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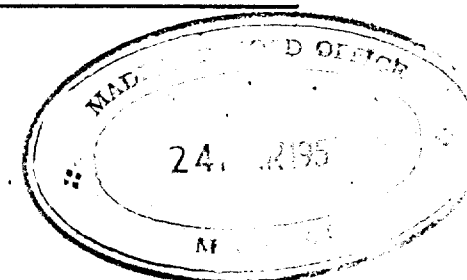
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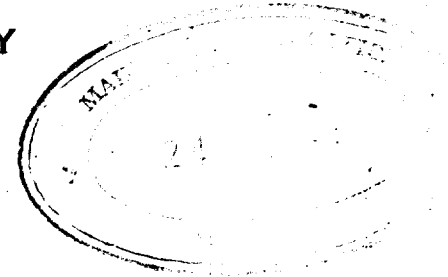
**SOME SOUTH INDIAN VILLAGES
A RESURVEY**

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SOME SOUTH INDIAN VILLAGES

A RESURVEY



EDITED BY

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With Analysis and Observations



UNIVERSITY OF MADRAS

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PUBLICATIONS OF THE DEPARTMENT OF ECONOMICS

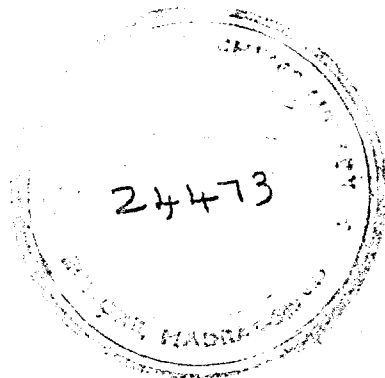
Books :

1. Some South Indian Villages.
2. Industrial Welfare in India.
3. Indian Agricultural Statistics.
4. Some South Indian Villages—A Resurvey.

Bulletins :

5. Economic Life in a Malabar Village.
6. Handloom Weaving in Madras Presidency.
7. The Economic Results of Prohibition in Salem District.
8. Commodity Prices in South India, 1918-38.

TO THE MEMORY OF
DR. GILBERT SLATER,
*the first Professor of Economics
in the University of Madras,
1915-21*



PREFACE

This book contains the results of a resurvey of some South Indian villages conducted by this Department in the year 1936-37. This was exactly twenty years after the first survey of these villages was made by Dr. Gilbert Slater, the first University Professor of Indian Economics. About a dozen villages were surveyed in 1916-17; only nine of these were resurveyed in 1936-37, but in greater detail. The villages resurveyed were the following:—Vadamalaipuram (Ramnad District); Gangaikondan (Tinnevely District); Palakkurichi (Tanjore District); Eruvellipet (S. Arcot District); Dusi (N. Arcot District); Vunagatla (W. Godavari District); Watakancheri (Cochin State); Guruvayur (Malabar District); and Kothachera (Malabar District). As the boundaries of the last-named village have changed substantially since the first survey, the later data could not be compared with those collected in 1916-7, and therefore it is not included in the present book.

After the survey was made, further points had to be ascertained and the data had to be analysed with a view to draw the attention of the readers to the main changes that had taken place. This has caused great delay in publication.

We have received help from several persons in bringing out this work. Our thanks are due in particular to Dr. P. S. Lokanathan, Reader in Economics, who went through the proofs and made many valuable suggestions, and to Mr. B. Natarajan who, as Acting Lecturer in the Department, helped in the early stage of analysis of the data, while Mr. K. C. Ramakrishnan was on leave. Among those who helped investigators in their local enquiries, special mention must be made of Mr. E. V. Sundara Reddi, who assisted in the survey of his own village, Eruvellipet, both in 1916 and in 1936-37. Our thanks are also due to the G. S. Press for the care taken in the printing of the book.

We are grateful to the Syndicate of the Madras University for publishing this book.

*Department of Economics,
University of Madras,
21st December, 1940.*

P. J. T.
K. C. R.

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INTRODUCTION

Some South Indian Villages edited by Dr. Gilbert Slater, the first Professor of Economics in the University of Madras, and published in 1918, was among the earliest of the objective studies of the economic and social conditions of the village in India. In 1913 Sir Theodore Morison suggested in his inaugural address to the Madras Economic Association that an economic enquiry in the Madras Presidency should begin with a sociological and statistical survey of typical Indian villages. It was difficult to decide straightaway which were 'typical' villages and find investigators for them. The villages were not chosen by Dr. Slater as representative of any special types. The idea of selecting 'typical' villages for enquiry has since been discredited by statisticians. According to them the proper method would be to select a large number of villages on a random sampling basis. Dr. Slater acted on the simple principle of taking those villages in different parts of South India that were most accessible to the students of the University, most of them in the Honours classes in colleges, who were willing to enquire according to a questionnaire drawn up by him. While this questionnaire was perhaps not so elaborate on the agricultural side as that of Dr. H. H. Mann of Bombay or of the later Punjab Board of Economic Enquiry, it demanded a more extensive and intensive knowledge of the village studied than any that had been in use in official enquiries.

Rural economic enquiries of some sort had been for long attempted by officials of the Revenue Department when a tract came up for assessment of land revenue. Among early efforts, Col. Read's investigations (1792-99) in Baramahal (Salem) of family budgets, systems of cropping and costs of cultivation were indeed admirable. But they were not pursued seriously when the system of taxing the landholders gave way to that of taxing the land. When districts were taken up for resettlement, some enquiries of groups of villages were made; but these were admittedly superficial and incomplete. Jack's survey of Faridpur in Bengal was an exception, but it was also of a whole district and therefore too comprehensive. Generally speaking, in resettlement enquiries the villages were chosen haphazardly, the work of enquiry and report was entrusted to an overworked subordinate staff, the data were not published, and the methods were such as to give room for the allegation that the enquiries were designed to justify enhancement of

revenue. There was no detailed enquiry into the economic life of the villagers. It was not an objective economic study that was aimed at.

The representatives on the Legislative Councils challenged the often interested findings of Settlement Officers and demanded a more detailed and impartial enquiry. The Governments in India were sceptical of the value of an enquiry which would lead to arguing from the minute particular to the enormous general; they also feared a certain amount of annoyance and resentment on the part of the people at any such enquiry and thought that such an enquiry was, if it should be done at all, best done by private individuals not connected with the Government. There was indeed a certain amount of approbation by the public, as well as the Government, of this venture of the Economics Department of the Madras University, which was the first among Indian universities to take up such work on this scale.

The lead was given by Dr. Slater so far as South India was concerned and it was for others to follow and not rest content with "ascertaining the condition of people in certain isolated spots." The Royal Commission on Agriculture had no doubt of the value of such village surveys. "The rural reformer will be handicapped by the lack of readily available information as to details of village life and by divergent views on what ought to be readily ascertainable facts." The enquiry into socio-economic problems like indebtedness, the Commission said, "is eminently a field for investigation by private agency rather than by Government departments. Universities and semi-official organisations like the Punjab Board of Economic Enquiry were eminently fitted to provide the careful editorial supervision required for work of this character." The Commission agreed with Dr. Mann that the villages once surveyed should be resurveyed with a view to find out the precise economic changes. "For the systematic promotion of the welfare and prosperity of the agricultural population, exact and detailed information is required of the forces at work tending to produce a decline or an improvement in their economic condition."

It is this desire to study the changes in the twenty years since 1916-17, when the first survey was made, that prompted the present resurvey. No other twenty years in the recent history of India could be said to be so full of economic ups and downs for the village folk, or so marked by political stirrings with their repercussions on economic and social life. The biggest boom and the deepest depression known in modern history have left their indelible marks

on the villages in this short period. Perhaps it is so full of abnormalities that it may be said it does not represent the normal reactions of villagers to economic and political changes. But there is no knowing that once the placid contentment of villagers is disturbed, as it has surely been, they will not react more quickly to the profound changes taking place round about them and respond more eagerly to the beneficent measures undertaken in their interest.

Not all the dozen villages surveyed in 1916-17 have been resurveyed in 1936-37. Only nine out of the dozen, situated in different parts of South India, have been resurveyed. One of the resurveys has not been published as the boundaries of the village have changed. Of the eight villages whose resurveys have been published, one is in the Cochin State, and the rest are in the Madras Presidency. Of these only one is in a Telugu district, one is in Malabar District. The other five are all in Tamil districts: North Arcot, South Arcot, Tanjore, Ramnad and Tinnevely. Except in the case of Watakancheri resurveyed by Mr. S. Subbarama Ayyar, now Assistant Professor of Economics in the Madras Christian College, it was not possible to induce the original investigators to resurvey their villages. The resurvey was, in the case of six villages, entrusted to research students of the Economics Department of the University, who stayed for some months in the village allotted and made all enquiries themselves, in addition to utilising the records of village officials, village panchayats, schools and co-operative societies. The resurvey of Gangaikondan alone had been done two years earlier for another purpose; but Mr. B. Natarajan who did this was previously a research student of the University and it had the advantage of revision by the previous investigator, Dr. P. S. Lokanathan.

The questionnaire of Dr. Slater, which by the way has been adopted outside Madras Presidency, has been slightly modified. A few questions on the sociological side have been cut down; those demanding mere description have been eschewed. On the other hand, more details have been sought on the size and fragmentation of holdings, family budgets, on the consumption of different items of food in particular. A census of production of the villages taken up for resurvey has been attempted. More data on moneylending, village trade, wages of artisans, etc., have been collected. Indeed in some cases, the data are so detailed that they are not comparable with the meagre data of old. This is not to deny that the first surveys were remarkable for their frank and fair statement of every

case and for their quick presentation of a general picture of village life.

The technique of investigation has considerably improved, especially the handling of statistical material. Handicaps to investigation still continue. The public are more critical. But whatever the defects in these resurveys, we trust they will give the readers a true picture of the changes in the social and economic life of the villages in the twenty years that elapsed since they were first surveyed. This after all is the purpose of this resurvey.

UNIVERSITY OF MADRAS

DEPARTMENT OF ECONOMICS

SCHEME FOR SURVEY OF A VILLAGE

General Instructions.—Embody in your report the official information which is available, but endeavour also to test its accuracy and to correct it when possible. Use some distinguishing mark to indicate whether your information is derived from official or other sources. Thus the letter 'O' can be used to mark official information, 'N' non-official and 'N & O' official information confirmed by non-official.

Give special attention to the questions marked with an asterisk (*) asked in the original survey and to those marked with a dagger (†) which are new.

Preliminary.

1. Survey number of village.
2. Name of village.
3. Taluk.
4. District.
5. General description of geographical position and position in relation to any forests, rivers, hills, etc., which there may be in the neighbourhood.
6. Is the village ryotwari or zamindari?

