144

Total .. 9,49,283

List of Ayurvedic and Unani Dispensaries in Tumkur district
as in 1967-68

TUMKUR TALUK

1.	Seethakal ..	Ayurvedic Dispensary
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GUBBI TALUK

2.	Alalaghatta ..	Ayurvedic Dispensary
3.	Doddaguni ..	Ayurvedic Dispensary

SIRA TALUK

4.	Hulikunte ..	Ayurvedic Dispensary
5.	Vaddanahalli ..	Ayurvedic Dispensary
6.	Chirthahalli ..	Ayurvedic Dispensary
7.	Magodu ..	Ayurvedic Dispensary
8.	Baragur ..	Unani Dispensary

MADHUGIRI TALUK

9.	Sajjehosahalli ..	Ayurvedic Dispensary
10.	Chikkadalavatta ..	Ayurvedic Dispensary
11.	Garani ..	Ayurvedic Dispensary
12.	Kavanadala ..	Ayurvedic Dispensary
13.	Mallanayakanahalli ..	Ayurvedic Dispensary

TIPTUR TALUK

- | | | |
|----------------|----|----------------------|
| 14. Konehalli | .. | Ayurvedic Dispensary |
| 15. Besige | .. | Ayurvedic Dispensary |
| 16. Sugur | .. | Ayurvedic Dispensary |
| 17. Baluvaneru | .. | Ayurvedic Dispensary |

CHIKNAYAKANAHALLI TALUK

- | | | |
|-----------------|----|----------------------|
| 18. Melanahalli | .. | Ayurvedic Dispensary |
|-----------------|----|----------------------|

TURUVEKERE TALUK

- | | | |
|---------------------|----|----------------------|
| 19. Goni-Tumkur | .. | Ayurvedic Dispensary |
| 20. Sampige | .. | Ayurvedic Dispensary |
| 21. Mavinakere | .. | Ayurvedic Dispensary |
| 22. Dabbeghatta | .. | Ayurvedic Dispensary |
| 23. Aremallanahalli | .. | Unani Dispensary |

PAVAGADA TALUK

- | | | |
|-----------------------|----|----------------------|
| 24. Dommathamari | .. | Ayurvedic Dispensary |
| 25. Channakeshavapura | .. | Ayurvedic Dispensary |
| 26. Ponnasamudra | .. | Ayurvedic Dispensary |
| 27. Nagalamadike | .. | Ayurvedic Dispensary |
| 28. Konethimmanahalli | .. | Unani Dispensary |

KUNIGAL TALUK

- | | | |
|-------------|----|----------------------|
| 29. Yedeyur | .. | Ayurvedic Dispensary |
|-------------|----|----------------------|

CHAPTER XVII

OTHER SOCIAL SERVICES

PROMOTION of labour welfare began in the State as a humanitarian reform and it gradually assumed the character of a sound welfare policy with the development of industries and the large increase in the number of workers employed by them. Various ameliorative measures were initiated by Government from time to time to improve the conditions of the labour population. To this end, several Acts have been promulgated relating to working conditions, safety, hygiene, minimum wages, industrial relations, provision for arbitration of disputes between industrial workers and the employers, and the like. The various labour laws that are in force in the district are as indicated below :—

(1) Workmen's Compensation Act, 1923, (2) Indian Trade Unions Act, 1926, (3) Payment of Wages Act, 1936, (4) Maternity Benefits Act, 1939, (5) Industrial Employment (Standing Orders) Act, 1946, (6) Industrial Disputes Act, 1947, (7) Motor Transport Workers Act, 1948, (8) Minimum Wages Act, 1948, (9) Indian Boilers Act, 1948, (10) Factories Act, 1948, (11) Employees' Provident Fund Act, 1952, (12) Working Journalists (Conditions of Service and Miscellaneous Provisions) Act, 1956, (13) Mysore Shops and Commercial Establishments Act, 1961, (14) Mysore Beedi Industrial Premises (Regulation of Conditions of Work) Act, 1961, (15) Mysore Industrial Establishments (National and Festival Holidays) Act, 1963, and (16) Payment of Bonus Act, 1965.

The Commissioner of Labour is the Chief Conciliation Officer and Registrar of Trade Unions for the entire State. He is also the Statistics Authority under the Collection of Statistics Act, 1955. The Factories Act, Payment of Wages Act and the Maternity Benefits Act are enforced by the Chief Inspector of Factories and Boilers, while the authority for the enforcement of all the other Acts is the Commissioner of Labour, assisted by his several subordinate officers having jurisdiction over the district and notified under the respective enactments. The Employees' Provident Fund Act is administered by the Regional Provident Fund Commissioner, a Central Government officer.

Administration

Until recently, the Assistant Commissioner of Labour, Bangalore Division, comprising Bangalore, Tumkur and Kolar districts, was the officer in charge of the administration of the Labour Department in Tumkur district. However, from June 1968, the district has been placed under the jurisdiction of the Assistant Commissioner of Labour, Mysore Division, Mysore. He is responsible to the Commissioner of Labour in all matters pertaining to the administration of the department. He is the Conciliation Officer under the Industrial Disputes Act, *ex-officio* Inspector under the Mysore Shops and Commercial Establishments Act and the Factories Act, Appellate Authority under the Mysore Shops and Commercial Establishments Act and Inspector under the Working Journalists (Conditions of Service and Miscellaneous Provisions) Act, Bonus Act and Minimum Wages Act. He is also the Additional Registrar under the Indian Trade Unions Act, Certifying Officer under the Industrial Employment (Standing Orders) Act, and Registering Authority under the Beedi Industrial Premises (Regulation of Conditions of Work) Act and Workmen's Compensation Act. He is responsible for the labour administration in the district in general, along with the Labour Officer, Mysore Division.

There are three Labour Inspectors working under the Assistant Commissioner of Labour, with headquarters at Tumkur, Tiptur and Madhugiri. The Inspector with headquarters at Tumkur has jurisdiction over Tumkur, Gubbi and Kunigal taluks, while the Inspector with headquarters at Madhugiri has jurisdiction over Madhugiri, Sira, Pavagada and Koratagere taluks. The other Inspector with headquarters at Tiptur has jurisdiction over Tiptur, Turuvekere and Chiknayakanahalli taluks.

Shops and Establishments

The Mysore Shops and Commercial Establishments Act, 1961, regulating working conditions of persons employed in shops and establishments, was brought into force in the following towns in the district, with effect from the 1st October 1964 :—

- | | |
|---------------|-----------------------|
| (1) Tumkur | (7) Turuvekere |
| (2) Tiptur | (8) Chiknayakanahalli |
| (3) Madhugiri | (9) Huliya |
| (4) Sira | (10) Pavagada, and |
| (5) Kunigal | (11) Koratagere |
| (6) Gubbi | |

The Act provides for compulsory weekly holidays and regulates hours of work and for giving notices of termination and suitable compensation for wrongful dismissal. The Labour Inspectors have to exercise constant vigilance to see that shop-owners implement the measures prescribed under the Act. The Inspectors have also to see that the employers get their establishments registered and open and close them at the prescribed hours.

The following table indicates the number of shops and establishments and the number of persons employed therein, in respect of each of the circles in the district where the Act is in force :—

Sl. No.	Name of Circle	No. of shops	No. of persons employed	No. of establishments	No. of persons employed
1.	Tumkur	1,546	809	284	907
2.	Tiptur	796	318	174	642
3.	Madhugiri	652	198	117	486
	Total	2,994	1,325	575	2,035

The reason for the small number of workers in shops is that most of the shops are managed by the owners themselves without any assistance.

The Minimum Wages Act, 1948, ensures fixation and revision of minimum rates of wages in respect of twenty scheduled employments. The three Labour Inspectors in the district enforce the provisions of the Act and the rules. The following is the list of scheduled employments which come under the purview of the Act: (1) agriculture, (2) tanneries and leather manufactory, (3) tobacco including beedi-making, (4) printing presses, (5) foundry with or without shops, (6) tile industry, (7) cotton ginning and pressing, (8) automobile engineering including servicing and repairing, (9) cardamom gardens, (10) cashewnut industry, (11) local authority, (12) public motor transport, (13) rice mill, flour mill or dhal mill, (14) plantations, (15) oil-mill industry, (16) stone-breaking and stone-crushing, (17) construction of roads and buildings, (18) salt-pan industry, (19) woolen, carpet and shawl weaving, and (20) mica works.

The Assistant Labour Commissioner, Mysore Division, who has jurisdiction over Tumkur, is empowered under the Industrial Disputes Act to conciliate in labour disputes arising in industrial concerns employing 200 or more workers, while the Labour Officer, Mysore Division, can conciliate in disputes arising in concerns employing less than 200 workers. If the attempts of these officers fail, the matter is referred to Government through the Labour Commissioner. The Government then refer the dispute to the Labour Court or Industrial Tribunal for adjudication. Only one industrial dispute was reported in Tumkur district during each of the years 1965-66, 1966-67 and 1967-68 and all were settled amicably by conciliation.

The labour situation in the district was generally peaceful, and cordial relationship prevailed between the employees and the employers.

Factories and other establishments

The Inspector of Factories enforces the provisions of the Factories Act in Tumkur district. He is under the administrative control of the Chief Inspector of Factories and Boilers, Bangalore. It is his responsibility to see that all the factories coming under his jurisdiction adhere to the statutory obligations imposed under the Act. There were forty-six factories in the district during 1967-68, employing 4,757 workers. In addition, there were several rice and oil mills and soap works in the district. There were also 355 hotels and restaurants and 18 cinema theatres, in which 1,025 persons, in all, were employed.

Trade Unions

The Indian Trade Unions Act recognises the right of workers to organise themselves into trade unions for redressal of their grievances. The registered trade unions have certain rights and obligations and are independent bodies. Industrial workers have, therefore, taken advantage of the provisions of the Act and the rules framed thereunder, in order to further their welfare. There were ten registered trade unions functioning in Tumkur district during the year 1967-68, particulars of which are as shown below :—

<i>Name and address of the Union</i>	<i>Membership</i>
1. The Tumkur District Auto-vehicles Body-building, Smithy and Furniture-making Workers' Union, B. G. Palya Circle, Tumkur.	23
2. Tumkur District General Workers' Union, Upstairs, Channapaiah Choultry, Tumkur.	32
3. Government Stud Farm Workers' Union, Cheluwegowda Building, B.M. Road, Kunigal.	50
4. Kunigal Beedi Workers' Union, Bidangere Ahmed Khan Building, Kunigal.	150
5. Kunigal Town Municipal Employees' Association, Upstairs, Rehmania Building, B.M. Road, Kunigal.	29
6. The Mysore Cements Employees' Association, Factory-site, Ammasandra, Turuvekere taluk.	426
7. Tiptur Hotel Workers' Union, No. 5, Jayadeva Hostel Building, B.M. Road, Tiptur.	30
8. The Tumkur District Motor Workers' Union, Kannikaparameshwari Temple Road, Mandipet, Tumkur.	75
9. The Mandy Kelasagarara Sangha, Regulated Market Yard, Tiptur.	53
10. Tumkur Workers' Union, Sivani Road, Tumkur.	135

Several amenities have been provided by large industrial establishments in Ammasandra, Tumkur and Tiptur to make the conditions of the workers happy. Increased attention has been given to health and sanitation in the labour colonies. Centres for child welfare have been opened wherever possible to make the children of the labourers happy and contented. Canteens, creches and rest shelters have been provided in the workspots for the benefit of the workers. Maternity benefits have been provided for women labourers. Provident fund benefits, workmen's compensation, holidays with pay, leave benefits and other measures have been introduced either by statutes or through standing orders, giving to the labourers a sense of security and contentment. Apart from these statutory measures, non-statutory welfare measures, like provision of reading rooms, libraries, games and other recreational facilities, have also been provided by well-established factories in the district.

Labour welfare amenities

Government have also initiated the following schemes for the benefit of the workers :—

(1) *Banking Facilities.*—This scheme was taken up under the Second Five-Year Plan with the object of affording relief to the industrial workers who are in financial distress. Loans are given to the workers at reasonable rates of interest on a co-operative basis. For this purpose, societies have been organised and registered under the Co-operative Societies Act.

(2) *Film Shows.*—The Labour Department has undertaken propaganda work, and film shows are arranged to educate the working classes on the improved methods of increasing productivity in industrial concerns, safety measures, and also on the training required in their respective trades for making their work more useful. These shows are arranged in factories and industrial concerns and also at public exhibitions.

(3) *Workers' Education Scheme.*—This is a scheme sponsored by the Government of India under the Second Five-Year Plan to educate the workers on their rights and obligations under the various labour laws in force. For this purpose, a thirteen-week course of practical instruction in all the relevant subjects is held, the trainees being selected from the labour population on the recommendation of the trade unions. This scheme is being implemented under the guidance of a committee constituted by Government.

The Employees' Provident Fund Act, 1952, is a Central Act and was made applicable to 112 industries as on 31st March 1968. Initially, the Act had been made applicable to establishments employing 50 or more persons, but from 31st December 1960, it

Employees' Provident Fund Scheme

was made applicable to establishments employing even 20 or more persons.

Every employee of an establishment or factory to which the Employees' Provident Fund Scheme applies, is eligible for membership of the Fund after completion of one year's continuous service or 240 days of actual work during a period of 12 months or less, whichever is earlier, and whose pay (*i.e.*, basic wages, dearness allowance, retaining allowance and cash value of food concession, if any) does not exceed Rs. 1,000 per month. Contribution at the rate of $6\frac{1}{4}$ per cent or 8 per cent of pay is made by the employees and an amount equal to the members' contribution is contributed by the employer also each month. The members and employers are allowed to contribute at any higher rate if desired by them. Provision has also been made under the Employees' Provident Fund Scheme, 1952, for grant of advance to the members for the following purposes :—

- (1) Payment towards a policy or policies of life insurance of a member ;
- (2) Purchase of dwelling house or site or constructing a house ;
- (3) In special cases when they are thrown out of employment due to temporary closure of any factory or establishment ;
- (4) Purchase of a share or shares of consumers' co-operative societies ;
- (5) In cases of sickness of members or of family members under the following circumstances : (a) hospitalisation lasting for one month or more or (b) major surgical operation in a hospital or (c) T.B., Leprosy, Paralysis, Cancer or Asthma, for the treatment of which leave has been granted by the employer ; and
- (6) In cases of individual retrenchments, pending final withdrawal.

Special Reserve Fund

A Special Reserve Fund has been created with effect from 10th March 1965 for paying the Provident Fund accumulations to outgoing members or their nominees or heirs, where the employer has failed to pay the whole or a part of the Provident Fund contributions to the Fund, although they were deducted from the wages of the members. Employers' contributions not paid by the employers to the Fund are, however, not paid from the Fund to the outgoing members or their nominees or heirs.

Death Relief Fund

From 1st January 1964, a Death Relief Fund has been set up for affording financial assistance to the nominees or heirs of deceased members so that a minimum of Rs. 500 is assured to the nominees or heirs of every deceased member. The benefit of the Death Relief Fund is given to the nominees or heirs of

deceased members whose pay did not exceed Rs. 500 per month at the time of their death.

The expenditure involved in administering the Act and the Scheme is met from the administrative charges, which are paid by the employers at the rate of 0.37 per cent of the pay of the members. The amount thus collected, along with the Provident Fund contributions, is deposited in the State Bank of India towards the Employees' Provident Fund accounts. Thirty-one establishments in the district, as per particulars furnished below, were brought under the purview of the Act and the Scheme upto 1st June 1968 :—

Sl. No.	Name of establishment	Date of coverage
1.	Standard Brick and Tile Company Limited, Tumkur.	1-7-1956
2.	Parshwanatha Rice and Oil Mills, P.B. No. 2, Tumkur.	31-7-1956
3.	Tumkur Brick and Tile Works, Tumkur ..	1-12-1956
4.	Janehar Mines, Banasandra Post, Tumkur ..	30-11-1957
4.	Kudure-Kanive Mines, Chiknayakanahalli ..	30-11-1957
6.	Venkajigudda Mines, Chiknayakanahalli ..	30-11-1957
7.	Jai Hind Mines, Chiknayakanahalli ..	30-11-1957
8.	Hettigudda Mines, Chiknayakanahalli ..	1-7-1960
9.	Shanthanatha Rice and Oil Mills, Tumkur ..	31-12-1960
10.	Srikanteshwara Rice and Oil Mills, Tumkur ..	31-12-1960
11.	Sree Ramakrishna Oil Mills, Tumkur ..	31-12-1960
12.	Mahadeva Rice and Oil Mills, Tumkur ..	31-12-1960
13.	G. S. Kamaiah and Sons, Tumkur ..	31-12-1960
14.	Mahaveera Oil Mills, Tumkur ..	31-12-1960
15.	Sree Ganapathy Oil Mills, Tumkur ..	31-12-1960
16.	Bombay Anand Bhavan, Mandipet, Tumkur ..	30-6-1961
17.	Vinoda Talkies, Mandipet, Tumkur ..	31-7-1961
18.	Doddegudda Mines, Tumkur ..	30-11-1957
19.	Sree Narasimha Furniture Works, Tumkur ..	1-10-1962
20.	Tumkur Bus Stand Hotel, Tumkur ..	1-6-1963
21.	Jai Bharath Lorry Transport, Tumkur ..	1-10-1963
22.	Church of South India School of Industries, Tumkur.	1-1-1961
23.	Vinoda Talkies, Tiptur ..	31-7-1961

Sl. No.	Name of establishment	Date of coverage
24.	Mysore Cements Limited, Tumkur ..	1-11-1965
25.	The Tumkur District Co-operative Central Bank Ltd., Tumkur.	31-1-1966
26.	Sondenahalli Iron Ore Mines, Tumkur ..	1-6-1965
27.	Hind Mines, Chiknayakanahalli ..	1-2-1966
28.	T. V. Channananjasetappa & Bros., Tumkur ..	1-6-1966
29.	Kumbanahally Mines, Gubbi Taluk ..	1-12-1962
30.	Shiva Industries, Mandipet, Tumkur ..	1-4-1964
31.	Prashant Picture Distribution, Tumkur ..	1-8-1967

Prohibition

Prohibition was first introduced in Tumkur district with effect from the 1st April 1950, under the Mysore Prohibition Act, 1948. Before prohibition actually came into force in the district, people were advised to give up drinks, and workers of several social service organisations went about the various parts of the district to explain the evil effects of alcoholic drinks and to advise the addicts. With the introduction of prohibition in Tumkur district, the State Government had sustained a total loss of revenue of nearly Rs. 19,24,300 annually.

The District Police authorities were in charge of enforcing prohibition in the district, when it was in force. The sanctioned allocation of staff for prohibition work was one Police Sub-Inspector, 30 Head Constables and 33 Constables. A police van had also been provided for the work.

Illicit distillation cases were to be found particularly in the Banjara *thandas*, which had many confirmed addicts, and in spite of the best possible efforts, it had not been possible to eradicate this evil. Educative measures and persistent propaganda were undertaken to bring home to the addicts the evil effects of alcohol. Neera parlours were opened in localities where there were large numbers of drink addicts.

The following table indicates the number of prohibition offences, under the categories of illicit distillation, possession and drunkenness, booked and the amounts of fines levied, in the district, during the years 1964, 1965 and 1966 :—

Nature of offence	1964	1965	1966
Illicit distillation ..	77	101	139
Possession ..	563	894	711
Drunkenness ..	1,160	977	897
Total ..	1,800	1,972	1,747
Fines levied (in rupees) ..	42,066	24,450	16,959

The Mysore Prohibition Act, 1947, envisaged the granting of liquor permits to those addicts who required liquor on grounds of health for personal consumption. The power to grant such permits on medical advice was vested in the highest executive authority in the district, namely, the Deputy Commissioner. Permits were also issued to foreign tourists and nationals residing temporarily in the area, subject to certain conditions. By 1966-67, 260 permits had been issued in the district.

The existence of different sets of laws in different areas of the new Mysore State caused considerable administrative and procedural difficulties in the implementation of prohibition on a uniform basis throughout the State. With a view to having a uniform law for the entire State, a revised Prohibition Act, *viz.*, the Mysore Prohibition Act, 1961 (Act XVII of 1962), was brought into force throughout the State in the year 1962. However, great difficulties were experienced in enforcing the provisions of the Act, and in the light of public opinion, the State Government decided to amend the law. Accordingly, the Mysore State Legislature enacted the Mysore Prohibition (Amendment) Act, 1967, empowering the Government to exclude the operation of the Mysore Prohibition Act, 1961, in any specified areas of the State. Thereafter, the State Government lifted prohibition in the entire Tumkur district and also in other districts of the State, except in a few pockets, with effect from the 15th October 1967.

According to the census of 1961, there were 2,32,684 people belonging to the Scheduled Castes and 402 persons belonging to the Scheduled Tribes in the district. The taluk-wise break-up of these figures is as follows :—

Advancement
of Backward
Classes

Sl. No.	Name of Taluk	Population of Scheduled Castes	Population of Scheduled Tribes
1	2	3	4
1.	Chiknayakanahalli	17,612	42
2.	Gubbi	21,852	4
3.	Koratagere	17,718	90
4.	Kunigal	18,519	80
5.	Madhugiri	33,197	8
6.	Pavagada	30,135	104
7.	Sira	30,497	5
8.	Tiptur	14,603	15
9.	Tumkur	36,295	25
10.	Turuvekere	12,256	29
Total		2,32,684	402

With the dawn of Independence, the tempo of ameliorative work in respect of people belonging to these classes increased and the approach to their various problems also became different. All social disabilities pertaining to these classes were removed by legislation. In addition, the Social Welfare Department, which was specially set up by Government to give undivided attention to the amelioration of Scheduled Castes and Tribes, sponsored several schemes for their welfare. The more important of these schemes were for housing and acquisition of lands, economic aid to cottage industries, supply of bullocks, supply of seeds and manures, provision of agricultural implements, reclamation of waste lands, sinking of new wells and opening of community centres.

Special Benefits

Schemes for improving the economic and social conditions of the Scheduled Castes and the Scheduled Tribes are being implemented under the successive Five-Year Plans. The Constitution also provides certain safeguards and reservations for these people with a view to achieving their speedy advancement in social, economic and educational fields. During the First and Second Plan periods, the following ameliorative programmes were implemented in the district :—

Sl. No.	Name of scheme	Grants given
		Rs.
1.	Housing	19,66,078
2.	Economic aid to agriculture	92,560
3.	Economic aid to development of crafts	9,430
4.	Education	33,679

Sl.No.	Name of scheme	Grants given
		Rs.
5.	Drinking water wells (53)	63,953
6.	Community Recreation Centre buildings (26)	60,076
7.	Women's Welfare Centres	23,960
8.	Maintenance of old hostels	33,965
9.	Construction of new hostels	25,000
10.	Desks to school children	15,000
11.	Tailoring Institute (1)	8,150
12.	Agricultural Colonies (8)	1,31,794
13.	Publicity	1,505
14.	Eradication of Untouchability	7,919
15.	Seeds, implements and manure	44,330
16.	Purchase of bullocks	57,582
17.	Reclamation of lands	1,475
18.	Scheduled Caste Co-operative Societies	7,612
19.	Acquisition of lands (227 acres)	1,09,525
20.	Educational scholarships	3,000
21.	Economic aid to Backward Classes	1,000
Total		26,97,593

Under the Third Five-Year Plan, a sum of Rs. 26,13,600 was sanctioned to the district towards the several ameliorative schemes relating to the welfare of Scheduled Castes and Tribes. The following statement gives particulars of the financial provision and physical targets in respect of the more important schemes :—

Third Five-Year Plan schemes

Sl. No.	Name of scheme	Financial provision	Physical targets
1	2	3	4
Welfare of Denotified Tribes			
		Rs.	
Education—			
1.	Residential Schools	24,750	One school
2.	Award of scholarships	5,000	Ten awards
Economic uplift—			
Aid to agriculturists, supply of bullocks, seeds, manure, agricultural implements, etc.		54,000	216 agriculturists

1	2	3	4
Housing—			
Subsidy for construction of houses	..	35,000	140 houses
Welfare of Scheduled Castes			
Education—			
1. Women's Welfare Centres		1,32,000	9 new centres and maintenance of old centres.
2. Supply of slates, text-books, dress, etc., to Primary School children.		1,02,000	10,200 children
3. Scholarships to High School students	..	78,000	1,040 students
4. Scholarships to Middle School students	..	1,00,000	2,000 students
5. Starting of new hostels for boys and girls		2,89,000	..
6. Construction of new hostel buildings	..	2,29,000	4 new buildings
7. Starting of Residential School	..	70,000	One school
Economic uplift—			
1. Subsidy to development of poultry farming and sheep breeding.		76,500	255 families
2. Supply of bullocks, seeds, manure, etc., to agriculturists.		90,000	300 families
3. Opening of tailoring centres		96,000	One new centre and maintenance of old centres.
4. Construction of godowns and grain golas.		1,05,000	Seven
5. Supply of bullocks with carts	..	2,85,000	380 persons
6. Purchase of agricultural lands	..	1,52,500	61 persons
Housing, Health and other schemes—			
1. Construction of houses under Rural Housing Scheme.		80,400	201 houses
2. Acquisition of house sites		76,000	190 sites
3. Sinking of drinking water wells	..	38,000	19 wells
4. Construction of Community Recreation Centre buildings.		25,200	9 buildings

Educational facilities

The Scheduled Castes are still considerably behind the others in their educational development. With a view to providing them more educational facilities, the Social Welfare Department was maintaining hostels for both boys and girls studying in educational institutions. There were, during 1967-68, six boys' hostels with a sanctioned strength of about 300 students and an equal number of girls' hostels with a strength of about 260. The boys' hostels were located at Turuvekere, Kunigal, Chiknayakanahalli, Kallambella (Sira taluk), Pavagada and Madhugiri, while the girls' hostels were located at Tumkur, Turuvekere, Kunigal, Tiptur, Madhugiri and Gubbi. A total allotment of Rs. 1,51,212 was

made for the maintenance of these hostels during 1967-68, out of which a sum of Rs. 1,39,755 was actually spent.

In addition to these hostels, boarding grants were given to three general hostels located at Gollahalli (Tumkur taluk), Handanakere (Chiknayakanahalli taluk) and Midigeshi (Madhugiri taluk). The sanctioned strength of these hostels was about 120 and the grant provided during 1967-68 was Rs. 30,320.

In order to bring about social integration of the various backward communities and to bring them up to the level of the other sections of the community socially, economically and also educationally and to promote the evolution of a casteless and egalitarian society, Government have recently ordered that all existing aided denominational hostels should be converted into the non-denominational pattern, by reserving 25 per cent of the seats in the existing hostels for admissions to backward classes other than those for whom they are at present intended, including economically backward classes. **Social Integration**

A Residential School was started in 1962-63 at Tumkur for the benefit of the children of the Scheduled Castes, with a sanctioned strength of 75. This is being continued and, out of an allotment of Rs. 19,809 for 1967-68, a sum of Rs. 19,668 was actually spent on its maintenance. The Government have recently ordered that this type of institution should also be converted into the non-denominational pattern, reserving 25 per cent of seats for admission to other backward classes. The strength of the school was, therefore, increased to 160. **Residential School, Tumkur**

Scholarships are being offered to poor and deserving candidates belonging to the Scheduled Castes in order to encourage them to continue their studies. During 1967-68, a sum of Rs. 5,250 was provided for the grant of scholarships to 90 students. Pre-matric scholarships were also offered to 702 students, for which a sum of Rs. 32,000 was provided during the year. **Merit Scholarships**

Four tailoring centres are being maintained one each at Tumkur, Tiptur, Kunigal and Madhugiri, for the benefit of the Scheduled Castes women. Twelve women were undergoing training at each of these centres during 1967-68 under the guidance of a tailoring instructress each. Each of these trainees was paid a stipend of Rs. 25 per month. An expenditure of Rs. 16,104 was incurred for the maintenance of these centres during 1967-68. Provision was also made for the purchase of 31 sewing machines and their free distribution among the successful candidates at the annual tailoring examination. **Tailoring Centres**

In order to provide better housing facilities to the Scheduled Castes people, an extent of 10 acres and 13 guntas of land was **Housing facilities**

acquired during 1966-67 at a cost of Rs. 9,514 and distributed among the houseless families after converting them into sites.

Community Centres

Community Centres have proved to be of considerable advantage in the promotion of understanding and fellow-feeling among different sections of the community. In addition to the Community Centres already functioning in the district, three more buildings were constructed at Kunigal, Akkirampura and Ujjinikurke (both in Koratagere taluk) to house new centres, during 1967-68. A sum of Rs. 9,450 was spent during the year on this account.

Welfare of Other Backward Classes

There are two Backward Classes hostels in the district situated at Gollahalli in Tumkur taluk and Handanakere in Chiknayakanahalli taluk with a sanctioned intake of 45 and 8, respectively. During the year 1967-68, an allotment of Rs. 13,251 was made for their maintenance, out of which a sum of Rs. 13,114 was actually spent. One hundred and thirty-five deserving Backward Class students studying in middle and high schools in the district were awarded pre-matric scholarships during 1967-68, for which a sum of Rs. 14,875 was spent.

Welfare of Nomadic and Semi-nomadic Tribes

Fifty children of the Nomadic and Semi-Nomadic Tribes, attending the primary schools were given free clothing and other equipment for which a sum of Rs. 1,000 was allotted and spent during 1967-68. Seven students studying in middle schools were given scholarships at the rate of Rs. 50 each, while two students studying in high schools were given scholarships at the rate of Rs. 75 each. For this purpose, a sum of Rs. 500 was allotted and spent during 1967-68.

