PREFACE.

This study of Farm and Non-Farm Employment in South Arcot district, sponsored by the Indian Council of Agricultural Research and assisted by a generous grant, was undertaken in 1958. The findings of the study relate to a period just prior to the development of the giant multi-purpose Lignite Project at Neyveli which is expected to spark off a process of rapid and diversified industrialization of the district. The findings of this study thus portray the employment opportunities available in the farm and non-farm sectors of the district when the early phase of the excavation work and the construction of the township in progress have not caused any perceptible dent on the employment pattern of the district. Hence this study, by a lucky accident, can claim to be a bench mark survey of the employment position anterior to the Lignite Project which can be used as a basis of reference in any assessment of the

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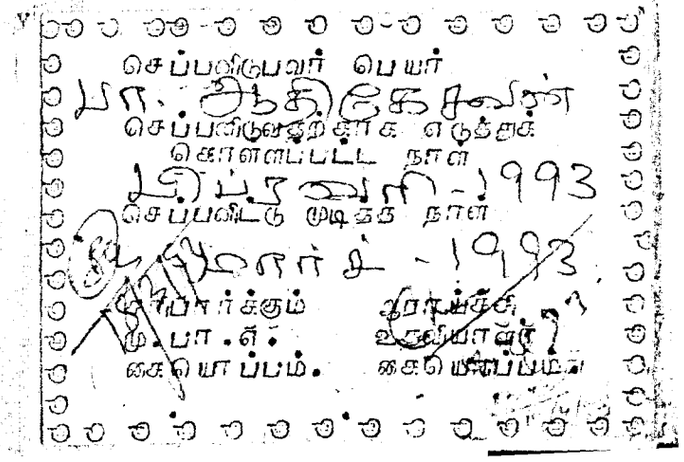

The author is grateful to the Indian Council of Agricultural Research for the generous grant for conducting the survey and to Shri T. M. Narayanaswamy Pillai, M. A., B. L., the Vice-Chancellor whose keen and abiding interest in this survey from the very outset was a source of inspiration and to the authorities of the University, for providing readily and freely all the necessary facilities. To members of the Research Unit the author is greatly indebted for their enthusiastic and sustained cooperation.

ANNAMALAINAGAR. K. S. SONACHALAM.

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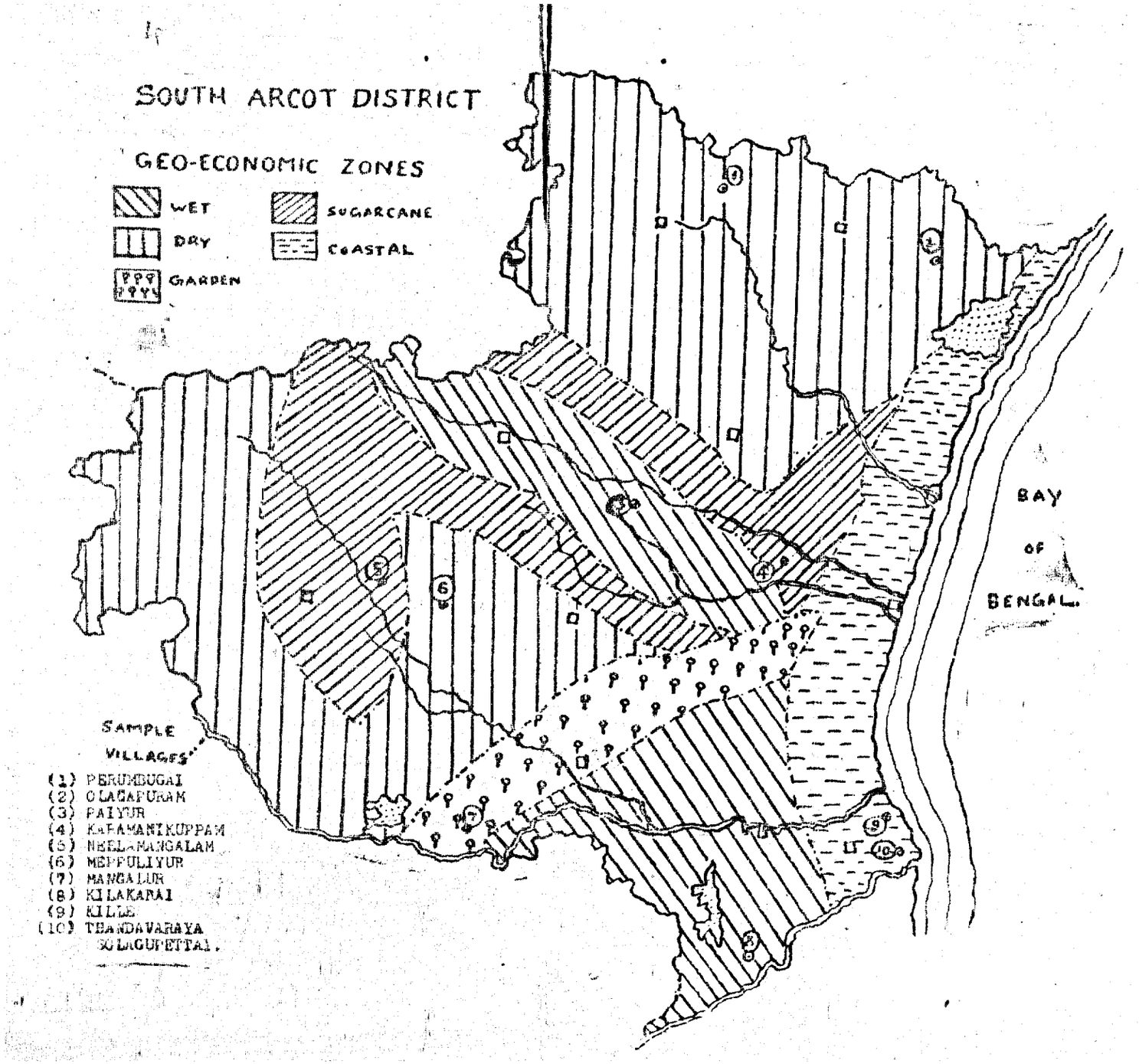
SOUTH ARCOT DISTRICT
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CHAPTER I.
INTRODUCTORY

THE present Pilot Survey of Farm and Non-Farm Employment in South Arcot district is one of the projects, sponsored and financed by the Indian Council of Agricultural Research. It owes its origin to the sanction of financial grant conveyed to this University in their letter No. F. 33 (8)-56 (Stat-1, dated the 22nd January 1957) (Vide Appendix I.) The strength of the Unit sanctioned consisted of one Supervisor, four Economic Investigators and a Clerk-cum-Typist. The Univertity Professor and Head of the Department of Economics was appointed the Officer-in-Charge of the Unit by the Vice-Chancellor. Following the usual procedure of the University regarding appointments, the Supervisor and the Investigators were selected from the list of candidates who had applied for the posts in response to an advertisment in the leading Madras dailies. In view of the *ad hoc* short term appointment, some of the candidates selected in the first round declined the offer, necessitating a second and third round of selections which caused an unexpected delay in securing the full complement of staff. However, by 1st April 1958, the technical staff was in position and the project was initiated. Even before this date the Officer-in-Charge assisted by one Economic Investigator and one Clerk-cum-Typist took up and completed the preliminary operations like the preparation of the schedules and questionnaire, classification of the district into five geo-economic homogeneous strata and the random selection of 10 villages.

ORIENTATION AND TRAINING

1.2 After their appointment, the Supervisor and all the Investigators were given orientation and

training including a visit to Chidambaranathanpettai a hamlet near the University campus to test the questionnaire and to draw up a work-time schedule. All these preliminary operations were completed in a fortnight. The field investigation then commenced and was completed by the end of June 1958. Tabulation and processing of the data took about six weeks and by the middle of August the drafting of the report began and completed by the end of November 1858.

OBJECTIVES OF THE SURVEY

1 3 The main objectives of the present survey may, in broad terms, be listed as follows:

(i) To investigate into the levels of employment in small, medium and large farms in (a) the wet areas; (b) sugarcane region; (c) dry tracts and (d) garden cultivation areas in the district of South Arcot.

(ii) To estimate the levels of employment obtaining among the fisherfolk in the coastal area of this district.

(iii) To assess and institute a comparison of the levels of employment obtaining in (a) three regions and (b) under different scales of farm business.

(iv) To investigate into the employment opportunities available in some important small and village industries in the rural sector of the District.

NATURE AND SCOPE OF THE QUESTIONNAIRE AND SCHEDULES

1.4 This survey is conducted on the basis of three sets of questionnaires and schedules: the first set

(Vide Appendix II) related to the collection of information and data relating to the economy of the selected villages. Provision was made for collection of data relating to land utilization, crop pattern, forest, mineral and livestock wealth, community facilities, prices of important crops and wages of important categories of labour. The second set (App. II) of schedules was prescribed for a census enumeration of the households giving data in respect of occupation, education, economic and employment status, owned or leased land and taxes paid. This comprehensive count is intended to serve as the frame for stratified random sampling of households. The third set of schedules (App. II) related to the crux of the central problems of the present survey. It provided for an intensive investigation of the sample households with schedules necessary for collecting data concerning demographic, migratory, educational, industrial and occupational characteristics, actual employment, availability for work, sources and amount of income and earnings, properties owned and debts owed; this set contained also a specially prepared schedule for enquiry into the number of employed days in each of the 12 months prior to the date of investigation in farm and non-farm occupations.

SAMPLING PROCEDURE

1.5 The district of South Arcot was divided into five strata on the basis of geophysical and economic conditions into (i) wet area; (ii) dry cultivation tract; (iii) sugarcane region; (iv) garden cultivation area; and (v) coastal belt. This does not imply that conditions obtaining in this district are so clear cut as to yield five such mutually exclusive strata with special

traits of their own. At best these strata show a high preponderance of certain specified traits. A comprehensive list of villages in each stratum was prepared and two villages were selected applying random sampling principle. The 10 villages thus selected are shown in the map of the district. (Frontispiece)

1.6 The next stage was the selection of sample households in each village. Using the census enumeration of the households in each village as the frame, a stratification of farm and non-farm households into two classes was then made and from each stratum sample households were selected with probability proportional to the population. The sampling fraction was 1 in 5. However a minimum sample of 25 households was fixed for each village. The total number of sample households thus drawn consisted of 287 households. As the villages were of unequal size the field work was so distributed among the four Investigators as to bring about a fairly equal work load.

1.7 As the schedules were received from the Economic Investigators, they were scrutinized by the Supervisor who also visited the villages for checking up data. Besides, he collected and organised background materials for drafting the report.

1.8 The Department of Economics is grateful for the grant of Rs. 5,000/- sanctioned by the Indian Council of Agricultural Research, without which this survey could not have been conducted. The Officer-in-Charge wishes to acknowledge his indebtedness to the Vice-Chancellor for his kind and abiding interest in the progress of this survey and to the University authorities for all the facilities generously afforded to the efficient functioning of the Unit.

CHAPTER II.

SOUTH ARCOT DISTRICT - DEMOGRAPHIC AND ECONOMIC.

THE metropolitan district of Madras and the recently merged district of Kanyakumari excluded, South Arcot is the second smallest in Madras State with an area of 4,204 square miles. Bounded on the east by a long sandy coastal belt of varying width and about 65 miles length, marked by lagoons and estuaries of rivers, this maritime district is mainly a vast plain gradually sloping from west to east. The Kalrayan Hills rising like a mountain wall separating it from Salem district on the west are the sources of the Uppanar, Manimukthanadi, Gomuga Nadi, the Gingee, the Gadilam rivers running from west to east into the Bay of Bengal. The bleak Gingee hills, reputed for its gigantic boulders with hardly any vegetation serve but to relieve the monotony of the rolling plains in the northern part of the district. Chidambaram taluk in the south is administratively divided from but geographically resembling the deltaic Tanjore district in the south

2.2 Nature has endowed this district with rich soil black regar forming 30%, red ferruginous 67% and arenaceous or sandy 3%. The river valleys and the rich soil have led to a dense growth of population. The district has a density of 660 persons per square mile against 585 for the state (1951 census). This heavy density and the rich soil of the district have cumulatively led to a vast expansion of the net area sown which accounts for 1.3 million acres or 49% of the total extent of the district; of this more than 200,000

acres are double or treble crop land resulting in a gross sown area of more than 1,500,000 acres which is 56% of the total area of the district. Irrigated area is about 5,50,000 acres, the main sources of irrigation being the canals from the Coleroon and other rivers of the district and 3,220 tanks, small and big, of the district which in conjunction with North Arcot shares the popular appellation of "tank" districts.

2.3 South Arcot district is noted for the cultivation of paddy, sugarcane, groundnut and other oil seeds. Next only to Tanjore, the so-called granary of the South, this district has the largest area of nearly 670,000 acres under paddy in Madras State. In sugarcane cultivation this district leads with an area of more than 22,000 acres, as also in groundnut with an area of nearly 400,000 acres: as for the other oil seeds, it ranks fourth.

LIVELIHOOD CLASS – AGRICULTURAL SECTOR

2.4 Population depending upon agriculture is 2.27 millions or 80% of the total population of the district. Of this agricultural population, 1,315,000 or 57% belong to livelihood class I (1951 census) who cultivate wholly or mainly owned land; 242,000 or 11% belong to livelihood class II cultivationg wholly or mainly unowned land, 680,000 or 29% belong to livelihood class IV consisting of non-cultivating and absentee landholders. These figures indicate broadly the agrarian pyramid which has a broad base of small owner-cultivators and a tiny 3% at the apex representing the rentier class.

PATTAS, LAND AND OWNERSHIP

2.5 This wide distribution of land is confirmed by the statistics relating to pattas. The total number of

pattadars is more than 750,000 of whom nearly two-thirds are single and the rest joint pattadars; on the whole roughly one-third of agricultural population are pattadars or landholders. This wide distribution of land, as could be expected, is accompanied by the evil of diminutive uneconomic holdings: more than 610,000 pattadars pay an assessment of Rs 10 or less and only 3,231 pattadars forming less than 0.4% pay more than Rs. 100. The number of medium land holders paying between Rs 10 and Rs. 100 is less than 90,000 or one in every eight pattadars. These features of the agrarian population of the district would indicate that all the cultivators of petty holdings of 2 to 3 acres or those paying Rs. 10 or Rs. 20 would necessarily be poor. Notwithstanding the crop pattern in this district, with its relatively heavy stress on paddy and the most popular cash crops like groundnut and sugarcane the small size does not enable the smaller agriculturists to secure at best more than a net income of Rs. 300 per acre. The dominance of the commercial crops is however a silver lining in an otherwise dismal situation caused by too wide a diffusion of agricultural holdings. Cultivation of sugarcane and garden crops and rotation of oil seeds with millets and others tend to provide more days of employment and relatively higher incomes compared with certain other regions not so well endowed with the rich soil and an annual rainfall of nearly 50 inches.

2.6 Non-agricultural occupations account for about 20% of the total population of whom about 1/3 belongs to livelihood class V, labelled "production other than cultivation". Village and cottage industries in this sector account for more than 170,000

persons. As the largest sugarcane growing area in Madras State, sugar manufacture is an important industry in this district. Although the sugar factory (Messrs. Parry & Co.) at Nellikuppam commands the sugarcane crop in Cuddalore, Villupuram and Tirukoilur taluks most of the sugarcane cultivated in the interior taluks of Gingee, Kallakurichi and Virudhachalam is being turned into jaggery or gur by deshi mills operated as cottage industry. Jaggery making is thus an important cottage industry of the district. Vegetable oils like groundnut, gingelly, *illuppai* and neem are manufactured in country *chekkus* (ghanis) all over the district. Toy making and manufacture of date leaf mats are important cottage industries in several villages. Several favourable factors have contributed to the growth and survival of this industry to-date. Excellent bricks are made from the alluvium of the Ponnaiyar basin in which the brick-making industry is localised. Boat building and rope making are important in the coastal and southern region of this district. Bangle manufacture and brass vessels manufacturing are also extensively seen.

2. 7 Rural employment is in general a function of good monsoons which should yield not only adequate but also evenly distributed rainfall in tune with the traditional agricultural calendar. If such rainfall is conceded, agricultural activities will create maximum opportunities of agricultural employment. Fairly good harvests lead to prosperous conditions in agro-industries like dehusking, decortication, oil pressing and sugarcane crushing The village artisans and craftsmen too would be better off in periods of agricultural prosperity since carpenters, blacksmiths,

potters, brickmakers, masons, basketmakers and mat weavers, ply their respective trades mostly to satisfy the village demand. Different only in degree are those engaged in certain cottage industries like handloom, doll and toy making and oil-pressing which cater more to export than local demand. Even so their prosperity is partly conditioned by prosperous agriculture as most of their raw materials are drawn from agriculture. This shows the basic and central significance of agriculture in the economy of the region.