Population.

1. Total population of caste village.
2. Castes.
3. Number of families and individuals in each caste.
4. Number of children in families—
 - (a) living,
 - (b) dead.
5. Number of homesteads.
6. Give the statistics of the births and deaths given in the village accounts, and try to ascertain to what extent they are accurate; and if defective, why so?

7. Population—men, women, and children—of Paracheri (Harijan) given if possible in families, with number of dead in families.

NOTES :—(a) Endeavour to give, if possible, the population according to the last two or more censuses.

(b) Use the figures so obtained to ascertain whether the population is increasing or decreasing, and if so, which sections of the population (caste and sex). Show the increase or decrease.

Land.

1. Total area.
- *2. Area of wet lands.
- *3. Area of cultivated dry lands.
- *4. Area of lands watered by wells.
5. Common waste.
6. Pasture other than common waste.
7. Woods and forests.
8. Fruit trees and scattered shade trees.
9. Tanks.
10. Wells.
11. Other sources of water supply.

NOTE :—The information required can mostly be obtained from the village accounts, but some correction may be necessary. *Make if possible a copy of the village map.*

12. Add any information with regard to changes in the above in recent times, procurable either from village records or the memory of inhabitants (e.g. Has the cultivated area increased? Has common pasture become scarce?)

Occupation of Land. (If Ryotwari).

1. Area cultivated by the pattadars.
2. Area sublet and cultivated by tenants.
3. Number of cultivating pattadars.
4. Number of non-cultivating pattadars and their respective occupations.
5. Number of tenants who have no patta land.
6. Agricultural workers who neither own nor rent land.
7. Give an account of the sizes of the properties according to area and amount of kist.

8. Give a similar account of the sizes of the holdings of cultivating ryots, whether these hold patta lands, or hire lands from pattadars.
- *9. Rents in money or kind. Give an account of the agreements usual between pattadar and tenant, and the amount of the rents paid for different classes of land.
- *10. Land revenue. Give total kist of village and amount per acre for different qualities of land.
11. Particulars of people who combine agriculture with other occupations.

NOTE :—(a) If the village be zamindari, explain the economic relations between the zamindar and the tenants directly under him, and between these and sub-tenants, if any; and give the information corresponding to that asked for ryotwari villages.

†(b) Joint and single ownership of land; cultivation in either case.

(c) Under (9) give as full information as possible both about the sorts of agreements that are concluded between the pattadar and the tenant, and also the amount of the rents, and what extras such as straw, vegetables, etc., are paid in addition to grain or cash rents. If landlord and tenant share the produce, explain how the kist and costs of cultivation are shared, and whether the tenant has all the straw; and endeavour to calculate the actual value of the share of produce obtained by either party.

†(d) Is there any difficulty in getting tenants? Period of tenancy in general. Renewals of leases. Advances by landlords for buying seeds, manures, etc., and the terms on which they are given. Effects of tenancy systems on cultivation of land, obviously traceable.

Agriculture.

1. Area under each of the principal crops.
 2. Area yielding one crop per annum.
 3. Area yielding two crops per annum.
 4. Area yielding three crops per annum.
- N.B.—Give these statistics for a short series of years.
5. Customary crop cultivation of wet, dry, and garden lands

* Particularly note

(a) the time usually available for ploughing, sowing, harvesting c.

- (b) the time required to plough, sow, and reap a defined area (e.g. 1 acre).
- In the case of paddy, the time available for transplanting, and the number of days' work required to transplant a given area (e.g. 1 acre).
- (c) whether single transplantation is customary.
- (d) In the case of crops other than paddy, note whether the period when they require the expenditure of labour comes at the same time of year or not as the busy time for paddy cultivation.
- *6. Types of plough used, and the number of acres cultivated per plough in wet, dry and garden land respectively.
7. Other agricultural implements.
8. Describe types of pumps or waterlifts used (no elaborate description is needed if they are of common types). Are oil engines used?
- † If they were introduced and given up, state reasons for the same.
9. Is water sold for irrigation by one villager to others? If so, what price is charged?
- *10. Stock:—
- (a) Working oxen.
 - (b) Cows.
 - (c) Male buffaloes.
 - (d) Cow buffaloes.
 - (e) Young stock of above species.
 - (f) Horses.
 - (g) Donkeys and mules.
 - (h) Sheep.
 - (i) Goats.
 - (j) Pigs.
- NOTE.—In obtaining the answer to this question you must not rely upon official information, but make independent enquiries?
11. Are ploughs or carts and bulls hired out? If so, give rates of hire.
12. Describe the custom with regard to feeding of domestic animals, particularly noting whether common pastures or private pastures are available.

13. Manuring:—(a) What percentage of the cattle dung produced is used as manure?
- (b) What quantity of cattle dung is applied per acre of wet, dry and garden land?
- (c) How is cattle urine utilised?
- (d) Other animal manures.
- (e) Green manure—Under this head explain whether green manure is grown or obtained from woods or forests.
- (f) Are chemical manures used? If so, how obtained?
14. Garden cultivation. Describe methods of cultivation:—
- (a) How many cocoanuts does one tree yield on the average per year?
 - (b) What is the value of the yield of an acre of land under (i) vegetables, (ii) plantains, (iii) tobacco, (iv) any other special crops grown?
15. Chief insect pests and methods of combating them.
16. Chief cattle diseases and methods of combating them.
- NOTE:—Under (15) and (16) note particularly whether assistance is obtained from the Agricultural and Veterinary Departments.
17. How and where is wood obtained for fuel, implements, buildings, etc.?
- *18. Give estimates of the costs of cultivation and gross outputs of as many important crops as possible and on different kinds of lands, stating the source from which you get your information.
- † NOTE:—Give definite data on preparation of soil, cost of ploughing, (number of ploughings), seeds, manures and labour on different operations. (Cost of cattle, maintenance, etc., hours of labour worked, if one's own were used).
19. Has there been any recent improvement in methods of cultivation, as single transplantation of paddy, seed selection of cotton, introduction of new crops, use of iron ploughs, etc.? If so, how was such improvement brought about? Are the villagers disposed to adopt new methods if their utility can be demonstrated?

20. Do the villagers breed their own cattle, or buy them? If the former, give as full an account as possible about their methods of breeding and rearing young cattle; if the latter, state how the cattle are procured, what breeds are preferred, where they come from, what prices are paid, and what becomes of the cattle afterwards.

*21. How much milk does (a) a cow, (b) a cow-buffalo, yield on the average per annum?

*22. Is there a tendency for holdings to become through repeated sub-division too small to maintain the holder and his family?

In case there are many such very small holdings, what opportunity has the pattadar of getting other remunerative employment, as carting, or carrying on some small industry, or working for other villagers, or for some employer outside the village?

*23. To what extent are holdings fragmented (scattered into several plots)?

Is much inconvenience experienced as a result of fragmentation? (e.g. in waste of time in passing from plot to plot, reluctance to sink wells, or manure heavily, disputes, waste of land in bunds for small plots, inconvenience of access, unnecessary winding in and out of water-channels).

Do ryots exchange lands in order to get their lands contiguous? If so, do they build field huts where they have several acres in one spot?

Has any well or other permanent improvement been prevented on account of fragmentation?

† Illustrate a few cases of fragmentation by diagrams.

† Trace the course of sub-division and fragmentation in the last 20 years.

† Compare costs of cultivation of the same crop on different sizes and compositions of holdings.

The Village Site and Houses.

1. Area of the village site.
2. Do the different castes occupy separate parts of the village.
3. Describe the dwellings of the depressed castes.

4. Types of dwellings, e.g. (i) tiled, (ii) thatched, (iii) two-storeyed houses.
How many houses are there (a) in caste village? (b) in paracheri?
5. Are there gardens adjoining the dwellings?
6. What is the maximum distance of cultivated lands from the home of the cultivator?
7. Is there an unsatisfied demand for building sites?
8. Site values. Give price of a given area.

Subsidiary Industries.

1. Number of weavers.
2. Condition of the weaving craft:—What yarn is used? What looms and winding implements? Do weavers co-operate at all? What evidence is there of growth or decay in the weaving industry? Give average earnings.
- †3. Is hand-spinning practised? If abandoned, when? Was hand-spinning revived after 1920? How far is it still pursued?
4. List of other crafts in the village, giving where possible the proportion of working time spent on the craft, average earnings and any interesting features about the craft.
- † NOTE:—Number engaged, quantity turned out and sold by each industry. Methods of purchase of raw materials and of sale of finished goods. Figures of cost of production and the margins obtained in important cases.
5. Give any information available showing whether any industry is developing or, on the other hand, dying, decaying, or becoming less remunerative.

Village Trade.

1. How do the villagers purchase commodities required:—
(a) for industrial and agricultural use?
(b) for their own consumption?
- †2. Sale of Village Produce:—
(a) Estimate the quantities of village produce sold out of the village and reserved for consumption.

- (b) Prices of chief crops in the last 5 or 10 or 20 years as far as available.
 - (c) The nearest market for goods; nearness to railway station.
 - (d) Classes of buyers, their headquarters and methods of business.
 - (e) Any financing by traders and forced sale of produce on that account?
 - (f) Pressure of other debts or kist payments?
 - (g) Weights and measures in use. Any fraud detected.
 - (h) Adulteration, damping and other methods of lowering quality.
 - (i) Any co-operative society for the sale of produce attempted? to what extent successful?
3. Condition of village with regard to local roads, access to main roads, railways and commercial centres.
 4. Extent of co-operation (un-official) in village trading.
 5. Do the poorer ryots sell grain at a low price immediately after harvest. Are they obliged to buy it for their own food or for seed at a higher price later on?
 6. How does the price the ryot receives for his produce compare with the prices in the nearest large market?

†Production and Income of the Village.

Estimate the total production of the village, family-war or commodity-war. Both quantities and values must be given wherever possible, and the prices and measures or weights used for evaluating the different commodities must be stated.

A. Crops :—

Cereals: Paddy, cholam, ragi, cumbu, etc.

Pulses: Red gram, black gram, green gram, Bengal gram, etc.

Oilseeds: Groundnut, cocoanut, castor seed, gingelly.

Sugar-cane jaggery, palmyra jaggery.

Condiments, chillies, pepper, ginger, turmeric.

Tobacco, betel, arecanut.

Vegetables.

Fruits: mangoes, plantains, citrons.

Cotton, hemp and other fibres.

B. Livestock and other animal products :—

Milk, ghee, curds, wool, hides and skins, meat, bones and horns, cattle manure, calves, poultry, eggs, fish, honey, bees-wax, etc.

C. Income from Non-Agricultural Occupations :—

(a) Cart-driving, headload cooly.