Thirty agricultural families belonging to the Nomadic and Semi-Nomadic Tribes were given aid, under the State sector, during the year 1967-68 to improve their agricultural operations. A sum of Rs. 8,000 was provided for this purpose, out of which a sum of Rs. 6,765 was actually spent. Under the Central sector of the scheme, 60 agriculturists were given aid for which a sum of Rs. 5,000 was spent. In addition, 70 families were given a total special grant of Rs. 23,000 for the purchase of bullocks and carts.

Welfare Centres

Welfare Centres have been opened at several places in the district under the scheme for promotion of welfare of women and children of the Backward Classes. Pre-primary education is one of the important activities undertaken in these welfare centres. Free mid-day meals and supply of free uniforms are provided to children who attend the nursery classes attached to these centres. Craft classes are also conducted for the benefit of women, where sewing, cutting and embroidery are taught. Indoor games are

also provided in some of these centres. Each of these women's welfare centres is under the charge of an Organiser and a Conductress. During 1966-67, there were women's welfare centres at the following places in the district: (1) N.R. Colony, Tumkur, (2) Jayapura Colony, Tumkur, (3) Biligere (Tumkur taluk), (4) Tiptur town, (5) Banasandra (Tiptur taluk), (6) Pavagada, (7) Y.N. Hoskote (Pavagada taluk), (8) Turuvekere, (9) Gandhigrama (Turuvekere taluk), (10) Kunigal, (11) Sira, (12) Dandinashivara (Sira Taluk), (13) Chiknayakanahalli, (14) Madhugiri, (15) Koratagere, (16) Nagenahalli, (Koratagere taluk), (17) Alaghatta (Gubbi taluk), (18) Gubbi town and (19) Guttahalli Agricultural Colony (Koratagere taluk). The strength in each of the nursery schools attached to these centres was about 50, except in the one at N.R. Colony, Tumkur where it was raised to 100. A sum of Rs. 58,228 was spent on the maintenance of these institutions during 1965-66.

A separate Government department called the Religious and Charitable Endowments Department has been created for looking after the endowments and their administration, under an officer designated as the Commissioner for Religious and Charitable Endowments. The Deputy Commissioner exercises control over them in the district, under the provisions of the Religious and Charitable Endowments Act. The three Sub-Divisional Assistant Commissioners and the ten Tahsildars in the taluks assist the Deputy Commissioner in the administration of all muzrai institutions and endowments in the district, in their capacity as *ex-officio* Muzrai Officers, in their respective jurisdictions. They inspect the muzrai institutions periodically.

There are several age-old muzrai institutions in the district, which are highly venerated for their sanctity. There were, during 1966-67, 31 major, 182 minor and 1,558 village temples in the district. In addition, there were 19 *mathas* (of which twelve were under Government management), five *chhatras*, four minor *lain basties* and three village institutions. The administration of all religious institutions vests in the respective trustees, who manage them in conformity with the existing provisions of the Act and the rules thereunder. In addition to daily services and occasional special ceremonies, special *poojas* and prayers are performed on the Independence Day, Republic Day and other important occasions. Several philanthropic gentlemen of the district have made endowments for the conduct of *sevas* in the muzrai institutions. The names of some such important temples and the amounts of endowments made for them are as follows: (1) Sri Kanive Narasimhaswamy, Pavagada, Rs. 9,000, (2) Sri Bangadhareshwaraswamy, Turuvekere, Rs. 2,500, and (3) Sri Venkataramanaswamy, Sampige (Turuvekere taluk), Rs. 1,400.

Construction and repairs

A sum of Rs. 10,000 was sanctioned during the year 1966-67 for construction and repairs of the following muzarai institutions in the district :—

Sl. No.	Name of temple	Amount sanctioned
		Rs.
1.	Sri Channabasaveshwaraswamy, Gubbi ..	2,000
2.	Sri Varadarajaswamy, Hebbur, Tumkur taluk ..	2,000
3.	Sri Lakshminarasimhaswamy, Devarayanadurga	1,000
4.	Sri Malleshwaraswamy, Hulyar, Chiknayakanahalli taluk.	2,000
5.	Sri Siddhalingeshwaraswamy, Kaggere, Tumkur taluk.	2,000
6.	Sri Kalleshwaraswamy, Tiptur ...	1,000
Total ..		10,000

The following three private *chhatras* have been under Government management: (1) Sri C. D. Ramaswamy's Choultry, Kunigal, (2) Sri Bheemappa's *Chhatra*, Pavagada, and (3) Gulur *Chhatra*, Gulur, Tumkur taluk. The following two institutions situated in Hindupur taluk, Anantapur district of Andhra Pradesh, are receiving an annual cash grant of Rs. 348 each from the State Government through the District Treasury: (1) Sri Sathyanarasimha temple, Santebidanur, and (2) Sri Anjaneyaswamy temple, Santebidanur.

Jewels and their inspection

Registers of temple jewels are maintained in all the taluk offices and also in the major and minor institutions. It is incumbent on the inspecting officers that they should verify the details of the temple jewels with reference to the entries in these registers and bring discrepancies, if any, to the notice of the higher authorities for taking necessary action.

Financial position

During the year 1966-67, the total income of the muzarai institutions in the district was Rs. 7,72,647.60 and their expenditure was Rs. 3,58,989.79, while the closing balance at the end of that year amounted to Rs. 4,13,657.81. A talukwise statement showing the credits, debits and closing balances of these institutions in the district, during the year 1966-67, is attached at the end of the chapter.

Wakfs

The Central Wakf Act, 1954, was enforced in the former Mysore State with effect from the 15th January 1955. Under Section 10 of this Act, the State Government constituted a Board

of Wakfs consisting of seven members with the Commissioner for Religious and Charitable Endowments as its chairman. The requisite rules under the Act were also framed by the Government. There are a number of mosques, *darghas*, *imambaras* and other Muslim institutions in the district. These are supported by specific endowments made for the purpose and are called Wakf properties. A Wakf can be made exclusively for religious or charitable purposes or for maintenance and support of one's descendants either as sole beneficiary or in conjunction with other charities.

The Mysore State Board of Wakfs, constituted under the Central Wakf Act of 1954, administers the Muslim charitable and religious institutions. In exercise of the powers conferred by the Act, the Board was administering, in all, 369 religious and charitable institutions in Tumkur district as on 1st January 1968. The statement given below shows the number of such institutions in each taluk of the district as on that date :—

Sl. No.	Name of taluk	Number of institutions
1.	Pavagada ..	15
2.	Koratagere ..	21
3.	Madhugiri ..	20
4.	Tiptur ..	19
5.	Chiknayakanahalli ..	27
6.	Turuvekere ..	28
7.	Gubbi ..	36
8.	Sira ..	52
9.	Kunigal ..	65
10.	Tumkur ..	86
Total ..		369

The gross income from these institutions was about Rs. 1,06,470 per year. These institutions are managed by *Mutawallis* and administered by Committees according to the usage and customs and terms of the deed and scheme.

Statement showing the financial position of Muzrai Institutions in Tumkur district as in 1966-67

Sl. No.	Taluk	Opening Balance		Credits		Total		Debits		Closing Balance	
		1	2	3	4	5	6	7	8	9	10
1.	Tumkur	..	..	1,17,781.81	46,574.87	1,64,356.68	48,284.84	1,16,071.84	..	..	..
2.	Gubbi	..	..	50,892.14	31,131.64	82,023.77	51,640.21	30,383.56	..	..	..
3.	Kunigal	..	..	1,00,672.20	57,576.38	1,58,248.58	89,545.81	68,702.77	..	..	..
4.	Turuvekere	..	..	53,756.95	15,938.46	69,695.41	24,089.14	45,606.27	..	..	..
5.	Tiptur	..	..	57,662.38	9,278.61	66,940.99	36,001.71	30,939.28	..	..	..
6.	Chiknayakanahalli	..	..	23,271.03	19,003.78	42,274.81	17,880.71	24,394.10	..	..	..
7.	Sira	..	..	21,278.31	11,303.57	32,581.88	6,650.46	25,931.42	..	..	..
8.	Madhugiri	..	..	37,679.46	7,728.81	45,408.27	19,806.56	25,602.71	..	..	..
9.	Pavagada	..	..	25,984.92	17,365.85	43,350.77	24,608.35	18,742.42	..	..	..
10.	Koratagere	..	..	21,814.59	45,951.85	67,766.44	40,493.00	27,283.44	..	..	..
Total		..	..	5,10,793.79	2,61,853.81	7,72,647.60	3,58,989.79	4,13,657.81	..	..	..

CHAPTER XVIII

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

THE district of Tumkur has a considerable tradition of public life. The proximity of the chief town of the district to the great metropolitan centre of Bangalore is an advantage in this respect. The district took an active part in the political and social movements in the recent past. The attainment of Independence and establishment of a popular form of government have given a great deal of impetus to public life. In addition, democratic de-centralisation and the progress achieved in educational, agricultural, industrial and other spheres have helped to bring about, among the people, a wide general awareness of their rights and responsibilities. Elections to public bodies are now very keenly contested and public affairs are discussed with great enthusiasm in meetings of local bodies and parties and also on public platforms and in the press. The first general elections on the basis of adult franchise were held in January 1952 and the first ministry under the Indian Constitution assumed office in the State in April 1952.

The main political parties, which participated in the second general elections held in the district in 1957, were the Indian National Congress, the Praja-Socialist Party, the Communist Party of India and the Bharatiya Jan Sangh. All these political parties have their affiliations with the all-India bodies. There was no party in the district which was of local origin.

General Elections, 1957

Of these organised political parties, the Indian National Congress had a considerable hold on the masses. The party secured eight seats out of the twelve contested by it in all the ten Assembly constituencies of the district. The party captured both the Lok Sabha seats allotted to the district. Barring the Indian National Congress, the Praja-Socialist Party was the only other party to have some hold in the district. The party secured three seats out of the eight contested by it in the Assembly elections. In all the three constituencies they were returned, they defeated the Congress candidates by a clear margin. The Bharatiya Jan Sangh and the Communist Party of India, who each contested

three seats, failed to be returned in any of them. Apart from these political parties, twelve Independents contested the Assembly elections from five constituencies but only one Independent, i.e., in the Gubbi Constituency, was successful.

The following table shows the party affiliations of the contesting candidates, the number of valid votes polled by them, percentages of votes secured and the successful parties in respect of the general elections held in the district in 1957 :—

Sl. No.	Name of constituency	Party affiliations of contesting candidates	Number of valid votes polled	Percentage of total	Successful party
1	2	3	4	5	6
Lok Sabha					
1.	Tiptur	(1) Congress .. (2) P.S.P. .. (3) Independent ..	1,17,681 75,855 21,376	54.75 35.30 9.95	Congress
2.	Tumkur	(1) Congress .. (2) P.S.P. .. (3) Jan Sangh ..	1,16,863 52,475 24,863	60.20 27.02 12.78	Congress
Legislative Assembly					
1.	Turuvekere	(1) Congress .. (2) P.S.P. ..	19,313 12,010	61.65 38.35	Congress
2.	Tiptur	(1) P.S.P. .. (2) Congress ..	16,063 12,026	57.18 48.82	P.S.P.
3.	Chiknayakana-halli	(1) P.S.P. .. (2) Congress .. (3) Independent ..	14,856 12,010 2,301	50.93 41.18 7.89	P.S.P.
4.	Sira (Double-Member)	(1) Congress .. (2) Congress (S.C.) .. (3) Independent .. (4) Jan Sangh .. (5) Jan Sangh (S.C.) .. (6) Independent .. (7) Independent ..	33,195 24,926 7,022 6,926 6,739 4,296 3,956	38.12 28.63 8.07 7.95 7.74 4.95 4.54	(1) Congress (2) Congress
5.	Gubbi	(1) Independent .. (2) Congress .. (3) Independent .. (4) Independent .. (5) Communist .. (6) Independent ..	8,521 6,972 6,373 2,801 964 868	32.15 26.31 24.06 10.57 3.63 3.28	Independent

1	2	3	4	5	6
6.	Chandrashekhara-pura	(1) Congress .. (2) Independent .. (3) P.S.P. (4) Independent ..	9,478 5,940 5,474 4,066	37.99 23.82 21.94 16.25	Congress
7.	Kunigal	(1) Congress .. (2) Independent .. (3) Independent .. (4) Jan Sangh .. (5) Communist ..	8,371 6,991 5,596 2,749 921	33.98 28.38 22.72 11.17 3.75	Congress
8.	Tumkur	(1) P.S.P. .. (2) Congress .. (3) Communist ..	14,055 12,486 1,602	49.94 44.37 5.69	P.S.P.
9.	Hebbur	(1) Congress .. (2) P.S.P. ..	17,882 10,409	63.21 36.79	Congress
10.	Madhugiri (Double-Member)	(1) Congress .. (2) Congress (S.C.) .. (3) P.S.P. .. (4) P.S.P. (S.C.) ..	26,807 25,065 22,501 20,682	28.19 26.39 23.67 21.75	(1) Congress (2) Congress

The Election Commission, India, were required, under Section 3 of the Two-Member Constituencies (Abolition) Act, 1961, to divide every double-member constituency into two geographically compact single-member constituencies, delimit their extent and provide for the reservation of a seat in the constituency in which there is a greater concentration of population of the Scheduled Castes or Scheduled Tribes. The Commission were further required under Section 7 of the Act, to make such further amendments in the delimitation orders as were necessary to carry out these and other provisions. They accordingly amended the Delimitation of Parliamentary and Assembly Constituencies Order, 1956, and issued the revised Delimitation of Parliamentary and Assembly Constituencies Order, 1961, on the 7th December 1961. As a result of the revised order, the following changes were made in the Assembly constituencies pertaining to the district :—

Changes in
Parliamentary
and Assembly
Constituencies

(1) Sira, which was formerly a two-member constituency, was divided into Sira and Pavagada single-member constituencies, and a seat was reserved for the Scheduled Castes in the latter constituency.

(2) Madhugiri, which was formerly a two-member constituency, was divided into Koratagere and Madhugiri single-member constituencies and a seat was reserved for the Scheduled Castes in the former constituency.

General
Elections, 1962

The following statement shows the names of Assembly constituencies and their extent, as contained in the Delimitation of Parliamentary and Assembly Constituencies Order, 1961, which was in force in the district for the general elections of 1962 :—

Sl. No.	Name of constituency	Extent of constituency
1	2	3
1.	Turuvekere	.. Turuvekere taluk
2.	Tiptur	.. Tiptur taluk
3.	Chiknayakanahalli	.. Chiknayakanahalli taluk
4.	Sira	.. Sira taluk (excluding Kallambella hobli)
5.	Pavagada (S.C.)	.. Pavagada taluk
6.	Gubbi	.. Gubbi, Cholur and Hagalvadi hoblies and Nittur hobli (excluding Nittur circle) in Gubbi taluk; and Kallambella hobli in Sira taluk.
7.	Chandrashekharpura	.. Chandrashekharpura and Kadlaba hoblies and Nittur circle in Nittur hobli in Gubbi taluk; and Yedeyur and Amruthur hoblies in Kunigal taluk.
8.	Kunigal	.. Kunigal taluk (excluding Yedeyur and Amruthur hoblies).
9.	Hebbur	.. Hebbur, Guler and Urdagere hoblies in Tumkur taluk; and Kolala hobli in Koratagero taluk.
10.	Tumkur	.. Tumkur, Bellave and Kora hoblies in Tumkur taluk.
11.	Koratagero (S.C.)	.. Koratagero taluk (excluding Kolala hobli); and Puravara hobli and Kodigenahalli circle in Kodigenahalli hobli in Madhugiri taluk.
12.	Madhugiri	.. Madhugiri taluk (excluding Puravara hobli and Kodigenahalli circle in Kodigenahalli hobli).

Turuvekere, Tiptur, Chiknayakanahalli, Sira, Pavagada, Gubbi and Chandrashekharpura Assembly constituencies, along with Kadur Assembly constituency of Chikmagalur district, were included in the Tiptur Parliamentary constituency, while the rest of the Assembly constituencies of the district, along with Doddaballapur, Solur and Nelamangala constituencies of Bangalore district, constituted the Tumkur Parliamentary constituency.

Changes in
procedure

The following were some of the important changes made in the procedure relating to the conduct of elections and matters connected therewith :—

(i) The law has been amended doing away with the provision of a minimum qualifying period of residence of not less than 180 days in the constituency, for purposes of registration as a voter in that constituency. It is now sufficient if a person, who is not less than twenty-one years of age, is resident in that constituency on the qualifying date.

(ii) The elections are to be now completed within a period of 40 days in any constituency except in the case of un-contested elections where the process comes to an end within less than a fortnight.

(iii) An important amendment made in the rules provided for the introduction of the marking system of voting in elections. Under this system, the names of all the contesting candidates with their party affiliations and symbols allotted to each, are printed on a single ballot paper, which is required to be inserted in a common ballot box after putting an 'X' mark with the aid of a rubber stamp, against the name of the candidate for whom the voter wishes to vote.

(iv) Rules were framed regarding corrupt practices and electoral offences. Certain restrictions were also imposed on the printing of pamphlets and posters, either for the purpose of promoting or prejudicing the election of a candidate. Public meetings, both on the day preceding the election day and on the election day, were prohibited.

(v) The security deposit, which every petitioner has to make in connection with the filing of an election petition to the Election Commission, was increased from one thousand rupees to two thousand rupees, so as to reduce the number of petitions based on flimsy and inadequate grounds.

The Indian National Congress, the Praja-Socialist Party, the Jan Sangh and the Communist Party of India were the main political parties which contested the third general elections held in the district in 1962. The Indian National Congress did not come up to its previous performance in the general elections of 1962. It captured both the seats in the Lok Sabha allotted to the district, but only five of the twelve Assembly seats contested by it. The Praja-Socialist Party was the only other political party in the district which had some hold in the district. It improved upon its previous performance in the general elections of 1957 and won four Assembly seats out of the ten contested by it. The Bharatiya Jan Sangh and the Communist Party of India contested four seats and one seat respectively, but failed to be returned in any constituency. Apart from these political parties, 11 Independents contested the Assembly election in

eight constituencies and were successful in three of them, namely, Sira, Gubbi and Kunigal.

The table given below shows the party affiliations of contesting candidates, the number of valid votes polled by them and the successful parties, in respect of the general elections held in the district in 1962 :—

Sl. No.	Name of the constituency	Party affiliations of contesting candidates	No. of valid votes polled	Successful party
1	2	3	4	5

Lok Sabha

1. Tiptur	..	(1) Congress .. (2) P.S.P. ..	1,36,801 1,28,705	Congress
2. Tumkur	..	(1) Congress .. (2) P.S.P. .. (3) Independent .. (4) Jan Sangh ..	1,19,617 70,724 45,040 16,543	Congress

Legislative Assembly

1. Turuvekere	..	(1) P.S.P. .. (2) Congress ..	18,695 15,615	P.S.P.
2. Tiptur	..	(1) P.S.P. .. (2) Congress ..	17,754 13,484	P.S.P.
3. Chiknayakanahalli	..	(1) Congress .. (2) P.S.P. .. (3) Independent ..	16,473 9,371 4,953	Congress
4. Sira	..	(1) Independent .. (2) Congress .. (3) Jan Sangh ..	21,746 18,002 1,088	Independent
5. Pavagada (S.C.)	..	(1) Congress .. (2) P.S.P. .. (3) Jan Sangh .. (4) Independent ..	12,976 7,478 2,066 938	Congress
6. Gubbi	..	(1) Independent .. (2) Congress .. (3) Independent .. (4) Communist Party ..	10,420 9,896 6,046 3,225	Independent
7. Chandrashekhara-pura.	..	(1) Congress .. (2) Independent .. (3) P.S.P. ..	14,012 13,138 10,440	Congress

1	2	3	4	5
8. Kunigal	..	(1) Independent .. (2) Congress .. (3) P.S.P. ..	17,410 9,165 6,973	Independent
9. Hebbur	..	(1) P.S.P. .. (2) Congress ..	21,822 18,140	P.S.P.
10. Tumkur	..	(1) Congress .. (2) Independent .. (3) P.S.P. .. (4) Jan Sangh .. (5) Independent ..	15,178 10,919 2,769 1,488 855	Congress
11. Koratagere (S.C.)	..	(1) Congress .. (2) P.S.P. .. (3) Independent .. (4) Independent ..	9,053 8,885 853 598	Congress
12. Madhugiri	..	(1) P.S.P. .. (2) Congress .. (3) Jan Sangh ..	19,083 15,492 2,385	P.S.P.

The following were the Assembly constituencies in the district and their extent under the Delimitation of Parliamentary and Assembly Constituencies Order, 1965, in respect of the general elections of 1967 :—

Sl. No.	Name of constituency	Extent of constituency
1. Pavagada (S. C.)	..	Pavagada taluk
2. Sira	..	Sira taluk (excluding Kallambella and Bukkapatna hobbles).
3. Kallambella	..	Kallambella and Bukkapatna hobbles in Sira taluk; Hagalvadi and Chelur hobbles in Gubbi taluk; and Kandikere hobli in Chiknayakanahalli taluk.
4. Gubbi	..	Gubbi taluk (excluding Hagalvadi and Chelur hobbles).
5. Chiknayakanahalli	..	Chiknayakanahalli taluk (excluding Kandikere hobli).
6. Tiptur	..	Tiptur taluk
7. Turuvekere	..	Turuvekere taluk
8. Kunigal	..	Hebbur hobli in Tumkur taluk; and Kottigere and Hurrudurga hobbles and the villages in Kunigal hobli (specified in the Appendix) in Kunigal taluk.

Sl. No.	Name of constituency	Extent of constituency
9.	Huliyurdurga	Kunigal taluk (excluding Kottigero and Hutridurga hoblies and the villages in Kunigal hobli specified in the Appendix).
10.	Gulur (S.C.)	Tumkur taluk (excluding Tumkur, Hebbur and Bellave hoblies); and Kolala hobli in Koratagere taluk.
11.	Tumkur	Tumkur and Bellave hoblies in Tumkur taluk.
12.	Koratagere	Koratagere taluk (excluding Kolala hobli); and Puravara and Kodigenahalli hoblies in Madhugiri taluk.
13.	Madhugiri	Madhugiri taluk (excluding Kodigenahalli and Puravara hoblies).

APPENDIX

Places in Kunigal hobli in Kunigal taluk included in Kunigal constituency

- (1) Kunigal town
- (2) Mallaghatta
- (3) Bidanagere
- (4) Kuthadahalli
- (5) Byranaikanahalli
- (6) Channapura
- (7) Begur
- (8) Begur (Amanikere)

The Gubbi, Chiknayakanahalli, Tiptur, Turuvekere, Kunigal, Huliyurdurga, Gulur and Tumkur Assembly constituencies were included in Tumkur Parliamentary constituency, while the rest of the constituencies formed part of Madhugiri Parliamentary constituency, which also included Gauribidanur, Chikballapur, and Bagepalli Assembly constituencies of Kolar district.

Party position

The Indian National Congress, the Praja-Socialist Party, the Swatantra Party, the Bharatiya Jan Sangh and the Communist Party of India were the recognised political parties which participated in the fourth general elections held in the district in 1967. The Indian National Congress improved upon its previous performance in 1962, by capturing nine of the thirteen Assembly seats. It also secured the Madhugiri Parliamentary seat. The only

other political party, which had a hold in the district, was the Praja-Socialist Party. It won the Tumkur Parliamentary seat and three of the eight Assembly seats contested by it; it was successful in Chiknayakanahalli, Gulur and Tumkur constituencies. The Bharatiya Jan Sangh contested a single Assembly seat in Sira, the Swatantra Party two Assembly seats in Gubbi and Gulur and the Communist Party a single seat in Kallambella. But none of these parties secured any success. Apart from these political parties, 22 Independents contested the Assembly seats in all the thirteen constituencies, but only one was elected from the Huliyurdurga constituency.

The table given below shows the party affiliations of the contesting candidates, the number of valid votes polled by them and the successful parties, in respect of the general elections held in the district in 1967:—

Sl. No.	Name of constituency	Party affiliations of contesting candidates	No. of valid votes polled	Successful party
1	2	3	4	5

Lok Sabha

1. Tumkur	..	(1) P.S.P.	..	1,15,312	P.S.P.
		(2) Congress	..	1,15,051	
		(3) Independent	..	19,941	
		(4) Independent	..	18,175	
2. Madhugiri	..	(1) Congress	..	1,56,423	Congress
		(2) Swatantra	..	65,256	
		(3) Independent	..	37,734	
		(4) Independent	..	17,812	
		(5) Independent	..	8,864	

Legislative Assembly

1. Pavagada	..	(1) Congress	..	17,605	Congress
		(2) Independent	..	14,652	
		(3) Independent	..	853	
2. Sira	..	(1) Congress	..	16,356	Congress
		(2) Independent	..	7,242	
		(3) Independent	..	5,464	
		(4) Jan Sangh	..	4,114	
		(5) Independent	..	3,455	
3. Kallambella	..	(1) Congress	..	16,176	Congress
		(2) Independent	..	8,095	
		(3) Independent	..	4,721	
		(4) Communist	..	3,561	

1	2	3	4	5
4. Gubbi	(1) Congress ..	11,962	Congress	
	(2) P.S.P. ..	11,311		
	(3) Swatantra ..	5,778		
	(4) Independent ..	4,840		
5. Chiknayakanahalli	(1) P.S.P. ..	17,220	P.S.P.	
	(2) Congress ..	16,852		
	(3) Independent ..	2,445		
6. Tiptur	(1) Congress ..	19,056	Congress	
	(2) Independent ..	11,723		
	(3) P.S.P. ..	6,991		
	(4) Independent ..	3,419		
7. Turuvekere	(1) Congress ..	18,022	Congress	
	(2) P.S.P. ..	17,065		
	(3) Independent ..	3,830		
8. Kunigal	(1) Congress ..	16,930	Congress	
	(2) P.S.P. ..	11,238		
	(3) Independent ..	3,037		
9. Huliyurdurga	(1) Independent ..	15,126	Independent	
	(2) Congress ..	15,050		
	(3) Independent ..	3,379		
10. Gulur	(1) P.S.P. ..	11,903	P.S.P.	
	(2) Congress ..	7,531		
	(3) Independent ..	3,582		
	(4) Independent ..	1,261		
	(5) Independent ..	1,048		
	(6) Swatantra ..	468		
11. Tumkur	(1) P.S.P. ..	10,509	P.S.P.	
	(2) Congress ..	7,936		
	(3) Independent ..	4,861		
12. Koratagere	(1) Congress ..	15,938	Congress	
	(2) Independent ..	7,938		
	(3) P.S.P. ..	7,404		
13. Madhugiri	(1) Congress ..	17,183	Congress	
	(2) Independent ..	7,083		
	(3) Independent ..	5,061		

The following figures show the total number of electors, the total number of valid votes polled and the percentages, in respect of the general elections held in the district in 1957, 1962 and 1967 :—

Voting statistics

Sl. No.	Name of constituency	Total No. of voters	No. of votes polled	Percentage of votes polled
1	2	3	4	5
1957				
Lok Sabha				
1.	Tiptur	4,01,372	2,14,912	53.56
2.	Tumkur	3,82,088	1,94,201	50.83
Legislative Assembly				
1.	Turuvekere	44,593	31,323	70.24
2.	Tiptur	48,638	28,089	57.75
3.	Chiknayakanahalli	48,802	29,167	59.76
4.	Sira (Double-member)	1,11,390	87,060	77.98
5.	Gubbi	50,639	26,499	52.32
6.	Chandrashekharapura	46,943	24,948	53.14
7.	Kunigal	47,291	24,628	52.07
8.	Hebbur	51,484	29,291	56.95
9.	Tumkur	48,276	28,143	58.29
10.	Madhugiri (Double-member)	1,00,506	95,085	94.81
1962				
Lok Sabha				
1.	Tiptur	4,58,300	2,78,780	60.83
2.	Tumkur	4,25,051	2,64,046	62.12
Legislative Assembly				
1.	Turuvekere	49,618	36,110	72.78
2.	Tiptur	55,951	32,698	58.44
3.	Chiknayakanahalli	56,088	33,734	60.14
4.	Sira	67,939	44,031	64.81
5.	Pavagada (S.C.)	58,317	25,493	43.71
6.	Gubbi	55,760	32,395	58.10
7.	Chandrashekharapura	55,633	39,946	71.74
8.	Kunigal	52,161	35,440	67.92
9.	Hebbur	57,851	41,742	72.15
10.	Tumkur	57,001	33,731	59.25
11.	Koratagere (S.C.)	52,828	20,788	39.29
12.	Madhugiri	60,110	39,140	65.11

1	2	3	4	5
1967				
Lok Sabha				
1. Tumkur	..	4,46,607	2,82,424	63.2
2. Madhugiri	..	5,09,043	3,03,235	59.9
Legislative Assembly				
1. Pavagada (S.C.)	..	71,140	39,225	58.4
2. Sira	..	59,849	40,161	67.0
3. Kallambella	..	50,761	34,818	61.3
4. Gubbi	..	58,803	36,574	62.2
5. Chiknayakanahalli	..	50,064	38,975	69.5
6. Tiptur	..	62,854	44,019	70.0
7. Turuvekere	..	56,937	41,013	72.0
8. Kunigal	..	48,925	32,604	66.8
9. Huliyurdurga	..	52,107	35,820	68.0
10. Gulur (S.C.)	..	57,308	28,141	49.1
11. Tumkur	..	53,699	25,306	47.3
12. Koratageri	..	60,962	34,696	51.8
13. Madhugiri	..	59,062	33,222	56.0

Polling stations

There were, in all, 621 polling stations in the district during the general elections of 1957. This number was increased to 744 during the general elections of 1962 and to 826 during the general elections of 1967, in order to cater to the convenience of voters whose strength had increased. The following table shows the number of polling stations located in each of the Assembly constituencies in the district during the general elections of 1957, 1962 and 1967 :—

Sl. No.	Name of Assembly constituency	Number of polling stations		
		1957 Elections	1962 Elections	1967 Elections
1	2	3	4	5
1.	Turuvekere	51	51	64
2.	Tiptur	53	57	58
3.	Chiknayakanahalli	52	60	59
4.	Sira	113	73	70
	(two-member)			
5.	Gubbi	47	64	70
6.	Chandrashekharpura	52	68	..
7.	Kunigal	49	53	55
8.	Hebbur	51	69	..
9.	Tumkur	56	60	59
10.	Madhugiri	97	67	64
	(two-member)			

1	2	3	4	5
11.	Pavagada	..	64	71
12.	Koratageri	..	58	70
13.	Kallambella	..	..	63
14.	Huliyurdurga	..	..	57
15.	Gulur	..	..	66
Total		..	621	744
				826

The total expenditure incurred on the conduct of the fourth general elections in the district in 1967 was about Rs. 1,09,000.