2. 8 Employment opportunities in agriculture vary with size of holdings, type and number of crops, land tenure and gravitational or lift irrigation facilities. The purpose of the present study is to assess the volume of employment available due to the operation of these variables. It is necessary, for purposes of analysis, to determine the effects of these diverse factors. To this end agriculturists will have to be classified according to the size of their holdings. Distinction will have to be made even here between wet, dry and garden crops. In respect of wet crops further sub-classification will have to be made between paddy and sugarcane cultivation. As the size of a holding is a significant factor in respect of employment potential, the data will have to be specially processed for assessing its effects on levels of employment. Both households cultivating owned and unowned land will have to be classified into large, middle and small farm owners or tenants. In respect of landless labourers, it is necessary to find out whether they are exclusively agricultural labourers or general workers, seeking employment not only in agriculture but also in other spheres like building, quarry, road-

making and well digging. It would be useful to study the nature and volume of employment of both the categories of specific agricultural labour and general village labour. Incidentally the problm of disparities, if any, between the wages paid in agricultural and other occupations need special investigation. This has a wider significance as it affects petty land holders and similar tenants too who are usually insufficiently employed in their farms. Hence the scope of this study needs to be extended to cover both landless labourers and others in the agricultural sector.

2. 9 Agricultural employment, to use the hackneyed description, is seasonal and irregular. This adds to the complexity of investigation. It is essential to collect data relating to the magnitude of employment, actually secured in the various months of the calendar year. A comprehensive approach to study the ebb and flow of employment all through the year involves the stationing of Investigators in selected villages for one full year. The present survey being pilot in character, this kind of approach could not be adopted. Next best is the method of studying the agricultural calendar pertaining to each selected village, consult intelligent and well-informed agriculturists of the place regarding the seasons of the year prior to the date of investigation. With the help of this back ground information they should undertake household investigation and after a careful check enter the data relating to employment. It is this method that was finally adopted in the present survey. The Investigators were specially oriented to do this aspect of investigation with a sense of responsibility and an eye on correctness of the information. Inspite of all these precautions it is quite possible to come across respon-

dents feeble in memory or unwittingly misleading. In such situations the data relating to their holdings could serve as a useful check besides checking up with the neighbours in order to arrive at the truth. Data collected in this fashion, though not so reliable as could be derived from the stationing for a whole year an Economic Investigator, could be broadly trusted to indicate a fairly good appproximition to the real position.

2. 10 In studying non-farm employment also similar difficulties have been anticipated. In regard to each occupation the Investigators first collected background information relating to its fortunes in the previous one year, month by month, before taking up investigation. Some of them like handloom weaving, (except for a few strenuous days) are perennial. The village artisans like carpenter, blacksmith and potter are usually so much condemned to long spells of under employment that any occasion, causing spells of intensive employment are too well remembered to be forgotten at the time of investigation.

CHAPTER III

STRATIFICATION AND SAMPLING OF VILLAGES

UNLIKE Tanjore, notable for its homogeneous geo-economic conditions, almost leading to a district-wide monocultivation of paddy, South Arcot presents a highly heterogenous position, marked by sharp differences in soil, rainfall, irrigation, density of population, land use and crop pattern. On the basis of these differences the district may conveniently be divided into three natural zones, wet, dry and coastal. To these can be added two more zones based entirely on man-made economic conditions: (a) where cultivation of sugarcane has been artificially boosted by one of the largest sugar factories in the south, together with tracts infectiously imitative diverting substantial wet areas to the raising of sugarcane and (b) where water tables are fairly high and human factor sufficiently industrious to tap the sub soil water resources for the cultivation of garden crops; for the present survey, the former has been designated sugarcane zone and the latter garden zone. Thus the district has been carved out into five zones of (i) wet, (ii) drp, (iii) coastal, (iv) sugarcane and (v) garden crop zones. The last two of them are not found as the other three in long stretches of contiguous tracts; they could however be located as distinct islands super-imposed on the three broad natural divisions.

3. 2 The geographical limits and location of the five zones may be broadly indicated (Vide Map frontispiece). The first zone of wet area consists of the entire Chidambaram and a part of Tirukoilur taluks, fed by the rivers Coleroon, Vellar, Manimukthanadi, Ponnaiyar, Gadilam and Malatar, covered by a net work of canals and studded by more than 400 irrigation tanks. The waters of all these rivers are being fully utilized by anicuts and weirs leading to the system of canals of which the most well known is the Khan Saheb canal branching off at Lower Anicut on Coleroon and transforming Chidambaram the southernmost taluk into smiling green paddy fields, scarcely distinguishable from the deltaic region of Tanjore district. The Veeranam lake, the oldest and the biggest, 10 miles long and 3½ miles wide, is certainly a queen among the tanks, with an ayacut of more than 40,000 acres. The tanks in the district generally as elsewhere form into a chain, the surplus water of one feeding the other in this river valley. Nearly four-fifths of the cultivated area of Chidambaram taluk is under paddy. The distributaries from the Tirukoilur anicut across Ponnaiyar provide irrigation to more than 18,000 acres and the tanks to 26,000 acres. Here too paddy is one of the principal crops and sugarcane area is gradually advancing. Even the dry crops like ragi and groundnut raised in rotation secure considerable irrigation facilities. In short, this first zone is one of the richest tracts not only in this district but also in the State.

3. 3 The second zone of dry area consists of the northern taluks of Tindivanam and Gingee and parts of Tirukoilur and Villupuram which do not have perennial source of irrigation but depend on the mercies of the north east monsoon. With the red soil predominating, the principal crops are groundnut, cumbu, cholam and ragi. In this zone lies 57% of the total area under groundnut of the district, 46% of that under ragi and 40% of that under cumbu.

3. 4 The third zone of coastal belt consists of the eastern fringe of Tindivanam, Villupuram, Cuddalore and Chidambaram. Except for the enclaves of the former French territory which fall outside the scope of the present survey, this coastal strip could be classified into two types - (1) lagoons and marshes and (2) sandy tracts. Most of the latter is utilised for casuarina plantations or cashewnut cultivation, neither providing any measure of sustained employment. Most of the villages are inhabited by fishermen who sail in their country craft or catamarans into the sea or catch fresh water fish in the lagoons and back-waters. In coastal towns like Cuddalore and Porto Novo, which had been in the past flourishing sea ports, boat building is still surviving as an important industry.

3. 5 As already noted the fourth zone dominated by sugar cultivation and the fifth by garden crops do not lend themselves so easily as the other three to a definite demarcation of territory. However it may be noted that by far the greatest concentration of sugarcane cultivation occurs in the area around Nellikuppam and in the riverain tract of Kallakurichi taluk in the west. Garden cultivation with wells and lift irrigation using cattle or human power is popular in certain parts of Virudhachalam and Cuddalore taluks enjoying high water tables which in the nearby Neiveli region choke up the lignite.

3. 6 On this broad classification were delimited the five zones and from the comprehensive list of villages prepared for each, two sample villages were randomly selected for the wet, three for the dry, one for the

Table 3.6 SAMPLE VILLAGES - AREA AND POPULATION

Zone	Taluk	Village	Area. sq. miles.	Population	Selected village density per sq. mile.	Density per square mile in the zone.
1. Wet	Chidambaram	Kilakarai	1.03	821	797	
	Tirukoilur	Paiyur	2.92	1,814	621	
		Total	3.95	2,635	667	733
2. Dry (Commercial)	Gingee	Perumbugai	2.25	916	407	
	Tindivanam	Olagapuram	3.55	1,550	436	
	Tirukoilur	Meppuliyur	1.56	661	423	
		Total	7.36	3,127	423	629
3. Garden	Virudhachalam	Mangalur	5.83	2,368	405	559
4. Sugarcane	Kallakurichi	Neelamangalam	2.04	1,777	871	
	Cuddalore	Karamani-kuppam	0.54	1,550	2,870	871
		Total	2.58	3,327	1,330	
5. Fishing	Chidambaram	Thandavraya-solagupet	1.27	766	603	541
	Chidambaram	Killai	1.51	1,189	799	
		Total	2.78	1,955	760	794

Table 3. 8 COMPARISON OF LIVESTOCK IN SAMPLE VILLAGES WITH THE DISTRICT.

Items	Average per village in the whole district. 1951	Average per village in sample villages. 1951	1957
Cows	194	164	160
Bullocks	220	216	204
Calves - Male	124	94	94
„ Female			
Buffaloes - Male	21	18	11
„ Female	40	36	31
„ Young Male	27	18	18
„ „ Female			
Total	629	546	518
Sheep	268	172	220
Goats	187	244	313
Total	455	416	533
Cock, Hen, Chicken	219	160	254
Ducks	6	1	14
Turkey	–	–	–
Others	–	–	–
Asses	2	1	1
Pigs	47	49	61
Others	–	–	–
Total	274	211	330
Ploughs	164	184	195
Ghanis	1	1	2
Sugarcane Press	2	4	5
Carts	81	85	34
Iron ploughs	–	1	1
Boats	–	10	18

garden, two for the sugarcane and two for the fishing zones, as shown in Table 3. 6 opposite.

3. 7 The average density of population in these five zones is shown in the table for comparison. The average density in all the selected villages together of 595 compares favourably with that of the district 660 showing that the sample in this respect reflects the universe. The average density varies from 405 per square mile at Mangalur representing the garden crop zone to 2,870 at Karamanikuppam. The lowest density is in the dry area with 423 per square mile and the heaviest density in the sugarcane area is more than three times as much, the density in fishing villages 1.8 fold and, that of wet area 1.5 fold while that of the garden area, really oasis in the dry tract, records almost the same density as the dry area.

3. 8 A comparsion of the livestock, agricultural implements etc., in the sample vilages with the whole district has been attempted with the data specially collected for the former during the present survey with the data from the Livestock Census of 1951 of Madras Government for the latter. The averages per village have been worked out for the "sample villages" and the district for various categories have been worked out for this purpose in Table 3. 8 opposite. The total cattle population was 629 per village in the district in 1951 but only 518 in the sample villages in 1958. Yet the number of bullocks per village is almost the same for both sample and the district. The total bovine population per village is higher in the sample being 533 compared with 455 for a village in the district. The average number of fowls is 254 in

the sample villages against 219 per village in the district. In respect of ploughs the sample village is better off with 195 on an average against 164 per village in the district. The corresponding figures are 34 and 31 for carts, 5 and 2 for sugar press and 2 and 1 for ghanis. This comparison has its own limitations due to the fact that the district figures relate to 1951, while the figures for sample villages to the current year (1958), leaving a gap of seven years. If the samples are fairly representative as they should be, the present findings show the trends of change for the various categories.

3. 9 The total population in the 10 sample villages is 13,407 which works out to an average of 1340 persons per village. The population of the villages varies from 766 at Thandavarayacholagupet to 2,363 at Mangalur. The average size of the household varies from 4. 1 in the garden crop village to 5. 2 in the dry tract, the other tracts occupying intermediate positions, the wet having 4. 5, the sugarcane area 4. 9 and the fishing village 4. 7. The total net sown area in the sample villages is 8,974 acres. The per capita net sown area varies from zone to zone. It is 30 cents in the fishing, 46 in the sugarcane, 67 in the wet 76 in the dry, and 112 in the garden crop zone. The larger average area in garden crop zone is attributable to two factors: (1) it is only the better class of agriculturists who can afford to sink a well or purchase a garden land and (2) if once a well is sunk an optimum area tends to be cultivated. The per capita irrigated area varies from 12 cents in the garden crop to 57 cents in the wet area. It is 21 cents in sugarcane, 30 in fishing and 34 in dry zone. The very low area in garden zone indicates that gardens cover only a small

fraction of the total sown area in the region; the rest of the entire cultivated area is under dry crops depending on rainfall. The dry area showing 34 cents of per capita irrigated land is due to the existence of numerous tanks even in this zone, in this tank district.

3. 10 With the object of checking up whether the sample villages are representative of the rural areas of the district, statistics relating to land utilization, in the sample villages are compared with those for the whole district. The total gross area under cultivation is 9,638 acres in the sample villages and 1,532,720 in the district. Table 3.10 opposite shows the percentage of the total gross sown area under principal crops in the ten sample villages and the whole district. It may be seen that area under irrigated crops is 40. 5% in the former and 39. 9% in the latter; area under paddy is 34.1% against 29. 7% and the area under sugarcane 2% in both. The area under groundnut, cholam, cumbu and varagu, generally cultivated in rotation, is 48% in the sample villages and 48. 1% in the district. Thus in all the major facets the crop pattern in the sample villages resembles that in the entire district.

CONCLUSION :

3. 11 To sum up the salient features of the sample villages in relation to the district,

(i) South Arcot district has no mountain or submontane tract worthy of notice but its soil conditions and irrigation facilities vary widely.

(ii) For this survey the district has been divided into five zones namely wet, sugarcane, dry, garden

Table 3.10 CROP PATTERN IN THE SAMPLE VILLAGES AND DISTRICT.

Crops	Area		Percentage	
	District	Sample Villages	District	Sample Villages
Paddy I } Paddy II }	443,000	2,661.5 618.0	29.7	34.1
Kelvaragu	3,159	135.4	0.2	1.5
Groundnut	47,887	153.4	3.3	1.6
Sugarcane	29,488	191.7	2.0	2.0
Ragi	58,928	86.1	2.9	0.8
Vegetables, onions, etc.	9 210	30.8	0.7	0.3
Other crops	15,588	26.1	1.1	0.2
Total irrigated crops	612,205	3,904.6	39 9	40.5
Cholam	92,600	1,835 5	6.1	19.2
Cumbu	101,000	536.9	5.6	5.8
Groundnut	398 000	1,350.3	26.2	14.3
Blackgram	11,000	95.9	0.7	0.1
Oil seeds	40,720	330.5	2.6	3.6
Varagu	140 000	965.3	9.2	10-0
Red gram	12,300	99.3	0.8	1.1
Green gram	7,070	61.5	0.4	0.7
Other crops	117,825	444.2	7.5	3.9
Total unirrigated	920,515	5,728.5	60.1	59.5
GRAND TOTAL	1,532,720	9,633.08	100.0	100.0

crop and coastal on the basis of geo-economic considerations.

(iii) in each zone sample villages have been selected on the random sampling principle.

(iv) A comparison of the salient economic traits like density per square mile, cattle population, agricultural implements and crop pattern in sample villages taken together and those of the district shows that although the sampling fraction is rather low due to its pilot character, the sample reflects broadly the conditions in the universe.

CHAPTER IV

THE GENERAL ECONOMIC CHARACTERISTICS OF THE SAMPLE VILLAGES.

IN the preceding chapter, the salient features of the five zones into which the district is divided for the present survey have been broadly indicated. It has also been seen that although this is a pilot survey with a small sample, the sample villages are fairly representative of the different zones, judged by such criteria as density of population, livestock and crop pattern. This study of the district and the sample villages is intended to serve as a background for the consideration of the main issues and an interpretation of the data collected from the sample villages. This chapter is devoted to a general consideration of the demographic, social and economic conditions of the five groups of villages representing the five zones.

4.2 The ten sample villages covered by this survey have 2,856 households of which 586 belong to the villages in the wet, 597 in the dry, 678 in the sugarcane, 582 in the garden crops, and 413 in the coastal zones. The classification of the households according to religion and community is given in the table 4.2, opposite. Among the sample households, 12 are Muslim, 34 Jain and 2,810 Hindu. Among the Hindu households 1,314 belong to the "Backward Hindu", 1,204 to the "Scheduled Castes" and 292 to the "Hindu Advanced". The Backward Hindu households are in a majority in the garden, the wet and the sugarcane zone; they form 33% in the dry tract

Table 4.2 HOUSEHOLDS ACCORDING TO RELIGION AND COMMUNITY.

Religion & Community	Wet	Dry	Garden	Sugarcane	Coastal	TOTAL
Hindu – Advanced	87	16	96	92	1	292
" Backward	306	226	309	328	55	1,314
" Scheduled	190	316	83	268	357	1,204
Muslim – Urdu	—	—	—	—	—	—
" Regional	3	5	4	—	—	12
Christian – Catholic	—	—	—	—	—	—
" protestant	—	—	—	—	—	—
Eurasians	—	—	—	—	—	—
Others	—	34	—	—	—	34
TOTAL ...	586	597	582	678	413	2,856

and about 12% in the coastal zone. The schedule castes form nearly 85% in the coastal zone, about 14% in the garden zone, while in the other zones it varies from one-third to a little more than one-half. The extremely small percentage of Muslim households and the absence of Christian households are mainly due to the extremely small number of sample villages selected for study in the district. According to 1951 census, the percentage of Muslim population was 3.1 only and that of the Christian population still lower at 2.3 and they happen to be concentrated in certain towns and villages and unevenly distributed.