(b) Spinning, weaving and dyeing, etc.

(c) Smithy, carpentry, shoe-making.

(d) Shop-keeping, hawking.

(e) Medicine, astrology, and priest-craft.

(f) Barber, washerman, tailor.

D. Estimate the amount of annual remittances to the village from sons and relatives.

Wages, Employment, Savings and Debts.

*1. Customary rates of wages, (a) in money; (b) in kind.

Note what extra perquisites are given to the labourer in addition to his regular wage.

†2. Days and hours of employment available for (a) the pattadar; (b) the tenant; and (c) the labourer on different kinds of farms and on different sizes of holdings.

†3. (a) How many are unemployed among agricultural workers?

(b) How many educated persons are unemployed?

Classify them according to educational qualifications.

*4. Current prices of staple foods. Try to calculate how much food a landless labourer's family can obtain for its total annual wages.

5. How many families have made savings?

6. Utilization of savings :—

(a) Agricultural or industrial capital.

(b) In savings banks.

(c) On loans to neighbours.

(d) In jewellery.

(e) Other methods.

*7. Extent of indebtedness.

*8. Number of padiyals and conditions of their service to creditors, stating amount of wages or allowances of grain, clothing, etc.

*9. Causes of indebtedness.

10. What rates of interest are ordinarily paid for different sorts of debts, whether in money or grain? Is the real rate of interest even higher than the nominal rate, by manipulation of prices?

11. Proportion of debtors who have liberated themselves from debt.

†12. Give any particulars known about selling prices of land

†13. How far is transfer of land common? Number of such transfers for a few years. Common cause of transfer.

14. To what extent is advantage taken of the Agricultural Loans Act and the Land Improvement Loans Act?

Communal Income and Expenditure.

1. Is there a co-operative credit society? If so, add a special appendix giving the fullest possible account of its origin, progress and prospects. Is it reducing the village indebtedness?

2. Sources and extent of communal income (i.e., income belonging to the village as a whole, and not to individual villagers).

3. Expenditure of communal income.

4. Administration and supervision of communal income.

5. Estimated annual expenditure on religious festivals. Are such festivals in honour of a village goddess?

6. Estimated expenditure in recent years on new temples.

Health and Sanitation of the Village.

1. Prevalence of Malaria.

2. " Cholera.

3. " Plague.

4. " Tuberculosis.

5. " Small-pox.

6. " Other epidemic diseases.

7. " Other endemic diseases.

8. Estimated rate of infantile mortality.

9. Snake bites.

10. Medical assistance available.

11. Insanitary habits.

12. Prevalent customs with regard to (a) infant marriage.
(b) Purdah.

13. Nature and quality of water supply for drinking and domestic purposes.

14. Do the villagers bathe and wash clothes in the same stream or tank as that used for drinking?

†Consumption of Foodstuffs.

A. Nature and quantity used *per capita* by

(a) Well-to-do persons of different castes—landlords, etc.

(b) small landowners and well-to-do tenants.

(c) Small tenants and agricultural labourers.

(d) village artisans and menials.

B. Description of meals taken—the menu—quantity taken particularly of milk and milk products, vegetables, meat.

C. Different foodstuffs—how produced and processed? Methods of cooking and serving and preserving (any waste?).

D. Ascertain changes in diet in the last 20 years—in the rice used, coffee or tea, tobacco, etc.

Education.

1. Number of schools.

2. School accommodation.

3. Educational character of schools.

d.

4. Number of boys attending.
5. Number of girls attending.
6. Average duration of school life.
7. Percentage of adults able to read the vernacular.
8. " " to write the vernacular.
9. " " to talk English
10. " " to read English.
11. " " to write English.
12. Number of pundits or specially educated persons.
13. Are there any adults who had learnt to read, to write or to cipher but have lost such ability after leaving school?
14. Number of boys and girls who have proceeded to more advanced schools elsewhere.
15. How have their school expenses been defrayed?
16. Have boys from the village who have passed through secondary schools obtained satisfactory careers later on?
17. Have any gone to an agricultural college?
18. Have any boys who have received a good education settled down in their own village? If so, how do they use their education?
19. How many books and of what character are available in the village?
20. Are there any dramatic performances? If so, give a description.
- †21. Are newspapers read in the village? Names of such newspapers.

Village Administration.

1. Panchayat.
2. Village administration.
3. Sanitary administration.
4. Police administration.
5. Contact with higher authorities.
6. Statistics of crime in recent years?
7. Are any of the villagers engaged in litigation? and if so, why? Are any in debt in consequence of litigation?
8. Are offences and civil disputes dealt with in the village without resort to the Courts?

History and Prospects of the Village.

1. What evidence is there to show either economic deterioration or economic improvement?
- *2. What opportunities does the village seem to have for economic improvement? Note specially the possibility of extending the area of irrigated lands. Could more wells be sunk with advantage? If so, why are they not sunk?
- *3. *General.*—If opportunity offers illustrate by giving a more detailed account of the occupations, income, expenditure and the general condition of a few typical families. Add any information which appears to be interesting and significant not asked for in this form; as for instance, information as to the decrease of land held by different castes, reasons why people buy land and why they sell it, the emigration from the village either to cities or to foreign countries, whether they make any remittances to the village or draw therefrom, why the emigrants go and whether they return, what effect such movements have upon the economic, intellectual, and social life of the village; what new expenditure on luxuries or comforts is becoming customary; what other changes are there in the standards of living; and whether there is any change in custom with respect to marriages or religious observances.

†Rural Reconstruction.

Has any effort at Rural Reconstruction been made in recent years? If so, give a short account.

RURAL FAMILY BUDGET

1. Village.
2. No. of the family.
3. Caste.
4. Head of the family.
5. Occupation.

I. MEMBERS AND INCOME.

No.	Members: (Earners underlined.)	Sex.	Age.	Occupation.	Rate of wages or income.	Days in the year employed.	Annual Income.	Remarks.

1. Regularity of employment.
2. Seasons of unemployment.
3. Lands owned by the family:—

	In the village.			Outside.		
	Extent.	Assessment.	Value.	Extent.	Assessment.	Value.
Dry ..						
Wet ..						
Others' ..						
Total ..						

4. Income from Lands and Houses:—

Lands Owned. { Cultivated ..
Leased out ..

Lands taken on lease.

Income as labourers.

House property etc.

Extent.	Yield.	Value.

5. Other occupations and income.
6. Total family income.
7. No. of months in the year the family is forced to subsist by borrowing grain or money.
Extent of borrowing.
8. Other points of interest about income and wages.

II. EXPENDITURE.

Commodities.	Quantity consumed*			Cost per*									Remarks†
	Daily.	Monthly	Annually.	Day			Month			Year			
				Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.	
1. Food:													
Rice ..													
Ragi ..													
Cumbu & Varagu ..													
Dholl ..													
Condiments and													
Spices ..													
Salt ..													
Vegetables ..													
Sugar & Jaggery ..													
Oil ..													
Ghee ..													
Milk ..													
Eggs ..													
Fish & Mutton ..													
2. Misc.:													
Coffee or Tea ..													
Betel & Nut ..													
Tobacco ..													
Cigarettes and													
Beedis ..													
3. Drinks & Drugs:													
Toddy ..													
Ganja ..													
Others ..													
4. Fuel & Lighting:													
Firewood or Cow													
dung cakes ..													
Kerosene ..													
5. Clothing: ‡													
Men ..													
Women ..													
Children ..													
6. Shoes, Sandals:													
7. Bedding:													

N.B.—* Fill in whichever column is convenient and seems to be accurate.

† State whether the article is purchased, got free or grown by the family. If it is not commonly used, state how often it is used.

‡ Mention kinds, and the total number in each kind in use, as well as the number required per year.

EXPENDITURE—(Contd.)

Other items of Expenditure	Mention the several kinds in detail their Value and Cost.	Annual Expenditure.
1. House Rent: Repairs ..		
2. Maintenance of Cattle ..		
3. Other Agricultural Stock ..		
4. Household requisites: utensils, etc. ..		
5. Furniture used ..		
6. Jewels: Describe and give value ..		
7. Services: Dhoby and Barber. Padiyals and other Servants.		
8. Religious observances:		
Pilgrimages ..		
Feasts and Festivals ..		
9. Amusements and Recreation ..		
10. Medical Charges ..		
11. Interest on debts. Regularly paid? ..		
12. Remittances: to whom, and how much ..		
13. Education:		
(No. of literates in the family) ..		
14. Lend Rev. Cesses and other taxes paid annually ..		
15. Loans to others ..		
16. Other Expenses ..		

Total Annual Expenditure Rs.

III. GENERAL CONDITION.

- No. of meals taken each day:
Meal time and Menu
- Health condition:
Mention sickness if any
- State of Domestic Happiness
- Extravagant or Thrifty;
If any savings, where deposited?
- Use of spare time
- Actual amount spent during the year upon:—
(a) Marriage. (b) Feasts. (c) Other Ceremonies.

IV. INDEBTEDNESS.

Kind of Loan.*	Property mortgaged.	Principal outstanding.	Interest due.	Rate % p. a.	Duration in years.	Creditor.	Purpose of borrowing.

[*Mention simple mortgage, Mortgage with possession, Pronotes and Bonds, Hand loans, Pledge of crops, jewels; or harvested produce, Padiyal advance, Miscellaneous, etc.]

Total Indebtedness

Total Assets

Chief cause

How long in debt

V. HOUSING AND SANITATION.

No. of families in the house_____ Total No. of persons_____

Ground Plan of the House/Hut

N.B.—Mark the road, windows, doors, rooms etc. Give the approximate dimensions: Point out the cattle shed, etc. (or where they are usually housed), manure and rubbish heaps, kitchen, bedroom, well, latrine, looms, etc.

House: Value Rs.

Accommodation: No. of rooms, verandahs, pials, dimensions.

Construction: Roof: thatch, tile, terrace. Walls: mud, brick, stone.

Floor: mud, brick, cement, gravel.

Condition: Good, fair, poor, dilapidated, unfit for human habitation.

Light and Ventilation:

Drainage facilities.

Water Supply: (drinking and bathing).

Latrine facilities.

PART I

RESURVEYS

VADAMALAIPURAM.

(*Ramnad District*)

BY

S. THIRUMALAI, M.A.

Vadamalaipuram is one of the four hamlets that form the Government Revenue village of Kila-Tiruttangal,* in the Sattur Taluq, Ramnad District. It is situated in the north-west corner of the Sattur Taluq and lies at a distance of four and a half miles from Sivakasi, four miles on the metalled road from Sivakasi to Virudhunagar, and half a mile to the east of the main road. It comprises also the Government revenue villages of Melamattur and Karseri, the Inam village of Minakshipuram and the Zamin village of Vadimitta. A furlong north of the village flows the river Arjuna eastward with water throughout the year, though not full during summer. The hamlet is locally known as Kondureddipatti.