As the majority of the daily newspapers published in Bangalore reach Tumkur, which is at a distance of only about 40 miles, fairly early, there has not been any incentive for publication of daily newspapers from Tumkur. Consequently, journalism has not made much progress in the district, although some sporadic efforts have been made in the past to run other journals and periodicals. Most of the Bangalore daily newspapers have their correspondents at Tumkur and other important towns. As in October 1968, a weekly, two monthlies and a quarterly were being published in the district in Kannada, particulars of which are given below :—

Newspapers and periodicals

Sl. No.	Name of Journal	Name of Editor	Place of publication
1	2	3	4
		Sriyutha—	
1.	"Vijayavani" (Weekly)	H. R. Gundu Rao	Tumkur
2.	"Savasadana" (Monthly)	T. S. Shama Rao	Gubbi
3.	"Paramartha Chandrodaya" (Monthly)	Venkataraya Dasu	Devarayanadurga (Tumkur taluk).
4.	"Siddhaganga" (Quarterly)	Channappa Eresceme	Siddhaganga

Newspapers and periodicals published in Bangalore, Madras and Bombay have a wide circulation in the district. The daily papers and periodicals, which are widely read in the district, are *Prajavani*, *Samyukta Karnataka*, *Tainadu*, *Janavani*, *Kannada Prabha*, *Sudha*, *Prajamatha*, *Karmaveera*, *Janapragathi*, *Kasturi* and *Mayura*, all in Kannada, and the *Deccan Herald*, *Indian Express*, *Hindu*, *Illustrated Weekly of India*, *Blitz* and *Mysindia*, all in English. The *Azad*, *Pasban* and *Salar*, the Urdu newspapers from Bangalore, have also a reading public in the district. Apart from these papers and periodicals, film magazines published in Bombay and Madras have a good circulation in the district.

It is interesting to note, in this connection, that copies of most of the dailies published in Bangalore are now transported to important places by means of vans, operating from very early hours of the morning. By this method of quick transport, readers in Tumkur and other towns are able to get their papers early in the morning and this has enhanced the interest for reading the daily newspapers, as a consequence of which the circulation of these papers has also increased in the district.

VOLUNTARY SOCIAL SERVICE ORGANISATIONS

The humanitarian urge to organise voluntary institutions for serving the social and economic needs of the people has received considerable encouragement after the advent of independence. There are a number of voluntary social service organisations in the district doing good work in various fields. These institutions have been organised by associations and public-spirited persons. Many of these organisations have been recognised by Government and getting monetary and other assistance from it. Though it has not been possible to include all such institutions functioning in the district, an attempt has been made to include as many as possible, details about whose working could be collected. These particulars are of interest not only in respect of the institutions concerned, but also as regards the pattern they represent. The following is a brief account of some of the social service organisations in the district.

**Mahila Samaja,
Tumkur**

The Mahila Samaja, Tumkur, was started in the year 1936 and it was registered in 1956. The objective of the institution is mainly the improvement of the social, physical, cultural and educational well-being of women and children, irrespective of caste, creed or social status. The Samaja had 166 members on its rolls in October 1968, of whom ten were life-members. There were 150 students attending the music, Hindi, tailoring and typewriting classes conducted by the institution. There is a circulating library consisting of about 4,000 books and also a separate library for the use of children. A Montessori nursery school is also being conducted for children between three and five years of age and it is looked after by a trained teacher. The strength of the nursery school in October 1968 was about 100. The children are supplied with free milk, multi-purpose food and mid-day meals sponsored by the CARE organisation. There is regular medical examination of these children at specified intervals. There is a proposal to start free ante-natal and family planning clinics, shortly.

The Samaja is conducting baby shows and sports competitions as part of its anniversary celebrations. It conducted a condensed course of two years' duration for the S.S.L.C. examination of 1964, at which many women of the age-group of 20-35

were successful. It took a leading part in the National Savings propaganda, and also collected gold, cash and other articles for the National Defence Fund in 1962 and 1965. The institution conducts periodical training courses in first-aid, home nursing and civilian rifle shooting. Lectures and film shows are arranged at frequent intervals on various subjects for the benefit of the public. The institution is running a games section in which provision is made for playing badminton, carom, table-tennis, chess and tenniquit games. The institution has been accorded a number of certificates and prizes at exhibitions, in sports and other competitions. The managing committee of the institution includes a president, four vice-presidents, a secretary, a joint secretary, a treasurer, besides eight other members.

The Akkana Balaga Veerashaiva Mahila Samaja, Tumkur, **Akkana Balaga,
Tumkur** was started in the year 1932 by some prominent women of the town. The objectives of the Samaja are service to women in social and cultural fields and promotion of the welfare of women and children. As in October 1968, the institution was managed by a committee consisting of a president, secretary, a joint secretary and five members; it had more than 70 members. About 300 students were studying in the various classes conducted by it in 1968; about 200 children were on the rolls of the *Shishuvihar*, while 30 women were attending tailoring classes and about 50 children were learning music. Handicrafts such as tailoring, weaving, doll-making and manufacture of *agarbathis* are being taught in the institution. There were two music teachers and four *Shishuvihar* teachers in addition to two tailoring instructors, a weaving instructor and two craft teachers. The Samaja has programmed to expand its activities by making provision for teaching drawing, painting, rattan work, bangle-making, spinning, etc. The institution is getting a total grant of about Rs. 6,000 per year from the Government, the Central Social Welfare Board and the local Municipality.

The Akkamahadevi Samaja, Tumkur, was established in the year 1937 by certain lady social workers of Tumkur and it was registered in 1953. The institution arranges social and cultural activities for women and provides training facilities to them in arts and crafts. It was managed, as in October 1968, by a committee consisting of a president, two secretaries, a treasurer and 21 other members. The members pay a monthly subscription of a rupee. The Samaja is getting grants from Government, and the public are also helping it by means of donations. The institution is running a *Shishuvihar* for children, besides classes in music, Hindi, tailoring and embroidery. There were 110 pupils in the *Shishuvihar*, 35 students in the music section, 15 in the Hindi section and 35 trainees in the tailoring and embroidery sections. **Akkamahadevi
Samaja,
Tumkur**

The Samaja is located in its own building built at a cost of Rs. 30,000.

**Mahila Samaja,
Madhugiri**

The Mahila Samaja, Madhugiri, was established in the year 1922 with a view to helping the women of the town by imparting free training to them in crafts like tailoring, embroidery and knitting and to conduct nursery schools for children. The institution was managed, during the year 1968-69, by a committee consisting of a president, a secretary and eight other members. There were 25 members on the rolls of the Samaja as in September 1968. The institution is running two nursery schools for children and a tailoring class for women. In addition to subscriptions from members and donations from the public, the Samaja is also getting grants from the Government and the Central Social Welfare Board.

**Mahalakshmi
Mahila Samaja,
Vaderahally**

The Mahalakshmi Mahila Samaja, Vaderahally, Madhugiri taluk, was started in August 1966. Its main objects are (1) to foster fellow-feeling among women and to help their educational and cultural advancement in general, (2) to provide for maternity and child welfare centres, (3) to arrange for vocational training and training in handicrafts for women, and (4) to provide facilities for training in the arts like music and dancing. It is managed by a working committee consisting of a president, a vice-president, a secretary and four other members. The Samaja is conducting a nursery school for children and a tailoring class for women. Fifty-one children were studying in the nursery classes and ten women were learning tailoring, sewing and embroidery, as in September 1968. The Taluk Development Board, Madhugiri, has arranged to give sewing machines to the successful trainees, at half the cost, as an incentive to village women to learn tailoring and to supplement their income. The expansion programme of the institution includes (1) construction of a new building for the Samaja, (2) starting of Ambar-Charkha training classes and (3) starting of adult literacy classes.

**Manjula Mahila
Samaja,
Siddapura**

The Manjula Mahila Samaja, Siddapura, Madhugiri taluk, was inaugurated in February 1967. It aims at the all-round progress of women in the social, cultural and educational spheres, without any distinction of caste, creed or religion. It is conducting craft classes for women and instruction is imparted in cutting and tailoring, dress-making, toy-making and making of wire bags. A *Shishuvihar* is also being run by the Samaja and about 50 children were studying in it as in September 1968. Twelve women were learning tailoring, sewing and embroidery. The Samaja has programmed to expand its activities by starting adult literacy classes and taking up soap-making as a small-scale industry with the help of the Government. The institution is managed by a committee consisting of a president, a vice-president, a secretary and ten other members.

The Sarvodaya Mahila Samaja, Kadaba, Gubbi taluk, was started in March 1961. In addition to fees from members and donations from the public, the Samaja is getting grants from the Industries and Commerce Department, Mysore State Social Welfare Advisory Board and from the local Village Panchayat. There were fifty members on the rolls of the Samaja as in September 1968 and it is managed by a non-official committee.

Five batches of twenty women each, trained at the Samaja, passed the tailoring examinations. Eight sewing machines were supplied to poor and deserving women at half the cost under a subsidy scheme. The finished products of the handicrafts classes (namely, tailoring, doll-making, machine and hand embroidery, knitting, bead-work, rattan-work and mat-making) were recently exhibited at the fair and cattle show at Siddhaganga, at the district handicrafts exhibition at Tumkur and at other exhibitions, and proficiency certificates and shields have been awarded for their excellence. Eighty-five children were given nursery education at the Samaja. The Samaja has programmed to open a girls' high school, a typewriting institute and a teachers' training institute to prepare pupil-teachers for the teachers' certificate examinations.

The Mahila Samaja, Holavanahalli, Koratagere taluk, was inaugurated in September 1961 and was registered under the Societies Act in May 1962. The institution arranges lectures on social and literary topics, *harikathas* and *Bharatha-vachana*. It is running a nursery school for children and a tailoring class for women. The Samaja conducted a condensed course of instruction for the benefit of women who desired to appear for the VII standard examination, and secured good results. It is to start shortly craft classes in rattan-work and mat-weaving. Membership subscription, donations from the public and grants from the Government, the local body and the State Social Welfare Advisory Board, are the chief sources of revenue for the institution.

(There are also many other Mahila Samajas in places such as Chiknayakanahalli, Turuvekere, Y. N. Hoskote, Mayasandra, Kallur, Bukkapatna, Midigeshi, Sompura, Neralekere and Badavanahalli which are functioning with similar objectives).

The Women's Industrial Co-operative Society's Training-cum-Production Centre, Tumkur, was established in 1966. In this service institution, needy women will receive a stipend for learning tailoring and embroidery. The Centre is managed by a working committee consisting of a president, a vice-president, a secretary and nine other members. In 1968, there were 20 trainees, each getting a stipend of Rs. 30 per month. Clothes stitched by the trainees were supplied to Mahila Samajas and other institutions.

where they were required. The Centre has programmed to start other craft classes also.

**Social Welfare
Centre, Haralur**

The Social Welfare Centre, Haralur, was started in January 1956 and was registered under the Mysore Societies Act. It is managed by a committee consisting of a president, a secretary, a treasurer and seven other members. The Centre set up a Young Raiyats' Union in March 1959. The objectives of this union are to provide a social forum to farmers for mutual exchange of ideas and to help them in securing necessary facilities for improving agriculture. In 1968, there were about 25 active members in the union. They also lend a helping hand, when required and possible, in execution of works like repairs to roads, tanks and temples and in arranging public functions in the village. The Centre established also a Mahila Samaja in March 1957. There were 75 members on the rolls of this Samaja in September 1968. It is getting grants from the Central Social Welfare Advisory Board, Delhi, and the National Extension Service, Tumkur. There were 20 students in the music class conducted by the Samaja in 1968. A nursery school was also started by the Centre in August 1956. In 1968, there were about 40 children in this school which was under the charge of two teachers. Arrangements have been finalised for the construction of a new building for the school, for which a site has been donated by one of the committee members.

**Bhandi Ranga-
nathaswamy
Youth Club,
Tavarekere**

The Bhandi Ranganathaswamy Youth Club, Tavarekere, Sirataluk, was started in September 1959. The objectives of the institution are mainly :—

- (1) to inculcate in the youths, the value of unity, co-operation and community life ;
- (2) to develop a sense of brotherhood among the villagers ;
- (3) to work towards the common good of the villagers for building up a Welfare State ;
- (4) to adopt and popularise improved methods of agriculture and animal husbandry ;
- (5) to teach the dignity of labour by doing community work and *shramadan* work as part of social service, and
- (6) to co-operate with Government agencies in all the developmental activities.

The Club is managed by a committee consisting of a president, a vice-president, a secretary, a joint secretary and a treasurer. A nominal monthly subscription is collected from each of the members of the Club. The following are a few of the ameliorative works undertaken and completed by the Club :—

- (i) Construction of about 1,300 feet of *katcha* road ;
- (ii) construction of about 2,600 feet of earth-work for drainage ;
- (iii) digging of 68 compost pits ; (iv) construction of about 1,300 feet of *pucca* drainage, and (v) repairs to about 1,000 feet of channel. The Club got a first prize for social service rendered in 1961. Tailoring and embroidery are also taught in the institution for the women members. An Ambar-Charkha Centre has been opened for the benefit of the members.

The common objective of most of the orphanages is to provide food and shelter and some general education and technical training to the orphans so as to make them economically independent in due course. For this purpose, they are taught, in addition to general subjects, some useful handicrafts or trade. Sometimes, the orphanages provide shelter and food also to those infirm and physically handicapped persons who are unable to earn their living.

The Sree Siddhalingeshwara Orphanage, Siddhaganga, Tumkur taluk, was started in the year 1917 by the then Swamiji of the Siddhaganga *Matha*. The institution is now managed by Sri Shivakumara *Swamigalu*, the present head of the Siddhaganga *Matha*. A non-communal free boarding home for about 2,000 students is maintained by the *Matha*. The Government are giving a grant at the rate of Rs. 10 per month per boarder, only in respect of 1,870 students. In respect of the remaining 1,030 students, the *Matha* has to rely on the generous help of the public, both in cash and kind. The annual maintenance cost of the free boarding home comes to about eight lakhs of rupees, out of which the Government grant is about Rs. 2,24,000.

Crafts like carpentry and tailoring are also taught in the orphanage, and it is proposed to open an Industrial School shortly. Since the *Matha* is considered a place of pilgrimage, hundreds of persons visit it almost daily. It has been the tradition of this institution to arrange for the free feeding of all visitors without distinction of caste or creed. During *jatra* festivities every year, nearly fifty thousand persons are fed daily for nearly ten to twelve days.

The Urigaddigeshwara Orphanage, Bettahalli *Matha*, Kunigal taluk, was started in the year 1955 by Sri Neelakantha Shivacharya Swamiji. It provides free boarding and lodging to orphan students of all communities studying in the various educational institutions located nearby. The institution is managed by a committee of ten members, of which Sri Neelakantha Shivacharya Swamiji is the president. The Orphanage is getting an annual grant of Rs. 10,500 from the State Government for its maintenance. There were 142

students who were availing of the facilities offered by the institution, as in July 1968.

**Veerashaiva
Anandashrama,
Tiptur**

The Sree Veerashaiva Anandashrama, Tiptur, was started in the year 1912 by Sri Niranjana Jagadguru Jayadeva Murugharajendra Swamiji of Chitradurga. A building was constructed to house the *Ashrama* by Panditaradhya-gothrothpanna Kotturayya in 1913. The main aims of the institution are to arrange for the free boarding and lodging of destitute and orphan students of all communities studying in the various educational institutions nearby and to encourage Sanskrit and Vedic studies. The *Ashrama* was managed, as in July 1968, by a committee consisting of three trustees, two honorary secretaries, one honorary warden and 14 other members. It is getting an annual grant of Rs. 16,200 from the State Government. There were 150 students residing in the Orphanage as in July 1968. A Sanskrit and Veda Pathashala is also attached to the institution in which 50 pupils were studying in 1968. There is a reading room also, for which the local Municipality gives a maintenance grant of Rs. 15 per month. Sri Jayadeva Murugharajendra Swamiji has made an endowment of Rs. 66,000 for the proper management and maintenance of this institution. A new building with about twenty rooms has been recently constructed.

**Chidambarash-
rama, Gubbi**

The Chidambarashrama, Gubbi, was founded by Sri Chidambara Swamiji in the year 1940. Its motto is "Service to mankind is service to God". The institution is running a Vedavidya Mandira, a residential school, where students are taught Sanskrit and the Vedas, on *gurukula* lines. There were about 50 students on its rolls during the year 1967-68. The institution is also running a middle school and a high school. There were 80 students in the high school, under the charge of a headmaster and four teachers. A printing press is also maintained, where a monthly, "Seva Sadana," is being printed and published.

After the demise of the founder in August 1966, a committee of management was set up to look after the affairs of the *Ashrama*, which includes a president, a managing trustee, a secretary and nine members. There were 150 members on the rolls of the institution during 1967-68, which included three *Maha Poshakas* (who contributed a minimum sum of Rs. 1,001), eight *Poshakas* (who contributed a minimum sum of Rs. 501) and 139 Life Members (who contributed a minimum sum of Rs. 101).

**Gurukula
Anandashrama,
Tiptur**

The Gurukula Anandashrama, Tiptur, was started in the year 1928 by Sri Karibasava Deshikendra Swamiji of Sidlahalli *Matha*. It provides free boarding and lodging for orphan students of all communities. The *Ashrama* is managed by a committee with a president, a secretary, and thirteen other members. It is getting

an annual grant of Rs. 20,000 from the State Government, besides liberal financial help from the Swamiji of the Sidlahalli *Matha* who is the *Poshaka*. There were 178 orphans belonging to all communities in the *Ashrama*, in July 1968; in addition, 125 students studying in the Kalpataru College were also being fed every day.

The Church of South India Boys' Home, School of Industries and Farm Project, Tumkur.—This institution began as a Boys' Orphanage in the year 1877, during the time of the great famine, under the auspices of the Wesleyan Methodist Missionary Society. During those years, hundreds of orphans were admitted. Many died, but many others, who had arrived in a starving condition, survived. In order to enable the orphan boys to earn their livelihood, they were trained either in industry or agriculture. Land was bought in the village of Muthsandra, five miles outside Tumkur, on which food crops for the orphanage have been grown ever since. A workshop was founded in about 1879 and the boys were taught crafts like carpentry, weaving, smithy and rope-making. During the following years, the institution built up a reputation for quality furniture. From time to time, some of the furniture manufactured here is exported to Europe and America.

Church of South
India Institu-
tions

In 1947, the institution was incorporated, together with all the other work of the Methodist Mission, in the Church of South India (a Union of Protestant Churches in South India). The institution can be divided into three sections, namely, Boys' Home, School of Industries and Farm Project.

The aims and objects of the institution, as set forth in its constitution, are:

- (1) to provide a home for orphan, poor and destitute boys;
- (2) to provide, for these boys, facilities for training in such crafts or occupations as may from time to time be taught in the institution;
- (3) to promote the dignity of manual labour and a high standard of skill and integrity in work, and
- (4) to engage in any other activities as may serve and promote these aims and objects.

Boys' Home.—Only a small percentage of boys are now real orphans and so the name has been changed. However, all the boys admitted are poor and can pay only nominal fees, if any. The capacity is for 100 boys. The sole guaranteed source of income of the institution is Rs. 5,000 per year, being the interest on an invested amount. The School of Industries and the Farm Project give some financial support. Some of the boys are supported by foster parents in America and Germany. The balance of the

annual budget of Rs. 30,000 has to be raised by fees and donations. The boys are well-fed and clothed.

School of Industries.—In the manufacturing section of the School of Industries, efforts are made to maintain a high standard and to introduce new designs and techniques in furniture manufacture. A recent example of this is a new design for post office counters, which has been accepted as a standard for the whole State. The institution is having also the services of technically qualified personnel from abroad. A revised three-year course in carpentry training was introduced in a newly constructed block in 1966. The boys, who are trained here, will find employment in the modern furniture industry. There is an annual intake of 15 boys between the ages of 14 and 17 with a minimum qualification of VI standard. The course includes practical carpentry, rattan-work, technical and freehand drawing and designing. There are plans to develop courses in tailoring and machine maintenance also.

Farm Project.—This was started in its present form in 1961 to make better use of the lands belonging to the Boys' Home. Improved methods of agriculture are demonstrated to village farmers in close co-operation with the Department of Agriculture. Experiments are made for introduction of new high-yielding crops. A model poultry farm is being run with improved strains of birds. Boys are also trained in poultry-keeping and assistance is given to small poultry-farmers. A comprehensive course in agriculture is planned for village boys. In 1968, the work of drilling bore-wells and blasting for open irrigation wells was introduced here by the Mysore Diocese.

In addition to the above mentioned institutions, there are several *Vidyarthi Nilayas* (students' hostels) run by religious institutions and associations of philanthropic-minded persons of various communities at Tumkur and other towns, which help the needy students to prosecute their studies by providing them boarding and lodging facilities.

The Bharat Scouts and Guides Association, Tumkur, is a branch of an all-India organisation. It trains its members, both boy-scouts and girl-guides, in volunteer service and inculcates a sense of discipline in them. In addition to participating in national celebrations, it renders help to the public whenever required, at public meetings, functions, *jatras* and the like. The Association has a building of its own at Tumkur. The Government have allotted a playground for it at Namada Chilume. The Deputy Commissioner of the district is the president of the Association, which has now 120 members. There are also local associations at taluk headquarters.

Bharat Scouts
and Guides
Association,
Tumkur

During the year 1967-68, there were 1,397 boy-scouts and 193 girl-guides. The Association has trained 74 teachers drawn from all over the district as Cub-masters. It deputed a scout and a guide from the district to the President's Scout and Guide Rally held at Calcutta in 1967. Five scouts and five guides also participated in the All India Jambooree held in December 1967 at Kalyani near Calcutta. A number of scouts and guides have also been trained in first-aid and home-nursing to enable them to render also such service to the public.

The Bharat Sevalal, Tumkur, is one of the earliest branches established in the State. This organisation is an off-shoot of the Hindustani Sevalal founded by Dr. N. S. Hardikar in the year 1923 and which played an important role in the freedom struggle of the country. The Bharat Sevalal came into existence in March 1950 as a non-political and non-party youth organisation. The avowed objects of the organisation are: (1) to instil the qualities of self-discipline, self-reliance, service, tolerance and aptitude for corporate and co-operative work, in the youth of the country, (2) to improve the health and physique of the youths through physical culture and training, (3) to promote national development and social reconstruction by rendering service to all without any distinction and (4) to safeguard the life and property of the people by way of relief work. The Sevalal branch is managed by a district committee consisting of a president, a vice-president, a treasurer, a secretary and an organiser. There are also taluk committees to look after the work of the organisation at those levels.

Social service and contribution of manual labour are the corner stones of this organisation, the main items of work attended to being desilting of tanks, formation of roads, construction of school buildings, repairs of places of worship, planting of trees and cleaning of wells and villages. The district unit is running a free reading room and a library consisting of more than 1,500 books in various languages. It has held many training camps for both students and teachers during the vacation. Social service camps were also held at a number of places in the district, at which ameliorative programmes were implemented. Besides these activities, the Sevalal arranges cultural programmes during national and festival holidays and renders help to the public at fairs and other large gatherings.

The Rotary Club, Tumkur, was started in the year 1957, sponsored by the Rotary Club, Bangalore. The Club is rendering useful service to the community at Tumkur and in the surrounding villages. It has adopted several villages where general medical check-up was got done and the children were given triple-antigen and other preventive medicines. In Tumkur town, a bus-shelter

Rotary Club,
Tumkur

was put up and some children's corners were built in the public parks. The Club has set up book banks in three educational institutions at Tumkur, namely, Government Polytechnic, Siddhaganga Institute of Technology and Science College. It is conducting annually an inter-collegiate debate, open to all colleges in the State, to encourage debating talents among students. On various occasions, contributions have been given by the Club for several social and cultural activities of other organisations.

With the object of giving training in leadership to young people, an Interact Club was started in the Sarvodaya High School, Tumkur. Within a short time, it built up a reputation as the best Interact Club in the Rotary District 317. Recently, an Inner Wheel Club (Anne's Club) has also been started. The Club is also building a children's ward attached to the General Hospital, Tumkur. The present (1968) membership strength of this Rotary Club is 48. The members, who follow various vocations, belong to several sections of the society. This institution was also responsible for sponsoring four other Rotary Clubs in the district, at Madhugiri, Tiptur, Sira and Pavagada, which are also rendering useful service to the community.

Rotary Club,
Madhugiri

The Rotary Club, Madhugiri, which was started in March 1967, aims at four avenues of service, namely, service to members, vocational service, community service and international service. It was managed, during the year 1968, by a governing council consisting of a president, a vice-president, an honorary secretary, a treasurer, four directors and a sergeant-at-arms. There were 28 members on the rolls of the Club during that year. The Club arranged for free medical aid to poor patients under a Drug Bank Scheme. It supplied free lunch packets to the candidates appearing for the S.S.L.C. examinations and provided an oxygen cylinder to the local general hospital. It has programmed to open a children's park and bus shelters in the town.

Basava Samithi,
Tumkur

The Zilla Basava Samithi, Tumkur, is a branch of the Kendra (Central) Basava Samithi, Bangalore, founded in 1964. Dissemination of knowledge about the social and cultural reforms preached by Basaveshwara and his associates, promotion of understanding and amity among different communities by expounding the humanitarian teachings of those celebrities and encouragement of comparative studies of various schools of philosophy are among the objectives of the Samithi.

Red Cross
Society, Tumkur

The Indian Red Cross Society is a voluntary organisation established by an Act passed by the Central Legislature and is having branches in all the States. It is recognised by the International Committee of the Red Cross at Geneva and is affiliated to the League of Red Cross Societies. It has the ideal

of rendering brotherly help to the needy and is free from religious, sectarian or political affiliations. Its activities are directed towards improvement of public health, prevention of disease and mitigation of human suffering.

The Red Cross Society at Tumkur has jurisdiction over the entire district and its objectives relate to:

- (1) distress relief work;
- (2) emergency relief in times of floods, fires, other accidents, etc.;
- (3) maternity and child welfare services, and
- (4) development of Junior Red Cross and Ambulance Association work.

The day-to-day administration of the Society in the district is carried on by a committee consisting of a president, a secretary, a treasurer and a few other members. The institution has established two nursery schools and is maintaining a children's park. It is also running three ante-natal clinics and three family planning centres. A part-time lady doctor, assisted by a lady social worker, a mid-wife and an ayah, is in charge of these family planning centres. The institution organises a Red Cross Week, children's day, *bala melo* and baby show every year.

CHAPTER XIX

PLACES OF INTEREST

Agrahara

AGRAHARA (P* 921), in Koratagere taluk, was noted for traditional learning. It has a small Veerabhadra temple and some *lingamudre* stones without inscriptions. The latter are boundary stones marked with a *linga* to indicate that the land bounded by them was granted to a Shiva temple or a Shaiva institution. Similarly, stones marked with a discus indicate a grant to a Vishnu temple, while those marked with a *mukkote* or triple umbrella, a grant to a Jaina temple. A number of palm-leaf manuscripts in Kannada and Sanskrit, mostly bearing on the Veerashaiva faith, were found at this place. The aromatic water-plant *baje* (*Acorus calamus*) is largely cultivated in this village; the root is exported to Bangalore and other places.

Akki-Rampura

AKKI-RAMPURA (P. 2,205), in Koratagere taluk, has a Venkataramana temple, which is a large structure built in the Dravidian style of architecture, with a *gopura* and a *prakara*, which presents some features of the Saracenic style. It is said to have been renovated during Haidar's time.

Alabur

ALABUR (P. 1,571), in Nonavinakere hobli, Tiptur taluk, has several inscriptional records (which are printed in *E.C.*** Vol. XII, Tiptur 42-49). There are two artistically executed *viragals* (hero-stones). One of them, near the Shiva temple (numbered Tiptur 44, dated 1395), is not only beautifully engraved but also well sculptured with caparisoned horses, elephants, etc. The other, in a field to the north-west (numbered Tiptur 47), which is seven feet high and may be assigned to the close of the 9th century, is adorned with sculptures in several panels, among which may be mentioned two elephants bearing the hero seated on a throne, at the top.

Ammasandra

AMMASANDRA (P. 762), in Turuvekere taluk, has a cement factory established in 1960. (See Chapter V under Large-scale Industries).

*P.=Population; the figures are from the 1961 Census.