Table 4.3

SIZE OF HOUSEHOLDS

Size	Wet	Dry	Garden	Sugar-cane	Coastal	Total
Small (Upto 3)	117	76	141	112	56	502
Medium (3–5)	281	308	319	345	231	1,475
Large (6–8)	149	152	121	156	105	683
Very Large (9+)	39	61	10	65	21	196
Total	586	597	582	678	413	2,856

SIZE OF HOUSEHOLDS

4.3 In the 1951 census, households have been classified into four categories, (a) small upto 2 members, (b) medium from three to five, (c) large from six to eight, (d) very large-nine members and above.

A classification on these lines of all the households in the five groups of villages (Vide Table 4.3 opposite) shows that the medium households figure prominently with 1,475 households or a little more than 50% of the total, about one-fourth consists of large households, about 7% very large and about 18% small households. There is not any significant deviation from this general distribution of housholds even when each of the five groups of villages is considered separately.

SEX RATIO

4.4 The population in the sample villages has been classified according to sex and under the two broad age groups of adults and children (below 15 years) and the sex ratio worked out as shown in Table 4.4 opposite. Of the total population of 13,407, the number of males is 6,728 and females 6,679. The sex ratio for the total sample population works out to 992. In the adult group there is however a slight excess of female over male population. This holds good in all the zones except the dry tract where against 1,089 male adults there are only 1,005 female adults Sex ratio (taking both adult and children together) is highest in the wet area where it works out to 1053, followed by coastal area with 1,030, sugarcane area, with 1,012, garden crop area with 984 and dry area with 909 females per 1,000 males.

EDUCATION

4.5 In classifying the population according to education distinction was made between the literate and the educated, the latter being defined as those who have passed S. S. L. C. or an equivalent examination. The data analysed and processed for this

Table 4.4 POPULATION ACCORDING TO SEX AND AGE.

Sex and Age	Wet	Dry	Garden	Sugarcane	Coastal	Total
(1) Males-Adults	774	1,089	762	1,082	494	4,301
(2) Males-Children	569	549	429	571	509	2,427
(3) Females-Adults	848	1,005	778	1,133	627	4,361
(4) Females Children	604	484	394	571	565	2,318
Total	2,695	3,127	2,363	3,327	1,955	13,407
Sex Ratio	1,058	909	984	1,012	1,030	992

Table 4.5 POPULATION ACCORDING TO LITERACY.

Literacy	Wet	Dry	Garden	Sugarcane	Coastal	Total
Illiterate	2,119	2,416	1,918	2,567	1,642	10,663
Literate	560	707	444	734	312	2,697
Educated	16	4	—	26	1	47
Total	2,695	3,127	2,363	3,327	1,955	13,407

purpose are tabulated in Table 4.5, opposite. Of the total 13,407 persons in the sample 2,697 or about 20.4% are literates, 47 are educated and the remaining nearly four-fifths are illiterate. Of the 47 educated persons, 16 are in wet area and 26 in sugarcane tract, together making 42.

ECONOMIC STATUS

4.6 The population has been classified into earners and non-earners (Table 4.6 opposite). In the rural sector a considerable percentage of earners even among adults constitute earning dependants. No nice distinction need be made between the earners and earning dependants when the earner himself is gainfully employed usually for 120 or 135 days only in a year, the distinction between these two groups being rather blurred. Of the total male adult population of 4301 there are 4,018 earners; this means that more than 93% are willing to be employed. Of the 4361 female adults, the number recorded is 2,522 or about 57%, showing that nearly 4 out of 6 women are not entering the labour force because of custom, tradition, sickness, maternity and other factors. Of the total number of male children, not even 4% are earners, the corresponding percentage for girls being 1.3. Even among the small percentage of employed and earning children, the numbers employed in the dry tract and the coastal belt are relatively larger than in the other zones.

4.7 Of the total 13,407 persons, 6,658 or 49.6% have been returned as earners. The percentage of earners to population varies in different zones. It is more than 50% in the dry and garden crop areas, a

Table 4.6 EARNERS AND EARNING DEPENDANTS ACCORDING TO AGE AND SEX.

Region.	Males	Females	Boys	Girls	Total.
WET : Total Population	774	848	509	504	2 635
*Earners	747	452	2	—	1,201
DRY : Total Population	1,689	1,005	549	484	8 127
*Earners	1,003	697	44	15	1,762
GARDEN : Total Population	762	776	429	304	2,263
*Earners	666	516	19	5	1,206
SUGARCANE: Total Population	1,082	1 109	501	571	3 927
*Earners	1 031	456	2	6	1,495
COASTAL : Total Population	594	627	369	365	1,955
*Earners	569	571	22	3	964
Total Population	4,801	4,361	2,407	2,318	13,407
*Total Earners	4,013	2,522	89	29	6,658

*Including Earning dependants.

little less than 5% in the wet area, 44.9% in sugarcane and 48.8% in the coastal area.

4.8 The unemployed in the sample population is defined as one who did not have employment for 3 months or more at the time of enquiry. This is indeed a rough and ready approach, because it is highly probable for men in rural parts to get employment for a day or two every month. Hence the definition of the unemployed was made more precise by adding that they should not have got more than 7 days of employment in all the three months ending with the date of investigation. Enquiry based on this kind of definition shows that 372 were unemployed of whom 124 were men and 248 women.

4.9 The enquiry relating to people not at all seeking employment revealed that there were 157 such persons in the sample villages although they had hardly any ostensible means of livelihood. They were able bodied poor and in need of gainful employment, yet due to some perversity they live somehow or other never seeking employment. It was found that 11 out of 20 men and 106 out of 137 women belonging to this category have been found in the wet area, the next important region in this respect is the sugarcane tract. Fertile soil and river valleys seem to turn people into idlers no less at present than in the days of yore.

SIZE AND DISTRIBUTION OF HOLDINGS

4.10 The data relating to the size and distribution of holdings collected with the second set of schedules have been processed keeping the household as the unit of investigation. The size of holdings

including wet and dry lands was divided into six classes and the derived data are shown it Table 4.10 opposite. The number of households owning land was 1,502 or 52.6% of the total households. Of these land owning households more than two-thirds owned three acres and less, 228 or 15.2%, owning 3 to 5 acres, less than 5% from 10 acres to 25 acres and 1% only more than 25 acre holdings. In the wet area holdings of 1 acre or less formed more than 50%, holdings of 1 to 3 acres 33%. In the garden crop tract, 174 out of 404 holdings or 43.0% vary from 1 to 3 acres. In the sugarcane zone too, this size represented the modal point or the largest cluster.

SIZE AND DISTRIBUTION OF THE WET LAND

4.11 Similar classification of the wet land owned by the households has been made (Vide Table 4.11 opposite). The number of households owning wet land is 805 or 28.1% of the total number of households of which 446 or 55.4% consist of small holdings of 1 acre or less and 273 or 33.9 holdings vary from 1 to 3 acres, about 5.7 of the holdings are between 3 and 5 acres and 5.0% of the holdings are 5 acres or more. Only 1 in 400 holdings exceeds 25 acres.

DISTRIBUTION OF DRY LAND

4.12 Separate classification of dry land owned by the households is shown in the Table 4.12, at page 32. The number of households owning dry land is 1,097 or 38.3% of the total number of households. Holdings upto 1 acre and those between 1 and 5 acres constitute roughly 37% each. Holdings between 3 and 5 acres form 22% and those above 5 acres about 12%. Only one in 150 households has more than 25 acres of dry land.

Table 4.10

SIZE AND DISTRIBUTION OF LAND OWNED.

Size	Wet	Dry	Garden	Sugar-cane	Coastal	Total
Upto 1 acre	157	98	33	86	60	434
1 – 3	101	155	174	108	47	585
3 – 5	26	41	86	61	15	228
5 – 10	15	35	78	32	9	169
10 – 25	10	14	31	16	1	72
25 and above	1	6	6	1	—	14
Land owning households	309	349	408	304	122	1,502
Total households for the village	586	597	582	678	413	2,856

Table 4.11

SIZE AND DISTRIBUTION OF WET LAND.

Size	Wet	Dry	Garden	Sugar-cane	Coastal	Total
Upto 1 acre	142	33	78	159	34	446
1 – 3	74	73	38	63	25	273
3 – 5	20	9	5	2	10	46
5 – 10	9	10	1	3	1	24
10 – 25	5	10	1	3	1	14
25 and above	—	1	1	—	—	2
Total	250	130	124	230	71	805
Total Households for the village	586	597	582	678	413	2,856

Table 4. 12

SIZE AND DISTRIBUTION OF DRY LAND.

Size	Wet	Dry	Garden	Sugar-cane	Coastal	Total
Upto 1 acre	72	97	43	122	40	374
1 – 3	53	130	90	57	47	377
3 – 5	8	38	70	101	7	224
5 – 10	4	13	29	37	8	91
10 – 25	1	5	1	17	—	24
25 and above	—	5	2	—	—	7
Total	138	804	219	334	102	1,197
Total households for the village	586	597	582	678	413	2,856

Table 4. 13

SIZE AND DISTRIBUTION OF GARDEN LAND.

Size	Wet	Dry	Garden	Sugar-cane	Coastal	Total
Upto 1 acre	—	7	74	12	—	93
1 — 3	—	14	54	16	—	84
3 — 5	—	2	6	3	—	11
5 — 10	—	1	4	1	—	6
10 — 25	—	2	1	—	—	3
25 and above	—	—	—	—	—	—
Total	—	26	139	32	—	197

GARDEN LAND

4. 13 The characteristic feature of garden land is irrigation by well, which varies in its capacity. Normally in Madras State garden with only one irrigation well is the rule. A few rich ryots deriving their prosperity from garden crops acquife adjacent plots and sink an additional well or two and expand their operation. Even then the area of a garden land does not generally exceed 10 acres. Although in some other districts garden crops usually mean chillies, onions, root crops and citrus, in South Arcot paddy and sugarcane feature prominently. Garden crops in this district do not mean plantation crops. A classification of holding of garden land is shown in table 4.13 opposite. Garden cultivation is obviously superfluous in the wet area with its public irrigation sources and facilities and it is useless in the coastal region due to its sandy soil. This is why the table shows an absence of garden crop land in these two regions. Of the 197 holdings of garden lands occurring in the sample, 139 are located in the garden crop zone itself, 26 in the dry and 32 in the sugarcane tract. Most of the garden lands are extremely small, 93 or 46% are one acre or less in area and 84 or 42% have an area varying from 1 to 3 acres. Only 3 out of the 197 exceed more than 10 acres

ASSESSMENT

4 14 The high preponderance of small uneconomic holdings is again seen from an analysis of data relating to land revenue assessment in the table 4. 14 opposite. A classification of households into six groups on the basis of land revenue assessments is shown. Of the 1,631 pattadars 889 or 58.1% are paying Rs 10 or less, 423 or 27.8% between Rs. 10 and Rs. 30.

Table 4. 14

HOUSEHOLDS ACCORDING TO ASSESSMENT.

Assessment	Wet	Dry	Garden	Sugar-cane	Coastal	Total
Re. 1 & less	—	29	—	63	30	122
Over Re. 1–10	123	218	207	150	69	767
10–30	117	64	136	81	25	423
30–50	27	20	41	19	5	112
50–100	20	11	19	18	2	79
100– +	22	7	5	2	1	37
Total	309	349	408	333	132	1,681

Table 4 . 15

SIZE AND DISTRIBUTION OF CULTIVATED LANDS

Size	Wet	Dry	Garden	Sugar-cane	Coastal	Total
Upto 1 acre	127	221	43	74	46	511
1 — 3	88	177	154	113	69	596
3 — 5	49	36	79	47	17	228
5 — 10	22	35	45	34	9	145
10 — 25	11	12	26	13	1	63
25 and above	1	5	6	1	—	13
Total	293	486	353	282	112	1,526

CULTIVATED LAND–OWNED AND LEASED

4. 15 The data analysed so far relate only to owned land. But the actual farm cultivated by medium and small cultivators includes both owned and leased lands. It is the aggregate area of these two classes of land that would really determine the size of a farm. In the sample of 2,856 households the number of households cultivating lands owned and unowned is 1,526 (Vide Table 4.15 opposite). The percentage of farms with an area of 3 acres or less is nearly 70% and farms above 10 acres about 5%. These figures indicate that the majority of the operting farms are extremely uneconomic even when owned and unowned, wet and dry are clubbed together.

INDUSTRIAL CLASSIFICATION

4. 16 Following the scheme of industrial classification evolved by the Indian Statistical Institute the population in the sample villages has been classified into twelve groups (Vide Table 4.16 opposite). The percentage of households occurring in the agricultural group in all the sample villages is 71.5, followed by 11.1 in "activities not adequately described", 5.9 in distributive service, 2.3 each in "manufacturing-processing textile fibres" and "personal services" 2.3 each "in public services" and "manufacturing metal, engineering", 1.1 in "construction" 0.2 in "mining and quarrying" and 0.1 in "transport and storage".

4. 17 This pattern of distribution according to industry-cum-occupation is not uniform in all the five zones. The percentage of households in the agricultural group varies from 89.1 in the dry to 15.7 in

Table 4.18 NUMBER OF HOUSEHOLDS ACCORDING TO OCCUPATION.

OCCUPATION.	WET		DRY		GARDEN		SUGARCANE		COASTAL		TOTAL	
	Hhs	%	Hhs	%	Hhs	%	Hhs	%	Hhs	%	Hhs	%
0 Agriculture	502	85.5	532	89.1	443	76.0	494	72.8	65	15.7	2036	71.5
1 Mining & quarrying	—	—	5	0.8	—	—	1	0.1	—	—	6	0.2
2 Manufacturing :												
Processing Tex-	2	0.3	12	2.1	3	0.5	43	6.3	—	—	60	2.3
tile, fibres												
3 Leather, Chemicals												
metals	9	1.5	9	1.5	13	2.2	17	2.6	1	0.2	49	1.8
4 Construction	19	3.2	1	0.1	3	0.5	6	0.9	—	—	29	1.1
5 Electricity, gas water	—	—	—	—	—	—	—	—	—	—	—	—
6 Distributive service	16	4.4	4	0.7	61	10.3	25	3.7	31	7.7	146	5.9
7 Transport, Storage	1	0.1	—	—	—	—	4	0.6	—	—	5	0.1
8 Services Public	5	0.9	8	1.3	22	3.8	14	2.1	—	—	49	1.8
9 " Private	2	0.3	2	0.3	2	0.3	45	6.6	1	0.2	52	1.1
X " Personal	10	1.9	17	2.9	25	4.5	13	2.0	1	0 2	66	2.3
Y Activities not adequately described	10	1.9	7	1.2	11	1.9	10	2.3	314	76.0	358	11.1
Total	586	100	597	100	582	100	678	100	413	100	2,856	100

the coastal zone. In respect of "manufacturing, processing textile and fibres", it varies from 6.3 in sugarcane zone to 0.3 in wet area, the dry zone having 2.1 and the garden zone 0.5 and more in the coastal zone. In regard to "distributive service" the garden zone leads with 10.3% of the households, followed by coastal zone with 7.7% and the wet area with 4.4%, sugarcane tract with 3.7 and the dry with 0.7%. The high percentage of "distributive service" in the garden crop area may be attributed to the fact that the sample village is large enough to be reckoned as a town and the number of petty retail traders is relatively high. In the coastal zone where fishing is the most important occupation a relativly larger percentage of households is engaged in selling fish. In the dry zone even petty trade is insignificent, a cluster of hamlets usually depending on a few shops in a nucleus village. In the "construction" group wet area leads with 2.3%, a fairly good index of the higher level of prosperity, with a greater measure of construction activities in or around the villages. The category "activities not adequately described" in the coastal zone is fishing, marine and inland, recording 76% of the population.

SAMPLE HOUSEHOLDS IN SAMPLE VILLAGES

4.18 With the broad consideration of the socio-economic characteristics of the five zones in the foregoing paragraphs to serve as a background we may now turn to a study of the sampling procedure adopted for the selection of households in the sample villages. During the first round of visits, the Investigators filled-in the first and second schedules, the latter furnished a census enumeration of households which served as the frame for drawing the sample households.