The original site of the village was a furlong west of the present site. There is an old temple on the former site. The original inhabitants were Reddis and hence the name of Kondureddipatti. Reddis even now visit the temple annually and offer pujas.

Local tradition has it that at a later time Vadamalaiappa Pillai, the author of two Tamil Puranams—Matchapuram and Nidurpuram—and Revenue Agent of the Naik rulers of Madura, chose the present site of the village for occupation for some time and hence the name of Vadamalaipuram†

* Vadamalaipuram is but a part of Kilattiruttangal revenue village. It does not include Melamuttur and Karseri, nor Vadimitta, as stated in the previous survey. Only the holdings of some of the people in Vadamalaipuram were distributed over one or more of these villages in the neighbourhood.

† Although Vadamalaiappa Pillai is a well-known name in the South, there is no definite evidence, in contemporary literature or inscriptions, of his connection with this village.

Population.

Following is the result of a special census taken on 8th November 1936: Figures of the original survey are also given for comparison.

Name of caste.	1916.		1936.					
	No. of families.	Total individuals.	No. of families.	Total individuals.	Males.	Females.	Boys.	Girls.
Nayakars (kammavar).	100	389	103	414	124	147	62	81
Asari (artisan).	7	36	6	22	8	9	2	3
Potter.	1	1	—	—	—	—	—	—
Edayars or Konars.	12	60	9	55	17	18	11	9
Barbers.	2	7	1	3	2	1	—	—
Pandaram.	1	7	1	3	1	2	—	—
Semman (Tailor).	1	7	2	10	6	3	—	1
Dhobies.	2	8	2	14	5	4	3	2
Maravars.	6	25	8	32	12	11	3	6
Sathanis.	—	—	1	1	1	—	—	—
Brahmins.	2	11	2	9	3	3	—	3
Vellalas.	2	9	—	—	—	—	—	—
Pallas.	21	89	20	72	21	23	15	13
Chakkiliyas.	8	52	11	33	11	14	5	3
Total.	165	701†	166	668	211	235	101	121

The two Brahmin families mentioned in the original survey left the village long ago, and of the two families now settled here, one is the Headmaster of the Board Elementary School and the other is the *archaka* or the priest of the local Perumal Koil. The two Vellala families have left the village.

The total number of caste families is 135 with a population of 563, while the paracheri has 31 families with 105 individuals. The number of children in the caste-village is 186 and in the paracheri 36. There are 57 widows and 15 widowers among the caste people and 12 widows and 3 widowers in the paracheri.

† Total 811 given in the original survey is evidently wrong.

DISTRIBUTION OF POPULATION ACCORDING TO AGE (1936).

		Under 5.	5 to 16.	16 to 25.	25 to 50.	Over 50.
<i>Caste Village—</i>						
Males	..	38	46	45	92	38
Females	..	34	82	38	114	35
Total	..	72	128	83	206	73
<i>Paracheri—</i>						
Males	..	10	9	3	27	2
Females	..	7	11	3	27	6
Total	..	17	20	6	54	8

The percentage of "effective population" or active workers to the total population, judged by age 16 to 50, is 55.4 among caste people and 51.4 among depressed classes.

STATISTICS OF BIRTHS.

Caste.	1935.			1936.		
	Males.	Females.	Total.	Males.	Females.	Total.
Nayakars	.. 7	6	13	8	3	11
Konar	.. 2	1	3	—	2	2
Maravar	.. —	1	1	—	—	—
Dhoby	.. —	1	1	—	1	1
Chakkiliar	.. 2	—	2	—	—	—
Pallar	.. 2	—	2	—	—	—
Total	.. 13	9	22	8	6	14

Since 1916, there has been a progressive fall in birth-rate, due perhaps to the later age—even 20—at which girls in this village have been married. Besides in the age-group 16 to 25, there has been a decrease of 13 females, though males have increased by 4; and in the age-group 25 to 50, there are 40 females less and 38 males less.

STATISTICS OF DEATHS.

Caste.	1935.			1936.		
	Males.	Females.	Total.	Males.	Females.	Total.
Nayakar ..	11	3	14	4	6	10
Konar ..	2	-	2	-	-	-
Maravar ..	1	-	1	-	-	-
Pandaram ..	-	-	-	1	-	1
Barber ..	-	-	-	1	-	1
Chakkiliyar ..	-	-	-	3	1	4
Pallar ..	-	-	-	-	1	1
Total ..	14	3	17	9	8	17

DEATHS AT DIFFERENT AGES.

Year.	Below one year.	Between 1 & 5.	Between 25 & 50.	Between 50 & 80.	Total.
1935	3	5	2	7	17
1936	1	7	5	4	17

CAUSES OF DEATHS.

Year.	Fever.	Dysentery.	Other reasons (old age, etc.)
1935	6	4	7
1936	12	2	3

The figures in the Registers cannot be relied upon as quite accurate as they are based on the reports of the Talayari. The official residence of the Village Munsiff is Sengamalapatti, another hamlet of Kilatiruttangal, and it appears he does not personally go and verify the cases of births and deaths. Cases of accidental drowning or suicide are included in 'other reasons.'

Comparing the figures of 1916, we find that the total population has decreased by 14 per cent. No single reason can be ascribed for the decrease and it must be mainly due to (1) the complete extinction of certain families in the Naidu caste and among the Panchamas and to (2) the migration of certain others, e.g., Vellalas, permanently to other villages. The figures for 1936 also show that there are more girls than boys. Comparing the population of Paracheri alone with 1916, a decrease of 26 per cent is perceived.

The decrease in total population of the village is in striking contrast to the general increase in population of the whole country. But for the cholera which carried off 25 persons in 1925, there were no serious epidemics in the period 1916-36. Another remarkable feature is the reduction in the size of the family.

Cattle Mortality.

There must have been at least a few deaths, as well as births, among the live-stock. But the report is 'nil' for the past two years. The Veterinary Surgeon is of the view that the Village Munsiffs never care to ascertain facts regarding live-stock.

Land.

The Resettlement was introduced into the village in Fasli 1321 (1912) and as formed on resettlement it contains 1848 re-survey fields, while the holdings of Vadamalaipuram ryots are distributed over 511 fields. 1.20 acres are reserved for cattle-stand and 9.89 acres are set apart for grazing. The cattle also feed on patta lands and Government wastes. The area of poramboke for the whole village is 507.84 acres, which includes no land which has been notified as Reserved Forest under section 16 of the Forest Act. The area of poramboke for the hamlet of Vadamalaipuram alone is 142.58 acres. The area of the village site for the whole revenue village is 29.42 acres and for our hamlet 14.76 acres.

The following table shows the extent of land held by the people of Vadamalaipuram in this and neighbouring hamlets:—

Year.	Total Area	Wet lands	Culti-vated dry lands	Land watered by wells	Area unculti-vated
	Acres.	Acres.	Acres.	Acres.	Acres.
1916	2050	50	1500	500	..
1936	1658.10	52.98	857.59	160.38	587.15

There is no common waste or pasture ground except the 9.89 acres set apart as grazing ground, referred to above. There are no woods or forests near the village. Fruit trees are not grown at all.

DETAILS OF THE PORAMBOKE AREA.

	Acres.		Acres.
2 Uranis	.. 5.30	Garden	.. 0.61
Roads	.. 9.92	Mandhai	.. 3.89
Site of the hamlet	.. 14.76	Market place	.. 3.36
Local Fund Road	.. 9.40	Temple (to the west of village)	.. 3.00
River	.. 92.08	Mandapam	.. 0.26
Total 142.58.			

Irrigation.

There are 62 wells in the fields and eight drinking wells within the village site. It is not mentioned in the original survey whether the whole area covered by the two tanks, 146 acres, belonged to the Vadamalaipuram ryots. If that were so, then it would mean that the villagers' holdings under the two tanks are now reduced to about one-third of the original area.

There are three rain-fed tanks for the revenue village affording less than five months' water-supply though no holding of Vadamalaipuram is served by them. But there are two Uranis within the limits of this hamlet.

The wells form the main source of water-supply. There are two tanks one completely dry and the other with a little of water. The river Arjuna has been declared to be unfit for irrigation though there is water throughout the year and during floods water even rushes up into the village. The level of the fields above the bed of the river is about 15 feet in the south of the village and 10 feet in the north. There are no Doruvu wells.

Kudimaramat. At the original Settlement the ryots undertook to keep the sluices clear of silt, to erect ring bunds in front of breaches and when necessary to clear the distributing and drainage channels at their own cost. The obligation continues during the period of Re-settlement.

In 1923, the villagers formed an Irrigation Society on co-operative basis and applied to the Government for the construction of a dam across the river. They pointed out that there were still relics of an old dam built in the days of the old Carnatic kings. There was evidence to show that all the lands were then cultivated with paddy—a wet crop. A plan was also prepared for the purpose and submitted to the Government on the advice of an Engineer who had been there in connection with the construction of water-works for

Virudhunagar. After due inspection by the Sub-Divisional Officer, the proposal was thrown out on the report of the Engineer, on the ground that the water was insufficient to irrigate the lands of the whole village. The fact seems to be that this officer saw the river during summer, when water is always at a low level. The villagers are of the firm view that the water during the flood-season, if stored in tanks, would be able to irrigate not less than 3000 acres of land. It is really a pathetic sight to see the fields parched up and the wells being worked late hours in the night, when water flows all along in the river a furlong off. When I visited the village in the middle of November, 1936, the river was in full floods but was of no use to ryots, who were daily looking to the sky with folded hands for the seasonal rains that had disappointed them in the past few years. I was informed by the Assistant Engineer at Srivilliputtur that the river Arjuna was the source of water-supply for about a dozen major tanks in the District and that it was not correct to say that the river was useless for irrigation. Probably the Government did not think it profitable to undertake the construction work at that particular place.

Cultivated Area.

The extent of cultivated lands has considerably decreased during the past 20 years and the decrease is said to have been marked from 1925-26. The total cultivated area is only half of what it was in 1916; 587.15 acres remain uncultivated. There are two reasons that account for this phenomenal fall in cultivated area:

1. Lands had been purchased from borrowed funds, and the anticipated rise in price of the chief crop, cotton, was not continuous to secure sufficient income to meet the costs of cultivation and to repay a part of the loan. Added to this, the steep fall in price since 1931, due to the general depression, made it unprofitable to cultivate the lands. The liquidation of the Co-operative Society in the village (a detailed account of which appears later) had reacted severely on the ryots, and it is one of the strong reasons for the existing indifference towards cultivation.