**E.C.=Epigraphia Carnatica.

AMRUTHUR (P. 4,004), in Kunigal taluk, is the headquarters of a hobli of that name and is about seven miles to the south-west of the *kasaba**. Veera-Narasimhapura and Atakur were the old names of the place which seems to have been an ancient *agrahara* town. The Channakeshava temple at this place is a fine building constructed in the Dravidian style of architecture with well-dressed sculptured pillars, in the sixteenth century. The image of the god, about 3½ feet high, is a good figure flanked by consorts. The central ceiling in the *navaranga* is carved with a lotus. The Someshvara or Chandramouleshvara temple, near a tank, which is also of about the sixteenth century, has an *udbhava* (self-evolved) *linga*. Near the temple is a good but rather slender lamp-pillar, about 45 feet high and 1½ feet square at the bottom. Behind the temple is an *uyyale-kamba* (swinging arch), about 20 feet high.

The temple of Pattaladamma, the village goddess, situated at some distance from the village, has several painted stucco figures. Two of them, seated in the middle, represent the goddesses, Pattaladamma and Lakshmi. They are about five feet high and are canopied by a seven-hooded serpent. The walls and the beams were painted with figures of the ten incarnations of Vishnu, scenes representing the *leelas* or sports of Shiva, etc. The *jatra* or annual festival of this temple takes place in the month of *Vaishakha* (April—May).

ARALAGUPPE (P. 1,421), in Kibbanahalli hobli of Tiptur taluk, on the Bangalore—Hubli railway line, is about four miles from Banasandra. The Channakeshava temple at this place is a fine building in the Hoysala style. There are several well-carved friezes and fine wall decorations. (See also Chapter II under Archaeology). Attached to the south wall of the Channakeshava temple stands a temple of Narasimha, which is evidently a later structure. The image of the god in this temple, known as Ugra (fierce) Narasimha, is a seated figure, about two feet high, killing the demon Hiranyakashipu.

The Kalleshvara temple here appears to have been built about the 9th century A.D. The *navaranga* of this temple has a well-carved doorway with Gajalakshmi on the lintel and a row of dwarfs on the pediment. The central ceiling, which has nine panels, is of remarkable workmanship with *Ashta-dikpalakas*, supported by four good pillars, with a most elegantly carved Tandaveshvara in the middle and four doubled-up and hanging figures of flying Gandharvas in the four directions. All the sculptures of this ceiling are exquisitely executed. Referring especially to the figure of Nataraja of this ceiling, the Mysore

Kasaba=Chief town of an administrative division.

Archaeological Report (1947-1956, p. 46) says: "There is hardly anything worth comparing in figure sculpture with it in the entire Mysore State and South India". There are also four other temples of the Ganga times, which resemble the temples at Talakad.

Bangaranayakanabetta

BANGARANAYAKANABETTA: This hill, in Pavagada taluk, has the Kambadaraya shrine; the object of worship here is a pillar marked with a discus and a conch on the sides; it is about 13 feet high. The pillar has an iron lamp fixed on the top, which is occasionally lighted by the villagers; no ladder is used for this purpose. The villagers bathe and fast, and then, standing over the shoulders of one another, without allowing their feet to come in contact with the pillar, they light the lamp. The hill near the village, which was once fortified, contains the ruins of several buildings.

Belagumba

BELAGUMBA (P. 1,190), in Tumkur taluk, about two miles from Tumkur, on the road to Devarayanadurga, is famous as Siddharameshwara Kshetra. Here, on the top of a hillock, is the temple of Siddharameshwara.

Bellara

BELLARA (P. 1,223), in Chiknayakanahalli taluk, had, until recently, a gold-mining block situated nearby. (See Chapter V under Bellara Gold Mines).

Bellave

BELLAVE (P. 1,978), in Tumkur taluk, about nine miles north-west of Tumkur, is an ancient place and seems to have been formerly an important trade centre. Many of the merchants of this place have now settled at Tumkur. The streets are wide with uniform shops on either side. A weekly fair is held here on Monday at which considerable trade is carried on. That Bellave was a famous place in ancient days is clear from the several temples it possesses, the most important of these being that of Someshwaraswami. There is a small-scale industry here, manufacturing cycle parts. At present, cycle stands and gear-cases are being made. Nearly 200 of them are released to the market every day. The industry has a bright future.

Bhasmangi

BHASMANGI is a fortified hill in Madhugiri taluk, about 20 miles north of Tumkur town. On the summit is a temple of Bhasmangeshwara. The original fortifications of mud and stone are said to have been erected by Budi Basavappa Nayaka. But when Haidar Ali captured the place in 1768, he dismantled the old fort and erected a superior structure of stone and brick, with a *mahal* or palace. The hill has a perennial supply of water. A few people live half way up and cultivate the fields below.

Bijavara

BIJAVARA (P. 1,197), in Madhugiri taluk, was the chief town of a small principality which was conquered by the Mysore king Chikkadevaraja Wodeyar about the end of the 17th century. Two

of the chiefs of this principality, namely, Tontada Siddhalinga Bhoopala and Mummadi Chikka Bhoopala were well known. The latter was a patron of cultivation of Kannada and Sanskrit and is said to have been also the author of a Sanskrit work, "Abhinava Bharata Sarasangraha".

BOODAGAVI (P. 41), in Koratagere taluk, about eight miles from Tumbadi, has near it a hill known as Siddhara-betta. An interesting feature of the hill is that it is hollow inside and one can enter inside the hill, go upto the top and come down to the bottom through the hollows. The hill is in the midst of a forest. There is the *samadhi* of the saint Gosala Siddheshvaraswamy. It is largely visited by pilgrims from the surrounding parts particularly on Mondays. It has a cave-temple enshrining a *linga* at the foot of which is a perennial spring in the form of a well, which is said to be the source of the Suvarnamukhi river. At the bottom of the hill, there is a temple of Siddharameshwara.

BORANAKANIVE (P. 55), in Chiknayakanahalli taluk, about eight miles east of Huliya near the Sira-Banavara road, has a reservoir constructed in 1892 across the Suvarnamukhi river. (See Chapter IV under Irrigation).

CHANNARAYANADURGA is a hill fortress in Koratagere taluk, situated midway between Koratagere and Madhugiri and rising to 3,734 feet above the sea-level. This is a fine mass of rock, beautifully fortified by the Madhugiri chief Channappa Gauda, about the middle of the 17th century. It was in the possession of his family for a long period after which it was taken by the Marathas, and Rama Gauda, the chief at that time, took refuge at Madhugiri. After about two years, however, he retook it, but only to hold it for eight years longer. It was then captured by Komaraiya, a general of the Mysore Raja, and one Dodda Arasu was placed in charge of it. Its name was also changed to Prasannagiri. It was subsequently taken by Haidar, and after six years by the Marathas under Madhava Rao, and after a like period retaken by Tipu. At the entrance are inscriptions of the Maratha generals, Sri Pant Pradhan and Madhava Rao Ballal Pradhan. In the latter, dated in 1766, the hill is called Chandrayadurga. At the bottom of the hill, there is a fine cave temple called Murari Matha, with a pair of *padukas* for its object of worship. There are also two *samadhis* of disciples of saint Murariswami.

CHIKNAYAKANAHALLI (P. 10,376), a town situated west-north-west of the Tumkur town on the Turuvekere—Huliya road, about eight miles off the Bangalore—Shimoga road, and about 11 miles north of Banasandra Railway Station, is the headquarters of the taluk of the same name and has a municipality. The place derives its name from Chikkanayaka, a chief of the Hagalvadi house. The town was plundered and the fort was destroyed by the

Marathas under Parashuram Bhau, when marching to join the army of Lord Cornwallis at Srirangapatna. The residents, it is said, foreseeing the treatment the town would receive, had hidden their most valuable effects and retired to the neighbouring hills. But they were not destined thus to escape. For, when the Maratha army returned to Sira, the wealthy inhabitants were enticed to return by assurances of protection and by a daily distribution of charity to priests. The leading men were then seized and forced to disclose where their treasures were hidden; plunder of a large value thus fell into the hands of the Marathas.

The town is a prosperous one, surrounded on all sides by plantations of coconut and areca palms. Their produce, together with the cotton clothes, white and coloured, and *kamblies* manufactured in the place, are largely sold at the weekly fair. Seven of the temples here are endowed with land or money, the principal of them being the one dedicated to Anjaneya. The Venkataramana temple at this place is the largest and finest of the Dravidian structures in the town. (See Chapter II under Archaeology). The town has two Anjaneya temples—the Huliya Anjaneya and the Brahmapuri Anjaneya. The former is a big temple, richly endowed and visited by a large number of devotees. The Rameshvara temple is also a large Dravidian structure, said to have been built by a Hagalvadi chief. The image of the village goddess, Hirimavarada Yellamma, also known as Renukadevi, is a wooden one with a stone head set up in front. The processional image is a wooden figure of Parashurama, son of Renuka. To the right of Yellamma is a seated stone figure, about one foot high, of Jamadagni, husband of Renuka, with the right hand in the *abhaya* pose and the left placed on the thigh. Outside the temple are two small shrines containing round stones said to represent Matangi and her son Patappa. Tatayyana Gori, the tomb of a Muslim saint, here is held in high reverence by the Hindus also. An annual *urs* is held in honour of the saint.

Dabbeghatta

DABBEGHATTA (P. 740), in Chiknayakanahalli taluk, has a Mahalingeshvara temple; it is a brick structure of the 13th century and has three cells with *lingas*. In one of the two inscriptions discovered near it, the *lingas* are named Hoysaleshvara, Brahmeshvara and Macheshvara. The Marulasiddheshvara temple has a panel carved with two standing male figures, about 1½ feet high, wearing long coats, with an intervening head. The figure to the left is Marulasiddha, that to the right Revanasiddha, and the head represents Allama Prabhu. All the three were great Veerashaiva teachers. The temple has a Bilvavriksha-vahana, that is, a vehicle in the shape of a *bilva* or bael tree. There are also in the village a number of *samadhis* or tombs of bulls dedicated to temples.

DEVARAYANADURGA, a fortified hill, about nine miles east of the Tumkur town, is situated amidst wild and picturesque scenery and extensive forest. It is being developed as a tourist centre. Tradition relates that a robber chief named Andhaka or Lingaka had his stronghold here, and that he was subdued by Sumati, a prince, whose father, Hemachandra, was the king of Karnata and ruled from Yadupattana. On thus accomplishing the enterprise on which he had been sent, Sumati is said to have established the city of Bhumandana near the present Nelamangala (in Bangalore district), and taken up his residence there for the protection of that part of his father's kingdom.

Under the Hoysalas, there seems to have been, on the hill, a town called Anebiddasari or Anebiddajari, which, for a long time, gave its name to the surrounding district, especially the area to the west and south. The name means "the steep where the elephant fell", and the incident out of which it arose appears to have happened at a spot on the hill now known as Anegondi, or the elephant pit, below the peak called Karigiri (elephant hill). A rogue elephant, which the *Sthala Purana* describes as a *Gandhgrva*, who had assumed that form, suddenly appeared before the town to the great consternation of the people, and after doing considerable mischief to the tank there, madly tried to walk up the steep rock on the west, when he slipped, fell back and was killed. The hill is accordingly called Karigiri in the *Purana*. Under the Vijayanagara kings, the use of the same name continued, and a large tank, named Bukkasamudra, after one of the earliest of them, was formed by throwing an embankment across the gorge from which the Jayamangali river has its source. Remains of the embankment and of the adjacent town can still be traced.

The fortifications are pierced through by seven gates. The hill has three distinct elevations. On the lowest elevation are situated the village of Devarayanadurga and the Durga-Narasimha temple. The latter, built in the Dravidian style of architecture, faces east and is said to have been constructed by Kanthirava-Narasaraja I. From the inscriptions numbered Tumkur 41 and 42, we learn that the enclosure and tower were repaired in 1858 by the Mysore king Krishnaraja Wodeyar III. An annual *jatra* takes place in the month of *Chaitra* (March/April), at which thousands of people collect together, and many cells and *mantapas* are built for accommodating them. The temple has some jewellery and considerable other property. It has also large vessels presented by the *swamis* of different *mathas*. It also enjoys an annual grant. There is also another temple, said to be older than the Lakshminarasimha, dedicated to Hanuman, also known as Sanjivaraya, who stands with folded hands.

The place was at a later time known as Jadakanadurga after a chief known as Jadaka and was named as Devarayanadurga after its capture in 1696 by the Mysore king Chikkadevaraja Wodeyar. He erected the existing fortifications. On the intermediate elevation, are situated the Government Travellers' Bungalow and another bungalow owned by the Missionaries. Here are a well and two *dones* or springs which are known as Rama-teertha and Dhanush-teertha. Near at hand is a large cave, with figures of Rama, Seetha and Lakshmana. There are also remains of some dwelling houses and other structures which once stood there. On the third elevation stands, facing east, a temple of Narasimha, known as the Kumbhi (summit) Narasimha temple which consists of a *garbhagriha*, a *sukanasi*, a *navaranga* and a *mukhamantapa* and is similar in plan to the temple below. In addition to the temple, there are three sacred ponds here named Narasimha-teertha, Parashara-teertha and Pada-teertha, the last being in a narrow cave with a flight of steps to a reservoir at the bottom. Higher up is a small shrine of Garuda, near which is the big boulder known as Divigegundu (the lamp boulder).

At a little distance from the hill, near the forest lodge, is a place called Aratibande, so called because it was at that spot that the former Maharajas of Mysore were greeted with an *Arati* (or the sacred flame) whenever they visited the place. Near this place is a small natural spring of pellucid water, known as Namada Chilume, which fills and overflows a mortar cut in the rock. On the slope of the hill, is a gorge called Jalada-gondi, which is said to be the source of the stream Mangali. Higher up is a small spring called Jaya-teertha, which represents the source of another stream Jaya. Both the streams unite at the foot of the hill and form the Jayamangali river. The hill is also the source of the river Shimsha.

Dodda-
dalavatta

DODDA-DALAVATTA (P. 581), in Madhugiri taluk, is noted for a large Lakshminarasimha temple. (See Chapter II under Archaeology).

Dore-Gudda

DORE-GUDDA: This is a hill in Gubbi taluk of which there is a tradition that, owing to extensive excavations for the extraction of iron ore, it fell in, burying the miners of some seven villages with all their cattle. It is still one of the sources whence iron ore is obtained.

Dummanahalli

DUMMANAHALLI (P. 266), in Turuvekere taluk, appears to be an ancient village. It was, according to tradition, the capital of a chief known as Dummi Wodeyar. Gold coins are said to have been occasionally picked up in a field to the west of the village.

Edayur

See Yedeyur.

See YELANADU.

Elanadu

Elusuttinakote

ELUSUTTINAKOTE in Madhugiri taluk: According to a tradition, the Pandavas lived here for some time in a fort of seven walls built by them, and an inscription here names them along with Abhimanyu. The place, which is uninhabited, is about 13 miles from the *kasaba*.

GUBBI (P. 8,543) is an important trading centre, situated 13 miles west of the Tumkur town, on the Bangalore—Poona railway line and the Bangalore—Shimoga road. It is the headquarters of the Gubbi taluk and has a municipality. It is said to have been founded over 400 years ago by the Gauda of Hosahalli, two miles distant, and was formerly called 'Amaragondapura'. He claimed to be a descendant of Honnappa Gauda, a hereditary chief of the Nonabas, who lived about 700 years ago and owned an area yielding a revenue of 3,000 pagodas. The family was first made a tributary by the Mysore Rajas, to whom it paid 500 pagodas a year. Haidar increased the tribute to 2,500 leaving them little better than renters and Tipu dispossessed them altogether.

At Gubbi is held one of the chief annual fairs in the district frequented by merchants from distant places. The neighbourhood produces coarse cotton cloths, blankets, arecanut of the kind called *wolagra*, cocoanut, jaggery, tamarind, capsicum, wheat, rice and ragi and lac. It is an intermediate mart for goods passing through the peninsula in almost every direction. The place is also noted for its cart-making cottage industry.

Gubbi is, according to tradition, Amaragonda Kshetra, a holy place. Gosala Channabasaveshvara, Amaragonda Mallikarjuna, Mallanarya and other Veerashaiva teachers lived at this place. It is stated that two *gubbachchis* or sparrows, which used to 'listen' to poet Mallanarya when he was expounding the *Puranas* in the Mallikarjuna temple, fell dead on the day that the exposition was concluded. Thenceforward, the place acquired the name of Gubbi (Chatakupuri in Sanskrit). The temple has still the *samadhi* of these birds.

The oldest temple in the town is the Gadde Malleshvara, so called because it was once situated in a *gadde* or wet field outside the village. Owing to the subsequent extension of the village, the temple now stands within the town itself. It has three cells in the *navaranga* enshrining Dakshinamurti, Parvati and Veerabhadra. There are also two niches containing Ganapati and Subrahmanya. Leaning against the south wall near the Dakshinamurti cell, are some curious figures, namely, a rude male figure armed with a bow and an arrow, said to represent a Shaiva devotee named Ohila, also called Vailappa, who used to offer every-day his own weight of *guggala* or bdellium to Shiva; a well-carved seated female figure, about one foot high, with some indistinct

things in the two hands; and two male figures, about one foot high, standing side by side with what looks like a vessel between the hands placed one over the other, two sticks or spears standing between them. Gubbi was a place of great literary activity in the 15th and 16th centuries. Several Kannada works bearing on the Veerashaiva religion and philosophy were written during this period. Mallanna, the author of the *Ganabhashya Ratnamale* and other works, who flourished at the close of the 15th century, was a native of Gubbi and a lineal descendant of Amaragonda Mallikarjuna. His grandson, Gubbi Mallanarya, wrote *Bhavachintaratna* and *Veerashivamruta-Purana* in verse in 1513 and 1530 respectively. Prabhuga, a disciple of Mallanarya, wrote in about 1520 *Chudanasthana* and the *Vaibhagrajasthana*; and Cherma, another disciple of his, composed *Cheramanka-Charite* in 1526. Mallanarya's son Shantesha wrote the *Tontada Siddheshvara Purana* in 1561.

The Vailappa (or Ohilappa) temple has a standing figure, about two feet high, of the Shaiva devotee, Ohila, holding a censer in the right hand and a bell in the left. The Gubbiyappa or Gubbi Chennabasaveshvara temple is a large structure containing the *gaddige* or tomb of Gubbiyappa or Chennabasavayya, a Veerashaiva teacher, who lived during the rule of Mummadi Honnappa Gauda, the Palayagar of Hosahalli. A beautiful ornamental *gopura* has been constructed to this temple recently at a considerable cost. An annual festival is held here on a large scale in honour of Gubbiyappa. The Janardhana temple has a four-armed figure, about four feet high, of the god, bearing in the upper hands a discus and a conch and the lower left a mace, the lower right, which is in the *abhaya* attitude, holding a tiny lotus. There is also another old temple dedicated to Byataraya-swamy. At a distance of about a mile from Gubbi, there is a temple of Baila-Anjaneya Swamy in an open space. Near the Gubbi Railway Station, there is a famous religious establishment called Chidambara Ashrama, which has a shrine of Dattatraya and a *gurukula* run on modern lines (See also Chapter XV).

Gulur

GULUR (P. 2,711), about four miles south of the Tumkur town in the Tumkur taluk, is an ancient place. Siddhaveerana-charya, a noted author, who wrote *Shoonya Sampadane* and *Anadi Veerashaiva Sangraha*, lived at this place. It is said that along with the present Kaidala, it originally formed part of the ancient capital, Kridapura. It is well-known for the huge Ganesha image made there in clay every year and for the annual *jatra* held in honour of that deity on the 3rd day after the month of *Kartika* (in November or December). This image, which is executed handsomely with minute ornamentation, is about eight feet in height. The image takes two months for completion, the work being started on the Ganesha Chaturthi day and after completion,

it is kept for one month before it is immersed in the local tank. During this time, it attracts large numbers of visitors. Apart from this image, there is a small image of Ganesha kept permanently in the temple.

GUNDLAHALLI (P. 1,100) in Pavagada taluk: The top slab of the fine sluice of the Doddakere tank at this place has a discus and a conch made of black-stone fixed at the sides. On a rough boulder on the bund of the tank are engraved two inscriptions (E.C. XII, Pavagada 11-13). The tank is named Akalesamudra after a lady named Akaleti who built it. It is one of the oldest tanks in the State, Panamankere at Talgunda, Shikaripur taluk, being older still by about two centuries. In the *prakara* of the Ishwara temple, on the bund of Chikka-kere tank at the same village, stands a stone, about nine feet high, with several curves in the form of a snake, and the villagers have a belief that there is a treasure below it. No such stone has been met with elsewhere. The Anjaneya temple has a very large figure, about ten feet high, of the god.

HAGALVADI (P. 2,609), in Gubbi taluk, is about 25 miles north-east of the *kasaba*. The chief produce of the neighbourhood is arecanut, and *kamblies* (blankets) are also manufactured. It was the original possession of the line of chiefs named from it, who built Chiknayakanahalli. These chiefs are mentioned in the inscription numbered Chiknayakanahalli-38 dated in 1669 A.D. (See Chapter II).

HANCHENAHALLI (P. 640), in Koratagere taluk, has a ruined fort, as also a hill near it known as Urugutte. At some distance to the north of the village is a *mastikal* showing an arm and a hand projecting from an upright post, with figures of a couple sculptured below. The villagers believe that the stone represents Vyasana-tolu (Vyasa's arm). When only one hand projects from such a post, the stone is known as Okkai-masti; when two hands project, it is known as Ikkai-masti, the number of hands representing the number of wives who became *satis*.

HATYAL, a small hill near Rajatadripura on the Bangalore—Shimoga road between Tumkur and Tiptur, a few miles from north of the Banasandra Railway Station, has a temple of Kambada Ugra-Narasimha. The image, about four feet high, has ten hands. Prahlada is standing in front with folded hands. It is interesting to note that the *Archakas* of this temple of Vaishnava deity are Veerashaivas. The annual *jatra* held in the month of *Chaitra*, is well attended.

HEBBUR (P. 2,887) is a large village in the Tumkur taluk, about 15 miles south of the Tumkur town, on the road to Kunigal. It is an old place said to have been founded by two brothers

named Hale Gauda and Timme Gauda. It was first called Heb-huli (great or royal tiger), from the circumstance that a bullock attacked by a tiger had driven it off and pursued it, with the other cattle and their owners, until it was killed. The courage of the cattle was attributed to the peculiar virtue of the spot, pointing it out as suitable for the construction of a fort. Accordingly, the carcass of the tiger being burnt, the limits of the fort were marked out with its ashes and the erection of the fort was completed with the approval of the Vijayanagara king. The name was subsequently changed from Heb-huli to Hebbur, the great town, and Katti Kamanna was appointed as the king's agent, Hale Gauda and Timme Gauda being made patels of Hebbur, Kalleshapura and Ramanahalli. It is said that the agent squandered the Government revenue and was condemned to have both his eyes put out and to be expelled from the region. A descendant of the Gaudas was next placed in charge, but after the fall of Vijayanagara, Kempe Gauda of Magadi captured Hebbur and held it for many years. It was then taken by the Chiknayakanahalli chief, and from him, by Chikkadevaraja Wodeyar of Mysore. A quarter of a century later, it again changed hands falling a prey to the Mughal army, but in course of time, was regained by the Mysore Rajas. For two years before the usurpation of Haider Ali, again, it was in the hands of the Marathas. The place has thus seen many vicissitudes. Here is a branch of the Shringeri Matha of Shri Shankaracharya and it is called Shri Kodandashrama. There is a temple of Shri Minakshiamma here, in which Shri Chakra has been consecrated in front of the image of the goddess.

Hirehalli

HIREHALLI (P. 694), about eight miles from the Tumkur town on Bangalore—Tumkur road, is noted for arecanut gardens and has an Arecanut Research Station. Fine varieties of plantains are also grown here to a considerable extent.

Holavanahalli

HOLAVANAHALLI (P. 3,590) is on the banks of the Jayamangali river, five miles east of Koratagere. It is said to have been formerly called Korampur; one Holava Gauda was its chief. Baire Gauda, who had settled at Avati (Bangalore district), or a descendant of him proposed to establish a fort and *pete* at Korampur, to which the inhabitants of the place replied that they would agree only on condition that the place should be called after their chief Holava Gauda. The condition was accepted and hence its present name. This appears to have been an important town during the Palayagar period. The *Brindavana* (tomb) of Shri Raghavendra Swami here is one of the oldest *Brindavanas* and is well-known in this part of the region.

Honnavalli

HONNAVALLI (P. 3,969), in Tiptur taluk, is about eight miles north-west of the *kasaba*. The place derives its name from Honnuamma, the tutelary goddess, who, in a vision, is said to

have directed Someshvara, one of the chiefs of Haranahalli (Hassan district), to found the town. It is situated amid coconut plantations, which produce a rare kind, named, from the delicious milk contained in the young nut, the Ganga-pani, or water of the river Ganga. The Lakshmi-Narayanaswamy temple at this place appears to have been constructed during the time of the Cholas; it has some beautiful carvings.

HONNEBAGI (P. 947) in Chiknayakanahalli taluk: At some distance from this village is a hill on which is situated a temple dedicated to Ranganatha. It is of some interest to note that the *Archakas* of this Vaishnava temple are Veerashaivas and that the Veerashaivas of the village conduct the annual car festival of the temple. The Timmappa temple at Dugudihalli nearby has a good figure, about 1½ feet high, of Vishnu, which is likewise worshipped by Veerashaivas.

HORAMANE-KAVAL, about three miles to the north-east of the Banasandra Railway Station, has a large temple of Keshava, built in the Dravidian style of architecture; its plan, however, is irregular. It has four massive pillars. The doorways leading into the *navaranga* of the temple have *dwarapalaka* figures of cowboys carved in their characteristic dress and pose, with their heads covered with hoods of folded *kambli* and they leaning on their staves. This is a peculiar carving of this temple.

HOSAHALLI (A) (P. 514), in Turuvekere taluk, has a noted Kalleshvara temple which is a Hoysala building consisting of a *garbhagriha*, a *sukanasi* and a *navaranga*. The last has only one ceiling in the centre with a fine lotus bud, the others too having similar ceilings. The *navaranga* doorway is well-carved and that of the *sukanasi* has perforated screens at the sides. The image of the village goddess, named Hosahalliyamma, is a coloured stucco figure.

HULIKUNTE (P. 1,288), in Koratagere taluk, has a well-executed *mastikal*. The slab was found to consist of three panels. The top panel has, between the sun and the moon, two cobras with a male figure standing to the left, bearing a mace in the right hand and lifting up something with the left. The middle panel has a *linga* in the centre flanked on both sides by couples with folded hands. The bottom panel has, in the centre, a standing couple with an intervening sword, the female figure holding a mirror in the left hand and a lime between the thumb and fore-finger of the right hand. On both sides of the couple is a female figure on horse-back, holding a mirror and a lime. This is very peculiar; the women too seem to have taken part in fight. Both must have become *satis*. The slab bears an inscription on it.

Huliyar

HULIYAR (P. 4,614), in Chiknayakanahalli taluk, is situated about 14 miles north by west of the *kasaba* and about 30 miles from the Banavara Railway Station. It was formerly the headquarters of the Budihal taluk, but in 1886 was made the chief town of the sub-taluk named after itself. Inscriptions of the Chalukyas and other remains found here indicate that the place was, in early times, of some importance and was an *agrahara* town. Later, in the sixteenth century, it was included in the possessions of the chiefs of Hagalvadi. It then passed into the hands of Muslim rulers and formed part of the province of Sirā. Later, Haider Ali subdued and annexed it in common with the rest of the district.

The Ranganatha temple at this place must have been a good Hoysala structure of the twelfth century, judging from the *garbhagriha*, which is the only portion now left of the original building, the other portions being modern additions. The main image, about five feet high, is a well-carved figure reclining gracefully on a seven-hooded Ananta, with Brahma seated on the navel lotus and Shridevi and Bhudevi seated with folded hands at the head and feet respectively. The Ganapati shrine close by has a well-carved image, about five feet high, of the god with a mouse on the pedestal. The Malleshvara temple, which was originally constructed during the late Chalukya period, is a small but neat building. The ceilings of its *navaranga* are beautifully ornamented with flowers. The tower and walls were restored a few decades back, the former with sculptured pieces of granite and the latter with brick and *chunam*. Many carvings of the Hoysala period were found at this place. There is a *virakta-matha* of the Veerashaivas here.

Huliyurdurga

HULIYURDURGA (P. 4,232), in Kunigal taluk, about 40 miles south of the Tumkur town, at the junction of roads from Kunigal and Magadi, is the headquarters of the hobli of the same name. Till 1873, it was the headquarters of a taluk of the same name. The place was surrounded with jungles and derives its name from *Huli* or tiger, which animal used to abound in the neighbourhood. The town and the fortifications of the hill commanding it, rising to 2,771 feet above the sea level, were, it is said, erected by Kempe Gauda, the chief of Magadi. The fort had great natural advantages. There are springs, ruined houses, powder magazines, granaries, *darbar* hall and other remains.

Both the village and the hill commanding it are called Huliyurdurga. The hill is a solid mass of rock and has the peculiar appearance of an inverted cup. Close to this hill, there is a Gopalakrishna temple built either by Kempe Gauda or Chikka-devaraja Wodeyar. It has well-worked granite pillars in the *navaranga*. Hemagiri, another hill, situated by the side of Huliyurdurga, has, on its summit, a temple of Mallikarjuna. On

its eastern slope is a shrine of Varadaraja, locally known as Hemagiriappa; the object of worship here is a round stone, said to be self-evolved (*udbhava-murti*), and on the southern, a shrine of Bhairava. This hill is loftier than Huliyurdurga but not fortified.