Table 4.18 POPULATION AND SAMPLE HOUSEHOLDS – VILLAGE-WISE

Stratum	Name of Village	Total Population	Total Households			Population	%	SAMPLE HOUSEHOLDS. Total households	FARM		NON-FARM	
			Total	Farm	Non-Farm				No.	%	No.	%
1	2	3	4	5	6	7	8	9	10	11	12	13
1. Wet	Kilakarai	821	179	145	34	134	16.3	28	17	11.7	11	8.2
	Paiyur	1,814	407	357	50	99	5.4	25	18	5.0	7	14.0
	Total	2,635	586	502	84	233	8.0	53	35	6.9	18	21.3
2. Dry	Perumbugai	916	180	151	29	120	13.1	26	16	5.9	10	34.5
	Olagapuram	1,550	283	268	15	103	5.5	28	20	7.2	8	53.3
	Mejpuliyur	661	134	113	21	152	23.0	25	15	13.2	10	48.0
	Total	3,027	597	532	65	405	12.1	79	51	9.3	28	43.1
3. Garden	Mangalur	2,393	582	443	139	157	5.8	26	19	4.3	9	7.0
	Neelamangalam	1,777	363	323	40	166	9.3	34	19	5.8	15	30.9
4. Sugarcane	Karaimanikuppam	1,550	315	171	144	158	10.2	29	15	8.9	14	10.0
	Total	3,327	678	494	184	454	14.0	63	34	6.8	29	15.7
5. Coastal	Thandavarayasolangupet	766	157	64	93	159	20.1	34	5	8.0	29	30.0
	Kille	1,189	256	4	252	141	11.9	30	—	—	30	11.0
	Total	1,955	413	65	348	295	16.0	64	5	8.0	59	86.9
	TOTAL	13,407	2856	2036	820	1394	10.4	287	144	7.7	143	17.1

All the households in each village were first stratified into (i) farm and (ii) non-farm households and the former further stratified into three classes of land holders (a) large (b) medium and (c) small according to the size of land owned, (iii) tenants, (iv) landless labourers and (v) rent receivers. The sample households were selected applying the principle of probability proportional to population. The object of the survey being a study of employment levels among farm and non-farm population, it was decided even at the outset to secure a minimum of seven non-farm households from each village. The population and the number of sample households selected in the sample villages are shown in Table 4.18, opposite. Of the 2,856 households in the ten sample villages, 2,036 or 71.3% were farm and 820 or 28.7% non-farm households. The number of sample farm households is 144 or 7.7% of the total. It varies from 7.7% for all the zones, with 6.9% in wet, 9.3% in dry, 4.3% in garden, 6.8% in sugarcane and 8.0% in coastal area. The number of non-farm sample households is 143 or 17.0% of the total. It varies from 17.0% for all the zones with 21.3% in the wet 43.1% in dry, 7.0% in garden, 15.7% in sugarcane, 16.9% in coastal. Together there are 287 sample households or 10% of the total households for which the third set of schedules was used for intensive investigation. The mass of data collected is analysed in the following five chapters, each devoted to one zone. In a subsequent chapter an attempt is made to compare the situation in the five zones.

CONCLUSIONS

(i) The sample villages have 2,856 households of which 2,810 are Hindus, 12 Muslims and 34 Jains.

The absence of Christian, and the low percentage of Muslim households are attributable to (a) their relatively low percentage in the population in the district, (b) their uneven distribution and (c) the necessarily inadequate sample of villages due to the pilot nature of the present survey.

(ii) The backward Hindu communities account for 46% the scheduled castes and tribes 42.1% and the "advanced" Hindu castes 10.2%.

(iii) More than 50% of the households are of medium size (1951 census classification) about 25 large, 18% small and 7% very large.

(iv) The total population in the same is 13,407 and the sex ratio works out to 992. However in the adult group the sex ratio is 1,014 It varies from zone to zone, the wet zone having the highest female population of 1,053 per 1000 males and the dry zone the lowest of 909.

(v) The average size of the household in the 10 sample villages together is 4.8.

(vi) Of the population in the sample villages only 47 are S. S. L. C. or above and only 1 in 5 literate.

(vii) Of the 4,301 male adults, 4,018 or 93% are in the labour force and of the 4,361 women, 2,522 or only 57%.

(viii) Of the total population in the 10 villages, 49.6% have reported themselves as earners. It means

that they are available for gainful employment and does not mean that they are fully employed.

(ix) Of the labour force, 372 persons – 124 men and 248 women – were unemployed in the sense that they did not have work for more than 7 days in the quarter preceding the date of investigation.

(x) Of the population, 157 persons – 20 men and 137 women do not seek employment although they do not have any means of livelihood. They are the chronic idlers, but they form only about ¼% of the labour force.

(xi) The percentage of households owning lands is 52. 6 of which two-thirds own less than 3 acres 1 in 16, one acre or less, 1 in 20, ten to twentyfive acres and 1 in 100 more than twentyfive acres.

(xii) In the case of wet lands, the percentage of small holdings of 1 acre or less is 55. 4 and 1 in 400 is "large" holding of more than 25 acres. As for dry lands, the very small holdings of 1 acre or less accounts for 38% and 1 in 250 is a large holding of 25 acres or more.

(xiii) Garden lands vary in size, 46% are one acre or less, 42% three to five acres. Of the 197 gardens occurring in the sample villages, only 3 exceed 10 acres.

(xiv) Among the 1,531 land owning households, 58% pay a land revenue of Rs. 10 or less, 27. 6% between Rs. 10 and Rs. 30.

(xv) Including tenants cultivating un-owned lands and cultivating owners cultivating owned as well as leased lands, the total number of agricultural households is 1,536 out of 2,856 households. 70% of them cultivate farms of 3 acres or less, owned and leased together.

(xvi) Industrially classified, 71. 5% of the population is engaged in or dependant on agriculture. 5. 9% in distributive service, 2. 3% in manufacturing - processing, textile fibres, as well as in "Personal Services", 2. 8% in "Public Service" as well as "manufacturing – metal and engineering", 1. 1% in construction and 0. 1% in "Transport and Storage".

(xvii) The number of sample farm households is 144 or 7.7% of the total in the sample villages. The number of non-farm sample households is 144 or 17%. Together the number of sample houleholds is 287 which is approximately 10% of the households in the sample villages.

CHAPTER V

(1) WET ZONE.

IN the two sample villages of Kilakarai and Paiyur selected for investigation in the wet area the total number of households is 586 of which 502 are farm and 84 non-farm households. The number of sample households was 53 of which 35 or 66. 0% were farm and 18 or 34% non-farm. The population is 144 in the sample farm and 89 in non-farm households. The average size of a houshould is 4. 1 in the farm group, 4. 9 in the non-farm group and 4. 4 in both groups together.

5. 2 A classification of the households into 5 categories based on degree of relationship of members has been made on the following basis:– Of the 35 farm households, 24 belong to I digree, 6 to II, 4 to III and 1 to IV. Of the 18 non-farm households 10 belong to I, 3 to II, 4 to III, 1 to IV degree households. Please refer Appendix III for definition. The absence of V degree households and the preponderance of the I degree households consisting of husband, wife and unmarried children only indicate that the traditional large joint family is rapidly disintegrating even in villages.

5. 3 Classified according to marital status, of the 144 persons in the farm households 57 are not married, 73 married 12 widowed and 2 (women) have reported "separated". Out of the 89 persons in the non-farm

households 45 are not married, 35 married and 9 widowed. In the widowed group belonging to both farm and non-farm households, there are 19 females against 2 males, a rather high incidence of widowhood on women.

5. 4 The general level of literacy as shown earlier is pretty low in the villages with 19. 5% literates in the whole village. As for technical education, investigation into the sample households shows that technical personnel in modern sense with special qualifications are absent but there are 8 masons and one carpenter who have had training and experience in their respective crafts.

ECONOMIC STATUS

5. 5 Of the 233 individuals in all the 53 sample households, 81 are earners, 10 earning dependants, and 142 non-earning dependants. Approximately there is one earner for every three of the population. The earning dependants form about 5%. In the farm households there is one female earner for every 4 male earners, the corresponding ratio for non-farm households is 1: 6. Among the 11 earning dependants in farm households, 10 are women and of the 2 earning dependants in the non-farm households one is male and the other female. These figures show the greater opportunities in the farm occupations for earning dependants.

EMPLOYMENT STATUS

5. 6 Of the 44 male and 18 female earners and earning dependants in the farm households, 20 men and 4 women are own account workers, 17 men and 14

women are employees. Of the 24 male earners in the non-farm households, 4 are own account workers and 20 are employees and among the five women earners, 1 is own account worker (petty shop) and 4 employees. In the farm sector, own account workers are independant farmers or tenants who are mostly self-employed, in the other case, the smaller ryots and tenants styled own account workers, work also for wages for others. Of these 91 economically active of both sexes in the sample households, only one is a non-cultivating owner who may be classified as a rentier.

5. 7 Of the 62 earners in the farm households 21 are cultivators of land wholly or mainly owned, 10 tenants and 30 agricultural labourers and one rent receiver. Of the 29 earners in the non-farm households the main occupation is reported as agricultural labour for 2 (this is possible because a non-farm household is defined as one in which the head of the household is a non-farm worker) trade for 4 the other 22 being masons and carpenters. In these villages non-farm households are mostly artisans and craftsmen, the traditional cottage industries being conspicuously absent. The non-farm households mainly depend on construction industries as the village is not providing adequate employment opportunities for them, they go to nearby towns for employment.

EMPLOYMENT

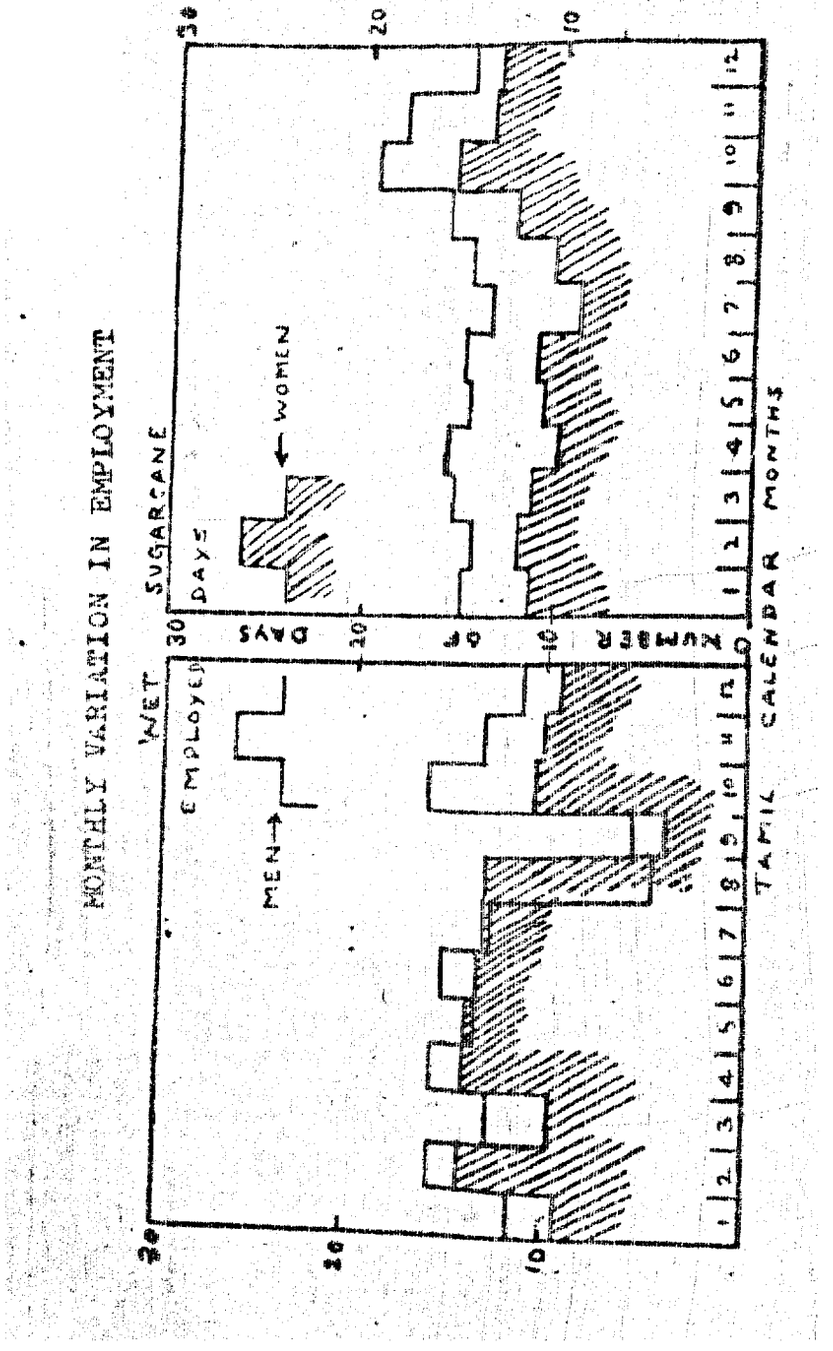
5. 8 Comprehensive month-to-month employment data for the 43 male and 19 female earners in the farm households were collected and analysed as shown in the table 5. 8 The average number of

Table 5 . 8

VARIATION IN THE NUMBER OF DAYS EMPLOYED IN EACH MONTH.

Month Tamil	MEN			WOMEN		
	Number who had work.	Number of days	Average No. of days p.m.	Number who had work	Number of days.	Average No. of days p.m.
Chithirai	33	398	12.0	6	59	9.8
Vaikasi	27	415	15.3	7	100	14.2
Ani	43	560	13.0	18	279	9.9
Adi	43	683	15.8	19	266	14.0
Avani	40	543	13 6	17	240	14.1
Puratasi	38	577	15.2	19	260	13.7
Arpasi	42	533	12.7	19	259	13 6
Karthikai	16	74	4.6	7	95	13.5
Margali	9	53	5 9	3	13	4.3
Thai	43	699	16 2	19	205	10 7
Masi	40	521	13.2	16	168	10.5
Panguni	41	474	11.5	11	109	9.9
For the year	43	5,583	129.1	19	1 944	102 1

days of employment per worker works out to 129 for women and 102 for women in the year preceding the date of investigation. This would mean on an average per worker per month about 10 days for man and 8½ days for woman worker. This rate of employment per month is however not uniformly spread



throughout the year. The lean months for employment appear to be Karthigai and Margali in the Tamil calendar corresponding to the period between November 15th to January 14th. The average number of working days varies from 4. 6 in Karthigai and 5. 9 in Margali to 15. 8 in Adi (July 15th to August 14th) and 16. 2 in Thai (January 15th to February 14th) for men. For women Margali provides the lowest employment in which the average number of working days is 4. 3 while vaikasi, Adi and Avani give them 14 days each of employment. The monthly variation in employment for men and women workers is shown in the diagram opposite.

Table 5 . 9

EMPLOYMENT ACCORDING TO SIZE OF FARMS.

Size of Farms.	Number of Farms.	Average Number of days of employment to cultivating owners or tenants.
Upto 3 acres	16	120.3
3 to 5 acres	3	120.0
5 to 11 aeres	2	147.5
10 to 25 acres	2	132.0
Total	23	129 4
Landless Labourers	24	144.8

5. 9 It is commonly believed that the smaller the size of the farm the less is employment; volume of employment is a function of the size of farms. In the

present survey this hypothesis has been tested by classifying the earners who are landholders into 4 convenient groups according to the size of their farms as follows. Very small farmers owning upto 3 acres; small ones from 3-5 acres, medium farmers from 5 to 10 acres and larger ones from 10 to 25 acres. Of the 44 men workers in the sample, 16 have small farms of 3 acres or less, 9 farms between 3 and 5 acres 2 medium farms of 5 to 10 acres, 2 larger farms between 10 and 25 acres and the rest have no land. The very small and small farmers have an average number of 120 employed days in a year per worker. The medium farmer has 147. 5 and the larger 132. The peak level employment is seen in the households owning farms of 5 to 10 acres. The decline from that peak in employed days in the large farm is probably due to the owner-cultivators attending less to manual work and still less inclined to work for wage in places other than their farms.

CONCLUSIONS

(i) From the foregoing analysis emerge the following conclusions:— The number of sample households in the two sample villages is 53 of which 35 are farm households and 18 non-farm households. The average size of a household is 4. 1 in the farm group 4. 9 in the non-farm group and 4. 4 in both groups.

(ii) 24 out of 35 farm households belong to the I degree, they are the so called natural families.

(iii) Of the sample population of 233 persons in the 53 sample households 118 are married.

(iv) Approximately there is one earner for every three of the population.

(v) Out of 144 persons in the farm households 26 men and 4 women are own account workers or roughly one-in-five. 17 men and 14 women are employees, again roughly one-in-five.

(vi) Of the 62 earners in the farm households 21 are owner cultivators, 10 tenants, 30 landless and 1 rent receiver. Of the 29 earners in the non-farm households, 22 are artisans, 4 traders and two agricultural labourers.

(vii) The average number of days of employment per worker in the farm household is 129 for men and 102 for women in the year preceding the date of investigation; per month this works out to 10 days per man and 8 days per woman.