2. Failure of seasonal rains continuously for a period of four years. This year (1937) they have had fairly good rains and more acres are brought under cultivation than previously.

Occupation of Land.

The area cultivated by the Pattadars is 932.25 acres and the area sublet and cultivated by tenants is 138.70 acres. Under subletting both the systems of *varam* and *kattukuttakai* are in vogue.

There are 148 cultivating pattadars and 22 non-cultivating pattadars. Two of the latter purchase the cotton grown in the village and thus act as necessary intermediaries in the disposal of the produce. One has taken contract work of repairing the roads under the District Board. Four of them are in service outside the village and one is running a provision shop. There are 14 tenants who have no patta land in the village, and 85 agricultural workers who neither own nor rent land.

PATTAS ACCORDING TO KIST PAID.

Pattas paying.		No. of pattas.	Extent in acres.	Kist. Rs. A. P.	
below	As. 2	2	0.04	0	2 0
As. 2	but below	4	0.27	0	8 0
4	"	8	0.51	0	13 8
8	"	12	7.12	7	12 0
12	"	Re. 1	15.50	17	9 6
Re. 1	"	Rs. 2	111	143	53 0 0
Rs. 2	"	3	80	159	67 7 2
3	"	4	68	192	80 1 3
4	"	5	35	132	13 157 0
5	"	6	30	129	36 163 4 1
6	"	7	23	116	52 153 3 10
7	"	8	11	56	73 83 2 0
8	"	9	7	46	33 58 3 3
9	"	10	8	56	70 73 13 0
10	"	15	13	111	25 151 11 3
15	"	20	8	79	98 135 9 0
20	"	25	3	41	27 66 9 0
25	"	30	2	30	57 8 7
		1	72.55	117	0 0
Over	Rs. 50	1	265.27	447	10 0
		442	1,658.10	2,277	4 7

N.B.—The last two pattas are those of the two mosques at Sivakasi—Khanghori Pallivasal and Mela Pallivasal. The figures are given as mentioned in the books. All the lands of the above two pattas (and of another Muthalasayabu Pallivasal of 3.54 acres with an assessment of Rs. 5-15-0) are cultivated by the Vadamaipuram ryots under separate *muchalikas* as in the Inam village.

JOINT AND SINGLE PATTAS.

	Joint pattas.	Extent. Acres.	Single pattas.	Extent. Acres.	Total pattas.	Extent. Acres.
1. Caste-war.						
Naidu.	101	353.32	280	784.45	381	1,137.77
Maravar.	4	13.00	4	14.43	8	27.43
Konar.	4	8.88	17	70.93	21	79.81
Asari.	2	2.31	5	11.33	7	13.64
Sathani.	1	1.60	1	2.33	2	3.93
Pandaram.	1	1.37	1	1.37	2	2.74
Chakkiliar.	3	9.72	7	11.00	10	20.72
Pallar.	1	19.55	5	9.17	6	28.72
2. Institutions.						
Khanghori Pallivasal	—	—	1	72.55	1	72.55
Mela Pallivasal	—	—	1	265.27	1	265.27
Muthalasayabu Pallivasal	—	—	1	3.54	1	3.54
Village Temple	—	—	1	0.53	1	0.53
Srivilliputtur Co-operative Banking Union	—	—	1	1.45	1	1.45
Total.	117	409.75	325	1,248.35	442	1,658.10

The lands of the Srivilliputhur Co-operative Banking Union remain uncultivated for the past five years since its liquidation. The local temple lands are let on varam.

NUMBER AND SIZES OF HOLDINGS IN 1916 AND 1936.

Sizes of holdings.	1916.		1936.	
	Number of holdings.	Extent in Acres.	Number of holdings.	Extent in Acres.
Between 1 & 10 acres	38	250	121	535
" 10 & 25 "	38	649	37	594
" 25 & 50 "	12	469	8	264
" 50 & 100 "	3	211	3	160
" 100 & 250 "	3	471	1	105
Total.	94	2,050	170	1,658

With a reduction in total area and increase in the number of holdings since 1916, the average holding is just half in size of what it was—9.75 acres as against 21.80 acres. Subdivision has gone farthest in the smaller holdings of 1 to 10 acres. Those between 10 and 25 acres remain practically the same. The bigger holdings have been split up. Dates of subdivision are not available in official records for this hamlet in particular. But local enquiries reveal that most of the subdivisions took place between 1926 and 1932—particularly after 1929, when alienations were effected consequent on the move to liquidate the local co-operative society based on unlimited liability.

DETAILED LIST OF HOLDINGS ACCORDING TO SIZE.

Area.		Number of holdings.		Area.		Number of holdings.	
		1916	1936			1916	1936
Of 1 acre	1	14	Of 23 acres	2	-		
" 2 acres	5	22	" 24 "	1	3		
" 3 "	4	23	" 25 "	5	-		
" 4 "	2	11	" 26 "	1	-		
" 5 "	4	9	" 27 "	2	1		
" 6 "	1	16	" 28 "	-	1		
" 7 "	1	3	" 29 "	-	1		
" 8 "	5	9	" 30 "	1	1		
" 9 "	4	10	" 33 "	-	1		
" 10 "	11	4	" 35 "	1	-		
" 11 "	4	2	" 37 "	-	1		
" 12 "	4	4	" 39 "	-	1		
" 13 "	3	4	" 41 "	1	1		
" 14 "	4	8	" 47 "	1	-		
" 15 "	4	3	" 50 "	3	2		
" 16 "	2	2	" 51 "	1	-		
" 17 "	-	3	" 60 "	1	1		
" 18 "	2	3	" 100 "	1	1		
" 19 "	3	1	" 141 "	1	-		
" 20 "	3	-	" 145 "	-	1		
" 21 "	1	1	" 160 "	1	-		
" 22 "	-	3	" 170 "	1	-		

Tenancy. A notable change since 1916 is the system of leasing land to be cultivated by tenants. All land was cultivated by peasant proprietors in 1916; there was not a single case of lease then. The first lease was in 1919; since then there have been more cases but not yet more than ten.

Rents are usually paid in kind according to the prevalent custom of leasing land on varam. As for terms of varam, no striking difference is found between different classes of land. The tenant bears all the expenses of cultivation, from the preparation of soil to harvesting, and the yield is shared equally between him and the landlord, the latter paying only the kist. The tenant gets the paddy straw or the dried stalks of cotton. Under another sort of agreement, the landlord supplies a part of the manure and gets half the straw or dried stalks of cotton. The agreement is oral in such cases.

The system of Kattukuttagai, fixed rent or Samibogum as it is here called, is taking the place of lease on varam, due to the difficulty of securing tenants who would agree to incur the costs of cultivation, as the future yield is quite uncertain because of the vagaries of rainfall and insect-pests. There are now ten cases of kattukuttagai in the village. The rent is fixed and paid in money. It is ordinarily Rs. 10 per acre for lands having no wells and Rs. 20 per acre for those that have. All the expenses have to be incurred by the tenant as under varam and the kist to Government is agreed to be paid by the landlord in some cases and by the tenant in others. The tenancy lasts from one year to six years under written contract. The difficulty of getting tenants accounts for the absence of any material difference in the systems on which lands are let. Under kattukuttagai too, tenants are available only if the land is let for the low sum of Rs. 10 or even Rs. 5 per acre.

KATTUKUTTAGAI IN KILA-TIRUTTANGAL.

Year.	No. of cases.	Extent.	Lease amount.	Number leased locally.	Number leased outside.	Cases of tenants paying kist.	Cases of landlords paying kist.
		ACRES.	Rs. A.				
1919	1	0.40	5 13	1	-	-	1
1921	2	4.18	70 0	1	1	-	2
1923	1	1.25	72 0	1	-	-	1
1926	1	12.67	75 0	1	-	-	1
1928	2	8.05	300 0	2	-	-	2
1929	2	8.66	246 0	2	-	-	2
1931	2	3.69	45 0	1	1	-	2
1932	1	4.04	20 0	1	-	-	1
1935	3	4.93	134 8	3	-	1	2
1936	6	9.16	271 4	4	2	2	4

LAND REVENUE.

Wet, Dry or Poramboke.	Class and sort of soil.	Taram.	Crops per year.	Rate per acre.	Extent.	Assessment.
				Rs. A.	Acres.	Rs. A. P.
Wet	Ordinary black loam—4-3	9	Three	5 0	1.53	7 10 0
"	"	11	"	4 0	21.04	84 4 0
Dry	Good black loam—4-2	2 & 3	"	—	30.41	191 15 10
"	Karuvadi manal—5-1	3	Single & Double	1 2	929.04	1,371 0 0
"	Good red sand—8-2	4	Single	1 11	23.38	26 6 0
"	Ordinary black loam—4-3	3	"	0 13	44.81	36 6 0
"	Ordinary black loam—4-4	4	"	1 2	114.06	128 6 0
"	Pottal	1	"	0 13	247.05	199 6 0
"	Veppal	2	"	1 2	49.21	62 8 11
"	Kodai	—	"	13 1/8 panams	40.41	41 13 7
"	"	5	"	0 13	1.85	3 2 10
				Total ..	1,658.10	2,277 4 7

VADAMALAIPURAM

13

PARTICULARS OF KUTTAGAI FOR 1936

Extent.	Amount. Rs.	Period.	Lessee.	Other particulars.
1.72	50	1 year	Local Nayakar	No well
3.60	40	4 years	Outsider	Tenant pays kist
0.99	16	4 "	"	"
1.22	75	3 "	Local Konar	No well
0.81	15	3 "	" Naidu	With well
0.82	75	3 "	" Konar	"

Kist payment will not be felt a hardship if it is collected at a more convenient time, i.e., just after the cotton is ready for the market (after the mahsool). The kist is now collected in four instalments, February, March, April and May. If the collection begins in May, the kist can be paid without recourse to borrowing.

AGRICULTURE:

The Principal Crops cultivated in 1916 and 1936.

1916.	Acres.	1936.	Acres.
Cotton and catch crops	.. 800	Cotton	.. 460.71
Cholam and pulses	.. 300	Cholanattu	.. 314.89
Varagu and kudiraivali	.. 300	Kudiraivali	.. 88.51
Kambu	.. 300	Kambu	.. 77.49
Ragi	.. 300	Ragi	.. 45.33
Paddy	.. 50	Paddy	.. 29.61
Senna	.. 400	Senna	.. 5.78
Vegetables	.. 100	Cholam	.. 5.00
Tobacco	.. 30	Gingeli	.. 5.50
Of the 2,050 acres of cultivated land 1,500 acres yielded single crop, 500 acres yielded two crops, and 50 acres yielded three crops.		Tobacco	.. 10.50
		Other crops	.. 27.64
		Of the 1070.95 acres of cultivated land 1023.41 acres yielded single crop, 40.78 acres yielded two crops and 6.76 acres yielded three crops.	