HUTRIDURGA, also known as Dodda-betta, is a fortified hill in the south-west of the Kunigal taluk, rising to 3,708 feet above the sea level. The fort was taken by Lord Cornwallis in 1792 (See Chapter II under Archaeology). The Hutridurga village (P. 903), situated on the first elevation, has several temples, of Adinarayana, Veerabhadra, Anjaneya and others.

KADABA (P. 2,319), in Gubbi taluk, on the right bank of the Shimsha river, about seven miles south-west of the *kasaba*, on the road from Nittur to Mayasandra, is the headquarters of the hobli of the same name. Till 1886, it gave its name to the taluk now called Gubbi, and was the headquarters of the taluk.

It is said to owe its name to Kadamba *Rishi*, who is said to have performed penance here on the banks of the Shimshupa, as the Shimsha is called in the local *Purana*, which says also that the sage received and honoured Rama here on his way back from Lanka. According to a legend, Rama, on his return from Lanka, is said to have encamped here, and at the request of Sita, the river, which was too narrow, was, for the convenience of all the followers, dammed so as to expand into the present large tank.

Kadaba was one of the *pancha-gramas* or five settlements of the Hebbbar Shrivaisnavas, the other four being Mayasandra and Nonavinakere (Tumkur district), Bindiganavale (Mandya district) and Nuggihalli (Hassan district). This settlement seems to have been formed in the time of the reformer Ramanujacharya, who hailed from Tamil Nadu and lived in the Mysore region for about fourteen years. The Tamil inscriptions of the place call it Dasharatharama-Chaturvedi-Mangalam. The Rama temple here is a large structure built in the Dravidian style of architecture with a *gopura* and a fine Garuda-pillar in front. (See Chapter II under Archaeology). The Kailaseshvara temple seems to be an older one. It has also, in front, a lamp pillar, three feet square at the bottom and 20 feet high, with a frame work at the top for placing lamps. At the east outlet of the tank is a temple dedicated to Hanuman, to the east of which is a fine *vyayale-kamba* (swinging arch) in the form of a gate, intended for swinging the image. It is about 15 feet high and beautifully carved on all sides with scroll work. At Rampura, near this place, is an inscription (E.C. XII, Gubbi-27), dated 1696, which is of interest from the sanitary point of view, as it states that it was

decided at a meeting of the villagers that no corpse should be buried within an arrow shot of a well that had been newly built.

Kadasur

KADASUR (P. 210), in Turuvekere taluk, is noted for its temple of Bhairava. The image of Bhairava in this temple is a fine figure, about three feet high, with four hands, the upper ones holding a trident and a drum, the right lower a sword, and the left lower a skull and a decapitated head. The blood trickling from the last is shown as being licked by a dog whose hind part is embraced by a goblin with another seated in front of it. Bhairava wears matted hair, a necklace of skulls, a snake ornament round the thighs and sandals, his emblem being a scorpion. To his right, stands a naked figure, perhaps, his consort, ornamented with a snake, bearing in the right hand what looks like a disc, the attribute in the other hand being indistinct.

Kaggere

KAGGERE (P. 700), in Kunigal taluk, is the place where Tontada-Siddhalinga is said to have been absorbed in the practice of *yoga* or meditation, so much so that ant-hills grew around him. There is a temple outside the village said to have been built over the spot where he practised *yoga*, the place having once been a garden, which accounts for the word *Tontada* (of the garden) prefixed to his name. The car festival here takes place on the seventh lunar day of the bright fortnight of *Phalguna* (about the month of March).

Kaidala

KAIDALA (P. 1,000), about three miles south-west of the Tumkur town and hardly half-a-mile west of Gulur, contains two fine temples. It appears to have been formerly the capital of a petty State, and is said to have borne the name of Kridapura. According to a legend, it was the native place of Jakanachari, the famous architect and sculptor, to whose wonderful skill are attributed some of the finest temple-carvings in the State, as at Halebid, Belur, etc. Tradition relates that Jakanachari's career began while Nripa Raya was ruling in Kridapura. He then left his native place and, entering the service of various courts, produced the works by which his fame is to this day upheld. After his departure, a son, Dankanachari, was born to him, who, when grown up, set out in search of his father, neither having ever seen the other.

At Belur, the young man found the Channakeshava temple in the course of erection and—so the story goes—remarked that one of the images there had a blemish. As this would be fatal to its claim as an object of worship, the architect, who was no other than Jakanachari himself, hastily vowed to cut off his right hand if any defect could be found in the image he had carved. In order to test the matter, the figure was covered with sandal paste, which dried on every part except around the navel. In this, on

examination, was found a cavity Dankanachari had detected, containing a frog and some sand and water. Mortified at the result, Jakanachari cut off his right hand, and inquiries as to who his critic was led to the unexpected discovery of their mutual relationship. Subsequently, Jakanachari was directed in a vision to dedicate a temple to the god Keshava in Kridapura, his native place. Accordingly, he returned to that place and the legend says that no sooner was the temple completed than his right hand was restored. In commemoration of this incident, the place has ever since been called 'Kaidala', the restored hand.

The Channakeshava temple at this place is a large building constructed in the Dravidian style of architecture with a *mahadvara* or outer gate surmounted by a *gopura* or tower built in the Vijayanagara style with a beautiful doorway. The main figure of Channigaraya, which faces west, is of a height of about 5 feet 6 inches, with a pedestal which is about 2½ feet high. The ten incarnations of Vishnu are carved on the *prabha* behind. On a pillar to the right, in the *mahadvara*, is a figure of Channakeshava, similar to the one inside the temple, with consorts on the side panels. The pillar opposite to it has a fine figure, about 1½ feet high, standing with folded hands, wearing an *uttariya* or upper cloth and a dagger, which is said to represent the celebrated sculptor Jakanachari. But this tradition does not appear to be well-founded. It is more likely that the figure on the pillar, referred to above, represents a chief who caused the temple or the *mahadvara* to be erected. This seems to be supported by the inscribed slab in the Gangadhreshvara temple. The pillars and walls are artistically carved with images connected with the Ramayana, riders, *Yahis*, etc. The Gangeshvara or Gangadhreshvara temple contains inscriptions stating that it and the Narayana temple were erected in 1150, in the reign of the Hoysala king Narasimha, by a chief named Gule Bachi. The name of the place is spelt there as 'Kayadala'. There is a stone railing all round the *navaranga* on which are carved elephants and flowers.

KANDIKERE (P. 1,912), in Chiknayakanahalli taluk, has a **Kandikere** ruined fort surrounded by a moat. The Gopalakrishna temple here has a fine figure of the presiding deity, about five feet high, with *prabha* and with cows, etc., carved at the sides. There is also a *basti* here dedicated to Shantinatha, represented by a standing figure, about five feet high. At some distance to the north-west of the village, is a good structure, on an eminence, named Kalyanadevara-matha, and a Shiva temple, both of which, however, are now in a state of ruin.

KERAGODI (P. 905), in Tiptur taluk, situated about three miles **Keragodi** from Tiptur town, has a beautiful temple of Shankarashwara with

a pond and a garden of fruit trees and flower plants attached. At the entrance, there are two lions well carved in black stone with an open mouth, which attract the visitors. There are also statuettes of the Buddha, Vighneshwara and Nandi in separate cells of the temple. The annual *jatra*, held in the month of *Magha* every year, is well attended. It has a Veerashaiva monastery called the Keregodi Samsthana Matha.

Kodavatti

KODAVATTI (P. 220), in Kunigal taluk, has a Lingayat *matha* known as Gavimatha as it is situated in a cave (*gavi*), which is, according to a legend, said to be connected by a subterranean channel with the Patalaganga of Kelaganagavi-matha at Shivaganga. Close to the *matha* are a few *gaddiges* or tombs, of which the one that is most honoured is the *gaddige* of Channaviraswami, who lived here about a hundred and fifty years ago.

Kodigenahalli

KODIGENAHALLI (P. 3,645), in Madhugiri taluk, situated on the bank of the Jayamangali river, about eight miles from the Vidurashwatha Railway Station and 13 miles from Madhugiri town, is a model village of the area; it is the headquarters of the hobli of the same name. A detailed socio-economic survey of the village was made in 1941 and 1961 (a Village Survey Monograph on this place has been prepared by the Census authorities and is to be published shortly).

Koratagere

KORATAGERE (P. 4,301), a town situated on the left bank of the Suvarnamukhi, about 16 miles north of Tumkur town, on the Tumkur-Madhugiri road, is the headquarters of the Koratagere taluk and has a municipality. The fort and *pete* were founded by one of the Holavanahalli chiefs. The former is in ruins, having been dismantled by Tipu Sultan. The people are dependent for drinking water on the river, from which water is procurable at all seasons. The well water is brackish. In the middle of the Koratagere hill, there is a temple of Shri Gangadhareshwara, which is a cave shrine. It is a minor muzrai institution. The temple is well maintained and there are electric lights upto the top of the hill. There is a Basava shrine at the summit. Near the Gokulada-Anjaneya temple in the town, there are some good *mastikals*.

Kottagere

KOTTAGERE (P. 1,329), in Kunigal taluk, appears to have been a place of considerable importance at one time, judging from the inscriptions and ruins of the village. It was known as Sridharapura during the time of the Hoysala king Vishnuvardhana (E.C. XII, Kunigal 1). The Kotteshvara temple, now mostly buried, is an old Dravidian building with two entrances on the east and south. Tradition has it that the temple was founded by one Kotappa who, by the favour of some Bairagis (*Lipi-gosayis*), had acquired immense treasure after killing a seven-hooded serpent. He is also said to have built the tank at the village and to have met with a tragic end at the hands of the labourers who, enraged

at his merciless behaviour towards them, are said to have buried him alive. A ruined *basti* at the village has some mutilated Jina figures, on the pedestal of one of which is to be seen an inscription of the 12th century. On the site of another ruined temple, are to be seen figures of Surya and Bhairavi.

KUDUVATTI, a *bechirak* village in Madhugiri taluk, is situated at the foot of a hill of the same name. It was enclosed by a lofty mud wall. Many years back, it is said, someone who dug a site in that enclosure for money vomited blood and died instantly and hence many villagers of the area are rather afraid to enter the old sites. Close to the village are three temples dedicated to Gopalakrishna, Lakshmidēvi and Kambadaraya, and five old *viragals* without any writing. The objects of worship in the Kambadaraya temple are two pillars standing side by side. Near the Gopalakrishna temple is a small pond, known as Majjanadabavi, on the door-post of which is carved a standing female figure, about 1½ feet high, said to represent one Jirale Mallamma, who built the Gopalakrishna and Lakshmidēvi temples as well as this pond. Tradition says that she made a large sum of money by selling butter and that she utilised the money in carrying out these pious and useful works; the villagers make an offering of butter to the image.

KUNIGAL (P. 10,566), a town situated about 22 miles south of the Tumkur town on the Bangalore-Hassan road, is the headquarters of the Kunigal taluk and has a municipality. The derivation of the name is said to be *Kuni-Gal*, dancing stone, Shiva having danced here, according to a legend. But in inscriptions it is called Kunigil or Kuningil. Three streams rising in Shivaganga, whose names are Nalini, Nagini and Kamala, are said to unite their waters here. According to a legend, their virtue is such that a king from the north, named Nriga Chakravarti, is said to have been cured of leprosy by bathing in them, and to have constructed the large tank in consequence. A party of seven *Lipi-jogis*, it is said, subsequently came from the Himalayas and obtained a large treasure from the bed of the tank, after killing the seven-hooded serpent which guarded it. The tank is estimated to be fourteen miles round when full.

A number of old manuscripts in Kannada and Sanskrit bearing on the Veerashaiva faith, *advaita* philosophy, logic, etc., were found at this place which is of considerable antiquity. In an old Kannada record, of about 785 A.D., at Kuppe-palya, Magadi taluk (Bangalore district), the Ganga king Shivamara is mentioned as the governor of Kuningil-nadu, i.e., the district of which Kunigil, the modern Kunigal, was the chief town. The foundation of the fort is attributed to one Veera Kambala Raya in 1290. During the Hoysalas, it appears to have been an *agrarahara*

town. Later, it came into the possession of the Magadi chief, who enlarged the town and the fort.

The Narasimha temple here is a large structure built originally during the Hoysala period and later altered during the Vijayanagara days. Though so named, it has no image of Narasimha at present, but has a figure of Janardhana said to have been brought from Huliurdurga. In front of the temple stands a four-armed figure of Garuda holding a discus, a conch, a serpent and a *kalasha*. Such a figure of Garuda is rather rare. The Someshvara temple is likewise a large one with a *mahadvara* in the south. The *linga* in it is said to be naturally evolved (*udbhavalinga*). The Padmeshvara temple here is an ornate structure built in the Hoysala style, consisting of a *garbhagriha*, a *sukanasi* and a *navaranga*. The Venkataramana temple has three cells standing in a line. The middle cell has a good figure, about 3½ feet high, of Shrinivasa. The Shivarameshvara temple, which is a new one, has an interesting figure of Mahishasuramardhini made in the Ganga style, which is stated to have been brought from a dilapidated temple at Kottagere. (See also Chapter II under Archaeology).

Kunigal is famous for its stud-farm, which is one of the oldest and best stud-farms in India. It is situated just at the entrance to the Kunigal town from Bangalore side. This farm, which is in existence for over 170 years and which was started originally with the object of breeding horses for the Mysore Army, is now breeding horses for racing. It is only in 1886 that race-horse breeding was taken up here by importing the first thorough-bred stallion "Pero Gomez". The performances of some of the stock produced on this farm compare favourably with those of foreign breeds and they have set up new records in several classic races. (See also Chapter IV under Animal Husbandry). The place is also noted for its sericulture industry.

Kuppur

KUPPUR (P. 749), in Chiknayakanahalli taluk, is hallowed by the memory of a saint, Marula Siddheshwara. It has his *gaddige* or *samadhi* which is highly venerated.

Kyamenahalli

KYAMENAHALLI (P. 213), in Koratagere taluk, is about a mile from Holavanahalli. It is well-known on account of the big annual *jatra* of its Shri Anjaneyaswami temple. A cattle fair is also held here on the occasion. This is one of the biggest fairs in the district, attracting, as it does, a large number of cattle. It takes place about the month of February—March every year. There is a rest-house attached to the temple for the use of the visitors.

Kyatsandra

KYATSANDRA (P. 3,593), about three miles east of the Tumkur town and connected with it both by road and railway, forms almost

a suburb of Tumkur. Together with Hirehalli, it is the most important arecanut growing and marketing centre in the district. Kyatsandra is also noted for the bamboo workers' craft. There is a bamboo workers' craft co-operative society here, which has members throughout the district. The society gets bamboos from the Shimoga and Coorg districts and distributes them to its branches. The main article produced here is the mango basket, which is sold in large numbers through this society every year. There are about 40 families in Kyatsandra alone engaged in this occupation. There are four temples in this village. The car festival of Gundamma, the village goddess, takes place for four days about April every year.

Adjacent to Kyatsandra, is a hill named Ramadevara-betta, which is about 3,900 feet above the sea-level, with an extensive plain surface. Nearby is the village of Kesaramadu, where, according to a legend, the sage Gautama lived. The Muslims hold an *urs* here after the Muharram. About three miles from Kyatsandra, is another fine hill called Mandaragiri or Basti-betta, which has a Jaina temple.

MADHUGIRI (P. 11,275), a town situated about 24 miles north of the Tumkur town on the Tumkur—Pavagada road, is the headquarters of the sub-division and the taluk of the same name and has a municipality. The place was formerly known as 'Maddagiri'. It is surrounded on all sides by hills and the continuation of the north and south range traverses the east of the district. The town is said to derive its name from Madhu-giri, or honey hill, at the northern base of which it is situated. The two large temples of Venkataramanaswami and Malleshwara, standing side by side, are conspicuous objects. A very graceful ornamentation is carried round near the caves of the roof of the latter, representing doves or pigeons, of about life size, in natural attitudes.

The Madhugiri fort is one of the finest in the State. Portions of it, which were roofed, were converted into Government offices. The erection of the original fort and town is ascribed to a local chief named Raja Hera Gauda. About 1678, while Rama Gauda and Timma Gauda, descendants of the founder, were ruling in Madhugiri, they incurred the hostility of the Raja of Mysore; Devaraja, the dalavayi, was, therefore, sent against it, who, after a long siege took the place and led the chiefs with their families captive to Srirangapatna. They were, however, released and sent back to Midigeshi, which was left to them out of their lost possessions. The fortifications of Madhugiri were greatly increased by Haidar Ali (See also Chapter II under Archaeology). The place was then also the seat of a valuable trade, containing a hundred houses of weavers alone. In 1763, on the conquest of

Bednur, Haidar Ali sent here, as prisoners, the Rani and also the pretender to the throne, Channabasavaiya, for whose rights he (Haidar) had ostensibly been fighting, and here they remained until the capture of the place by the Marathas in 1767.

The Maratha chief, Madhava Rao, held possession of Madhugiri for seven years, and when forced by Tipu in 1774 to retire, he (Madhava Rao) plundered the town of everything he could carry away. Tipu bestowed on it the name of Fattehabad, city of victory, and made it the headquarters of a surrounding district yielding a revenue of six lakhs of pagodas. But his exactions had nearly ruined the place, and its destruction was completed by the Marathas in 1791. Balvant Rao, one of Parashuram Bhau's officers, besieged it, though without success, for five months, having under his command a large army, according to local accounts, of 20,000 men; it was principally composed of units assembled by the Palayagars formerly driven from their strongholds, who had ventured back under the protection of Lord Cornwallis. On the conclusion of peace, they were speedily dispersed by the Sultan, but not before they had devastated all the neighbouring area of 500 Maratha horse, who had joined this rabble and it is said that only 20 men with their chief escaped. On the conclusion of the Third Mysore War and the death of Tipu, Madhugiri was included in the new territory of Mysore.

The town has a considerable trade in brass and copper vessels of every description. There are also manufactures of handloom cloth and *kamblies* (blankets). A weekly interchange is held with the markets at Tumkur, Tiptur, Bellary and Hindupur (in Anantapur district), as well as with Bangalore. A superior variety of rice called *chinnada-salaki* (golden stick), which is traditionally much cultivated here, is in great demand as it is estimated to be one of the best in the State. Pomegranates of good varieties are also grown here. The cattle here are finer than those ordinarily seen in other parts of the district. The town, as well as the whole taluk, owes its prosperity to the richness of the soil and the springs peculiar to this region, which are near the surface.

The Malleshwara and Venkataramana temples, already referred to, which are similar in plan and stand in a line facing east, are large structures, built in the Dravidian style of architecture, with lofty towers. The lamp pillar in front of the Malleshwara temple, about 20 feet high, has a pavilion on the top for placing lamps. There is a figure of Harihara in a niche of the porch of the temple, and in the *prakara* there are several shrines. The *Kalyana Mantapa* is a fine structure. The Mallinatha-basti, a Jaina temple, adjoining the fort wall has, in

front, a good *manastambha*, about 15 feet high, with pavilion on the top, but without the usual Jina figure. There are several fine wells at Madhugiri such as Janaiyana-bavi, Arasana-bavi, Pradhanara-bavi, etc., stepped all round and adorned with sculptures here and there. At some distance from the town, is a Veerashaiva *matha* known as Gurrammana-matha, close to which is a *gaddige* or tomb of a *guru* named Shivalingaswami. To the south-east of the *matha* are some caves at the foot of Madhugiri-durga, named Sadhu-gavi, Meke-gavi, Pattaladammana-gavi and Siddheshwara-gavi. An inscription was found in the third cave, which records a grant by the wife of the Madhugiri chief Chikkappa Gauda.

MANGALA (P. 622), in Kunigal taluk, has a reservoir **Mangala** constructed recently across the Nagini river. (See Chapter IV under Irrigation).

MARALUR (P. 1,264), in Tumkur taluk, has a temple dedica- **Maralur** ted to Rama which has a good stone panel, measuring 2 feet by 1½ feet, sculptured with a horseman holding a spear in the uplifted right hand. In front of the horseman stand five female figures, representing perhaps his wives, and behind him two male figures, probably his servants. The semi-circular top of the panel is artistically executed with scroll work.

MARCONAHALLI (P. 574), in Kunigal taluk, has a dam built **Marconahalli** across the Shimsha river, forming the biggest reservoir in the district. It has also an agricultural colony, started in 1942, on modern lines. (See Chapter IV).

MARUHOLE (P. 319), in Chiknayakanahalli taluk, has some **Maruhole** fine *mastikals*. In one of them, the husband holds a sword in the right hand with the point turned towards the ground, the left hand being placed on the waist. His wife wears a crown surrounded by flames, her right hand with a lime on the palm hanging by the side and her left hand holding a mirror to the front. Another shows a well-carved and richly ornamented couple, of whom the husband, adorned with an *uttariya* (upper cloth), bears a sword under the right arm-pit, the hand being placed on the breast. The left hand hangs by the side. The wife has her right hand raised and open, showing a lime on the palm, the left hand dangling with a mirror.

MAYASANDRA (P. 1,987), in Turuvekere taluk, was one of the **Mayasandra** *pancha-gramas* (five settlements) of the Hebbar Shrivaisnavas. There is an old temple of Mayamma here situated in the centre of the tank bund. The goddess is worshipped by people of Gangemata or Gangekula. The place has another *Shakti* temple of Kollapuradamma. At a distance of about two miles from this

village on the Sira-Nelligere road, there is a temple of Mahadeshwara on a hillock, where a well-attended *jatra* and cattle fair take place every year. At a distance of about three miles from this place at Ramasagara, there is a temple of Varadaraja of the Hoysala period. The main image, about three feet high, is well carved and near it, there is also an Ishwara *linga*.

Midigeshi

MIDIGESHI (P. 1,776), in Madhugiri taluk, at the eastern base of the Midigeshidurga, 12 miles north of the *kasaba*, on the Tumkur—Pavagada road, is the headquarters of the Midigeshi hobli. This place is said to have been so named by a local chief, Nagareddi, after his wife Midigeshi, who was so called because her hair (*kesha*) was so long that it touched her heel (*midi*). Rasis of the same family continued to govern it until conquered by Chikkappa Gauda, of whose family it remained the chief possession, long after they had been deprived of Madhugiri and Channarayana-durga. In 1761, it was reduced by Haidar Ali, and six years later by the Marathas, from whom it was recovered by Tipu in 1774. During the invasion of Lord Cornwallis, a descendant of Chikkappa Gauda returned to the town, but found little that had escaped the Maratha capture. He left it when Kamr-ud-din was approaching it with a large force. Under the Muhammadan government, Midigeshi was the residence of an Asoph, and afterwards the headquarters of a taluk.

The Venkataramana temple here, which is similar in plan to the temple of the same name at Madhugiri, is said to have been built by the chief Nagareddi. His palace was situated to the south of the temple, and an entrance in the south wall of the *prakara*, now closed, is said to have been the gate through which the inmates of the palace went into the temple. A figure on this wall, about 1½ feet high, standing with folded hands, is said to represent Nagareddi. The Malleshwara temple here is said to have been built by the Vokkaligas of the Settenoru sect, the god being their tutelary deity. A tradition has it that a beautiful damsel of this sect, named Chikka-Mallamma, was, during an attack by the Muhammadans, seized by them and confined in the fortress on the Midigeshi hill, and that on her prayer to God for her release, the rock split and made way for her, whereupon she descended the hill and entered fire in front of the image of Malleshwara. Her figure, about two feet high, is sculptured on the rock to the right of the flight of steps leading to the top, about the middle of the hill. The Midigeshi hill is said to have been fortified by Nagareddi mentioned above. (See also Chapter II under Archaeology).

Muganayakanakote

MUGANAYAKANAKOTE (P. 1,629), in Gubbi taluk, is about 15 miles east of the *kasaba*. It was strongly fortified, and before the last incursion of the Marathas, it contained a fine market,

with a wide street lined with cocoanut trees. A somewhat droll account is given of the attack on the place by a Maratha force despatched by Parashuram Bhaū camping at Sira, which was repulsed by the inhabitants with utmost gallantry; the siege, which had lasted for about two months, was forced to be withdrawn.

NAGALAPURA (P. 809), in Turuvekere taluk, is about five miles to the south of Mayasandra. It has inscriptions of Ballala III and seems to have been once a flourishing *agrahara* town. There are here two fine temples in the Hoysala style, dedicated to Vishnu and Shiva. They are similar in plan and now largely in ruins. (See Chapter II under Archaeology).

NAVILKURKI (P. 658), in Koratagere taluk, has a fine *mastikal*, containing figures of husband and wife standing side by side, the latter holding a mirror in the left hand and a lime between the thumb and forefinger of the right hand. Flames are shown as issuing from the head of the female figure, and the couple are represented as dancing, as an indication of their joy after coming together in heaven.

NIDUGAL (P. 320) or Nidugaldurga is a fortified hill in Pavagada taluk, 14 miles west of the *kasaba*, with a village of the same name on the south and east, which was once a prosperous town. It is the headquarters of the Nidugal hobli. The lofty pointed peak of *Nidu-Gal*, literally the long or high stone or rock, rising to 3,769 feet above the sea level, is a conspicuous object throughout the north-east of the area and it was a formidable stronghold. In the ninth and tenth centuries, it was held by the Nolamba kings whose capital was at Henjeru, now called Hemavathi. Subsequently, it was in possession of a line of kings of Chola descent, prominent among whom was Irungola, acknowledging the supremacy of the Chalukyas, whose name occurs as one of the opponents of the Hoysala king Vishnuvardhana in the twelfth century.

The Hoysalas appear to have captured the place in the time of Ballala II. One Holakal Bomma-Nayaka appears ruling there in 1337 (*Epigraphia Carnatica* XII, Sira 8). A genealogy of the chiefs of Nidugal is given in an inscription (numbered Pavagada 54 in *E.C.* of 1487). The genealogy begins with Abba-Nayaka, whose son was Pala-bhupala, whose son was Bomma-Nayaka, whose son was Erabapa-Nayaka whose son, by Amma-ambika, was Chikka-Tippanripa. It says that ruling the Nidugal hill-fort, the most inaccessible of the hill-forts of Karnataka, he became the master of many hill-forts. Being guarded by the eight Durgis, the eight Bhairavas, the Ganapatis and the three gods, Nidugal could not, we are told, be subdued by Ashvapati or Gajapati. He built a temple and a tank in the name of his wife Lakshma-Devi. In 1515, we have one Jaka-Nayaka (*E. C.* XII, Pavagada 62). According to the inscription numbered Pavagada 63

and 37, Timmanna or Timma-Nayaka was the chief from 1560 to 1564.

The Harati chiefs, whose progenitor was Tippa Nayaka, next held the Nidugal territory. In about 1580, there was Rangappa-Nayaka (E.C. XII, Sira 53), in 1605, Siddana-Nayaka (Sira 61), in 1609, Immadi-Kenchappa-Nayaka (Sira 1), and in 1612, Immadi-Rangappa Nayaka's son Hungahati-Nayaka (Sira 84). In 1621, they assumed the title of *Raja*, and we have Saraja Krishnappa-Raja's grandson (Rangappa-Raja's son) Kasturi Rangappa-Raja (Sira 64). In 1626, there was a third or Mummadi Rangappa-Nayaka (Sira 54). The Harati family was ruling the area until displaced by Tipu Sultan. (See also Chapter II under Minor Ruling Families).

There are many shrines, both at the foot and on the hill, but most of them are in ruins. Of those at the foot, which seem to be comparatively modern, the Saravadeshwara temple, also called the Hotteshwara temple after the Harati chief Hottenna-Nayaka III, was built in 1681, (*Epigraphia Carnatica*, XII, Pavagada 59). The god is named Saravadeshwara after Sarvad, a village in the Bijapur district, said to be the birth-place of the progenitor of the Harati family. The village has also a *kabar* or tomb, said to be of Mirza Hussain Vali, who came from Hyderabad, in honour of whom a *urs* is held every year.

Nijagal

Nijagal is a hill about ten miles from Tumkur on Bangalore-Tumkur road. It is also called Rasasiddharabetta or Uddan-nayyanabetta. It has two temples dedicated to Narasimha and Veerabhadra and also two springs named Akka-thangiyara-done and Siddhara-done; the latter spring is looked upon as sacred by both Hindus and Muslims who have also a *makan* here.

Nittur

NITTUR (P. 1,834), in Gubbi taluk, appears to have been a place of great importance at one time. In an inscription of 1226 A.D. (E.C. XIII, Gubbi 11), it is called the southern Ayyavale (Aihole), the 'navel' of Gangavadi-96,000 and the 'crest jewel' of the Heruthe-nadu. The Shantishwara-basti at the village is a Hoysala structure of about the middle of the 12th century, consisting of a *garbhagriha*, a *sukanasi*, a *navaranga* and a *mukha-mantapa*. (See also Chapter II under Archaeology). A few palm-leaf manuscripts of Jaina works in Sanskrit and Kannada were found here in the possession of the *archaka* of the *basti*. The temple of Mariyamma, the village goddess at the place, has an ant-hill for the object of worship, and a box-like pavilion with painted wooden figures serves the purpose of a processional image. On this box is kept a painted wooden head, known as Sama, which a particular individual puts on and dances during the annual festival.