(viii) The number of employed days varies with size of farms for owner-cultivators and tenants. It reaches a peak of 147. 5 days for medium farms (5 to 10 acres) declining to 120 days for smaller farms and recording 132 days for large farms (10 to 25 acres). Landless labourers have an average of 144. 8 working days. All this relates to man workers.

CHAPTER VI:

(2) DRY ZONE.

THE total number of households in the three sample villages of Perumbugai, Olagapuram and Meppuliyur selected for investigation in the dry area is 597 of which 532 are farm and 65 non-farm. The number of sample households is 79 of which 51 farm and 28 non-farm. The population is 250 in the sample farm and 155 in the non-farm households. The average size of a household is 4. 9 in the farm 5. 5 in non-farm and 5. 2 in both the groups.

6. 2 A classification of the households into five groups based on degree of relationship of members shows that of the 51 farm households, 28 belong to I degree, 6 to II degree, 13 to III degree, and 4 to IV degree. Of the 28 non-farm households, 16 belong to I degree, 5 to II degree, 5 to III degree, and 2 to IV degree. The absence of V degree household in this sample for the dry tract and the preponderance of I degree households or 'natural" families confirm the rapid disintegration of the traditional large - sized joint families, already observed in wet area.

6. 3 The sample population has been classified according to marital status; out of 250 persons in the farm households, 112 are not-married, 121 married. 16 widowed and 1 woman has reported "separated". Of the 155 persons in the non-farm households, 70 are not married, 75 married and 11 are widowed. The widowed group consists of 24 females and 2 men in both farm and non-farm households, once again an indication of a high incidence of widowhood on women.

6. 4 The general level of literacy as shown in the entire villages earlier is pretty low in these three villages, 22. 7% being literate. In the sample households investigation has revealed that non-agricultural workers consist of a mason, carpenter, a blacksmith and a goldsmith all engaged in the traditional village crafts.

ECONOMIC STATUS

6. 5 In three sample villages, 79 sample households have been selected, having a population of 405 persons of whom 189 are earners, 3 earning dependants and 213 non-earning dependants. It is remarkable that half the population are earners. In the farm households the ratio of female earner to male earner is 1:2 and in the non-farm households 1: 2. 5. The number of earning dependents is three of whom two are men in the farm group and the other a woman in the non-form group

EMPLOYMENT STATUS

6. 6 Of the 72 male earners (including earning dependants) in the farm households, 50 are "own account workers" and 21 employees and one rentier. The corresponding figures for the 52 women are 18 and 34. Of the 50 male earners in the non-farm households 10 are "own account workers" and 40 employees and among the women earners, 3 are "own account workers" and 15 employees. In the farm sector the own account workers are independant farmers or tenants, mostly self-employed while in the non-farm group most of them work for wages. It may be noted that among the 215 economically active persons in the sample households one man belongs to the category of rentier class.

6. 7 Of the 124 earners in the farm households, 42 are cultivators of land wholly or mainly owned, 26 tenants and 55 landless labourers and one rentier. The non-farm households have 71 earners of whom agricultural labour is the main occupation of 20, trade of 6, masonry, carpentry, blacksmithy and other crafts of the remaining 45 persons. It may be seen that earners from non-farm households seek employment in the farm sector, such is the parlous condition of village industries and crafts. In these villages non-farm households consist mostly of artisans, and the traditional village industries like pot making occur in an insignificant proportion.

6. 8 A comprehensive month-to-month employment data for the 91 men and 52 women earners in the farm households were collected and analysed as shown in table 6. 8 opposite. The average number of days of employment was 118. 9 for male earner and 84. 9 for female earner in the year preceding the date of investigation. This works out to about 9 days per month on an average for male worker and 7 days for woman worker. The variation in month-to-month employment is not so sharp as in the other zones. The month of "Thai" according to the Tamil calendar corresponding to January 15 to February 15 shows highest employment level, the average number of days of employment for the male worker being 15. 7 and for the female worker 12. 2. The lowest employment is seen in Chittirai and Vaikasi, corresponding to April 15th to June 14, the hottest months in this region, when the average number of working days for men is 7. 9 and 8. 7 respectively. In this tract, cultivation of

millets begins rather late in the middle of October after the coming of the North East monsoon. Hence in the months of Puratasi and Arpasi, the number of days of employment are the highest in this zone compared with the other zones. For women the worst months are Masi and Panguni i. e. February 15 to April 14 – with 6. 5 and 7. 5 days of employment – while in Avani, August 15 to September 14, and Thai, January 15 to February 14, they get 11 and 12 days of employment (Vide Table 6. 8 below).

Table 6 . 8

VARIATION IN THE NUMBER OF DAYS EMPLOYED IN EACH MONTH.

MONTH -TAMIL	MEN			WOMEN		
	Number.	Days.	Average.	Number.	Days.	Tverage.
Chithirai	58	515	8.7	20	172	8.6
Vaikasi	78	622	7.9	25	183	7.3
Ani	84	1,074	12.7	31	322	10.4
Adi	88	1,100	12.6	43	359	8.3
Avani	85	1 045	12 3	47	547	11.6
Puratasi	75	834	11.1	42	452	10.8
Arpasi	67	828	12.3	43	446	10.4
Karthikai	70	839	11.9	39	407	10.4
Margali	63	891	14 1	36	365	10.2
Thai	82	1,291	15.7	40	489	12.2
Masi	62	780	12.7	42	317	7.5
Panguni	34	352	10.3	17	112	6.5
For the year	91	10,186	111.9	52	4,373	84.9

6. 9 With the data collected a special correlation analysis has been made between the size of farm and number of employed days per year (Table 6. 9.)

Table 6 . 9

EMPLOYMENT ACCORDING TO SIZE OF FARMS.

Size of Farms.	Number of Farms.	Average Number of days of employment to cultivating owners or tenants.
Upto 3 acres	21	81.9
3 to 5 acres	9	115.0
5 to 10 acres	10	161.9
10 to 25 acres	10	118.7
25 and above	–	–
Total	50	111.2
Landless Labourers	41	128.3

Of the 92 men workers in the sample, 21 have "very small" farms of 3 acres or less, 9 "small" farms of 3 to 5 acres, 10 "medium" farms of 5 to 10 acres, 10 "large" farms of 10 to 25 acres while the rest are landless, These are the four classes of farms distinguished for this analysis. The very small farmers have an average of 82 days of work in a year, the small farms provide 115 days, the big farms 119 days and the peak employment is seen in the medium farms providing an average of 162 days of work in a year.

CONCLUSION

(i) The dry zone has three sample villages with 597 households. The sample consists of 79 households of which 51 are farm and 28 non–farm. The average size of household is 4. 9 in the sample farm, 5. 5 in the sample of non-farm and 5. 2 in both samples together. Of the 79 households, 44 belong to I or natural families.

(ii) Of the total sample population of 405, 196 are married and 10 widowed.

(iii) 212 persons or more than 50% are earners. In the farm households, 50 out of 72 male earners are own account workers, 21 employees and 1 rentier. In the non–farm households 10 out of 50 male earners are own account workers.

(iv) Of the 144 earnars in the farm group, 42 are owner cultivators, 26 tenants, 75 landless labourers and 1 rentier. Of the 71 earners in the non-farm group 6 are traders 45 artisans and 20 agricultural labourers.

(v) The average number of days of employment was 112 for male earners and 85 for female earners in the farm group in the year preceding the date of investigation. Per worker this works out to an average of 9 days for male worker and 7 days for female worker.

(vi) The number of employed days among owner cultivator and tenants reaches a peak of 162 days in a year, for medium farm operators; declining to 82 for very small farms, it is 115 for small farm (3–5 acres) and 118 or 119 for large farms (10–25 acres). Landless labourers have an average of 128 employed days.

CHAPTER VII.

(3) GARDEN ZONE.

HOUSEHOLDS

MANGALUR is the only sample village selected for investigation in the "garden crop area"; the total number of households in this village is 582 of which 443 are farm and 139 non-farm. The number of sample households selected is 28 of which 19 are farm and 9 non-farm, the ratio being roughly 2: 1. The population is 83 in the sample farm households and 54 in non-farm households. The average size of a household is 4. 3 for the farm 6. 0 for non-farm and 4 9 for both groups of householes.

DEGREE OF HOUSEHOLDS

7. 2 A classification of the households into 5 categories based on degree of relationship of members shows that of the 19 farm households, 13 belong to I, 1 to II, 4 to III, and 1 to IV degree. In this zone also there is the absence of V degree households and the preponderance of I degree households. Among the nine-farm households, 5 belong to I, 1 to II, 3 to III degree households.

MARITAL STATUS

7. 3 Of the 83 persons in the farm households, 33 are not married, 39 married, 7 widowed and 4 women have reported "separated". Of the 54 persons in the non-farm households, 27 are not married, 23 married, 3 widowed and 1 reported as "separated".

7. 4 As stated earlier the general level of literacy in the village is 23. 1%. In the 9 sample non-farm households there are 2 blacksmiths, 2 carpenters and one mason. The other heads of households are engaged in retail trade.

ECONOMIC STATUS

7. 5 The population of the 28 sample households in this village, is 137 of whom 41 are earners, 23 earning dependants and 73 non-earning dependants. There is approximately one earner for every three of the population. One-in-5 is an earning dependent. Of the 28 earning dependants 20 are women.

EMPLOYMENT STATUS

7. 6 In respect of employment status, the total number of 64 earners including earning dependants fall into three groups: the number of "own account workers" is 57 or nearly 90%; that of employees 3 and that of employers 4. This relatively high proportion of self-employed persons may be attributed to the fact that 20 out of 25 earners are cultivating owners while there are only 2 tenants and 3 landless labourers. Of the 14 male earners in the non-farm households 6 are employed in "commerce". Hence industry, village or cottage variety is hardly significant in this area.

LEVEL OF EMPLOYMENT

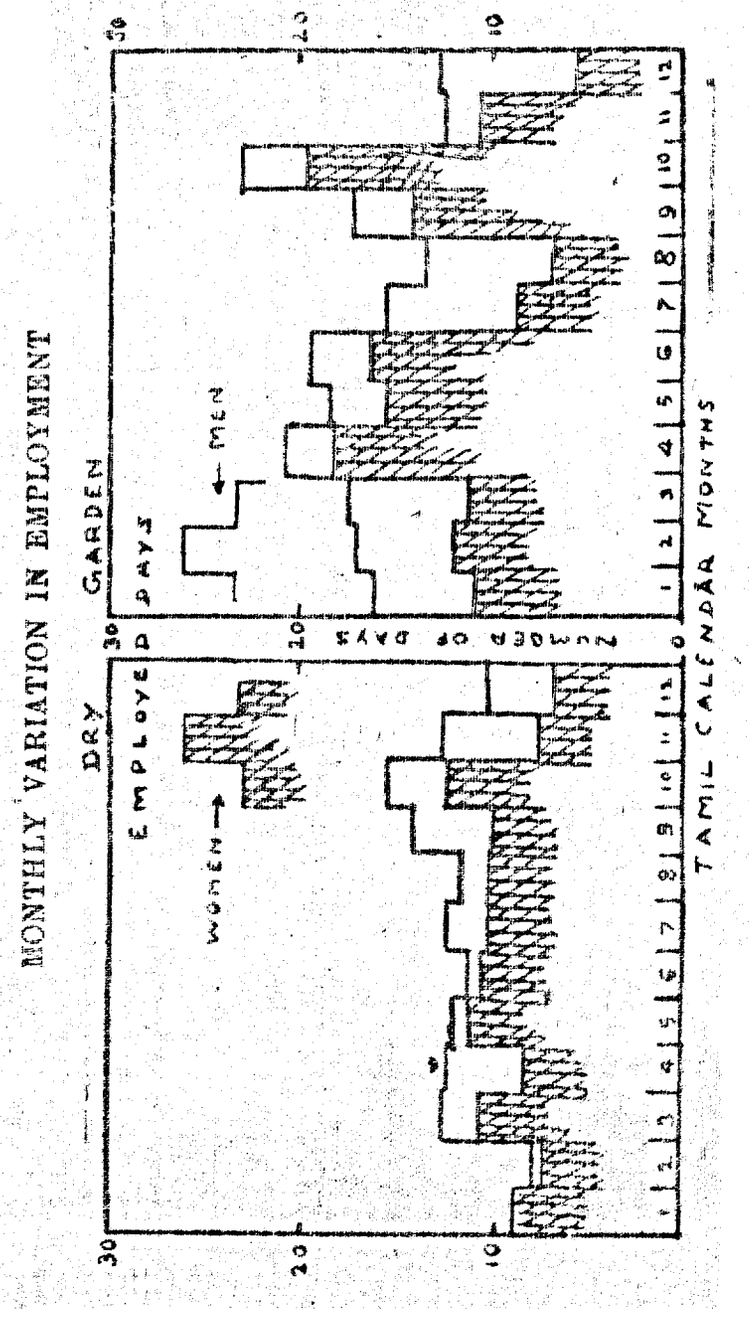
7. 7 For all the 25 men and 22 women recorded in the earning group, data relating to empolyment in every month in the year prior to investigation have been collected. The processed data are tabulated in (Table 7. 7) The average number

of days of employment in this year is 186 for men and 129 for women. Per month the average works out to 15½ days for a man and 10¾ days for a woman. It is noteworthy that out of 186 employed days per man the number of days worked in one's own land is 149 or about four-fifths. Similarly an employed woman works on the average 92 days in owned land which is nearly 75% of her total employed days. This relatively happy position of earners working in thier household farms is due to a wider distribution of farms of fairly economic size among the sample households. The higher level of employment attained here compared with that in wet area is due to the more labour intensive character of garden cultivation.

Table 7. 7

VARIATION IN THE NUMBER OF DAYS EMPLOYED IN EACH MONTH.

Month	MEN.			WOMEN.		
	Number.	Days.	Average.	Number.	Days.	Average.
Chithirai	23	378	16.2	22	243	11.0
Vaikasi	24	411	17.1	22	273	12.4
Ani	24	426	17.7	22	245	11.1
Adi	25	525	21.0	19	349	18.3
Avani	24	454	18.9	18	285	15.8
Puratasi	25	493	19.7	21	346	16.4
Arpasi	21	324	15 8	16	138	8.6
Karthigai	20	273	13.6	13	88	6.7
Margali	25	430	17.2	21	304	14.3
Thai	25	580	23.2	21	416	19.8
Masi	19	232	12 2	12	129	10.7
Panguni	11	137	12 4	4	22	5.5
For the year	25	4,659	186.4	22	2,888	129.0



SEASONAL VARIATION IN EMPLOYMENT

7. 8 Even so the number of days of employment is not the same every month; it varies from 12. 2 in Masi to 23 in Thai. The number of employed days per man is more than 15 in 2 months in the year. With regard to women the average number of days varies from 5. 5 in Panguni to 18. 3 in Adi. In six months out of the 12, the number of employed days exceeds 12.

7. 9 A special study of the relation between the size of farm aud number of days employed per year has been made with the data collected Of the 25 male earners, 7 have very small farms of 3 acres or less, 6 small farms of 3 to 5 acres, 3 medium farms of 5 to 10 acres and 7 large farms of 10 to 25 acres (Table 7. 9). The small farms have an average of 147 employed days in a year per worker, the small farms 162 days, the large farms 120 days and the peak employment is seen in medium farms providing 194 days of employment.

Table 7 . 9

EMPLOYMENT ACCORDING TO SIZE OF FARMS

Size of Farms	Number of Farms	Average Number of days of employment to cultivating owners or tenants.
Upto 3 acres	6	146.8
3 to 5 acres	7	162.0
5 to 10 acres	3	194.3
10 to 25 acres	7	119.8
25 and above	—	—
Total	23	148.6
Landless Labourers	9	126.4

CONCLUSION

(i) The number of sample households in the sample village is 28 of which 19 are farm 9 non-farm. The average size of the household is 4. 3 for farm 6. 0 for non-farm and 4. 9 for both groups. Of the 28 households 18 belong to I degree or natural families.

(ii) Among the sample population of 137 persons, 62 are married 10 widowed, 5 separated.

(iii) 41 out of 137 of the sample population are earners.

(iv) Of the 64 earners including earning dependants 57 are own account workers, 3 employees and 4 employers. 20 out of 25 earners in the farm group are owner-cultivators. Of the 14 male earners in the non-farm households 6 are traders.

(v) The average number of employed days is 186 for men and 129 for women in the preceding year. Per month the average works out to 15½ days for men and 10¾ days per woman.

(vi) The data reveal that medium farms 5 to 10 acres provide on an average 194 days of employment followed by small farms providing 162 days in very small 147 days and the large 120 days.