The greatest fall has been in senna, whose price was already falling. Vegetables had occupied a larger area before 1916 but gave place to Cambodia cotton. Now there is not much of either vegetables or Cambodia cotton. Millets have declined in importance due to the preference for rice in the diet.

In wet lands paddy is cultivated on just over half the area and this too only on the fields served by the larger tank (the Minakshipuram Tank) to the north of the village. But in the other two villages of Melamattur and Karseri, wet lands are grown with very little of paddy. But they had the following crops: cotton, cholanattu, ragi, gingeli, groundnuts, castor, kambu, onions, kanam, kadaikanni and senna.

In dry lands if one year is grown with cotton, the next year it is grown with the fodder crop, cholanattu. The seed is sown in October or November (Purattasi) and the harvesting is done in May or June.

Following is the customary cultivation:

On Three crop lands.		On Two crop lands.	
Kambu	.. July to September.	1. Ragi	.. October to January.
Keppai	.. October to January.	Tobacco	.. February to June.
Tobacco	.. February to May or June.	2. Ragi	.. July to October.
		Cholam	.. January to April.

Agricultural Implements.

Old types of wooden ploughs are still used and the number of acres cultivated per plough per day is in wet lands three-fourths of an acre, in dry lands half an acre in summer, and if moist three-fourths of an acre. In garden lands it is the same as for dry lands. There has been no improvement in the use of agricultural implements, except the seed-drill, Korukalappai or Line-kalappai for sowing seeds (kambu, cotton, etc.) More work is turned out by the latter implement and the seeds fall equi-distantly and in a line. Two persons and two bulls are necessary to work the implement and it costs Rs. 7. There are only two such implements in the village.

Other implements peculiar to this village are two: Kambarai-katti which is a small sickle (aruval) for reaping kambu, and Parasu which is used for levelling the dry lands after sowing with line-kalappai or seed-drill.

Oil-Engines for Lifting Water.

For baling water the common type of kamalai with a pair of bullocks is used. Oil engines were tried for a few years by five persons but were given up after 1931. Two reasons have been

given for the discontinuance of oil-engines for lifting water: (1) Only when such crops as sugar-cane or plantains are grown largely, watering by oil-engines is found necessary, but the manure available in the village is found inadequate for growing sugar-cane and plantains. (2) The cost of the engine and the expenses of working it are heavy and at the present prices, it is unprofitable to use them. Hence, of the five engines in the village four were disposed of and the remaining one is used only occasionally.

The charges for working the oil-engine per day have been noted from the accounts maintained by a Naidu who used an engine till 1931.

The Price of the engine (1½ horse-power) was	..	Rs.	570	0	0
<i>Cost of daily working—</i>					
Seven measures of kerosene oil (one tin of 10 measures costs Rs. 3-4)	..	"	2	4	6
Mobiloil and grease	..	"	0	8	6
Salary of the driver and cleaner (at Rs. 12 p.m.)	..	"	0	6	6
Total	..	"	3	3	6

Cost of lift by Kamalai—

Cotton-seeds for a pair of bullocks	..	"	0	10	0
Chola-Nattu (seldom purchased but valued at)	..	"	0	12	0
Labour charges	..	"	0	4	0
Total	..	"	1	10	0

Kamalai.—The sal or the main body made of iron costs Rs. 4 and lasts for one year, or to be accurate for two crops.

"Val-thole" or the leather-tube costs Rs. 3 and generally lasts for one year.

The ropes costing one rupee will suffice for one full year.

Working from morning six to evening five the engine can supply water for 1½ acres of land while the bullocks can do three-fourths of an acre, working from 8 a.m. to 6 p.m. with an interval of about two hours. Thus it is cheaper to use the bullock lift than oil-engine to irrigate the crops that are at present grown, especially taking into consideration the heavy initial cost of oil-engine, its

installation, depreciation, and interest and maintenance charges. Bullocks are cheaper to buy and maintain and manure is a by-product.

Ploughs are hired out from Tiruttangal. The number of ploughs in the village is only 29. The number of ploughs that will be sufficient for the lands of the village is estimated at 150. The rates of hire range from Re. 1 to Rs. 2 per plough. It is between Rs. 2 and 3 during the sowing season. It is possible to hire them from the neighbouring village of Tiruttangal at the above rate, because cotton is not grown much, and the villagers there have no need for them at the time of the sowing season. They are hired for nearly three months.

Live Stock

The village possesses 94 working oxen, 48 cows yielding milk, and 120 she-buffaloes. There are in all 144 young stock of the above species. The donkeys in the village number 11, all belonging to the washerman and the sheep and goats number 482. There are three sheep-dogs. There are no he-buffaloes in the village. They are sold away even when young as they are not used for draught purposes. Nor are there any for the purpose of breeding. There is a considerable decrease in the live-stock of the village as will be seen from the following table:—

Year.	Oxen.	Cows.	She-buffaloes.	Young stock.	Sheep & goats.
1916	200	100	120	100	1,200
1935	66	23	36	—	360
1936	94	48	120	144	482

In 1916 there were also 2 he-buffaloes (for breeding), 1 horse and 40 pigs. Poultry in the village (1936) : Hens and chicken, 393 ; Doves, 12 ; and Geese, 6.

Cattle.—Only half the she-buffaloes are given cotton-seeds twice a day. The others have to be content with grazing on the fallow lands or on the banks of the river. All the cows are given cotton seeds mixed with rice bran. This is also the case with the bulls that work in the fields. Besides the above, all the cattle are given chola-nattu. As for private pastures, the animals can freely

graze on the uncultivated lands of the pattadars. There seems to have been no squabble due to that nor is there any fencing or protection to the fields preventing the animals from feeding on the scanty grass available on the dry lands. There is no systematic breeding of cattle in the village. There are only two breeds that are brought to the cattle fairs in this area—the Manaparai and the Alambadi breeds. The former is costlier but stronger and capable of turning out more work. Here the ryots have gone in for the Alambadi breed which, though of good appearance, is not quite fit for the soil. It becomes useless for work after a couple of years' service in the field and it will have to be disposed of at a very low price. Cattle are purchased at the fairs of Kanniseri and Kalugumalai.

The average price of a bull is Rs. 100. The daily cost of maintenance is annas eight. It works ten hours per day throughout the year. The value of the work turned out per day can be estimated at annas ten.

Milch cattle.—The price ranges from Rs. 20 to a maximum of Rs. 50 per head. The daily ration consists of $\frac{1}{8}$ thulam of cotton-seeds valued at $2\frac{1}{2}$ annas and rice-bran valued at one anna. The yield of milk is three-fourths to one Madras measure per day for the cows of inferior type and $1\frac{1}{2}$ Madras measures per day for the best cows in the village. Milk is not sold either in or out of the village and so the price can be based only on the price for which milk can be bought in the neighbouring villages, that is at four measures per rupee. A family can be expected to get, on an average, a daily income of annas four to six by owning a cow. Besides, the cow-dung is stored and used as manure. Cows of good breed are not purchased here as the yield of milk is comparatively greater with the buffaloes, i.e. $1\frac{1}{2}$ measures to $2\frac{1}{4}$ measures per day for the same maintenance charges. It has more butter-fat than cow's milk, though it fetches the same price. The average price of a she-buffalo here may be estimated at Rs. 35. There are only a few worth Rs. 50. They are better fed by the owners, who are well-to-do ryots. The yield of milk decreases by $\frac{1}{4}$ measure in the hottest part of the summer, i.e. in May and June and the yield increases during the winter when there is abundant fodder. The average period of lactation of cows and she-buffaloes is 6 months and 8 months respectively. A cow on an average calves six times and a she-buffalo nine times. There have been a few cases of cows getting 8 calves and buffaloes 11.

Chief Cattle Diseases—The ryots had till this year little assistance from the Veterinary Department. The nearest dispensary is at Srivilliputhur which is more than 20 miles away from the village. On a few occasions the touring Surgeon had merely halted for a few hours in the village and no animals were treated. This year (1937) the Doctor camped for three days and the following cases were treated:—Eighty cattle were vaccinated against Rinderpest with the latest method of injecting cattle with the goat virus. Five bulls were castrated by the bloodless method of castration with the aid of the Budizzs' Castrator. Four bullocks had abscesses on their necks and these were incised and dressed. Three bullocks were treated for yoke-galls. There were no other specific diseases—either contagious or non-contagious—which required treatment.

The view of the Veterinary Surgeon on the general condition of cattle at Vadamalaipuram:—

"The general condition of cattle was found to be fairly good when compared with some of the other villages of the Taluk. There is sufficient fodder, abundant supply of fresh water and the ryots were found to be above the average on their care and attention to their animals."

Manuring.—All the cattle-dung is used as manure in the fields and not as domestic fuel, as found in most other villages. But cattle urine is not utilised and goes to waste. The ryots will certainly adopt any method demonstrated to them by which cattle urine can be conserved. The other animal manures are the refuse of the sheep and goats that are penned in the fields. To pen the sheep in the field from evening seven (after grazing) to morning, rupees two is charged by the owners. The sheep and goats are collected in groups of five hundred or thousand, constituting a sheep-fold and the owners numbering four or five divide the proceeds according to the number of heads they possess in the group. The present price of the sheep is Rs. 5 per pair.

There are no forests nearby; green manure is grown and also obtained from distant woods where there are clusters of trees and shrubs with leaves fit for use as manure—avaram, kolinji, etc.

For almost all the lands chemical manure (sulphate of ammonia) is used and it is got from Sivakasi. The villagers hold the view that once the field is manured with ammonia the yield of course is good, but for the next year for the same field more of ammonia has to be applied to give the same yield. And thus they

say that the use of chemical manure has not in any way improved the lands though there was immediate benefit.

The ryots also used to get the silt from the two tanks nearby and mix it with the soil. But the Government authorities seem to have in recent years prevented them from carrying the silt, though it was pointed out that it was taken only to manure the fields. Despite the difficulty in taking the silt across the river that has no bridge, they somehow managed to secure this source of manure for some time. But now they have been prohibited from doing so. A watchman may be kept to see that the ryots do not take the silt from the prescribed limits of the banks of the Kanmai. They should be permitted to take the silt elsewhere.

Garden cultivation.—There are twenty-six cocoanut trees in the village, fifteen trees in a row bordering the North Street and eleven trees in a tope. They are very stunted though planted more than ten years ago and the estimated yield is fifty cocoanuts per year. There are no fruit trees in the village.