NONAVINAKERE (P. 2,894) is a large village in Tiptur taluk, situated about eight miles south-east of the Tiptur town. Its name was originally Nonabanakere which dates back to the Nolamba times. This place was one of the *pancha-gramas* or five settlements of the Hebbar Shrivaisnavas. The Beteraya or Byatarayaswami temple here is a large structure built in the Dravidian style of architecture enshrining a fine figure, about 4½ feet high, of Shrinivasa or Venkatesha. There is an image of Koneri Iyengar wearing a beard and a cap, with folded hands, carved on a pillar of the *navaranga*. He is said to have built this temple. According to a legend, he was a great devotee of the god Shrinivasa of Tirupati and used to go on pilgrimage to that holy place every year; when he was unable to undertake the annual trip owing to old age, the god appeared to him in the guise of a Vaishnava mendicant and disappeared after telling him that he would take up his abode in that village. The managers of the temple and the *archakas* are said to be his lineal descendants. The processional image is a very handsome figure. There are also stone and metallic figures of some Alvars and sages. The Gopala-krishna temple, said to be older than the Beteraya temple and originally of the Hoysala period, is of three cells, the main cell having Keshava, the north cell Yoga-Narasimha and the south Venugopala. There are also five Shiva temples in the village—the Shanteshwara, the Nonabeshwara, the Chandeshwara, the Kaleshwara and the Gaurishwara. (See also Chapter II under Archaeology).

ODERAHALLI (P. 280), in Chiknayakanahalli taluk, has the Shantamallappa temple; in front of the temple there is a fine lamp pillar, about 40 feet high and two feet square at the bottom, with a lamp in the form of a stone cup on the top. Near the temple are the *samadhis* or tombs of the Lingayat *swamis* of the Kallu-Matha at Settikere. To the north-west of this place is an important temple, situated on an eminence, dedicated to Henjerappa. Henjerappa is a form of Bhairava worshipped at Henjeru or Hemavathi in the Madaksira taluk of the Anantapur district (Andhra Pradesh) and it is not clear why the deity at this place is known by that name.

PANKAJANAHALLI (P. 186), in Chiknayakanahalli taluk, is well known for its fine Mallikarjuna temple of large proportions. (See Chapter II under Archaeology).

PAVAGADA (P. 5,913) is a town situated at the southern base of the hill so named, about 60 miles north of the Tumkur town on the road from Madhugiri. It is the headquarters of the taluk of the same name and has a municipality. Pavagada or Pavu-gonda, snake hill, (Pavu means snake in old Kannada) is said to have been so named from a remarkable stone that was discovered there with the figure of a snake upon it.

The place was the haunt of a body of freebooters, who subsisted by plundering the neighbouring area, when it was captured, in the sixteenth century by Balappa Nayaka, the founder of the Pavagada line of Palayagars. It is said that he was one of the three brothers, who, about 1585, coming from Gutti, entered into the service of Havali Baire Gauda, the chief of Chikballapur (Kolar district). This chief, having no children, adopted Balappa Nayaka, and when called upon to aid the Vijayanagara king at Penukonda (which is about 20 miles from Pavagada) in an attack on Gutti, Baire Gauda sent him in command of the contingent. Balappa Nayaka, from his local knowledge, was able to surprise Gutti and was successful in the campaign and was rewarded with a grant of Pallavola and other villages. It was after obtaining this estate that he seized Pavagada and fortified the hill. At a later period, a conflagration broke out at Penukonda owing to a powder magazine being struck by lightning. The king Venkata-pati Raya was absent at the time, but Balappa Nayaka hastening to the place extinguished the spreading flames, for which service he was invested with the title of Palayagar, and received a large accession of territory.

With occasional losses from attacks by the Palayagars of Ratnagiri, Nidugal and Rayadurga and the Marathas, his descendants continued to govern this area until the place was taken by the forces of Haidar Ali, when the chief, Timmappa Nayaka and his family were sent as prisoners to Madhugiri. In 1777, when engaged in operations against Chitradurga, Haidar Ali visited Pavagada and ordered the erection of the present fortifications. When Madhugiri was taken by the Marathas, co-operating with Lord Cornwallis against Srirangapatna, Timmappa Nayaka obtained release, and took possession of Pavagada again, but on the conclusion of peace, he could not hold his own against Tipu. The hill of Pavagada rises to 3,012 feet above the level of the sea. Both the town of Pavagada and the hill near it are beautifully fortified. (See Chapter II under Archaeology).

Rampura

See Akki-Rampura.

Ranganahalli

RANGANAHALLI (P. 238), in Sira taluk, has a Rangaswami temple at Ranganathapura, a hamlet of the village. There is an *udbhava-murti* (self-evolved image) for the object of worship at the temple. In the *prakara* are several small shrines containing figures with folded hands. In one of them is sculptured a couple seated with folded hands with an inscription on the side slab stating that the figures were consecrated by their son.

Rangapura

RANGAPURA (P. 548), in Tiptur taluk, situated to the south of the Tiptur town at a distance of about three miles, has a noted temple of Ranganatha built about 250 years ago. There is

a fine stone lamp pillar about three sq.ft. at the bottom and about 50 feet high with a lamp carved out of stone at the top. The priests of this Vaishnavite temple are Veerashaivas.

SAMPIGE (P. 1,640), in Turuvekere taluk, is about four miles west of Kadaba in Gubbi taluk. It was a settlement of the Hebbar Shrivaisnavas, and is stated to be the site of Champakanagara, the capital of Sudhanva, of whom an account is given in the *Jaimini Bharata*. There is also a fine temple dedicated to Venkataramanaswami. The place is noted for cocoanut gardens.

SEEBI (P. 3189), in Sira taluk, is situated about 15 miles north of the Tumkur town on the Tumkur-Chitradurga road. Formerly, it was known as Sibur and Harihara-rayapura and had been an *agrarahara* town. It is noted for its temple of Narasimha, at which there takes place a large annual festival in the month of *Magha* (about February). The temple has architectural peculiarities of four periods.

The origin of the temple is thus related: In the days when there were no roads and the place was covered with jungle, a certain merchant carrying grain on pack bullocks halted at Seebi. When his pot of rice was set on to boil on a small projecting rock, its contents turned to the colour of blood and he, with his attendants and bullocks, fell down in a swoon. While in this unconscious state, Narasimha appeared before the merchant in a vision and commanded him to build a temple over the stone in an atonement for the desecration committed. Narasimha is in the form of a *Saligrama* here. The temple was extensively renovated by Faujdar Karnika Nallappa and his brothers. The ten *avatars* of Vishnu, *leelas* of Shiva and scenes from the Mahabharata and the Ramayana are depicted in mural paintings on the beams and ceilings of the *mukhamantapa* and the ceilings of the *mahadwara* of the temple. Some of the pieces show a high degree of artistic skill and are remarkably well done. The paintings appear to be of the latter part of the 18th century and early part of the 19th century.

SETTIHALLI (P. 1,344), about two miles south-east of the Tumkur town, is well-known for its Anjaneya temple; an annual fair is held in honour of the deity about the month of March or April every year.

SETTIKERE (P. 2,666), in Chiknayakanahalli taluk, has a well-known Yoga-Madhava temple which is a *trikutachala* or three-celled Hoysala structure, with a stone tower over the main cell. (See Chapter II under Archaeology).

SIDDAPURA (P. 1,561) is about a mile north-west of Madhugiri. It has a fort, which, according to an inscription at the village

(numbered Madhugiri 21), was built in 1593 by the *Maha-nada-prabhu* Chikkappa-Gauda of Bijavara during the reign of the Vijayanagara king Venkatapati Raya I. The village has a well-built Lingayat *matha* known as Balaradhyara-matha; Balaradhy was probably the *guru* of Chikkappa-Gauda.

Siddhaganga

SIDDHAGANGA (P. 50), situated about three miles east of the Tumkur town, has now developed into a famous centre of pilgrimage. It is only two furlongs from the Kyatsandra Railway Station and four furlongs from the Kyatsandra bus-stand on the road from Tumkur to Bangalore. It attracts large number of visitors.

Here, on a hillock, is a temple of Siddhalingeswara and, in front of it, a natural spring called Siddhaganga, which is held sacred. At the entrance to this temple, a devotee of the *Matha* has built six shrines. At the foot of the hill, amidst beautiful natural surroundings, are a celebrated Veerashaiva *Matha* and close to it, a Sanskrit College, a Teachers' Training College, a high school, a middle school, a general hostel and a pond. This residential educational centre, with the Swamiji of the *Matha*, Shri Shivakumara Swami, as its head, reminds the visitors of the ancient Indian *Gurukulas*. The students in the hostel here are being provided with free boarding and lodging facilities without any distinction of caste or creed. A big fair is held every year in honour of the deity for seven days from the Shivaratri day, which is attended in large numbers by devotees coming from many places. It has been the tradition of the *Matha* to arrange for the free feeding of hundreds of pilgrims every day without any distinction of caste or creed and also to make elaborate arrangements for the free feeding of many thousands of persons that assemble during the ten or twelve days of the *jatra*. An agricultural and industrial exhibition is held during the *jatra* days. (See Chapter XV for the educational institutions being run by the *Matha*).

Sira

SIRA (P. 15,408), a town situated about 33 miles north-north-west of the Tumkur town, on the Tumkur-Chitradurga road, is the headquarters of the Sira taluk and has a municipality. Sira has a large market for commodities like jaggery, groundnut, coconut, tamarind, onion, arecanut and tobacco. (See Chapter VI under Regulated Markets). The foundation of the town and fort is attributed to Rangappa Nayaka, a chief of Ratnagiri, the selection of the site being due, as is commonly related of many other forts, to the turning of a hare upon the hounds while in pursuit, an indication of the heroic nature of the soil. Before the fort was completed, the region was conquered by Ranadulla Khan, general of the Bijapur kingdom. Malik Hussain, who was then appointed governor, completed the fort and enclosed the town with mud walls. Malik Rihan was the subedar from 1638 to 1650.

The capture of Bijapur by Aurangzeb in 1687 was speedily followed by the conquest of this region and Sira was made the capital of the new province south of the Tungabhadra. (See Chapter II under Mughals and Marathas). Under the Mughals, Sira attained its prosperity under Dilavar Khan (1724-56) and is said to have then contained 50,000 houses. An elegant palace erected by him, now all ruined, was the model on which those of Bangalore and Srirangapatna were built. A fine garden was also laid out, called the Khan Bagh, which was kept up by Haidar and may have suggested the Lal Bagh garden at Bangalore. The ruins of a large quarter, to which tradition assigns the name of Latapura, may yet be seen to the north-west of the fort. Tipu forcibly transported a large number of families from Sira to form a population for his new town of Shahar Ganjam on the island of Srirangapatna. These vicissitudes and the inroads of the Marathas reduced the town to about 3,000 houses. There were only about 2,567 houses in the town in 1961.

'Ibrahim Rauza' here which contains many tombs, looks like a Hindu monument, except for the minarets. The cornices of the building show Hindu motifs, the pillars, doorways and parapet mouldings also being Hindu. The Jumma Masjid, of hewn stone (date 1696), deserves mention, as also the tomb of Malik Rihan (date 1651). They are fine structures built in the Saracenic style of architecture. The fort is also a good stone structure with a moat all round. It once had two more enclosing mud-walls, also with moats. In the inner fort, traces of former houses and offices are visible. (See Chapter II under Archaeology). The main image of the Gopalakrishna temple here has been removed to the newly built Narayana temple in the town and a good figure of Hanuman, brought from some other place, has been set up instead. The object of worship in the Durga temple is an ant-hill.

SRAVANAGUDI (P. 208), in Madhugiri taluk, has a number of old inscribed *viragals* (numbered Maddagiri—92-101) standing near one another. At some distance from them is an uninscribed *viragal*, which is worthy of notice. It has in the upper portion a hero in the arms of celestial nymphs, while in the lower portion is seen a tiger pouncing on a bull. Probably, the man fell fighting with the tiger.

SULEKERE (P. 337), in Turuvekere taluk, has a small Ishwara temple built in the Hoysala style, consisting of only a *garbhagriha* and a *sukanasi* both of which have ceilings with lotus buds. The *garbhagriha* which is surmounted by a small stone tower, has a good figure, about two feet high, of Bhairava near the *linga*. The outer walls have only pilasters. The Veerabhadra temple here has a front verandah of three *ankanas* supported by four sculptured pillars containing figures of Arjuna fighting with Shiva,

the hunter Kannappa before a *linga*, etc. Another sculpture worth noticing is an ingenious combination of an elephant and a bull with only one head for both. The *navaranga* has likewise a curious sculpture in which two female figures with their braids of hair decorated with ornaments stand opposite to each other, a spear-like thing supporting or piercing their arm-pits. It is not known what this sculpture was intended to represent.

Tandaga

TANDAGA (P. 1,394), also called Hale (old) Tandaga, in Turuvekere taluk, is about five miles from Nonavinakere. According to a *pauranic* account referred to under Turuvekere in this Chapter, this is the supposed birth-place of the famous king Shalivahana, who, according to the legend, was begotten of a potter woman of this village by a Brahmin. It is an ancient *agrahara* town and has been called Shankaranarayanapura in the inscriptions. The Channakeshava temple here, built about the fourteenth century, is a good specimen of the Hoysala style, finer and larger than those at Turuvekere and Hulikal, though the plan is the same. One peculiarity of the temple is that every architectural member and piece composing the structure bears an inscription giving the position, directions, etc., in the building. The temple of Malleshwara, called Moolasthaneshwara in the inscriptions, is smaller and older. It resembles broadly the temple of Nonabeshwara of Nonavinakere. In a hill named Kumbarara-Karikallu, about a mile from Tandaga, there is a cave with a *linga* called Gavi-Siddheshwara; it has become a place of pilgrimage in recent times.

Tiptur

TIPTUR (P. 15,558) town is a large trading place, about 46 miles west of Tumkur, on the Bangalore-Poona railway line and the Tumkur-Shimoga road; it is the headquarters of the subdivision and the taluk of the same name and has a municipality. Tiptur is the most important of all the taluk headquarters in the district, being second only to Tumkur. Immense business is carried on here in copra with Bombay, Delhi, Kanpur and other distant trade centres. During the last fifty or sixty years, Tiptur has grown tremendously. Tiptur has now also an institution of higher education called Kalpataru College (See Chapter XV) besides several high schools. Veerashaiva Anandashrama, Gurukula Anandashrama and other hostels in the town provide lodging and boarding facilities to the students of various communities. There are about a dozen temples and two choultries in Tiptur. Of the temples, the more important ones are of those of Kalleshwara, Kempamma or Tipturamma, Anjaneyaswami, Mallikarjuna, Kashi-Vishveshwara and Kanyaka-Parameshwari.

Tumbadi

TUMBADI (P. 1,148) is an ancient place in Koratagere taluk. An inscription at this place (numbered Maddagiri-27) gives the name of the village as Tumbevadi. It is evidently identical with Tumbepadi mentioned in the inscription numbered Bangalore 83,

of about A.D. 900, as the place where, by order of the Ganga king Ereyappa, Nagatara fought with the Nolambas, and fell.

TUMKUR (P. 47,277) is the chief town of the district situated in $11^{\circ} 20' N.$ lat., $77^{\circ} 9' E.$ long., about 43 miles north-west of Bangalore, with which it is connected by rail and road. It is prettily situated at the north-western base of the Devarayanadurga group of hills, on an elevated ground near the waste-weir of a large tank. Owing to the successive droughts from the year 1905-06 which appeared periodically, the Tumkur tank rarely filled and the garden and wet cultivation in and around the town cannot be said to be quite prosperous. The Maidala tank is the source of water supply to the town through pipes. However, water supply is not plentiful during the larger part of the year. Tumkur is a large trading centre where transactions in commodities like groundnut, jaggery, castor, cocoanut, tamarind, horsegram and soapnut take place on a large scale. (See Chapter VI under Regulated Markets).

Tumkur is said to have originally formed part of a territory whose capital was Kaidala, now a village three miles to the south of it.² Its name is said to be derived from *Tumake*, a small drum or tabret, or from *Tumme* or *Tumbe* (a fragrant herb). It formed part of the Anebidajari district. Kante Arasu is said to have formed the present town consisting of a fort, the walls of which have now been levelled, and a *pete* to the east of it. (See also Chapter I under origin of name). The present town of Tumkur spreads roughly over an area of five square miles, the end to end distance being about $2\frac{1}{2}$ miles from east to west and $2\frac{1}{2}$ from north to south. The thickly populated parts of the town, however, cover an area of roughly two square miles—two miles long and one mile broad immediately to the north of the railway line.

The main part of modern Tumkur lies between two roads, running east to west, one of which is a part of the National Highway No. 4, the Bangalore-Honnavar road, and the other consists, in parts, of the Santepe road, the Mandipete road, the Horapete road and the Bangalore-Bellary road. Of these two roads, the latter forms almost a straight line, while the former runs parallel to this road in the middle and takes a curve northwards at both the ends, ultimately joining it at two points. A third road, consisting partly of the Bangalore-Bellary road and partly of another road inside the town called Ashoka road, cuts these two roads perpendicularly almost exactly in the middle and terminates near the town hall. In an aerial view, these three roads look like a huge bow and arrow, the straight road representing the string of the bow, the Bangalore-Honnavar road its arch and the third road the arrow.

It is the area covered by this 'bow' that constitutes the heart of modern Tumkur. Inside this area, the two roads forming the string and the arch of the bow are intersected by as many as six main roads and a number of cross-roads. Of these six main roads, all running from north to south, the Ashoka road (formerly called the Town Hall road) is more or less centrally situated and forms, as mentioned above, a part of the arrow. This road connects the Town Hall in the south with the office area in the north. There are two main roads to its west and three to its east. The Mahatma Gandhi (or the old Krishna Cinema) road, immediately to the east of the Ashoka road, is the modern commercial street of the town. The remaining two main roads in the east are named the Ramadevara Temple road and the old Electric Colony road. There is another important road, running close to the railway line and parallel to a part of the Bangalore-Honnar road. A part of this road, which is to the west of the railway station, leads to the Gandhinagar Extension and another part, which is to the east of the railway station, leads to the Someshwara Extension.

Coming to the main parts of the town, we may conveniently have the railway station as the starting point. Just as we step out of the railway station, we can see the Travellers' Bungalow (Pravasi Mandir) to the right side of a road leading to the Bangalore-Honnar road. Further, on the same side of the road is an extensive compound containing the Methodist Mission's Industrial School. To the left of this road and to the south of the Bangalore-Honnar road are, one after the other, the town hall, the town club, Sri Siddhaganga Science College and the Gandhinagar Extension. To the east of the Railway Station, after the Mission compound, is the Government High School in the midst of a vast open ground, and beyond these is the Someshwara Extension. Inside the 'bow' to the extreme left is the shandy maidan and to the east of it is the New Mandipet Extension. Opposite the Gandhinagar Extension and to the north of the Bangalore-Honnar road is the beautiful and extensive building of the General Hospital. The Bus Stand is situated to the west of the Ashoka road, at a distance of about five furlongs from the railway station. At the junction of the Ashoka road and the Bangalore-Honnar road, to the east of the former is the K.R. Public Library, and behind it, the Empress Girls' High School. Between the Mahatma Gandhi road and the old Electric Colony road spreads the Krishnarajendra Extension for about two furlongs north of the Bangalore-Honnar road. North of this extension and south of the Horapete road, are the two parts called Aralepete (to the west) and 'Pension Mohalla' (to the east) which are older parts of the town.

Now, beyond the 'bow', i.e., to the north of the road representing its string, at the western end, is the western extension and,

to its east the Santepete area. To the north of these are the *agrahara* in the north-western end, to its east, the Chikkapete area and the Market square. The locality further east of this area is known as Panduranganagar. To the north of the Horapete road is the area called Shri Ramanagar. Between Panduranganagar and Shri Ramanagar is the main office area. The Deputy Commissioner's office is a conspicuous circular building of three storeys. Further north, to the east of the Bangalore-Bellary road, forming the 'arrow', is the tank and to the west of it are green fields. Beyond, there are a few rice and oil mills and after them, the Northern Extension. There are also a Muslim Mohalla and the Adi-Karnataka Colony in this part. At last, about two furlongs north of the Northern Extension is the Dobb's Bungalow which is the residence of the Deputy Commissioner. The Tumkur Water Works, which filters and distributes through pipes the water of the Maidala tank, is situated to the east of the town, a little north from the point where the Bangalore-Bellary road joins with the Bangalore-Honnar road. To the west of the water works and to the north of the National Highway No. 4, there are the buildings of the Polytechnic and the Government First Grade College and the new Electric Colony. In the south-eastern part of the town is the Siddhaganga High School and the extension named after it. In the south-east of the town, there is now the campus of the Sri Siddhaganga Institute of Technology. Of the other extensions, the Middle Class Colony Extension is developing in the south-east beyond the Someshwara Extension, and the Poor House Colony and Labour Colony extensions in the south-west between the Gandhinagar Extension and the mill area. There are four cinema houses in the town, 'Krishna' in the Mahatma Gandhi road and 'Vinod' and 'Shri' in the Mandipete road and 'Prashant' adjacent to Smt. Savitramma's Choultry.

There are about 40 Hindu temples, nine Muslim places of worship and three Christian churches. Of the temples, about ten are dedicated to Shiva, six to Vishnu, ten to Shakti, eight to Anjaneya, six to Basava and two to Jaina Teerthankaras. Of these, the largest temple is that of Lakshmikantaswamy. It also appears to be the oldest temple in the town, said to be as old as about a thousand years. But most of it seems to have been constructed during the Vijayanagara days. It is built in the Dravidian style of architecture consisting of a *garbhagriha* or adytum, a *sukanasi* or vestibule, a *navaranga* or central hall, a *mukhamantapa* or front hall and a *prakara* or enclosure. The total area covered by the temple is about 200 feet by 150 feet. The image of the god, shown as sitting with Lakshmi, is about 4½ feet high. A fair is held in honour of the deity on the Rathasaptami day every year. That the temple is older than A.D. 1560 is evidenced by an inscription found on the wall to the right of the *navaranga* entrance (*Epigraphia Carnatica* XII, Tumkur 4) which records a grant made to it in that year by one Jagannatha-

deva Maha-arasu, a subordinate of the then Vijayanagara king, Sadashivaraya.

On account of the commercial, official and educational importance of the town, it has generally a large floating population. There are a number of lodging and boarding houses and hostels. In recent years, Tumkur has developed into an important educational centre (See Chapter XV). There are as many as 17 hostels in the town, most of them catering to the needs of students of particular communities.

Turuvekere

TURUVEKERE (P. 4,983), a town about eight miles south of the Banasandra Railway Station, is the headquarters of the taluk of the same name and has a municipality. It appears to have been founded as an *agrahara* or rent-free village given to priests about the middle of the 13th century under the name of Sarvajna-Srivijaya-Narasimhapura, after the Hoysala king Narasimha III, by his general Sovanna Dannayaka, the same person that established Somanathpur in T. Narasipur taluk (Mysore district) and built the celebrated Keshava temple in it in A.D. 1268. The place derives its present name from the large tank it has on its north. The inhabitants who depended for their water supply on this tank, which is fed by a stream called the Naga, have also now bore-wells.

In the sixteenth century, Turuvekere appears to have been captured by the Hagalvadi chief, Sala Nayaka, who committed the government to his brothers Chikka Nayaka and Anne Nayaka who built the outer fort; they enlarged the tank and made other improvements. In 1676, it was taken by Chikkadevaraja of Mysore.

At the eastern end of this place, there is a Basava temple with a frame-work in stone in front of it. This frame-work is called *Chintalukamba* (weighing balance) and consists of two pillars fixed side by side and a cross beam with iron rings over them. It is said that Turuvekere was once a great cotton centre and that this part of the town was called Aralepete. All the cotton sent out was being weighed here in front of the temple and the weight made of each bale here was accepted by all as the hallmark of accuracy.

There are three fine temples, in two of which dedicated to Channigarayaswami and Veerabhadra, are inscriptions making gifts of *agraharas* in the time of the Hoysala king, Narasimha, of whose queen Lokamma or Lokambika, it appears to have been the native place. Facing the temple of Gangadhareshwara is a recumbent bull of large size, elaborately carved in black hornblende from Karekalgudda, and still retaining a brilliant polish. (See also Chapter II under Archaeology).

The Beteraya temple here has some well-carved images. According to a legendary account of the place contained in a long roll of paper styled Rayarekhe, which is in the possession of the *Parupatyagar* or Superintendent of the temple, the deity came here at the entreaty of priests in the Dwapara-Yuga to hunt *Rakshasas* or demons in the shape of wild beasts and hence the name 'Beteraya'. The temple has an old ornamental wooden cot used for the repose (*Shayanotsava*) of the image, which is said to have been presented, as directed in a dream, to the temple by Katte Gopalaraja Arasu, a Mysore general, who lived about the middle of the 18th century.

VIGHNASANTE (P. 951), in Tiptur taluk, is about two miles from Nonavinakere. The Lakshminarasimha temple at this place is a good structure in the Hoysala style. It is a *trikutachala* or three-celled structure, facing north. From an inscription found here, we learn that the temple was built in 1286 during the reign of the Hoysala king Narasimha III by his generals Appayya, Gopala and Madhava, who were brothers. The village is named in it as Igganasante. The Balalingeshwara temple here is a plain Hoysala building with a stone tower adorned with four figures one over the other in the four directions and a Hoysala crest in front. The Banashankari temple has a well-carved, though mutilated, figure, about three feet high, of the goddess, seated in *Sukhasana* with eight hands, some of which are broken, the attributes now visible being a trident, a drum, a sword and a shield. (See also Chapter II under Archaeology).

YEDEYUR (P. 600), in Kunigal taluk, about 12 miles south-west of the *kasaba*, on the Bangalore-Hassan road, is the headquarters of the Yedeyur hobli. The Siddhalingeswara temple at this place, facing north, is a large structure constructed in the Dravidian style of architecture and has the *gaddige* (*samadhi* or tomb) of Tontada-Siddhalinga, a celebrated Veerashaiva spiritual teacher and author who lived in the 15th century. He was a *swami* of the Murugi-matha and had many disciples several of whom have written Kannada works bearing on the Veerashaiva faith and philosophy, his own being *Shatssthal Jnanasaramrita*. There is a story that the bells of the temple were thrown into a well during a Muslim incursion and that they were subsequently restored to the temple by a Muslim Amildar with inscriptions newly engraved on them. (See also Chapter II under Archaeology).

This holy place attracts a large number of devotees from far and near all the year round. The temple has a good car with six stone wheels, the car festival taking place on the seventh lunar day of the bright fortnight of *Chaitra* (March-April). Close to the temple is a Veerashaiva *matha*; another Veerashaiva *matha* at some distance is known as Chitra-matha, because its verandah was

once adorned with paintings. In front of this is a fine well, built with well-dressed vertical slabs all round and adorned with a well-carved stone parapet. There is also a Varadaraja temple here which is in a dilapidated condition.

Yelanadu

YELANADU (P. 1,756), in Chiknayakanahalli taluk, is noted for its Siddharameshwara temple which is a large structure built in the Dravidian style of architecture with two *mahadvaras* on the east and the south. The ceilings of the south porch were once painted with figures. Siddharama, a Veerashaiva teacher, is said to have performed penance here. The object worshipped in the temple is an ant-hill which is decorated and given the appearance of a *linga*. The processional image is also a silver *linga*. The temple appears to be a rich one, judging from its paraphernalia. It has also a fine Bilvavriksha-vahana in the shape of a car, adorned with painted images, etc. The *mantapa* surmounted by a tower is a neat structure with a flight of steps. The village has also a Veerashaiva *matha* of the Renuka *sampradaya* (tradition) and goes by the name 'Shrimadarasikere Elanadu Samsthana'. Besides these, there are the temples of Lakshmidēvi, Revanasiddheshwara, Hariyappa and Kariyamma at this place.

APPENDIX

SOME PRINCIPAL TABLES

TABLE 1

Area and population—Urban and Rural—of Tumkur district as in 1961

Sl. No.	Taluk	Area in square miles	Area in square kilometres	Population 1961			Density		Population in 1951	Percentage increase over 1951
				Rural	Urban	Total	Per square mile	Per square kilometre		
1	2	3	4	5	6	7	8	9	10	11
1.	Tumkur	393.1	1,018.1	1,70,634	47,277	2,17,911	554	214	1,86,469	16.86
2.	Gubbi	475.1	1,230.5	1,38,879	8,543	1,47,422	310	120	1,25,699	17.28
3.	Kunigal	380.5	985.5	1,44,507	10,566	1,55,073	408	157	1,35,433	14.50
4.	Chiknayakanahalli	418.5	1,083.9	1,05,282	10,375	1,15,657	276	107	91,889	25.87
5.	Tiptur	320.5	830.1	99,080	15,558	1,14,638	358	138	94,142	21.77
6.	Turuvekere	297.5	770.6	97,342	4,983	1,02,325	344	133	86,467	18.34
7.	Madhugiri	423.9	1,097.9	1,42,518	11,275	1,53,793	363	140	1,31,042	17.36
8.	Sira	573.2	1,484.6	1,38,596	15,408	1,54,004	269	104	1,25,932	22.29
9.	Kotagere	243.8	631.4	85,082	4,301	89,383	367	142	78,710	13.56
10.	Pavagada	547.6	1,418.3	1,06,493	10,703	1,17,196	214	83	95,579	22.62
Total		4,073.7*	10,550.9*	12,28,413	1,38,989	13,67,402	336	130	11,51,362	18.76

*According to the Survey of India, the area of the district is 4,091.58 sq. miles or 10,597.11 sq. kilometres. This slight difference is due to the different methods employed in measuring the area.