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CHAPTER VIII

(4) SUGARCANE ZONE

SAMPLE HOUSEHOLDS AND POPULATION

THE total number of households in the two sample villages of Neelamangalam and Karamanikuppam selected for investigation in the sugarcane zone is 678, of which 494 are farm and 184 non-farm. The number of sample households is 63, of which 34 belong to farm and 29 to non-farm. The population in the sample households is 324 of whom 169 relate to farm and 155 to non-farm. The average size of the household is 4. 9 in farm, 5. 3 in non-farm, and 5. 1 for both groups.

DEGREE OF HOUSEHOLDS

8. 2 A classification of households into 5 categories according to degree of relationship of members shows that of the 34 farm households, 13 occur in I, 6 in II, 14 in III and 1 in IV degree and in the non-farm group there are 12 in I, 12 in II, 5 in III degree households and none in IV group. In both groups of farm and non-farm households there is the absence of V degree households. As in wet, dry and garden crop tracts, there is no V degree household in this sugarcane zone, while I degree households are predominant. The disappearance of very large families is clearly seen.

MARITAL STATUS

8. 3 Of the 169 persons in the farm households, 62 are not married, 88 married and 19 widowed. In the non-farm group the corresponding figures are 73 not married, 65 married and 17 widowed.

TECHNICAL EDUCATION

8. 4 The general level of literacy as shown earlier is pretty low in the villages with 29. 6% literate in the whole village. As for technical education investigation in the households shows that in the strict sense of the term it is absent but there are 5 masons, 4 carpenters and 4 blacksmiths, who have had technical training and experience.

ECONOMIC STATUS

8. 5 Of the total sample population of 324 in the 63 households, 125 are earners, 199 non-earning dependants. There is more than one earner for every three of the population. In the farm households there is one female earner for every 2 male earners The corresponding ratio for non-farm households is 1 : 8. There is no earning dependant in the sample households surveyed.

EMPLOYMENT STATUS

8. 6 Of the 52 male earners in the farm households, 32 are own account workers and 22 employees. The corresponding figure for women are 8 and 20. In the non-farm households, 6 out of 46 earners are own account workers and 40 employees.

8. 7 According to their main occupation in the farm households among the 52 male earners 23 are cultivators of land wholly or mainly owned; 9 tenants and 20 agricultural labourers; and among the 28 female earners 8 are from the owner-cultivator families and 20 from landless labour families. In the non. farm group among the 41 earners, 2 are in agricultural

labour, 6 in trade and 33 in other occupations as mason, carpenter, weaver etc. Even in non-farm groups two are seeking employment in agriculture.

Table 8 . 8

VARIATION IN THE NUMBER OF DAYS EMPLOYED IN EACH MONTH.

SIZE OF FARMS	MEN			WOMEN		
	Number.	Days.	Average.	Number.	Days.	Average.
Chithirai	47	702	14.9	25	283	11.3
Vaikasi	49	710	14.3	23	275	11.9
Ani	49	754	15.4	26	288	11.0
Adi	49	768	15.7	24	247	10.2
Avani	49	687	14 2	25	277	11.0
Puratasi	44	654	14.8	23	256	11.1
Arpasi	43	580	13.5	26	232	8 9
Karthikai	47	692	14.7	25	256	10.2
Margali	43	682	15 8	22	269	12.2
Thai	52	1,022	19.6	28	435	15 5
Masi	46	830	18.0	27	373	13.8
Panguni	44	644	14.6	21	281	13.4
For the year	52	8,725	167.8	28	3 472	124.0

EMPLOYMENT

8. 8 A comprehensive month-to-month employment data for 54 males and 28 female earners in the farm households were collected and analysed as shown in Table 8. 8. The average number of days of emplyment was 168 for the male earners and

124 for a female earner in the year preceding the date of investigation. This works out to an average of 14 days per month for male worker and 10 days for woman worker. Except for Thai with 19. 6 days and Masi with 18. 0 days when the sugar is cropped, the levels of employment in other months move about the average of 14 days for men. The days ef employment are the least at 13. 5 days in the month of Arpasi corresponding to October 15 to November 14. Monthly variation in employed days for women workers too follows the same pattern as that of the male workers, rising to a peak of 15. 5 days in Thai, January 15 to February 14 and dipping to 9 days in Arpasi, October 15 to November 14.

Table 8 . 9

EMPLOYMENT ACCORDING TO SIZE OF FARMS.

Size of Farms.	Number of Farms	Average Number of days of employment to cultivating owners or tenants.
Upto 3 acres	17	126.60
3 to 5 acres	3	168.66
5 to 10 acres	4	227.50
10 to 25 acres	8	151.50
25 and above	—	—
Total	32	149.4
Landless Labourers	22	208.9

8. 9 With the data collected, a special correlation analysis has been made in respect of the size of farm and number of employed days in a year. Among 32 men workers in the sample, 117 have very small farms of 3 acres or less, 3 small farms of 3 to 5 acres, 4 medium farms of 5 to 10 and 8 large farms of 10 to 25 acres. The very small farms provide an average number of 127 employed days in a year per worker, the small farm, 169 days, the medium farms providing 228 days and the large farms 152 days. (Vide Table 8. 9)

CONCLUSION

The salient points from the above study may be briefly stated.—

(i) The number of sample households in the two sample villages is 63 of which 34 belong to farm and 29 to non-farm group. The average size of the household is 4. 9 in farm 15. 3 in non-farm and 5. 1 in both groups, Of the 63 households, 25 are I degree or natural families.

(ii) In the sample of 324 persons, 153 are married and 36 are widowed.

(iii) 125 out of 324 are earners. In the farm households the ratio of male to female earner is 2: 1. In the non-farm households the ratio is 1: 8.

(iv) Of the 52 male earners in the farm group, 32 are own account workers and 20 employees. In the non-farm group of households, 0 out of 46 earners are own account workers and 40 employees.

(v) Among the 80 earners, 23 are owner-cultivators, 9 tenants and 20 landless labourers. In the non-farm group, 33 out of 46 earners are artisans including weavers, 6 traders and 2 agricultural labourers.

(vi) The average number of employed days was 162 for the male earner and 114 for woman earner in the preceding year. Per month this works out to 14 days for male worker and 10 days for woman worker.

(vii) The medium farm once again provides the peak number of employed days being 228 followed by small farms providing 169 days, large farms 152 days and very small farms 127 days. Landless labourers in this region get an average of 209 working days.

CHAPTER IX.

(5) COASTAL ZONE.

In the two sample villages of the coastal area Thandavarayacholagupet and Kilai, selected for investigation, the total number of households is 413, of which 65 are farm and 348 non-farm. The number of sample households is 64 of which 5 are farm and 59 fishermen and 9 others. The ratio between farm and non-farm households is 1 : 13, which shows the predominance of non-farm occupation in the coastal villages and in the sample villages fishing is the primary occupation. The population is 21 in the 5 sample farm households and 274 in the 59 non-farm households. The average size of a household is 4 . 2 in farm, 4.6 in non-farm and 4 . 6 in both groups together. The size of the sample in farm households group being very small, no useful inference is possible. Yet in the interpretation of the data, the usual procedure of comparative treatment is retained. Of the 59 non-farm families, 50 belong to the fishermen community and the other nine are traders. A classification of the households into 5 categories based on "Degree of Relationship" of members shows that of the 5 farm households one belong to I degree, 2 each in II and III degree households; of the 59 non-farm households, 36 to I degree, 12 to II degree, 10 to III degree and 1 to IV degree. The preponderance of natural or I degree families is striking.

MARITAL STATUS

9.2 Of the 21 persons in farm households, 5 are "not married" and 15 are "married". Of the 274 persons in the non-farm households, 134 are not married, 119 married, 20 widowed and 1 "separated". In both farm and non-farm households, there are 18 widows and 2 widowers.

9.3 In these two villages, the percentage of illiterates is 85. The general level of literacy is pretty low.

9.4 Of the 295 individuals in the 64 sample households, 95 are earners, 19 earning dependants and 181 non-earning dependants. The earner-non-earner ratio here too works out to 1:3. There is one female earner for every three male earners in the non-farm housholds and none in the farm group. Among the 19 earning dependants in the non-farm group 14 are women and this is but natural in the fishing community where the womenfolk assist their men in marketing the catch. The greater opportunities of employment for women is apparent from the above figures.

EMPLOYMENT STATUS

9.5 In the farm group, two out of seven male earners are own account workers and 5 employees while both the women earners are employees. Of the 71 male earners in the non-farm households, 12 are employees and 59 own account workers and all the 34 female earners and earning dependants are own account workers. Most of the fishermen carry on their coupation independently, some are employed by capitalist master fishermen. It is noteworthy that in the fishermen group two-in-five are economically active.

9.6 Occupationally, of the 7 farm earners in the farm households, 5 are agricultural labourers and one cultivating owner and the other tenant. Both the women earners in farm households are also labourers. In the non-farm group, of the 71 male earners 1 earner goes out as an agricultural labourer, 6 in trade and the remaining 64 in miscellaneous sources. This last mentioned denote here the fishing occupation.

9.7 A comprehensive month-to-month employment data for 64 male and 30 female earners in the fishing households were collected and analysed as shown in Table 9.7. The average number of days of employment was 198 per male worker and 110 per female worker in the year preceding the date of investigation. Per month, this works out on an average to about 16 days per male worker and 9 days per female worker. This employment is not uniformly spread throughout the year. The most difficult months for employment are Arpasi and Karthigai in the Tamil calendar corresponding to October 15 to December 14. This being the period of the North East monsoon prevents the fishermen from going out to the sea. Hence they have to content themselves with inland and backwater fishing. The average number of working days for men varies from 8.0 in Karthigai and 8.1. in Arpasi to 22.4 and 22.3 in Panguni and Masi in the Tamil calendar corresponding to Febauary 15 to April 14. For women, Karthigai (November 15 to December 14) is the worst for employment, the

average number of working days being 4.3 but Chithirai, Vaikasi, Ani (April 15 to July 14) give them more than 12 days of employment.

Table 9.7

VARIATION IN THE NUMBER OF DAYS EMPLOYED IN EACH MONTH.

MONTH	MEN			WOMEN		
	Number.	Days.	Average.	Number.	Days.	Average.
Chithirai	64	1,320	20.1	30	385	12.8
Vaikasi	64	1,405	21.9	30	399	13.3
Ani	64	1,330	20.8	30	360	12.0
Adi	64	1,291	20.0	30	321	10.7
Avani	64	1,108	17 3	28	266	9.5
Puratasi	61	846	13.8	24	220	7.5
Arpasi	54	448	8.1	19	153	8.0
Karthikai	53	424	8.0	20	97	4.3
Margali	57	583	10 2	23	106	4 6
Thai	64	1,070	16.7	30	270	9.0
Masi	64	1,432	22.3	30	362	12.0
Panguni	64	1,445	22.4	30	357	11.9
For the year	64	12,702	198,4	30	3,296	109.8

CONCLUSION: To sum up:

(i) In the two sample villages in the coastal zone, the number of sample households is 64, of which 5 are farm, 50 fishermen and 9 others. The average size of a household is 4. 2 in farm, 5. 2 in non-farm and 4. 6 in both groups. The number of households of the I degree or natural families is 37 out of 64 in the sample. The sample population is 295, of whom 135 are married 20 widowed and 1 separated.

(ii) Of the 295 persons, 95 are earners. Of the 71 male earners in the non-farm group. 59 are own account workers and 12 employees.

(iii) The average number of days of employment was 198 for male worker and 110 for female worker in the year preceding the date of inevestigation. Per month this works out to 16 days per male worker and 9 days per female worker.

CHAPTER X

EMPLOYMENT IN NON-FARM SECTOR.

THE non-farm households in the 10 sample villages is so defined as to consist of all the households in which the heads are engaged in non-agricultural occupation. With this definition as a working basis the non-farm households were separeted from the farm households. The latter are not to be construed as consisting of population who are exclusively employed in non-agricultural pursuits. In fact a considerable number of the economically active in the non-farm households, according to the definition adopted, are engaged in agricultural sector. The census enumeration in the 10 sample villages shows that there are 2,856, of which 2,036 or 71.5% are farm, 820 or 28.5% non-farm. The total population is 13,407 of which 9,504 or 70.9% belongs to the farm sector and 3,903 or 29.1% to the non-farm sector, while the average size of the households in all the 10 villages is 4.8, it is 4.7 in the farm and 4.8 in the non-farm sector. In the present survey, the sampling fraction works out to 1/14 in the farm sector and 1/6 in the non-farm sector approximately. The higher sampling fraction in the latter was purposively adopted to secure a sizeable sample of households in the latter. Thus against a sample of 144 households in the farm sector a sample of 143 households in the non-farm sector has been obtained. Of these 143 households the number of fishermen households in the two sample villages of

the coastal region is 50, whose economics of employment has already been separately studied in the preceding chapter. In this chapter the remaining 93 households in the non-farm sector forms the subject of detail study from the employment angle.

10. 2 The data relating to sex composition, degree of households, marital, economic and employment status have been analysed in the earlier chapters with respect to non-farm households in each zone.

10. 3 The employment position and the levels of earned income remain to be examined. Before turning to this analysis it will be appropriate to study the composition of non-farm earners. The total number exclusively employed in non-agricultural occupation in the 93 sample households is 144 of whom 121 are men and 23 women. All these persons have neither the aptitude nor the inclination to be employed in agricultural work. Non-agricultural occupations in the rural parts could well run into a formidable list comprising, spinning weaving, leather work, pottery, metals, filigree laces and others, But in the present sample the number of occupation is as shown in Table 10. 4. Most noticeable are two points in this table: (1) the number of persons in each category is quite small and (2) even this number is distributed most unequally as between the zones. Due to these factors the findings may not be quite precise. However, the general position, as may be found in the following analysis is broadly true.

10. 4 The average number of working days in the year ending with the date of investigation for the various categories of earners in the non-agricultural

sector and in the five zones, have been worked out and tabulated (Table 10. 4). Among the various categories of non-agricultural occupations, "Business" leads with the highest average number of 247. 4 working days per earner; business is generally trade - petty shop keeping mostly, and the earners being self employed this relatively high level of employment is attained. Service group, recording 231. 5 working days per earner is the next highest. This group consists of 18 workers consisting of washermen, barbers, village officers and grade IV personnel. The category called "others" has the lowest average number of 124. 5 working days per earner. This cannot be otherwise because this group consists of casual workers like astrologers, palmists, oil ghani workers, pigherds and one maker of crackers (used in festivals and processions). Masons have also a low level of employment, the average being 157 as the occupation is irregular, conditioned by weather conditions. The artisans class consisting of carpenters and blacksmiths are on an average employed for 170 days, potters for 176 days, basket makers for 201 days and weavers for 204. All these categories have an average of 191 working days. For non-agricultural occupation full employment should mean not less than 300 days even if they be rural. According to this criterion all the categories are suffering from underemployment which reaches 6% in the case of "others", nearly 50% for masons and 33% for basket makers and weavers. Another noteworthy point about underemployment in this sector is that it is not caused by too many workers; the census enumeration of the non-agricultural households in the district reveals that per village the average number of masons is 1. 8, artisans 1. 7 potters 0. 8, basket weavers 0. 8 and weavers 1. 8.

Table 10 . 4 EMPLOYMENT IN THE NON-AGRICULTURAL SECTOR.

CATEGORIES.	WET		DRY		GARDEN		SUGARCANE		COASTAL		TOTAL	
	No.	Ave.	No.	Ave.	No.	Ave.	No.	Ave.	No	Ave.	No.	Ave.
(1) Mason	8	133.6	5	142.0	—	—	5	205.0	—	—	18	156.9
(2) Artisans	—	—	9	156.9	4	100	8	184 3	—	—	21	166.0
(3) Pot making	8	175.6	—	—	—	—	—	—	—	—	8	175.6
(4) Basket making	—	—	3	184.0	—	—	5	211.0	—	—	8	200 8
(5) Weaver	—	—	8	160.7	—	—	10	239.6	—	—	18	204.2
(6) Business	—	—	4	225.0	6	241.0	3	300.0	6	242.6	19	247 4
(7) Service	—	—	7	179 8	2	240.0	9	273.6	—	—	18	231.6
(8) Others	6§	177 0	4‡	175.2	2†	91.8	—	—	—	—	15	124.5
Total	22	145.1	40	170 5	14	187.5	39	235.6	6 '		121	191.5

§ Astrologer: 1 ‡ Pigherds : 2 † Priest : 2
Palmist : 1 Maker of Crackers : 1 Ghanioil : 2
Sawyer : 1 Palmist : 1
Pigherds : 2
Watchman : 1

10. 5 The levels of employment of particular categories of workers vary with zones. For masons the average number of employed days is 133. 6 in the wet, 142 in dry and 205 in the sugarcane zone. In the two zones where basket makers occur it is 184 in the dry and 211 in the sugarcane zone. Even in business there is a variation from 225 days in the dry to 300 days in the sugarcane zone; the latter, as already noted, plying their trade in more populous villages. This reason applies also to service, the number of working days being 180 in the dry and 274 in the sugarcane zone; even weaving seems to follow this pattern with 161 days in dry and 239 in the sugarcane zone. With regard to "others" the number of employed days is around 175 in wet and dry zones while it is 92 in the garden zone. In conclusion it is apparent that the level of employment for non-agricultural workers seems to be a function of general prosperity, the relatively more prosperous sugarcane tract and the more populous villages provide correspondingly relatively larger employment opportunities.