Insect Pests.—The chief insect pest is the "Kunai-Vandus" that destroy the cotton-seeds necessitating re-sowing. The pest occurs regularly once in two or three years and when I visited the village this year (1936) I saw several fields being resown. Other common diseases and pests mentioned in the original survey also affect the plants. The Agricultural Department was not consulted on the pest on cotton. There is no initiative on the part of the ryots to seek the help of the Department as they doubt the usefulness of the suggestions regarding the pest. No Demonstrator has visited the place, and there is no channel here through which agricultural knowledge can be disseminated to the ryots.

Fuel.—Wood is not obtained for fuel from outside. The cotton stalks are dried and used for the purpose, which is sufficient for the whole year.

For making and repairing agricultural implements the trees especially karungali in the fields are felled and cut. Only for building purposes timber is bought outside.

COSTS OF CULTIVATION.

E. Rangaswami Naicker.

	Rs. A.	Rs. A.	YIELD.	Rs. A.
COTTON—5 ACRES.				
Ploughing five times (40 ploughs)	..	40 0	Five pothis at Rs. 30	
Seeds five thulams	..	5 0	per pothi	.. 150 0
Weeding three times	..	6 0	Dried stalks	.. 3 0
Harvesting	..	3 12		<u>153 0</u>
		<u>54 12</u>		
CHOLA NATTU (FODDER CROP) —3 ACRES.				
Ploughing once, 3 ploughs	..	3 0	400 bundles at	
Seed one kotah	..	3 0	As. 2 each	.. 50 0
Harvesting expenses, 30 persons, 90 measures	..	10 0		
		<u>16 0</u>		
KUDIRAIVALI—2 ACRES.				
Ploughing once, 2 ploughs	..	2 0	6 kotahs at Rs. 6½	
Seed two measures	..	0 6	per kotah	.. 39 0
Watering 10 kamalais	..	15 0		
Weeding once	..	2 0		
Harvesting	..	5 0		
		<u>24 6</u>		
		<u>95 2</u>		
Kist	..	14 1		
Total expenses	..	<u>109 3</u>		
Total income	..	<u>242 0</u>		

A Srinivasalu Naicker.

CHOLA NATTU—1 ACRE.				
	Rs. A.	Rs. A.		Rs. A.
Ploughing once, 2 ploughs	..	2 0	150 bundles at	
Seeds 48 measures	..	1 8	As. 2 per bundle.	18 12
Harvesting expenses, 15 persons	..	6 0		
		<u>9 8</u>		
COTTON—5 ACRES.				
Ploughing 4 times, 40 ploughs	..	40 0	6 pothis of cotton	
Labour charges	..	1 0	at Rs. 30	.. 180 0
Watering for 2 acres, 6 kamalais (2 waterings at 3 kamalais each, lasting for a week to 10 days)	..	12 0	Stalk worth	.. 4 0
				<u>184 0</u>

	Rs. A.	Rs. A.	YIELD.	Rs. A.
Sowing seeds 4½ thulams	..	5 0		
Labour for the above, 1 person in 5 days	..	1 0		
Weeding charges—3 times 60 persons	..	20 0		
Harvesting charges in 4 days	..	5 0		
		<u>84 0</u>		
KUDIRAIVALI—1½ ACRES.				
Ploughing once, 2 ploughs	..	2 0	4 kotahs at Rs. 7	28 0
Seeds 1½ measures	..	0 5		
Watering 8 kamalais	..	8 0		
Weeding once	..	2 0		
Harvesting	..	5 0		
		<u>17 5</u>		
Total	..	<u>110 13</u>		
Kist	..	<u>18 9</u>		
Total expenses	..	<u>129 6</u>		
Total income	..	<u>230 12</u>		

(5.77 acres remain uncultivated.)

A. V. Engal Naicker.

YIELD.

CHOLA NATTU—1 ACRE.				
	Rs. A.	Rs. A.		Rs. A.
Ploughing once, 1 plough	..	2 0	300 bundles at	
Seeds 60 measures	..	3 0	As. 2	.. 37 8
Harvesting expenses (20 persons)	..	8 0		
		<u>13 0</u>		
2½ ACRES—FIRST CROP GROUNDNUTS.				
Ploughing for 2 months at 3 ploughs per month, 10 ploughs	10 0		27 kotahs at	
Manuring—penning sheep (attu kadai) 6 times	.. 12 0		Rs. 4-12	.. 128 4
Seeds 120 measures	.. 8 0		Kodi used for cat- tle worth	.. 10 0
Watering 3 times—one watering takes 5 days	.. 30 0			<u>138 4</u>

	Rs. A.	Rs. A.	YIELD.	Rs. A.
Weeding 2 times—15 persons each time who finish it in a single day ..	4	0		
Harvesting—96 persons in 4 days ..	12	0		
				76 9

SECOND CROP—KAMBU

(KODAI KAMBU).

Ploughing thrice, 10 ploughs ..	10	0	10 kotahs at Rs. 8	
Watering 6 times ..	9	0	per kotah ..	80 0
Manuring—rubbish 70 cart-loads (including cartage) at As. 8 per cart ..	35	0	Thatti used for thatching pur- poses worth ..	7 0
Seeds four measures ..	0	12		
Weeding 2 times at Rs. 2 each ..	4	0		87 0
Harvesting in 1 day, 20 persons ..	3	0		
				61 12

COTTON 1½ ACRES.

Ploughing 4 times, 12 ploughs ..	12	0	1½ podhis of cot- ton at Rs. 30 ..	45 0
Manuring—penning sheep 5 times ..	10	0	Stalk worth ..	1 8
Seeds—1¼ thulams ..	1	4		
Labour charges ..	2	0		
Weeding thrice, 8 persons in one day on each occasion ..	3	0		
Harvesting expenses ..	1	8		
				29 12

PADDY—0.75 ACRES.

Ploughing thrice—5 ploughs ..	5	0		
Manure—Green manure (Kolai) ..	30	0	8 kotahs at Rs. 7½.	60 0
Ammonia—two bags ..	9	0	Straw worth ..	15 0
Seeds 36 measures ..	3	0		
Watering expenses (tank fed) —4 times ..	8	0		75 0
Harvesting—20 persons in 1 day at As. 3 each ..	3	12		
				58 12
				239 4
Kist ..				11 4
Total expenses ..				250 8
Total income ..				384 4

THE AVERAGE COSTS OF CULTIVATION OF ONE ACRE OF LAND
UNDER COTTON.

	Rs.	Rs.
Ploughing four times—nine ploughs ..	9	0 0
Watering ..	5	0 0
Seeds—¾ thulams ..	0	12 0
Weeding thrice ..	3	0 0
Harvesting expenses ..	1	0 0
		18 12 0
Kist ..		1 2 0
		19 14 0
		30 0 0
Yield—one podhi ..		1 0 0
Stalk worth ..		
		31 0 0

Of one acre of garden land under groundnut—

	Rs.	Rs.
Ploughing four times—two ploughs ..	2	0 0
Manuring—Penning sheep and green manure ..	8	0 0
Seeds—sixty measures ..	4	0 0
Watering expenses ..	10	0 0
Labour charges: To erect small bunds ..	1	0 0
Weeding twice ..	2	0 0
Harvesting (6 men and 15 women) ..	4	0 0
		31 0 0
Kist ..		1 11 0
		32 11 0
Total ..		
Yield—10 kotahs at Rs. 5 ..		50 0 0

THE AVERAGE YIELD PER ACRE OF CERTAIN CROPS.

Crops	Yield. kotahs.	Crops.	Yield. Kotahs.
Paddy ..	12	Blackgram ..	¾
Cholam ..	6	Greengram ..	½
Keppai (ragi) ..	5	Groundnuts ..	10
Kambu ..	2½	Castor-seed ..	¾
Redgram ..	¾	Gingelly ..	1½

Agricultural Improvements.

There has been no recent improvement in methods of cultivation but there was certainly a disposition to introduce new methods and implements. For instance, four iron ploughs were purchased and used for a few years, but they are now lying idle. The com-

mon cattle of the village are incapable of pulling the iron ploughs and the ryots are not at present in a position to get good breeds suitable to the ploughs. Cotton is the only commercial crop grown and at the present prices will not compensate for the additional expense involved in using the iron ploughs. Improvement in seed-selection of cotton had been made even in the past decade and the seed is bought at Sivakasi or Virudhunagar. Only the improved variety of Karunganni is grown. Cambodia is completely given up as the yield is comparatively greater under the former. Perhaps the ryots had only been experimenting upon Cambodia cotton when the original survey was made and hence it was thought that the soil was found suitable to grow Cambodia. This is not proved by experience. The ryots had taken to the Karunganni variety long ago and they do not believe that it will be more profitable to grow Cambodia. The ryots are eager to have any new method demonstrated to them. But the demonstration must convince them that it can be adopted as a permanent one without involving extra labour and expense.

Land Values.—Land values were rising in 1916 due to the rising prices of produce, and the prospect of the Railway line from Virudhunagar to Srivilliputhur passing near this village.

But the Depression since 1930 has brought down land values to very low levels:—

Class of land.	In 1936.	In 1916.
Dry	Rs. 45 to 60	Rs. 100
Garden	.. „ 250 to 300	„ 500
Wet	.. „ 400 to 500	„ 600

Thus the value of dry and garden lands is half of what it was in 1916 and of wet lands is a little more than half. The price of produce is the most important factor, marketing facilities are subsidiary factors.

Subdivision and Fragmentation of Holdings.—Taking an economic holding to be 25 acres in this village (for a family of four members) it will be observed that many of the holdings are below that margin. The only other opportunity that a small pattadar has to make both ends meet is to work as a field labourer for daily wages.

THE SIZES OF PLOTS OCCUPIED.

Size.	Number of plots.	Extent in acres.
1 cent & below 5 cents	11	0.34
5 cents & below 10 cents	23	1.60
10 „ „ 20 „	61	8.51
20 „ „ 30 „	52	12.81
30 „ „ 40 „	49	16.63
40 „ „ 50 „	28	12.50
50 „ „ 1 acre	177	132.68
1 acre & below 2 acres	364	602.01
2 acres & below 3 „	145	364.84
3 „ „ 4 „	65	226.85
4 „ „ 5 „	25	110.85
5 „ „ 6 „	14	76.17
6 „ „ 7 „	7	42.63
7 „ „ 8 „	2	14.36
8 „ „ 9 „	2	16.29
9 „ „ 10 „	1	9.03
10 „ „ 11 „	1	10.00
Total.	1,027	1,658.10

These figures indicate the extent of fragmentation of lands. 170 owners have between them 1027 separate plots, which means an average of 6.04 plots per holding. There is not one who has a holding in a single survey number. 75 per cent of the total number of plots covering 48 per cent of the total area are below 2 acres each.