TABLE II

Variation in population during sixty years from 1901 to 1961 in Tumkur district

Year	Number of inhabited villages	Persons	Decade variation	Percentage decade variation	Males	Females
1	2	3	4	5	6	7
1901	..	2,372	..	..	3,38,456	3,33,497
1911	..	2,362	+67,323	+10.02	3,73,924	3,65,352
1921	..	2,371	+37,695	+5.10	3,96,803	3,80,168
1931	..	2,381	+86,256	+11.10	4,10,036	4,23,191
1941	..	2,381	+92,582	+10.73	4,89,888	4,65,921
1951	..	2,392	+1,95,553	+20.46	5,87,988	5,63,374
1961	..	2,444	+2,16,040	+18.76	6,99,191	6,68,211

TABLE III

Tahsils in Tumkur district classified by population in 1961 with variations since 1901

Tahsil	Year	Persons	Variation	Males	Variation	Females	Variation
1	2	3	4	5	6	7	8
1. Tumkur	..	1,07,513	..	54,194	..	53,319	..
	1901	1,16,854	+9,341	59,569	+5,375	57,285	+3,966
	1911	1,25,794	+8,440	64,207	+4,638	61,087	+3,802
	1921	1,27,945	+2,651	65,850	+1,643	62,095	+1,008
	1931	1,45,836	+17,891	75,058	+9,208	70,778	+8,683
	1941	1,86,469	+40,633	95,886	+20,828	90,583	+19,805
	1951	2,17,911	+31,442	1,12,398	+16,512	1,05,513	+14,930
	1961						
2. Gubbi	..	87,488	..	43,659	..	43,809	..
	1901	96,820	+9,352	48,791	+5,132	48,029	+4,220
	1911	1,02,967	+6,147	52,821	+4,030	50,146	+2,117
	1921	1,12,358	+9,391	57,269	+4,448	55,089	+4,943
	1931	1,06,318	-6,040	54,336	-2,933	51,982	-3,107
	1941	1,25,699	+19,381	63,990	+9,654	61,709	+9,727
	1951	1,47,422	+21,723	74,948	+10,958	72,474	+10,765
	1961						

TABLE III—(contd.)

1	2	3	4	5	6	7	8
3. Kunigal	..	77,861	..	38,586	..	39,276	..
	1901	83,812	+5,951	41,349	+2,763	42,463	+3,188
	1911	89,093	+5,281	44,541	+3,192	44,552	+2,089
	1921	1,01,263	+12,170	50,526	+5,985	50,737	+6,185
	1931	1,11,479	+10,216	55,794	+5,268	55,685	+4,948
	1941	1,35,433	+23,954	67,598	+11,804	67,835	+12,150
4. Tiptur	1951	1,55,073	+19,640	77,569	+9,971	77,504	+9,969
	1901	54,354	..	27,276	..	27,078	..
	1911	63,621	+9,267	32,013	+4,737	31,608	+4,530
	1921	65,261	+1,640	32,904	+891	32,357	+749
	1931	74,403	+9,142	37,610	+4,706	36,793	+4,436
	1941	80,531	+6,128	40,748	+3,138	39,783	+2,990
5. Chiknayakanahalli	1951	94,142	+13,611	47,917	+7,169	46,225	+6,442
	1961	1,14,638	+20,496	58,761	+10,844	55,877	9,652
	1901	51,286	..	25,768	..	25,518	..
	1911	57,484	+6,198	29,049	+3,281	28,435	+2,917
	1921	60,498	+3,014	30,938	+1,889	29,560	+1,125
	1931	68,734	+8,236	35,132	+4,194	33,602	+4,042
	1941	76,748	+8,014	39,509	+4,377	37,239	+3,637
	1951	91,889	+15,141	47,203	+7,694	44,686	+7,447
	1961	1,15,657	+23,768	59,719	+12,516	55,938	+11,252

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TABLE III—(contd.)

1	2	3	4	5	6	7	8
6. Turuvekere	..	36,355	..	17,535	..	18,820	..
	1901	39,175	+2,820	18,763	+1,228	20,412	+1,592
	1911	39,537	+362	19,559	+796	19,978	— 434
	1921	43,941	+4,404	21,798	+2,239	22,143	+2,165
	1931	72,644	+28,703	36,243	+14,445	36,401	+14,258
	1941	86,467	+13,823	43,065	+6,822	43,402	+7,001
7. Madhugiri	1951	1,02,325	+15,858	51,564	+8,499	50,761	+7,359
	1901	84,318	..	43,313	..	41,005	..
	1911	89,987	+5,669	45,983	+2,670	44,004	+2,999
	1921	93,513	+3,526	48,348	+2,365	45,165	+1,161
	1931	98,350	+4,837	50,650	+2,302	47,700	+2,535
	1941	1,12,655	+14,305	58,382	+7,732	54,273	+6,573
8. Sira	1951	1,31,042	+18,387	67,553	+9,171	63,489	+9,216
	1961	1,53,793	+22,751	79,260	+11,707	74,533	+11,044
	1901	77,604	..	39,301	..	38,303	..
	1911	80,311	+11,707	45,483	+6,128	43,828	+5,525
	1921	93,324	+4,013	47,880	+2,897	45,444	+1,616
	1931	1,00,458	+7,134	51,228	+3,348	49,230	+3,786
	1941	1,04,525	+4,067	54,402	+3,174	50,123	+893
	1951	1,25,932	+21,407	64,489	+10,087	61,443	+11,320
	1961	1,54,004	+28,072	79,022	+14,533	74,982	+13,539

TABLE III—(concl.)

1	2	3	4	5	6	7	8
9 Koratageri	..	33,953	..	17,382	..	16,571	..
	1901	41,041	+7,088	21,390	+4,008	19,651	+3,080
	1911	41,955	+914	21,832	+442	20,123	+472
	1921	63,009	+21,054	32,435	+10,603	30,574	+10,451
	1931	65,415	+2,406	33,826	+1,391	31,589	+1,015
	1941	78,710	+13,295	40,602	+6,776	38,108	+6,519
	1951	89,383	+10,673	45,634	+5,032	43,749	+5,641
10. Pavagada	..	61,241	..	31,442	..	29,799	..
	1901	61,171	-70	31,534	+92	29,637	-162
	1911	65,529	+4,358	33,773	+2,239	31,756	+2,119
	1921	72,766	+7,237	37,538	+3,765	35,228	+3,472
	1931	79,658	+6,892	41,590	+4,052	38,068	+2,840
	1941	95,579	+15,921	49,685	+8,085	45,894	+7,826
	1951	1,17,196	+21,617	60,316	+10,631	56,880	+10,986
	1961						

TABLE IV

Towns and town-groups in Tumkur district classified by population in 1961 with variations since 1901

Name of Town	Year	Persons	Decade variation	Percentage decade variation	Males	Females
1	2	3	4	5	6	7
1. Tumkur	..	11,888	..	..	6,024	5,864
	1901	6,039	-5,849	-49.20	3,267	2,772
	1911	14,246	+8,207	+135.9	7,599	6,647
	1921	18,196	+3,950	+27.73	9,880	8,316
	1931	21,893	+3,697	+20.32	11,589	10,304
	1941	35,999	+14,106	+64.43	19,107	16,892
	1951	47,277	+11,278	+31.33	25,324	21,953
2. Tiptur	..	3,560	..	..	1,854	1,706
	1901	2,531	-1,029	-28.90	1,423	1,108
	1911	4,311	+1,780	+70.33	2,244	2,067
	1921	5,160	+849	+19.69	2,798	2,362
	1931	7,513	+2,353	+45.60	3,996	3,517
	1941	11,803	+4,290	+57.10	6,256	5,547
	1951	15,558	+3,755	+31.81	8,190	7,368
	1961					

TABLE IV—(contd.)

1	2	3	4	5	6	7
3. Sira	..	4,059	..	..	2,001	2,058
	1901	5,573	+1,514	+37.30	2,767	2,806
	1911	5,596	+23	+0.41	2,824	2,772
	1921	6,894	+1,298	+23.20	3,506	3,388
	1931	6,797	-87	-1.41	3,625	3,172
	1951	12,182	+5,385	+79.23	6,263	6,919
	1961	15,408	+3,226	+26.48	7,926	7,482
4. Madhugiri	..	4,060	..	..	1,971	2,089
	1901	4,545	+485	+11.95	2,284	2,261
	1911	5,143	+598	+13.16	2,600	2,543
	1921	5,865	+722	+14.04	3,060	2,805
	1931	1,460	-4,405	-75.11	803	657
	1951	5,416	+3,956	+270.96	2,816	2,600
	1961	11,275	+5,859	+108.18	5,964	5,311
5. Kunigel	..	1,802	..	..	918	884
	1901	1,405	-397	-22.03	712	693
	1911	3,044	+1,639	+116.65	1,561	1,483
	1921	5,341	+2,297	+75.46	2,757	2,584
	1931	5,846	+505	+9.46	2,993	2,853
	1941	8,908	+3,062	+52.38	4,522	4,386
	1961	10,566	+1,658	+18.61	5,381	5,185

TABLE IV—(contd.)

1	2	3	4	5	6	7
6. Chiknayakanahalli	..	6,113	..	..	3,022	3,001
	1901	5,188	-925	-15.13	2,551	2,637
	1911	6,432	+1,244	+23.98	3,275	3,157
	1921	6,612	+180	+2.80	3,316	3,296
	1931	3,313	-3,299	-49.89	1,721	1,592
	1941	8,388	+5,075	+153.18	4,292	4,096
	1961	10,375	+1,987	+23.69	5,374	5,001
7. Gubbi	..	5,593	..	..	2,822	2,771
	1901	3,464	-2,129	-38.07	1,767	1,697
	1911	5,263	+1,799	+51.93	2,703	2,560
	1921	5,663	+400	+7.60	2,884	2,779
	1931	6,129	+466	+8.23	3,171	2,968
	1941	7,145	+1,016	+16.58	3,640	3,505
	1961	8,543	+1,398	+19.57	4,352	4,191
8. Pavagada	..	2,840	..	..	1,427	1,413
	1901	2,594	-246	-8.66	1,297	1,297
	1911	2,529	-65	-2.51	1,276	1,253
	1921	2,750	+221	+8.74	1,419	1,331
	1931	3,534	+784	+28.51	1,757	1,777
	1941	4,480	+946	+26.77	2,370	2,110
	1961	5,913	+1,433	+31.99	3,144	2,769

TABLE IV—(concl.)

1	2	3	4	5	6	7
9. Turuvekere	..	2,333 2,685 1,936 2,136 2,678 3,732 4,983	.. +352 -749 +209 +542 +1,054 +1,251	.. +15.09 -27.90 +10.33 +23.37 +39.36 +33.52	1,137 1,302 993 1,078 1,341 1,945 2,042	1,196 1,383 943 1,058 1,337 1,787 2,341
10. Y. N. Hoskote*	..	1951 4,014 1961 4,790	.. +776	.. +19.33	2,079 2,497	1,935 2,293
11. Koratagere	..	1901 2,811 1911 2,965 1921 3,028 1931 2,969 1941 2,979 1951 3,695 1961 4,301	.. +154 +63 -59 +10 +716 +606	.. +5.48 +2.12 -1.95 +0.34 +24.03 +16.40	1,396 1,500 1,580 1,484 1,524 1,941 2,254	1,415 1,465 1,448 1,485 1,455 1,746 2,047

* Y. N. Hoskote was treated as a town for the first time in the 1951 Census and was continued as such in the 1961 Census also

TABLE V
Literacy in Tumkur district by taluks in 1951 and 1961

Taluk	Literates, 1951			Percentage of		Literates, 1961			Percentage of	
	Males	Females	Total	Literates		Males	Females	Total	Literates	
1	2	3	4	5	6	7	8	9	10	11
Tumkur district	..	39,211	2,01,285	17.5	2,37,598	71,904	3,09,592	22.6		
Tumkur	..	11,893	45,015	24.1	45,278	18,665	63,943	29.3		
Madhugiri	..	2,842	18,073	10.0	24,544	6,403	30,947	20.1		
Koratagere	..	2,725	13,683	17.4	13,253	3,768	17,021	19.0		
Sira	..	3,241	20,578	16.3	26,059	6,620	32,679	21.2		
Pavagada	..	1,837	11,845	12.4	15,513	3,461	18,974	16.1		
Chiknayakanahalli	..	3,532	18,823	20.5	22,609	6,881	29,490	25.4		
Gubbi	..	3,687	20,915	16.6	23,711	6,777	30,488	20.6		
Tiptur	..	4,303	22,031	23.4	25,398	8,135	33,533	29.2		
Turuvekere	..	2,076	13,187	15.3	19,184	5,198	24,382	23.8		
Kannigal	..	3,075	17,135	12.7	22,049	6,086	28,135	18.1		

TABLE VI
Literacy in towns of Tumkur district in 1951 and 1961

Town	Literates, 1951		Percentage of literates		Literates, 1961		Percentage of literates	
	Males	Females	Total		Males	Females	Total	
1	2	3	4	5	6	7	8	9
Tumkur district (Urban)	30,902	15,963	46,865	44.3	43,280	24,399	67,679	48.69
Tumkur	11,855	6,887	18,742	52.1	15,973	9,915	25,888	54.76
Chiknayakanahalli	2,200	1,000	3,200	38.2	3,108	1,414	4,522	43.59
Gubbi	1,980	1,016	2,996	41.9	2,847	1,320	3,667	42.92
Koratagere	1,669	821	2,490	67.4	1,354	659	2,013	46.80
Kunigal	1,331	934	2,265	31.0	3,113	1,842	4,955	46.92
Madhugiri	1,414	667	2,081	38.4	3,675	1,941	5,616	49.81
Pavagada	1,257	505	1,762	39.3	1,754	750	2,504	42.35
Y. N. Hoskote	883	298	1,181	29.4	1,189	437	1,626	33.95
Sira	3,203	1,463	4,666	38.3	4,480	2,650	7,130	46.27
Tiptur	3,605	1,856	5,461	46.3	4,712	2,678	7,390	47.50
Turuvekere	1,005	516	1,521	40.8	1,575	793	2,368	47.52

TABLE VII

Occupational classification of persons at work (other than cultivation) in Tumkur district as in 1961

Sl. No.	Occupations	Males		Females		Total
1	2	3	4	5	6	7
1.	Engineers, Architects and Surveyors	226	1	227		
2.	Physicians, Surgeons and Dentists	293	12	305		
3.	Nurses, Pharmacists and other Medical and Health Technicians	292	160	452		
4.	Teachers	4,554	436	4,990		
5.	Jurists (including Legal Practitioners and Legal Advisers)	155	1	156		
6.	Artists, Writers and related workers	245	52	297		
7.	Administrative, Executive and Managerial workers (both Government and private)	4,136	190	4,326		
8.	Clerical and related workers (including Stenographers, Typists, Book-keepers and Cashiers)	3,918	143	3,961		
9.	Unskilled Office-workers (including Attendants etc.)	1,646	123	1,769		
10.	Working Proprietors—wholesale and retail trade	9,248	2,340	11,588		
11.	Salesmen, Shop-Assistants and related workers	2,228	658	2,886		
12.	Farmers, Farm-workers (Animals, birds and insect-rearing), Fishermen, Gardeners, Tappers, etc.	28,851	9,261	38,112		
13.	Workers in transport and communication occupations (including Railways, Road Transport, Posts and Telegraphs, etc.)	1,774	11	1,785		

TABLE VII—(contd.)

1	2	3	4	5
14.	Spingers, Weavers, Dyers and related workers	5,549	6,133	11,682
15.	Tailors, Cutters and related workers	3,032	651	3,683
16.	Shoe-makers, Shoe-repairers, Leather-cutters and related workers	1,241	25	1,266
17.	Blacksmiths, Furnacemen and related workers	1,628	..	1,628
18.	Jewellers, Goldsmiths and Silvermiths	2,127	133	2,260
19.	Tool-makers, Machinists, Welders and related workers	793	7	800
20.	Electricians and related workers	543	1	544
21.	Carpenters, Cabinet-makers and related workers	2,110	98	2,208
22.	Brick-layers, Plasterers, Stone-cutters and other construction workers	4,377	1,051	5,428
23.	Potters, Kilnmen, Clay-formers and related workers	1,906	743	2,649
24.	Millers, Bakers, Oilseed-pressers, Pounders and related food and beverage workers	1,358	398	1,756
25.	Basket-weavers and production process workers	670	1,539	2,259
26.	Police-men, Guards, Watchmen and related workers	981	8	989
27.	Cooks, Maids, House-keepers and related workers	1,957	529	2,486
28.	Waiters, Bar-tenders and related workers	413	11	424
29.	Cleaners, Sweepers, Watermen, Building-care-takers, etc.	503	101	604
30.	Barbers, Hair-dressers and related workers	1,269	..	1,269
31.	Washermen, Laundrymen and Dhobies	1,810	1,062	2,892
32.	Labourers, not classifiable by occupation	153	23	176

Source :—Census of India, 1961, Vol. XI, Mysore, Part II-B (ii), General Economic Tables.

TABLE VIII

Livestock Population in Tumkur district

A—CATTLE AND BUFFALOES AS PER LIVESTOCK CENSUSES OF 1961 AND 1966

Sl. No.	Cattle						Buffaloes						
	1961			1966			1961			1966			
	Taluk	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Tumkur ..		37,533	54,963	92,496	35,813	53,767	89,580	3,191	14,976	18,167	2,171	15,268	17,439
2. Gadbi ..		33,074	44,226	77,300	29,519	39,215	68,734	3,329	11,921	15,250	2,267	11,140	13,407
3. Kanigal ..		32,517	47,660	80,177	29,966	44,955	74,921	3,967	17,397	21,364	2,972	17,082	19,954
4. Tiptur ..		29,741	28,311	58,052	27,881	25,892	53,773	2,137	10,600	12,737	1,660	9,623	11,283
5. Chiknayakanahalli.		32,898	30,968	63,866	30,469	29,306	59,775	3,010	12,471	15,481	2,115	10,453	12,568
6. Turavekere		25,522	25,106	50,628	23,289	21,338	44,627	2,337	11,694	14,031	1,966	11,710	13,676
7. Madhugiri ..		31,869	25,257	57,126	30,436	23,810	54,246	4,666	15,295	19,961	3,689	16,018	19,707
8. Sira ..		33,014	26,865	60,479	32,332	25,548	57,980	4,707	16,074	20,781	4,480	16,441	20,921
9. Koratagere		20,907	26,829	47,736	20,637	25,171	45,708	1,437	7,201	8,638	1,202	7,749	8,951
10. Pavagada ..		33,211	26,709	59,920	36,057	27,994	64,051	4,670	11,453	16,123	3,564	11,168	14,732
Total ..		3,10,886	3,36,894	6,47,780	2,96,349	3,16,996	6,13,345	33,451	1,29,082	1,62,533	25,986	1,26,652	1,52,638

TABLE VIII—(contd.)

B—NUMBER OF OTHER LIVESTOCK AS ASCERTAINED BY LIVESTOCK CENSUSES OF 1961 AND 1966

Sl. No.	Taluk	Sheep		Goats		Horses and Ponies		Mules		Donkeys		Pigs	
		1961	1966	1961	1966	1961	1966	1961	1966	1961	1966	1961	1966
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Tumkur ..	43,699	47,026	29,120	25,715	264	244	..	..	368	629	1,754	1,075
2.	Gubbi ..	67,060	62,493	27,447	23,506	64	362	..	2	519	681	1,662	1,950
3.	Kunigal ..	93,599	92,225	42,018	32,489	596	185	..	..	1,006	1,094	1,010	938
4.	Tiptur ..	55,311	47,492	15,987	13,416	136	306	..	..	480	730	704	707
5.	Chiknayakanahalli.	68,265	68,354	25,541	24,832	36	185	..	..	174	151	1,527	997
6.	Turuvekere ..	76,064	65,957	21,239	18,971	165	303	..	..	3,199	1,017	456	934
7.	Madhugiri ..	1,01,853	91,026	37,659	28,195	84	152	..	..	1,238	1,448	2,886	2,972
8.	Sira ..	1,33,330	1,28,791	27,716	25,690	242	482	..	9	890	1,163	2,092	2,293
9.	Koratagere ..	34,514	33,872	24,137	17,311	9	167	..	3	346	284	2,339	1,425
10.	Pavagada ..	92,980	92,263	37,933	39,432	129	1,437	..	8	1,639	1,320	2,795	7,287
Total ..		7,66,675	7,23,499	2,88,897	2,55,557	1,725	3,823	..	22	8,069	3,517	17,225	20,578

TABLE VIII—(contd.)

C—NUMBER OF POULTRY AS PER LIVESTOCK CENSUS OF 1961

Sl. No.	Taluk	Fowls				Ducks						Total Poultry
		Hens	Cocks	Chickens	Total	Ducks	Drakes	Ducklings	Total	Others		
1	2	3	4	5	6	7	8	9	10	11	12	
1.	Tumkur ..	22,235	13,795	31,667	67,697	5	13	9	27	226	67,950	
2.	Gubbi ..	21,066	6,488	24,062	51,616	4	8	..	12	..	51,638	
3.	Kunigal ..	46,747	15,471	75,272	1,37,490	28	97	2	127	23	1,37,640	
4.	Tiptur ..	11,704	4,827	15,482	32,013	7	8	..	15	..	32,028	
5.	Chiknayakanahalli.	12,429	5,149	17,408	34,986	3	7	13	23	97	35,106	
6.	Turuvekere ..	17,536	6,812	26,537	50,885	7	2	131	140	16	51,941	
7.	Madhugiri ..	18,028	5,771	30,810	54,609	10	17	2	29	..	54,638	
8.	Sira ..	27,038	11,113	44,001	82,152	23	29	14	66	127	82,345	
9.	Koratagere ..	13,767	4,107	21,109	38,983	5	9	4	18	..	39,001	
10.	Pavagada ..	14,857	5,568	27,199	47,494	23	15	10	48	..	47,472	
Total ..		2,05,207	79,101	3,13,547	5,97,855	115	205	185	505	489	5,98,849	

TABLE VIII- (concl.)

C--NUMBER OF POULTRY AS PER LIVESTOCK CENSUS OF 1966

Sl. No.	Taluk	Fowls				Ducks				Total		Total Poultry
		Hens	Cocks	Chickens	Total	Ducks	Drakes	Ducklings	Total	Others		
1	2	3	4	5	6	7	8	9	10	11	12	
1.	Tumkur	29,204	10,542	31,683	71,429	205	630	353	1,188	287		72,904
2.	Gubbi	19,685	7,603	17,513	44,801	1	2	34	37	..		44,838
3.	Kunigal	43,805	13,846	64,312	1,21,963	37	81	13	131	..		1,22,094
4.	Tiptur	11,673	5,338	14,136	31,147	69	88	..	157	13		31,317
5.	Chiknayakanahalli.	13,905	6,042	16,677	36,624	240	199	..	439	..		37,063
6.	Turuvokere	20,528	7,341	27,278	55,147	..	..	..	..	8		55,155
7.	Madhugiri	17,108	4,925	19,060	41,093	28	34	1	63	1		41,157
8.	Sirs	21,602	9,830	33,704	65,136	1	2	4	7	..		65,143
9.	Koratagere	13,664	3,868	12,787	30,319	..	18	..	18	..		30,337
10.	Paragada	19,433	8,289	24,056	51,758	185	124	..	309	..		52,067
	Total	2,10,587	77,624	2,61,209	5,49,420	766	1,178	405	2,349	309		5,52,078

Metric Weights and Measures

Length—

- 10 millimetres = 1 centimetre
 100 centimetres = 1 metre
 1,000 metres = 1 kilometre
 1,852 metres = 1 nautical mile (international)

Area—

- 100 square millimetres = 1 square centimetre
 10,000 square centimetres = 1 square metre or centiare
 100 square metres = 1 are
 100 ares = 1 hectare
 100 hectares or 1,000,000 square metres = 1 square kilometre

Volume—

- 1,000,000 cubic centimetres = 1 cubic metre

Capacity—

- 1,000 millilitres = 1 litre
 1,000 litres = 1 kilolitre

°

Weights—

- 1,000 milligrams = 1 gram
 1,000 grams = 1 kilogram
 100 kilograms = 1 quintal
 1,000 kilograms = 1 tonne
 200 milligrams = 1 carat

Conversion Factors

Length—

- 1 inch = 2.54 centimetres
 1 foot = 30.48 centimetres
 1 yard = 91.44 centimetres
 1 mile = 1.61 kilometres
 1 nautical mile (UK) = 1,853.18 metres
 1 nautical mile (international) = 1,852 metres

Volume—

- 1 cubic foot = 0.028 cubic metre

Area—

- 1 square foot = 0.093 square metre
 1 square yard = 0.836 square metre
 1 square mile = 2.59 square kilometres
 1 acre = 0.405 hectare

Capacity—

- 1 gallon (Imperial) = 4.55 litres
 1 seer (80 tolas) = 0.937 litre
 1 Madras measure = 1.77 litres

Temperature—

- T° Fahrenheit = 9/5 (T° centigrade) + 32

Metric Weights and their nearest equivalents in F.P.S. System and in the district of Tumkur							
Sl. No.	Weights in Metric System (1 kg. = 1,000 gms.)		Equivalents in F.P.S. System		Equivalents in the District of Tumkur		
	Kgs.	Gs.	Lbs.	Ozs.	Mds.	Srs.	Tolas
1	50	..	110	3-5/8	4	18	15
2	20	..	44	1-1/2	1	31	11
3	10	..	22	3/4	0	35	17½
4	5	..	11	3/8	0	17	20-3/4
5	2	..	4	6-½	0	7	3½
6	1	..	2	3	0	3	13-3/4
7		500	1	1-3/5	0	1	19
8		200	0	7	0	0	17
9		100	0	3-1/2	0	0	8-1/2
10		50	0	1-3/4	0	0	4-1/3
11		20	0	7/10	0	0	1-3/4
12		10	0	7/20	0	0	17/20
13		5	0	7/40	0	0	2/5
14		2	0	7/100	0	0	1/6
15		1	0	7/200	0	0	1/12

Measures which were in use in Tumkur district and their equivalents					
	Seer	Pav	Chatak	Seer	Millilitre
2 litres	..	1	2	1	1254
1 litre	..	0	3	1/2	625
500 ml	..	0	1½	1/4	312
200 ml	..	0	¾	1/8	156
100 ml	..	0	0	1½	78
50 ml	..	0	0	5/8	40
20 ml	..	0	0	1/4	20

Denominations of litre measures in use		
20 litres	1 litre	50 ml
10 litres	500 ml	20 ml
5 litres	200 ml	
2 litres	100 ml	

Cylindrical-type Aluminium, Brass and Stainless Steel pouring and dipping measures for liquids only.	
G. I. Conical measures for kerosene and motor oils only.	

1 gallon = 4.55 litres
1 litre = 1,000 millilitres

Weights in existence in Tumkur district prior to the introduction of Metric Weights and their equivalents							
Tolas		Grams		Tolas		Grams	
1-1/2	18	13-1/2	158				
3	35	15	175				
4-1/2	53	16-1/2	193				
6	70	18	210				
7-1/2	88	19-1/2	228				
9	105	21	245				
10-1/2	123	22-1/2	263				
12	140	24	280				
Seers	Tolas	Kilo-grams	Grams	Seers	Tolas	Kilo-grams	Grams
1	24	..	280	21	504	5.88	5,880
2	48	..	560	22	528	6.16	6,160
3	72	..	840	23	552	6.44	6,440
4	96	1.12	1,120	24	576	6.72	6,720
5	120	1.40	1,400	25	600	7.00	7,000
6	144	1.68	1,680	26	624	7.28	7,280
7	168	1.96	1,960	27	648	7.56	7,560
8	192	2.24	2,240	28	672	7.84	7,840
9	216	2.52	2,520	29	696	8.12	8,120
10	240	2.80	2,800	30	720	8.40	8,400
11	264	3.08	3,080	31	744	8.68	8,680
12	288	3.36	3,360	32	768	8.96	8,960
13	312	3.64	3,640	33	792	9.24	9,240
14	336	3.92	3,920	34	816	9.52	9,520
15	360	4.20	4,200	35	840	9.80	9,800
16	384	4.48	4,480	36	864	10.08	10,080
17	408	4.76	4,760	37	888	10.36	10,360
18	432	5.04	5,040	38	912	10.64	10,640
19	456	5.32	5,320	39	936	10.92	10,920
20	480	5.60	5,600	40	960	11.20	11,200
Maunds	Seers	Tolas	Kilograms	Grams			
1	40	960	11.2	11,200			
2	80	1,920	22.4	22,400			
3	120	2,880	33.6	33,600			
4	160	3,840	44.8	44,800			
5	200	4,800	56.0	56,000			
6	240	5,760	67.2	67,200			
7	280	6,720	78.4	78,400			
8	320	7,680	89.6	89,600			
9	360	8,640	100.8	1,00,800			
10	400	9,600	112.0	1,12,000			

Source : Office of the Controller of Weights and Measures, Bangalore.