10. 6 Income from non-farm occupations show a wide variation with different categories of earners. While the average monthly earnings for all the 121 male earners work out to Rs, 22. 31, category-wise it varies from Rs. 33. 30 in business to Rs. 11. 50 for basket making. Earners in service occupations get Rs. 29. 82, masons, Rs. 27. 05, artisans, Rs. 23. 64 weavers, Rs. 18. 16 and others Rs. 11. 66. The average annual income per earner in the non-agricultural sector works out to Rs. 268 compared with the estimated national per capita average income of Rs. 281. The number of dependants on every earner is approximately 2. (Table 10. 6)

Table 10 . 6

INCOME FROM NON-FARM OCCUPATIONS.

Occupations.	WET			DRY			GARDEN			SUGARCANE			COASTAL			TOTAL		
	No.	Total Income P. M.	Average P. M.	No.	Total Income P. M.	Average P. M.	No.	Total income P. M.	Average P. M.	No.	Total income P. M.	Average P. M.	No.	Total income P. M.	Average P. M.	No.	Total income P. M.	Average P. M.
		Rs.	Rs		Rs.	Rs.		Rs	Rs.		Rs	Rs.		Rs.	Rs.		Rs	Rs
MEN																		
Masons and quarry workers	8	230	28.76	5	95.00	19.00	—	—	—	5	162	32.40	—	—	—	18	487	27 05
Artisans	—	—	—	9	196.00	21.77	4	39.76	9.88	8	206	25.75	—	—	—	21	442	21.05
Pot making	8	109	18.16	—	—	—	—	—	—	—	—	—	—	—	—	8	109	18.16
Basket & mat weaving	—	—	—	3	22.00	7.33	—	—	—	5	70	14 00	—	—	—	8	92	11.50
Weaver	—	—	—	8	95.00	11.87	—	—	—	10	275	27.50	—	—	—	18	370	20.50
Business	—	—	—	6	135.00	22.50	6	243.50	40.58	3	100	33.33	6	148	24 66	21	703.50	33.30
Service	—	—	—	4	60.00	15 00	2	20.00	10.00	9	457	50.87	—	—	—	18	537	29.82
Others	6	168	18.00	4	28.50	7.12	2	19.76	9.88	—	—	—	—	—	—	15	244.93	11.66
TOTAL	22	447	22.35	39	626.50	15.65	14	322.93	23.00	40	1270	31.2	6	148	24.66	121	2676 43	22.31
WOMEN :	4	30	7.50	6	53.06	6.62	3	10	3.33	4	27.00	6.75	4	42	12.00	23	267	72

CONCLUSION: To sum up:-

(i) In the 10 sample villages, 820 or 28. 5% of the 2,856 households are non-farm, in which the main occupation of the heads is not agriculture. The sample non-farm households is 143 and the sampling fraction is approximately 1/6.

(ii) The number of sample fishermen households is 50. The remaining 93 represent artisan, trade and other occupations. The 93 non-agricultural, non-fishermen households have a population of 432 and the average size of the household is 4. 6.

(iii) The tolal number of earners in these 93 households is 161 of whom 18 are employed in the agriculture sector. The rest 144 strong are exclusively non-agricultural workers consisting of carpenters, blacksmiths, masons, weavers, potters, traders etc.

(iv) The average number of working days is 248 for traders, and 232 for service group. Others comprising, oil ghani workers, astrologers etc., have 125 working days.

(v) Among the artisans, carpenters and blacksmiths have 120 working days, masons 157, potters 176, basket makers 201, and weavers 204. The average number of working days for all these classes of workers varies from zone to zone.

(vi) The average income per month varies from Rs. 33 in trade to Rs. 11. 5 in basket making.

(vii) The average annual income per earner in the non-farm sector works out to Rs. 268.

CHAPTER XI

GENERAL CONCLUSIONS.

THE original hypothesis of this pilot survey is that diversity in geo-economic conditions will materially influence rural employment, earnings and income. To test this hypothesis and quantify the effects thereof, this district was carved out into five fairly homogeneous zones and investigations were undertaken with a common set of questionnaires and schedules. The results of the enquiry have been presented separately for each zone in the preceding chapters. A proper assessment of the effects of the geo economic conditions calls for a zone-wise and function-wise comparison. In this chapter an effort will be made to juxtapose the findings of the earlier chapters relating to farm employment, earnings and income in the four agricultural zones. This will be followed by a comparison of the position in the farm with non-farm sector.

11.2 The main purpose of the present enquiry is an estimate of the level of employment in the various zones and in the farm and non-farm sectors in each zone. Unless this is supplemented by a knowledge of the earnings of labour and income from land, the real situation could not be coarectly appreciated. In rural India gainful employment is sought by both men and women. Rural prosperity is governed chiefly by assured irrigation, crop pattern and prior or current investment in agricultural land. In these respects the five zones vary markedly. The wet zone represents huge

investments by public sector in the shape of the ancient and recent irrigation works and canal system. The garden zone represents substantial private investments in the sinking of wells, fencing and the lay-out. The sugarcane zone is characterised by relatively larger current costs of cultivation. In the best part of the dry area particularly under groundnut, current expenditure on cultivation is higher than in wet zone. Further, the dry area is next only to garden crop in labour - intensive operations Thus irrigation, fixed capital, investment, nature of crop and expenses of cultivation bear upon employment and earnings of labour. These points have been well brought out in the findings of the earlier chapters. Their effects cannot be isolated and assessed individually within the compass of the present pilot study. It is only the cumulative effect of all the factors that is revealed by the statistics. To concentrate upon the combined effects is not a wrong approach either, because soil, irrigation, kind of crop, investment and cultivation costs mutually determine one another. These effects upon employment, earnings and income are discussed below.

SAMPLE SIZE:

11.3 In the four agricultural zones, 211 men earners constitute the total sample, of whom 43 occur in the wet, 91 in the dry, 25 in the garden and 52 in the sugarcane zones. In the *non-farm* sector the total sample consists of 185 men earners of whom 22 are in the wet, 39 in the dry, 14 in the garden, 40 in the sugarcane, and 70 in the coastal zone. It may be added that of the 70 in the coastal zone, 64 are fishermen and 6 non-fishermen. The total number of women earners in the

Table 11 . 3 SEX-WISE TOTAL POPULATION AND NUMBER OF EMPLOYED PERSONS.

ZONE	Total Population.				Number of Employed Persons.				PERCENTAGE.			
	Farm		Non-Farm		Farm		Non-Farm		Farm		Non-Farm	
	Men.	Women	Men.	Women	Men.	Woman	Men.	Women	Men	Women	Men	Women
Wet Zone	67	77	46	43	43	19	22	4	64.2	24.7	47.8	9.3
Dry Zone	194	116	89	72	91	52	39	8	67.8	44.8	46.9	11.1
Garden Zone	40	43	27	27	25	22	14	3	62.5	51.1	51.8	21.5
Sugarcane Zone	79	90	72	83	52	28	40	4	65.9	31.1	55.5	4.8
Coastal Zone	11	10	130	144	7	2	70	34	63.6	20.0	53.9	24.2
Total	331	336	358	369	218	123	185	53	65.8	36.6	51.7	14.4

sample is 121 in the farm sector, of whom 19 are in the wet, 52 in the dry, 22 in the garden and 28 in the sugarcane zone. In the non-farm sector, the number of women earners in the sample is 47, of whom 30 are fisherwomen in the coastal, 4 in the wet, 6 in the dry, 3 in the garden and 4 in the sugarcane zones. It is with reference to these men and women earners that data relating to employment and income have been collected. The ratio between men and women workers in the farm sector is approximately 2 : 1 although it varies from zone to zone registering a high ratio of 25 : 22 in the garden zone. The percentage of male adults in employment is 65.8 against 36.6 among adult women. The ratio between men and women workers in the non-farm sectors is roughly 4 : 1 and it is among the fishing community this ratio is highest reaching almost 2:1, in other zones women earners are negligible, the ratio dwindling to 13 : 1 in the sugarcane zone. A general conclusion from these figures is that women earners are extremely few in the non-farm rural sector. In respect of those seeking employment, the percentage of adult women is only 19.2 compared with 57.3 of the male adult population. Both in farm and non-farm sectors a significant proportion of women are not seeking employment due to convention and custom. However, all the ablebodied male adults in the economically active group are generally eager to have gainful employment as the low percentage of 3% not seeking employment would clearly show. (Vide 4.6 above)

FARM SECTOR – NATURE OF EMPLOYMENT

11.4 Farm business requires various types of labour according to season and crop. It is common

Table 11.4 NATURE OF EMPLOYMENT.

Zone	MEN						WOMEN					
	No. of Persons.	Number of employed days in a year.			No. of persons.	Number of employed days in a year.						
	F. N. F.	Farm		Non-Farm	F. N. F.	Farm.			Non-Farm.			
		No.	%	No	%		No.	%	No.	%		
Wet	43	22	129.1	43.0	145.1	48.4	19	4	102.1	34.0	177.0	59.0
Dry	91	39	111.0	37.3	170.5	56.5	52	8	84.9	28.3	114.1	38.0
Garden	25	14	186.4	62.1	187.5	62.5	22	8	129.0	43.0	56 0	18.6
Sugarcane	52	40	167.8	55.9	231.7	77.2	28	4	124.0	41.3	193.7	64.6
Coastal – Fishing	—	64	—	—	198.4	66.1	—	30	—	—	109.8	36.6
Non-Farm	—	6	—	—	242 6	80.9	—	4	—	—	262.2	87 4

Percentage refers to standard full employment of 300 days a year being equal to 100%.

for the ordinary agricultural labourer to perform all these types of work. Except perhaps, sowing, the only skilled job in agricultural operations, labourers could move easily from one job to another, from digging and delving to ploughing and harvesting. In short, there is not much of specialization among agricultural labourers. Another exception is weeding, usually done by women. Hence agricultural labourers are everready to be employed, in all the seasons and in all types of work. With such eagerness to be employed, the standard level of full employment may be fixed at 300 days in a year. But agriculture as it is pursued in this district is not capable of providing this full employment in any zone, whatever may be the crop raised or rotation that is practised. Table 11.4.

EMPLOYED DAYS IN A YEAR–MEN

11.5 The average number of employed days for all the earners in the sample in each zone shows a great deal of variation For men, the average number of employed days is highest in the garden zone providing 186 days, followed by sugarcane zone 168 days, wet zone 129 days and dry zone 112 days. Even in the garden zone with the highest level of employment, the number of employed days is approximately 62% of the full employment labourers should have. In the dry zone it drops to 37% of the standard full employment. The garden zone enjoys the most favourable conditions for maximising employment. Provided the well has adequate, if not plentiful water supply, the farm business could be carried on throughout the year with suitable rotation of crops. If even this

zone fails to provide full employment according to the standard fixed above, it should be admitted that involuntary idleness on the part of the labourers cannot be eliminated by merely raising the intensity of cultivation. Extension of cultivation in this district has little scope. In this context, the need for subsidiary occupation is clear to utilize fully the available manpower. In respect of the other zones the need is all the greater.

EMPLOYED DAYS IN A YEAR—WOMEN

11.6 For women similar average number of working days has been computed. The level of employment is much lower than that of men while the variations from zone to zone closely follow those of men. Garden zone again leads, providing 129 days followed by sugarcane 124 days; wet 102 days and dry 85 days. Even if the level of full employment is fixed lower at 240 days for women workers, there is a considerable waste of women labour in all the zones varying from 46 per cent in the garden zone to 65% in the dry zone. This waste of rural women labour could also be eliminated only by suitable provision of subsidiary industries.

NON-FARM LABOUR

11.7 The levels of employment of non-farm labour have also been estimated on the basis of the data relating to the sample labourers for all the zones. Since the coastal zone is also included and it yields data for two types of non-farm labour, namely, fishermen and non-fishermen, there are six categories of labour groups to be compared.

In these categories it is the fishermen group alone that is homogeneous. In other groups, workers belong to various occupations; however, the village artisans and craftsmen preponderate, making group comparisons fairly valid and broadly applicable to them. In a comprehensive survey, comparison could be instituted among the various zones in respect of each occupation. This elaborate treatment is however not given to a pilot survey with all too meagre samples. The figures given below will have to be understood in the light of this caution.

11.8 For men the average number of employed days attains a peak of 243 for the non-fisherman labourer in the coastal zone. This is mainly attributable to the brisk trade that is necessarily carried on here to effect the sales of fish caught and to import from outside and retail most of the consumer goods to the local population. The sandy belt has to import even foodgrains. Next in order comes the sugarcane zone providing 232 days followed by firsherman getting 198 days. Then comes the garden zone with 188 days followed by the dry zone with 171 days and the wet zone with 145 days. The gap in employment to reach full employment level of 300 days in a year varies from 20% in the coastal non-fisherman group to more than 50% in the wet zone. Assuming the non-farm labour group essentially consists of the village artisans like carpenters and blacksmiths, the excess of 25 days of employment in the dry zone over the wet zone is due to a higher rate of renewals and replacements of agricultural implements including the lift irrigation. The wear and tear as well as damage to implements is greater there than in wet area.

11. 9 In respect of non-farm, women labourers, the average number of days of employment varies widely between groups. It is again the highest for "non-fisherman" group in the coastal zone reaching a peak of 296 days. It may be noted that the 4 women workers constituting the sample of this group are self-employed small shop-keepers. Next in order of importance comes the sugarcane zone providing 194 employed days followed by the wet with 177, the dry with 114, the coastal fisherwomen with 110 and lastly the garden with 57 days. The sample of three women in the garden zone are basket makers. Women in non-farm occupations are as eager as any other to have regular continuous employment, but there is under-employment which is extremely high among the basket makers followed by fisherwomen whose employment is a function of the regularity with which their men folk bring their catch. A higher level of employment for fishermen with better boats and fishing tackle will indirectly raise the level of employment for their women folk too. The extremely low level of employment of the basket makers is but a confirmation of the old maxim that employment is limited by the market.

EARNINGS OF AGRICULTURAL LABOURERS

11. 10 The annual earnings of paid labour have been separately analysed. (Table 11. 10) In the preceding paragraphs while estimating the number of days of employment, paid and self-employed workers have figured in the samples. In this section paid labour alone comes into the picture. The number of paid men labourers forming the sample for this study is 24 in the wet, 49 in the dry, 9 in the garden and 26

Table 11. 10 EARNINGS OF FARM AND NON-FARM WORKERS.

ZONE	MEN				WOMEN			
	FARM		NON-FARM		FARM		NON-FARM	
	Number of workers	Income per Earner	Number of workers	Income per Earner	Number of workers	Income per Earner	Number of workers	Income per Earner.
		Rs.		Rs.		Rs.		Rs.
Wet	24	163.00	22	269.40	14	81	4	90.00
Dry	49	115.00	39	187 80	34	62	8	79.00
Garden	9	103.00	14	276.00	12	56	3	39.96
Sugarcane	26	136.00	40	274.40	20	90	4	81.00
Coastal – Fishing	—	—	64	334.44	—	—	30	76.80
Non-Farm	—	—	6	295.92	—	—	4	144.00

11. 16 A comparison of the earnings of the farm workers and the non-farm workers clearly shows that the latter are relatively better off than the former. This is also natural as the farm workers are unskilled or semi-skilled workers whereas the non-farm workers like carpenters, blacksmiths and basket makers are skilled workers and those like shopkeepers and professional and public service personnel lay claim to be petit bourgeoisie. The average earnings of a non-farm worker exceeds those of a farm worker by Rs. 106 in the wet, Rs. 72 in the dry, Rs. 173 in the garden and by Rs. 244 in the sugarcane zone.

SIZE OF HOLDINGS AND INCOME – A CORRELATION STUDY

11. 17 It is usually postulated that uneconomic holdings yield less income per acre than economic and optimum holdings. The present survey is not specially designed to go into a question of relationship between scale of farm business and income. However, certain data collected incidentally in the course of the present enquiry were found to be suitable to draw some tentative conclusions to test this postulate. These conclusions cannot but be tentative due to (1) the small size of the sample of less than 25 households in each zone; (2) even this small sample lacking homogeneity due to the presence of both tenants and cultivating owners and (3) the lack of further intensive probe into the crop pattern and the components of cultivation costs in the various farms. Despite these shortcomings, this correlation analysis has been made for whatever worth it may have.

11. 18 The procedure of analysis adopted to this end may be briefly indicated. The first step was classification of holdings into 4 size-groups:- (i) very

Table 11 . 18 AVERAGE ANNUAL INCOME PER ACRE IN FARMS.

Size of Farms	WET ZONE			DRY ZONE			GARDEN ZONE			SUGARCANE ZONE		
	Owner cultivator	Tenant	Both	Owner cultivator	Tenant	Both	Owner cultivator	Tenant	Both	Owner cultivator	Tenant	Both
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Upto 3 acres	198	123	174	100	126	111	228	142	195	258	240	257
3 to 5 acres	132	104	122	114	72	108	96	114	100	151	160	153
5 to 10 acres	—	90	90	126	—	126	80	—	80	220	—	220
Above 10 acres	254	—	254	264	—	264	108	—	108	192	—	192
Total	216	104	180	180	96	154	108	120	108	204	192	202

small upto 3 acres; (ii) small, 3 to 5 acres; (iii) medium, 5 to 10 acres and (iv) large, above 10 acres. The second step was to subclassify each group into tenant farms and owner-cultivator farms. The next step was to compute income per acre in each sub and main category of holdings This has been done for all the zones except the coastal where agriculture was not the primary field of inquiry. The data thus processed are given in table 11. 18.

11. 19 First, for farms of all sizes and categories, it may be noted that the per acre income is highest in the sugarcane zone at Rs. 202 followed by Rs. 180 in the wet zone, 154 in the dry zone, and 108 in the garden zone. In all the zones except the garden, the owner cultivator is getting a higher income per acre. It is Rs. 216 for the owner cultivator farm against Rs. 104 in the tenant holding in the wet zone. In the dry zone the owner-cultivator derives Rs. 180 per acre compared with Rs. 96 by the tenant. These difference may be attributed to the tenants', net income being estimated after rent deduction, while the income of the owner-cultivator contains economic rent, land revenue to be paid and interest on purchase price of land, both calculated at market rates. It may be added that land value both in irrigated and dry regions of the district are fairly high. In the sugarcane zone once again the figures reveal a higher income of Rs. 204 per acre for the owner-cultivator and a lower income of Rs. 192 for the tenant-cultivator. The difference between the two is not so glaring which is mainly due to the absence of tenant holdings in the two classes of medium and large farms (Table 11. 18.)

11. 20 In the garden zone the position is different. The tenant farmer is getting a higher income of Rs. 120 per acre against Rs. 108 accruing to the owner-cultivator. With the available data it is not possible to determine the exact reasons for this situation. Further, the sample is too small to yield fairly correct results.

11. 21 Turning to the more important analysis of the relation between scale of farm-business and income, it is remarkable that in both wet and dry zones, the average income per acre is the highest in the large farms. In the wet zone, the per acre average income is Rs. 254 for the large, Rs. 174 for the very small, Rs. 122 for the small and Rs, 90 for the medium farm. These figures seem to indicate that the income of the large farm is higher due to advantages of scale. At the sametime intensive cultivation seems to produce a larger per acre income in the "very small" farm The "small" farm yields a lower income and the medium the least. This sharp fall in income of the medium farms is partly due to the absence of owner-cultivator farms. All of them are tenant farms in the sample. These tenants are bigger ones who do not do manual operations themselves as much as tenants cultivating smaller farms because they emulate more the non-cultivating owners of land than their less fortunate fellow tenants and thereby incur higher costs of cultivation.

11. 22 In the dry zone income per acre is more or less the same in "small" and "very small" farms, oscillating between Rs. 111 and Rs. 108; the

medium farm yields an average annual income of Rs. 126 per acre. It is noteworthy that the average income per acre of the large farm is Rs. 284 which exceeds similar income in the wet zone, showing that cultivation of cash crop is sometimes more profitable than paddy.

11.23 In the garden zone it is the very small farm that yields the highest average income per acre of Rs 195 compared with Rs. 100 from the small, Rs. 80 from the medium and Rs. 108 from the larger farms. It is not correct to infer from these figures that income per acre varies inversely with size in respect of gardens. An enquiry with a larger sample would yield more reliable results.

11.24 In the sugarcane zone once again we find the very small farm yielding the highest average income per acre of Rs. 257 followed by the medium yielding Rs. 220, the large Rs. 192 and the small Rs. 153 Here too a separate investigation into the size of farms and their incomes is desirable to reach correct conclusions.

11.25 Notwithstanding the imperfect conclusions relating to garden and sugarcane zones, the foregoing analysis leads to fairly correct inferences in regard to wet and dry cultivation: (i) It is relatively in the larger farm of above 10 acres that the income per acre is highest and (ii) in "very small" farms in the wet zone, the income per acre is indeed the maximum but such diminutive holdings would not assure the owners enough income to attain reasonable standards of living. The higher income in such midget holdings is the fruit of too much labour intensive toil that could well be spent in some other occupation with much better results.

11.26 SUMMARY AND CONCLUSIONS

From the foregoing analysis certain broad conclusions may be drawn:-

(i) In a changing, growing economy striving to attain maximum employment of its labour force, it would not be wide of the mark to fix 300 working days in a year as full employment. The present survey has revealed the actual number of working days in both Farm and Non-Farm sectors to be far short of this ideal. The maximum number of working days for male farm labour attained is 186 in the garden zone and the lowest is 112 days recorded in the dry zone. It should be noted that the garden zone enjoys the most favourable conditions for maximizing employment with its assured water supply, opportunities for rotation of crops and highcalibre agricultural entrepreneurship. Even under such congenial conditions, employment attained is but 62% of full employment level. In other zones the percentage of employed days is less, reaching a nadir of 37% in the dry zone. Women agricultural workers are still more underemployed securing on an average a maximum of 129 days in the garden zone and a low of 85 days in the dry zone. The present survey explodes the traditional view that men and women in the rural sector are steeped in torpor and ever disinclined to work. Their eagerness to have gainful employment is indisputably demonstrated by this study. It has also been seen that involuntary

idleness on the part of the labourers cannot be eliminated by merely raising the intensity of cultivation. This degree of under-employment loudly calls for redress. Hence there is an urgent need for subsidiary occupations.

(ii) What type of subsidiary occupations should not be provided could be gleaned from the results of the present investigation into employment of non-farm workers. In the village and cottage industries the highest average days of employment is 188 in the zone and the lowest is 145 days in the wet zone. The fishermen form a unique group securing a maximum of 243 working days but fishing as an industry is hardly capable of being extended to other communities and other zones. The workers in the village and cottage industries are subject to under-employment not because they are too many but because their wares and services have a feeble demand. Any attempt to expand employment in the rural industries sector is likely to be followed by over-production rendering their conditions more unhappy. In this situation any diversion of idle agricultural man-power to the rural industries sector is bound to aggravate rather than alleviate the problem of employment, income and living standards.

(iii) The earnings of rural artisans and craftsmen vary from Rs. 374.4 in the sugarcane zone to Rs. 187.8 in the dry zone. When earnings are so low for the hereditary and traditional artisans and craftsmen further addition to their numbers is hardly desirable.

(iv) The earnings of farm workers are deplorably low, yet to shift them to non-farm sector is scarcely

the proper remedy. From this dilemma there are only two ways out. One is to start home industries for manufacturing components as well for new commodities like buttons, fountain pens, safety pins and plastic goods utilising electric motors and appliances. The workers should be provided with semi-processed raw materials from central factories. The components manufacturing units should be linked up by an organization which could carry the components to a central assembling factory, be it cycle, radio or furniture. To this group would also belong the entire gamut of agro industries from simple processing to manufacture of finished goods like rice crispies and groundnut toffee. The second avenue of fruitful employment should be a concentration on rural housing which is at present in an unenviable condition. An efficient organised drive to harness the manpower remaining idle in each village to make bricks, cut timber and construct well-designed and hygienic dwellings out of local resources under the leadership and guidance of the local artisans and craftsmen would go a longway to eliminate the huts and hovels and provide better housing comforts. This may not directly augment the money income of the underemployed villagers but certainly enhance rural living standards. The programme of housing starting from the nucleus of a small but comfortable house can fan out into constructive activities in improving rural water supply, sanitation and cultural amenities. This may perhaps sound too idealistic an approach to solve rural poverty. But a determination to achieve this ideal on the part of the leaders and an awakening of the rural population to the infinite good that would follow are imperative conditions to economic progress.

(v) A reorganization of the farm sector is being vigorously planned by the implementation of ideals like "land to the tiller" and "ceilings on holdings". They have their repercussions on earnings and income of the agricultural population. In view of their close relationship with rural employment an analysis of size of holdings and income was made. It shows that the average income per acre is highest in all zones in respect of medium farms varying from 5 to 10 acres. If productivity per acre in this land-scarce country is a major objective, too much of fragmentation and diminution of holdings, the survey shows, would stultify that objective.

APPENDICES

APPENDIX I

INDIAN COUNCIL OF AGRICULTURAL RESEARCH
(Statistical Wing)
Library Avenue, New Delhi-12.

No. F. 33 (3)/56-Stat, I. Dated the 22nd January 1957.

From

THE ADDITIONAL SECRETARY

To

The Registrar,
Annamalai University,
Annamalainagar.

Sir,

With reference to your letter No. 6437/F-56, dated the 14th November 1956, I am directed to say that the scheme mentioned above was approved by the Governing Body of the Council at its meeting held in December, 1956 at a cost of Rs. 5,000/-. I am, therefore, to request that 75 copies of the technical programme of the scheme may kindly be sent urgently to this office for the consideration of the Scientific Committees at their meeting to be held in February-March 1957. In this connection the relevant extract from the proceedings of the meeting of the Statistical Committee held in November, 1956 is enclosed for your information and necessary action.

Yours faithfully,

Sd. BAKSHI RAM,
FOR ADDITIONAL SECRETARY.

(TRUE COPY)

APPENDIX II

STUDY OF FARM AND NON-FARM EMPLOYMENT IN SOUTH ARCOT DISTRICT.

A. VILLAGE SCHEDULE.

Name of the Investigator: Taluk:
Date of visit: Time taken: Village:

1. CLASSIFICATION OF AREA IN THE VILLAGE.

	Description	Area in Acres.
1. 1	Forest	
1. 2	Not available for cultivation	
1. 3	Other uncultivated lands excluding current follows	
1. 4	Current fallows	
1. 5	Net area sown	
1. 6	Total Area	

2. CROP PATTERN - AREA CULTIVATED.

Sl. No.	Crops	IRRIGATED		UNIRRIGATED		TOTAL	
		1938-39	1957-58	1938-39	1957-58	1938-39	1957-58
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2. 1							
2. 2							
2. 3							
2. 4							
2. 5							

3. LIVESTOCK:

	Categories	1951	1957
3. 1	Cows		
3. 2	Bullocks		
3. 3	Calves - Male		
3. 4	Calves - Female		
3. 5	Buffaloes - Male		
3. 6	Buffaloes - Female		
3. 7	Buffaloes - Young-Male		
3. 8	Buffaloes - Young-Female		
3. 9	Total		
3. 10	Sheep		
3 11	Goats		
3. 12	Total		
3. 13	Cock, hen and chicken		
3. 14	Ducks		
3. 15	Turkey		
3. 16	Others		
3. 17	Asses		
3. 18	Pigs		
3. 19	Others		
3. 20	Total		
3 21	Ploughs		
3 22	Ghanis		
3. 23	Sugarcane Press		
3. 24	Carts		

4. MINERALS:

Category	Category.	Quantity raised.		Labour employed	
		1937–1939		1957–1958	
	1938–39 1957–58	Regular	Casual.	Regular	Casual
4. 1					
4. 2					
4. 3					
4 4					
4. 5					

B. CENSUS OF HOUSEHOLDS

Serial Number	Head of the Household	Street Number	Community	Head's Occupation: Main	Head's Occupation: Subsidiary	Men	Women	Boys	Girls	Total	Education: Literate	Education: Educated	Education: Illiterate	Employed: Men	Employed: Women
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

Unemployed: Men	Unemployed: Women	Not seeking: Men	Not seeking: Women	Employed: Boys	Employed: Girls	Total land owned	Wet	Dry	Garden	Cultivated	Land Revenue paid	Professional tax and other taxes.
17	18	19	20	21	22	23	24	25	26	27	28	29

ANNAMALAI UNIVERSITY

STUDY OF FARM AND NON-FARM EMPLOYMENT IN SOUTH ARCOT DISTRICT

Officer-in-Charge:

K. S. SONACHALAM,
Professor & Head of the
Department of Economics.

Department of Economics,
Annamalainagar,
South India.

C. HOUSEHOLD INVESTIGATION SCHEDULE.

Name of the Investigator:..... Taluk.....

Date of visit:..... Time taken:..... Village:.....

Head of the Household.....

Religion:..... Community:..... Mother Tongue:.....

Response & Ability;

I. ASSETS AND LIABILITIES:

ASSETS.				LIABILITIES.			
Description.	Extent.	Value.	Income.	Description.	Purpose.	Amount.	Interest.
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
House: Units				Mortgage			
Land: Wet-acres				Pronote			
Land: Dry „				Handloans			
Land: Garden				Pawn			
Livestock-Nos.				Cooperative Society			
Deposits-Rs.							
Loans given-Rs							
Jewels :							

2. DEMOGRAPHIC AND EMPLOYMENT DETAILS.

Sl. No.	Members	Relationship	Sex	Age	Marital status	Education		Immigration			Economic status	Industrial			Waiting period for future jobs	Reasons	Employment sought	Is training needed?	Reasons for not seeking any work	Registration.
						General	Technical	Origin	District	Period	Reason		Status	Regularity	Duration						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22

3. OCCUPATIONAL DETAILS AND OTHER GENERAL INFORMATION.

Sl. No.	Members	Classification	Main Occupation	Subsidiary	Period for which occupation followed.		Willing to 'do' additional work			Period for which available for work	For "U" means of maintenance	Place in the village - Labour force.
					Main	Subsidiary	Willingness	Place	Type of work			
1	2	3	4	5	6	7	8	9	10	11	12	13

4. NUMBER OF DAYS WORKED IN A YEAR

MONTH	Own land.	Not ownland		Non-Farm.	Total.
		Paid	Ex-cha-nge.		
Chit.					
Vaik.					
Ani.					
Adi.					
Avani.					
Purat.					
Arpasi					
Karthi.					
Marga					
Thai.					
Masi.					
Pungu.					

5. INCOME OF THE FAMILY

Sl. No.	Items.	Member of Household				Total.
		1	2	3	4	
	FARM:					
1	Land					
2	Wage					
3	Rent					
4	TOTAL					
	NON-FARM:					
5	Selaries or wages					
6	Trade					
7	Service					
8	TOTAL					
	OTHERS:					
9	House rent					
10	Interest					
11	Remittances					
12	Others					
13	TOTAL					
14	GRAND TOTAL:					

(Signature of the Head or any member of the household.)

(Signature of the Eco. Investigator)

Appendix III.

Degree of Household - Amplification.

DEGREE

I – Self, wife and unmarried sons and daughters

II – I + father, mother, brothers and sisters

III – With grandsons-daughters, in-laws, uncle, aunt, nephew, niece, cousins

IV – With relatives other than mentioned above

v – With non-paying non-relatives.

Appendix IV.

Interpretation of Tamil Calendar according to English Calendar.

Tamil Calendar	English Calendar
Chithirai	April 15 to May 14
Vaikasi	May 15 to June 14
Ani	June 15 to July 14
Adi	July 15 to August 14
Avani	August 15 to September 14
Puratasi	September 15 to October 14
Arpasi	October 15 to November 14
Karthigai	November 15 to December 14
Margali	December 15 to January 14
Thai	January 15 to February 14
Masi	February 15 to March 14
Panguni	March 15 to April 14

Appendix V

Daily wage rate

Village.	Agricultural workers.		Artisans	
	Ploughing.	Sowing and Transplanting	Mason	Carpenter.
WET ZONE				
1. Kilakarai	1.00	1.25	2.00	2.50
2. Paiyur	0.75	0.62	—	2.00
DRY ZONE				
3. Perumbugai	0.75	1.00	1.50	2.00
4. Olagapuram	0.75	0.75	1.75	2.00
5. Meppuliyur	0.75	0.75	2.00	2.00
GARDEN ZONE				
6. Mangalur	1.00	0.75	2.00	2.50
SUGARCANE ZONE				
7. Neelamangalam	1.50	1.00	2.00	2.00
8. Karamanikuppam	1.50	0.75	2.50	2.50
COASTAL ZONE				
9. Thandavaraya-cholagupet	1.25	0.75	2.50	2.50
10. Killai	1.00	0.75	2.50	2.00