Monetary Conversion Table

Annas	Pies	Paise	Annas	Pies	Paise
0	3	2	8	3	52
0	6	3	8	6	53
0	9	5	8	9	55
1	0	6	9	0	56
1	3	8	9	3	58
1	6	9	9	6	59
1	9	11	9	9	61
2	0	12	10	0	62
2	3	14	10	3	64
2	6	16	10	6	66
2	9	17	10	9	67
3	0	19	11	0	69
3	3	20	11	3	70
3	6	22	11	6	72
3	9	23	11	9	73
4	0	25	12	0	75
4	3	27	12	3	77
4	6	28	12	6	78
4	9	30	12	9	80
5	0	31	13	0	81
5	3	33	13	3	83
5	6	34	13	6	84
5	9	35	13	9	86
6	0	37	14	0	87
6	3	39	14	3	89
6	6	41	14	6	91
6	9	42	14	9	92
7	0	44	15	0	94
7	3	45	15	3	95
7	6	47	15	6	97
7	9	48	15	9	98
8	0	50	16	0	100

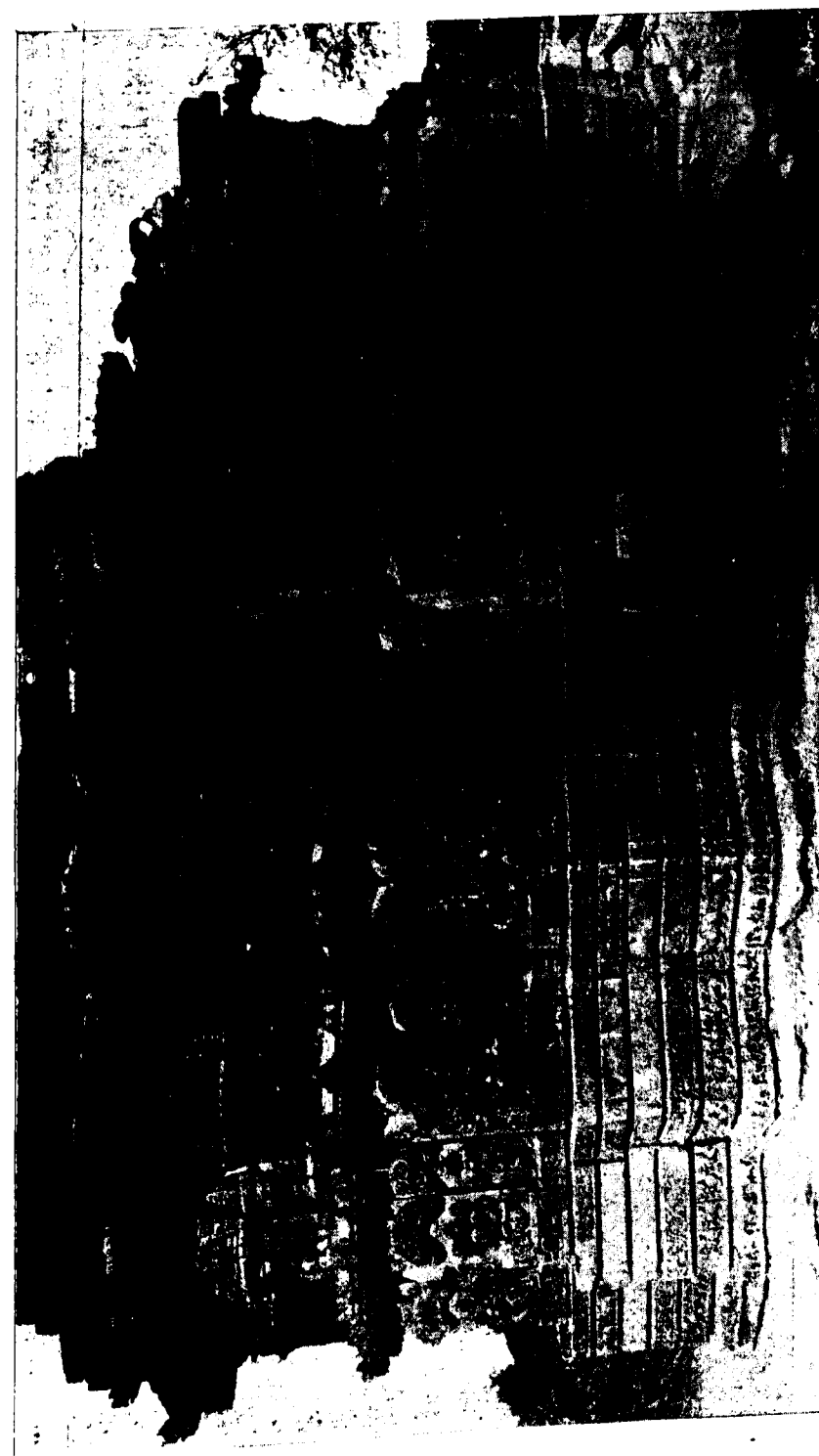
Re. 1=Annas 16=Paise 100. Pies 12=Anna 1=Paise 6.

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(See also Notes on Chapter II)



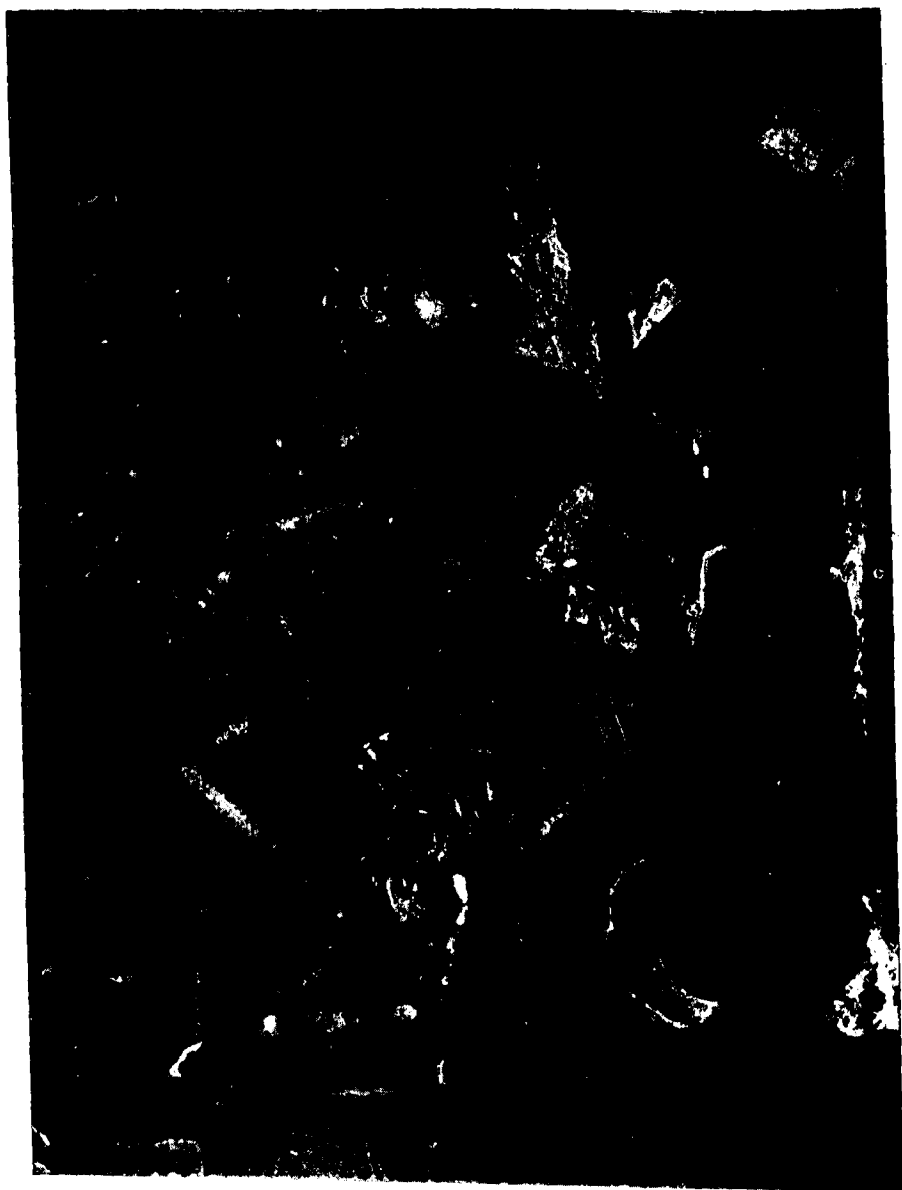
A sectional view of the Kedareshvara temple, Turuvekere taluk, Nagalapura, which is built of soapstone and has finely carved sculptures.
(See pp. 48-49 and 593)



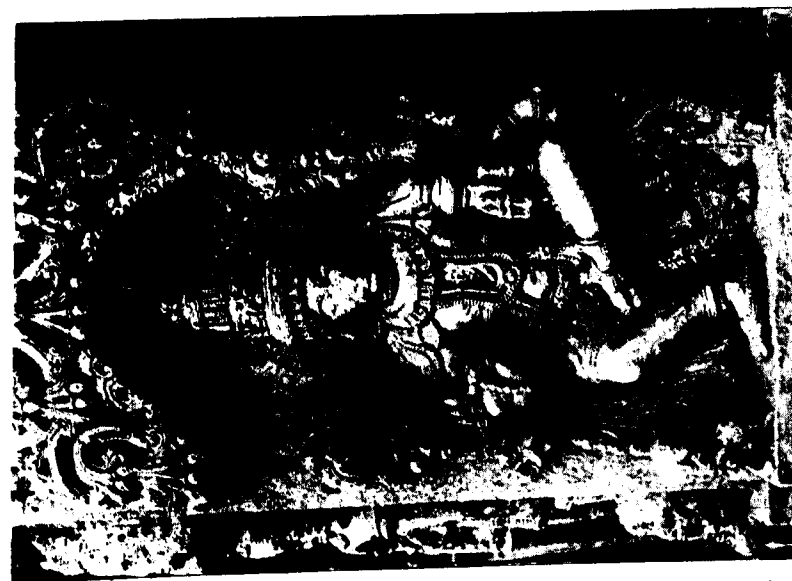
Channakeshava figure of the Channakeshava temple, Kaidala, Tumkur taluk, which is associated with the name of Jakanachari (See pp. 584 and 585).



A view of the central ceiling of the Kalleshvara temple, Aralaguppe, Tiptur taluk, which has elegantly worked figures of Ashta-Dikpalakas, Gandharvas and Tandaveshvara (vide pp. 571 and 572). See also next plate.



A larger picture of Nataraja (Tandaveshvara) carved in the middle of the central ceiling of the Kalleshvara temple, Aralaguppe, Tiptur taluk, already shown in the previous plate.



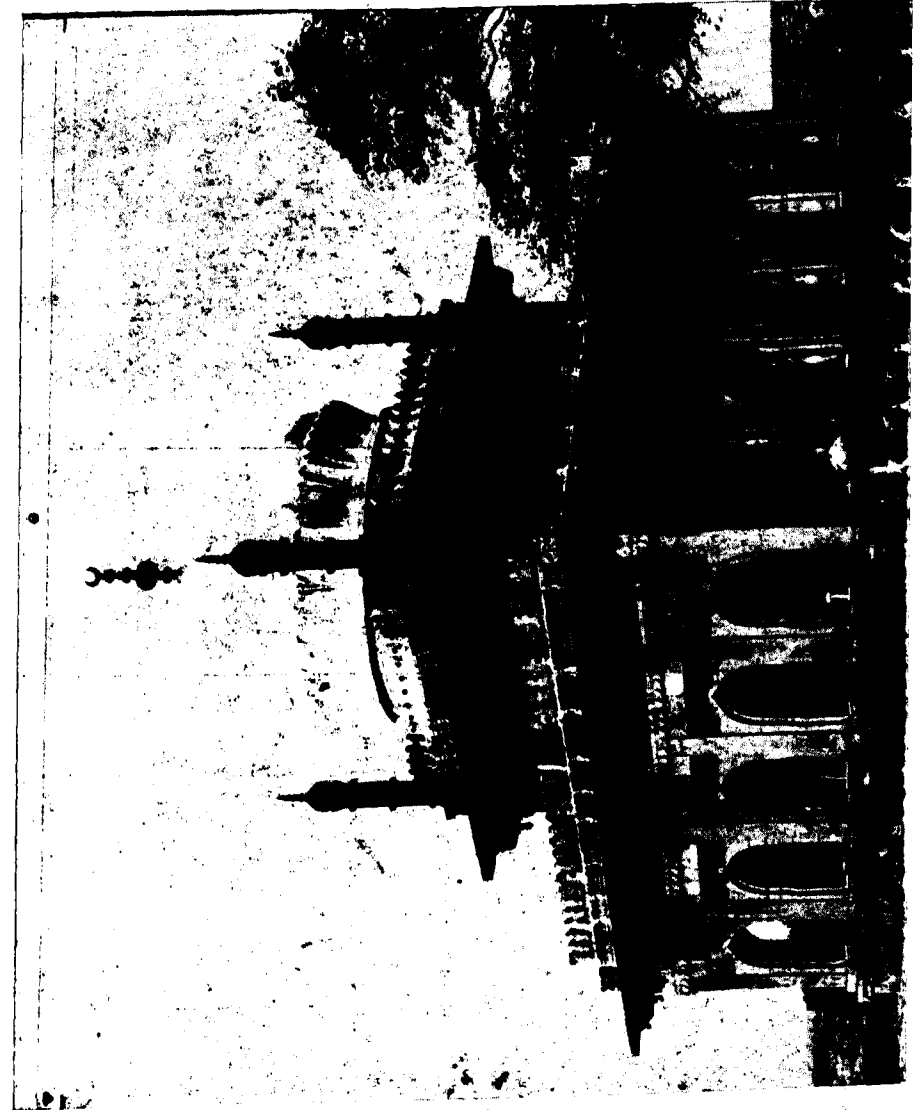
Dancing Vishnu of Channakeshava temple, Aralaguppe, Tiptur taluk (See pp. 51-52 and 571).



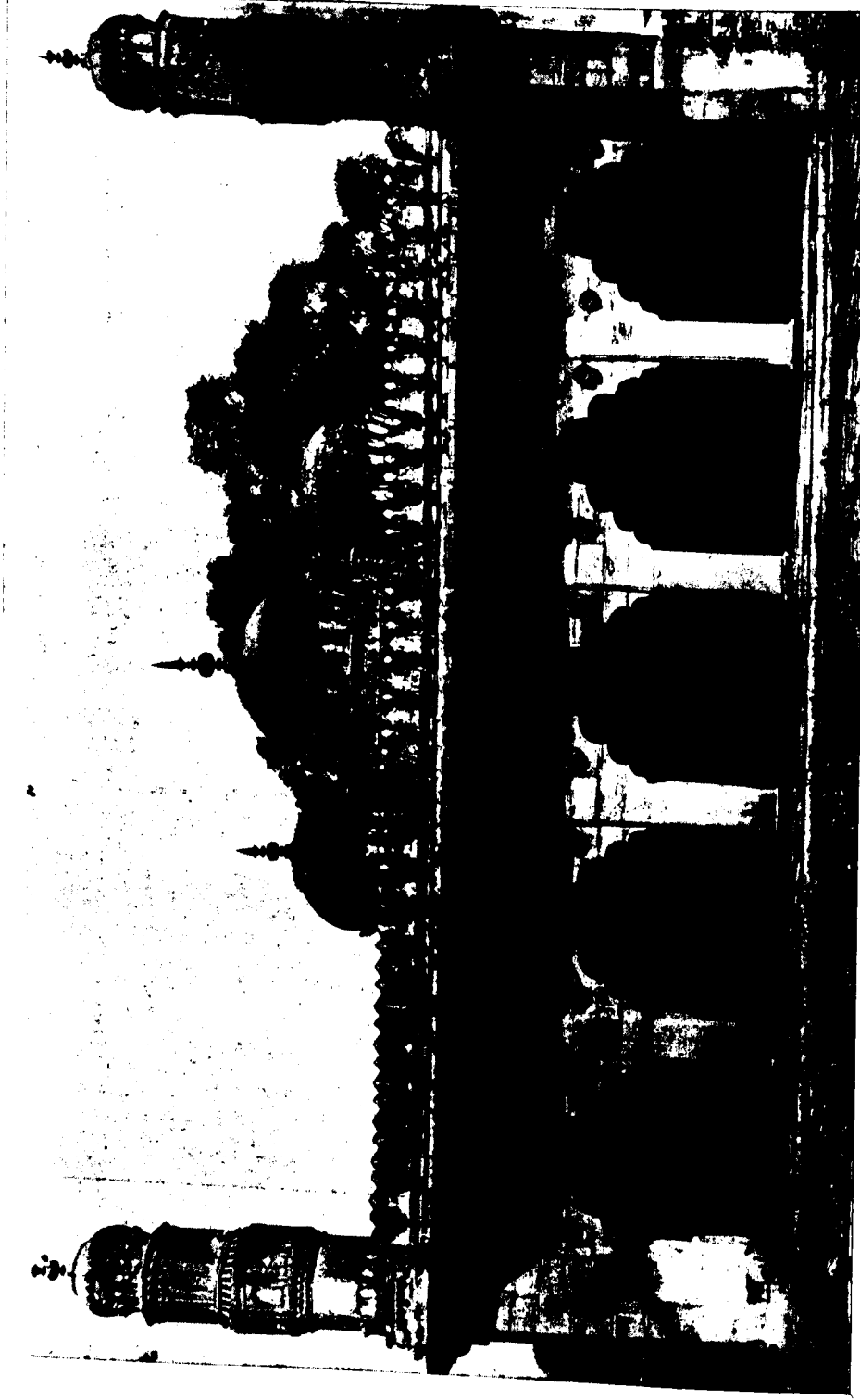
Recently renovated gopura of the Chennabasaveshwara temple, Gubbi (See p. 578).



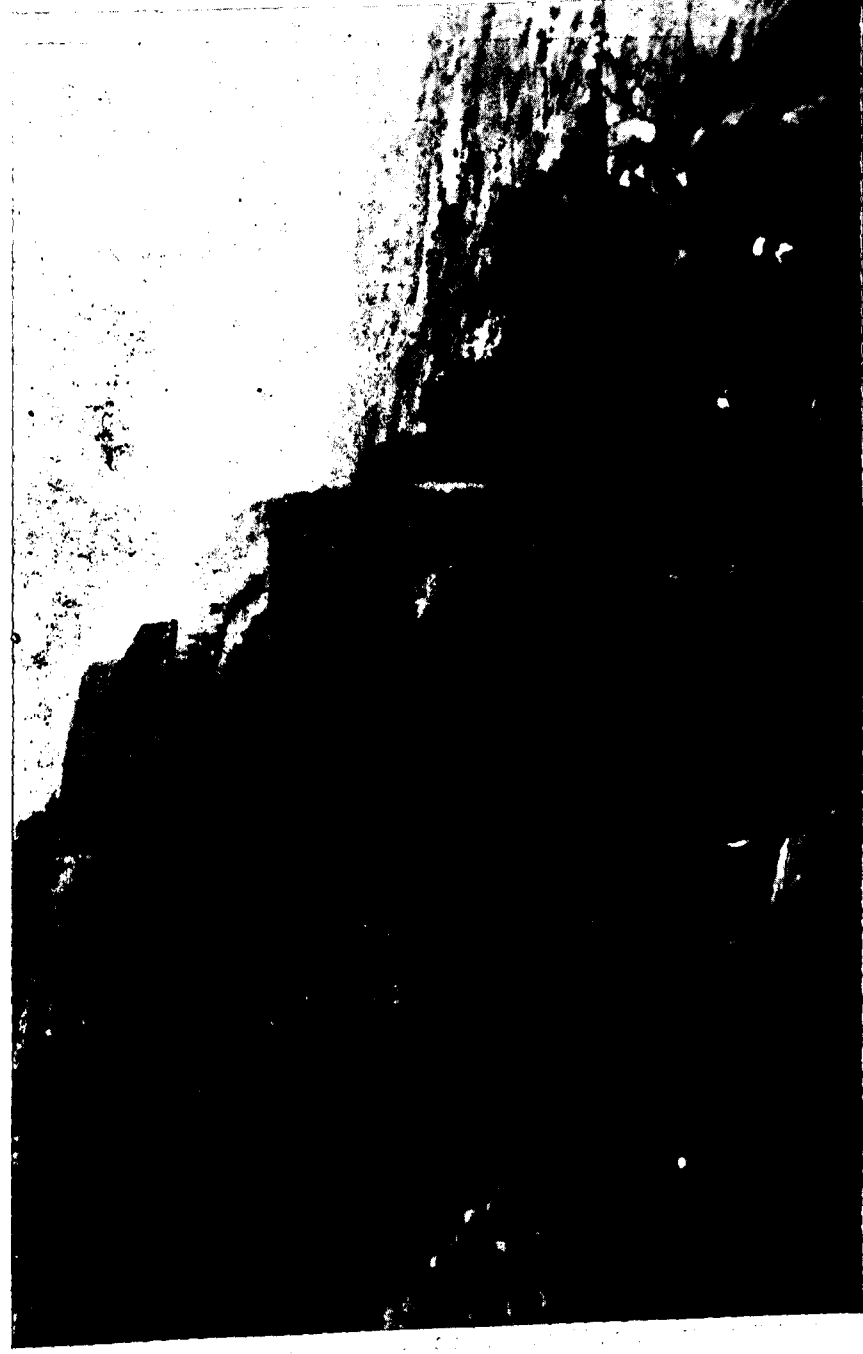
Mahishasuramardini in Lakshminarasimha temple, Vighnasante, Tiptur taluk, fighting a demon ; she is holding a *prayoga-chakra*, a *trishula* and other arms.
(See also pp. 48 and 605)



Malik Rihan Darga, Sira, a pretty structure of the 17th century (See pp. 57-58 and 599).



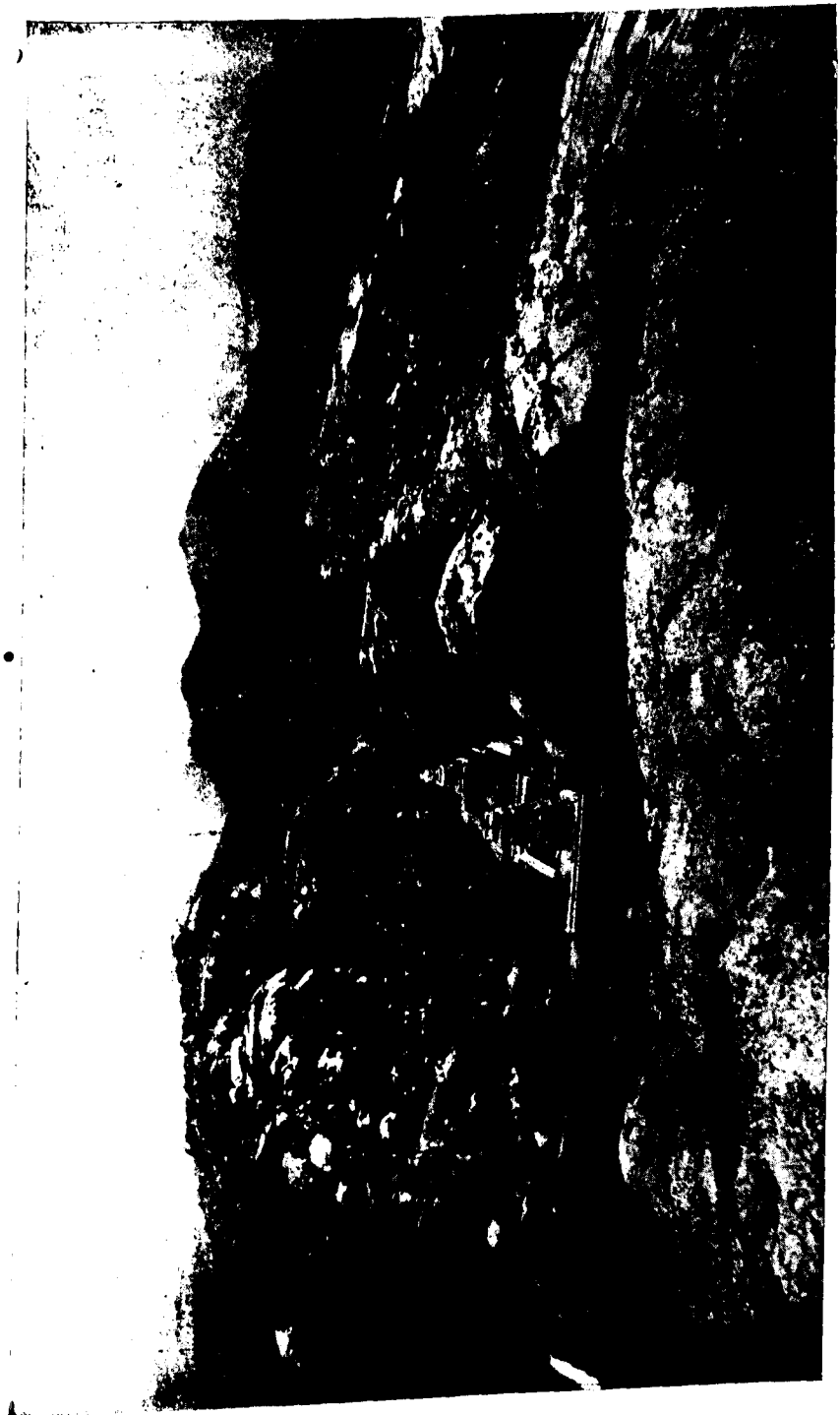
An east view of the Jumma Masjid, Sira, built towards the end of the 17th century (*See* also pp. 57 and 599).



Hill-Fort of Midgeshi, Madhugiri taluk (*See* pp. 53 and 592).



A mural painting done on the ceiling of the Narasimha temple, Seebi, Sirsa taluk (See p. 597).



A general view of the Devarayanadurga hill (3,896 feet) in Tumkur taluk which is being developed as a tourist centre.
(See pp. 8, 10, 55-56 and 575-576)



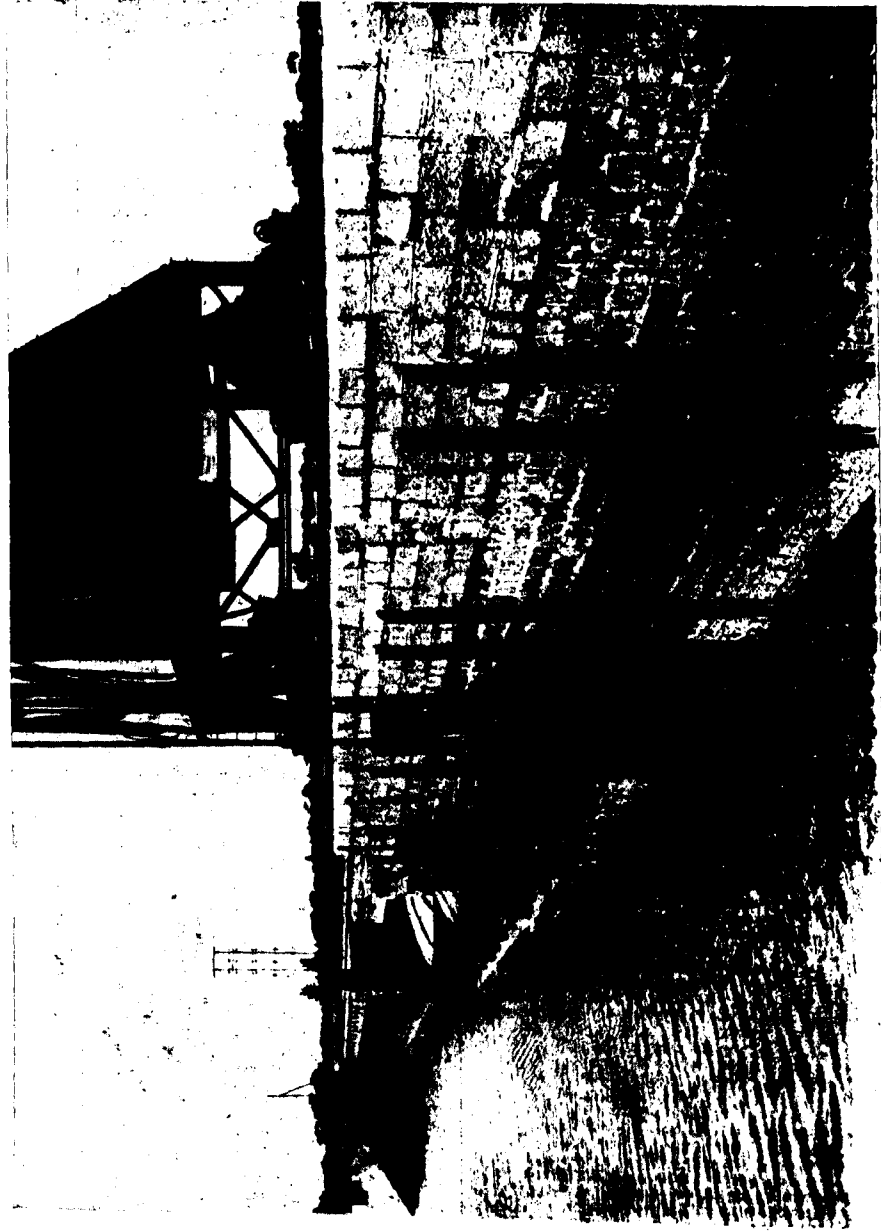
An aerial view of the Siddhaganga Matha in Tumkur taluk (See pp. 497, 563 and 598) which runs several social service and educational institutions.



Front view (entrance) of the Siddhaganga Matha



Kunigal and three other taluks in Tumkur district are reputed for Sericulture. The above picture shows rearing of silk-worms. (See pp. 205-208)



A side view of Marconahalli dam in Kunigal taluk. Constructed in 1839, it is one of the earliest major dams.
(See p. 113)



A sectional view (pre-heater section) of the Cement Factory at Ammasandra, Turuvekere taluk (See pp. 188—191).



An aerial view of Sri Siddhaganga Institute
of Technology at Tumkur (See pp. 494-495).



Front view of the Kalpataru College at Tiptur
(See pp. 492-494).

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33	Penultimate line	Bijjala	Bijjali
35	2	Kakitiyas	Kakatiyas
38	5	assassinated	assassinated
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51	11	Doddadaliavatta	Doddadaleavatta
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53	33	lightening	lightning
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