The smallest plot is 1 cent and the largest plot is 10 acres in the five Revenue villages.

Village.	Smallest plot.	Largest plot.
	Acres.	Acres.
Kila-Thiruttangal	.. 0.01	9.03
Minakshipuram (Inam)	.. 0.04	8.00
Melamattur	.. 0.03	6.40
Karseri	.. 0.21	10.00
Vadimitta (zamin)	.. 0.11	5.69

Almost all the holdings of Vadamalaipuram residents are scattered in several different places in the five revenue divisions. The waste of time in passing from plot to plot is really very great, considering the paucity of labour and the fact that the pattadar or the tenant has per-

sonally to visit and work in the fields daily if he should get a good harvest. The other waste is in the bunds for small plots. A policy of consolidation may increase the desire to sink wells and change the crops grown. There have, however, been no disputes arising from fragmentation. There has been only a single instance of a ryot purchasing an adjacent plot to make one contiguous plot. This, he said, was due to the very low price at which it could be had. Apart from such stray cases of purchase there is no direct exchange of lands to form a contiguous plot.

Instances of fragmentation and sub-division.

Case I. The holding of K. Thavasikonar—29·61 acres is fragmented into 23 plots.

Survey.	Sub-divisions.	Total extent Acres.	Plot of the holder.	Extent Acres.	Particulars of intervening plots.
17	3	1·29	17-1 & 17-3	1·00 0·26	17-2 is a waste (0·03).
18	3	2·44	18-1	1·49	18-2 of 0·14 is a waste and 18-3 owned by a Naidu (0·81).
6	3	2·10	6-1 & 6-3	0·47 1·57	6-2 of 0·06 is a waste.
16	3	2·02	16-3	0·88	16-1 owned jointly by a Naidu family (1·11) and 16-2 is a waste (0·03).
23	2	2·92	23-2	2·62	23-1 joint Naidu family (0·30).
30	1	1·84	1	1·84	..
33	4	3·19	33-1	0·86	33-2 (0·81) 33-3 (0·94) and 33-4 (0·58) belong to Naidus individually.
3	1	1·86	3	1·86	
73	3	2·91	73-3	1·01	73-1 (0·90) and 73-2 (1·00) Naidus.
75	3	1·47	75-2 & 75-3	0·36 0·71	75-1 (0·40) Naidu.
98	6	2·22	98-4	0·55	98-1 (0·35); 98-6 (0·15) are wastes; 98-2 (0·54), 98-3 (0·13), 98-5 (0·50) belong to Naidus one of them being a lady.
94	2	1·20	94-1	0·82	94-2 (0·38) belongs to a Naidu lady who also owned this plot till last year when she sold it for clearing debts.

Survey.	Sub-divisions.	Total extent Acres.	Plot of the holder.	Extent Acres.	Particulars of intervening plots.
103	3	3·96	103-1	1·48	103-2 (0·63) and 103-3 (1·85) belong to a Naidu family and a Moopnar respectively.
413	5	2·97	413-A1	1·22	413-A2 (1·01), 413-A3 (0·1) belong to Naidus; 413-B1 is a waste and 413-B2 (0·56) belongs to a Naidu lady. Originally this field was in three divisions but in 1926 was subdivided as above.
435	3	8·14	435-1 435-2	1·80 1·86	435-3 (4·48) belongs to a Naidu lady.
409	4	4·26	409-A & 409-B 2	3·28 0·21	409-B1 (0·15) is a waste and 409-B3 (0·62) belongs to a Nadar.
493	2	3·06	493-2	2·40	493-1 (0·66) Naidu.
Case II. R. Chinnaswami Naicker—The holding of 9·96 acres is scattered in nine different plots.					
5	8	8·06	5-1A & 5-1D	0·49 1·42	5-1B (0·45), 5-1C (1·45), 5-1E (0·97), 5-1F (0·66), 5-3 (2·14) belong to a Naidu and 5-2 (0·8) is a waste. The whole field was originally in 3 plots and in 1932 plot 1 was subdivided into 6 plots.
21	3	3·08	21-1	0·80	21-2 (1·99) and 21-3 (0·29) belong to Naidus. Prior to 1932 this formed a single field.
22	2	0·97	22-2	0·32	22-1 (0·65) Naidu.
51	3	3·12	51-A & 51-B2	2·02 0·87	51-B1 (0·23) waste.
66	5	9·69	66-2 & 66-4	1·60 0·78	66-1 (3·91), 66-3 (1·42) and 66-5 (1·98) belong to a Naidu lady, Naidu and a joint Naidu family.
274	2	2·10	274-1	1·66	274-2 (0·44) belongs to a Konar.

Case III. V. Narayanappa Naicker—The holding of 7.56 acres is scattered over six plots.

Survey.	Sub-divisions.	Total extent Acres.	Plot of the holder.	Extent Acres.	Particulars of intervening plots.
93	2	0.86	93-2	0.48	93-1 (0.38) Naidu lady.
100	2	0.51	100-1	0.25	100-2 (0.26) waste.
101	3	7.71	101-2	0.24	101-1 (6.37) poramboke.
					101-3 (1.10) Naidu.
243	1	2.69	243	2.69	..
310	1	2.03	310	2.03	..
424	1	1.87	424	1.87	..

Case IV. V. N. Venkatakrishna Naicker—The holding of 3.30 acres is scattered in four plots.

Survey.	Sub-divisions.	Total extent Acres.	Plot of the holder.	Extent Acres.	Particulars of intervening plots.
9	1	1.20	9	1.20	
21	3	3.08	21-3	0.29	21-1 (0.80) 21-2 (1.99) Naidus.
24	2	1.16	24-1	0.54	24-2 (0.62) Pallar woman.
25	2	2.10	25-1	1.27	25-2 (0.83) Chakkiliyan.

Case V. V. V. Krishnaswami Naicker—The holding of 8.63 acres is scattered in seven plots.

Survey.	Sub-divisions.	Total extent Acres.	Plot of the holder.	Extent Acres.	Particulars of intervening plots.
21	3	3.08	21-2	1.99	21-1 (0.80), 21-2 (0.29) Naidus.
49	2	1.41	49-2	0.68	49-1 (0.73) Pallan.
50	3	3.08	50-A &	2.50	50-B1 (0.20) waste.
			50-B2	0.38	..
52	1	1.21	52	1.21	..
60	3	2.14	60-A &	0.39	60-B1 (0.27) waste.
			60-B2	1.48	..

Case VI. R. Ramanujala Naicker—The holding of 10.36 acres is scattered over seven plots.

Survey.	Sub-divisions.	Total extent Acres.	Plot of the holder.	Extent Acres.	Particulars of intervening plots.
475	2	2.44	475-1	0.38	475-2 (2.06) Naidu joint family. Till 1927 the field was a single one when a partition was effected.
408	1	4.08	408	4.08	..
437	2	1.78	437-1	0.88	437-2 (0.90) Naidu lady.
407	2	3.16	407-1	0.96	407-2 (2.20) Naidu joint family.
289	1	1.57	289	1.57	..
474	1	1.68	474	1.68	..
18	3	2.44	18-3	0.81	18-1 (1.49) Konar, and 18-2 (0.14) waste.

The Village Streets and Houses.—The area of the village site excluding that reserved for the market is 14.76 acres. The North Street and South Street are occupied by the single caste of Naidus. The East Street alone contains a mixture of different castes: 6 families of Asari, 1 of Barber, 1 of Pandaram, 2 of Semman (tailor), 9 of Edayars, 3 of Maravars, and 2 of Washerman. The Paracheri does not form a separate portion of the village situated at a long distance, but is adjacent to the caste-village in the north-west and south-east corners. The Pallars and Chakkiliyans can freely pass through all the streets of the caste-village. More than half the houses in the caste-village are tiled and several terraced. The houses are well-planned and strongly built, though generally ill-ventilated. The houses in the Paracheri are all thatched except one that has a roof of tin, and the surroundings are dirty in contrast to the caste-village. There are no gardens attached to the dwellings except in a very few cases where small bits of land are grown with beans, brinjals and other common vegetables.

TYPES OF DWELLINGS

Name of the street.	Number of houses.				Total.
	Thatched.	Tiled.	Terraced.	Two storeyed.	
South Street	15	7	30	1	53
North Street	15	16	21	—	52
East Street	14	8	2	1	25
Maravar Street	5	—	—	—	5
Chakkiliar Street	11	—	—	—	11
Pallar Street	19	1	—	—	20
	79	32	53	2	166
	—	—	—	—	—

In column II, five houses have tin roofs. Besides the above there are two buildings used as shops, one is a Matam in the North Street; another is a Mandapam to the north of the village. All the buildings are occupied except that of the Co-operative Society liquidated in 1932. The total number of houses in the caste village is 135 and in Paracheri 31.

IMPROVEMENT IN HOUSING SINCE 1916.

Year.	In Caste-Village.					In Paracheri.		
	Thatched.	Tiled.	Terraced.	Two storied.	Total.	Thatched.	Tiled.	Total.
1916	68	5	32	—	105	29	—	29
1936	49	31	53	2	135	30	1	31

The above is an indication of improvement in housing conditions, but at too great a cost as it has landed many in debt.

The maximum distance of cultivated lands from the home of the cultivator is given below:—

In the Village of	Kilatruttangal	..	2	miles.
"	Melamattur	..	2¼	"
"	Minakshipuram	..	1½	"
"	Karseri	..	2	"
"	Vadimitta	..	¾	"

There is at present no demand for building sites. The population has not increased nor is there immigration into the village necessitating a demand for more houses. The site-value is from Rs. 125 to Rs. 150 per acre.

Subsidiary Industries.—Ghee is prepared by the women of the village and sold outside. At times traders go over to the village to purchase ghee wholesale. Ghee production has gone down considerably in the last 3 years. The quantity of ghee now produced in the village may be estimated at between 3½ to 4 tins per week and the quantity sold out is three tins. (1 tin is equal to 10 measures, valued at Rs. 15 per tin).

Spinning and ginning by hand which had disappeared before 1916 have not been revived in the village during the past twenty years. There has been no attempt to revive the trade in timber and cloth nor the making of furniture.

Village Trade.—The village produce is sold soon after the harvest, i.e., in the months of April or May. The chief crops grown in the village for the market are (in the order of their importance) cotton, groundnuts, tobacco, cholam and senna. The last named which was next in importance to cotton in 1916, is being given up, due to the very steep fall in price, and now only about 6 acres are under senna as compared with 400 acres in 1916. The following crops are also grown but they are not for sale except when they are in excess of the local needs and for the past eight years they are grown only to meet the local demand. They are keppai, kambhu, kudiraivali, varagu, blackgram, horsegram, greengram and coriander seed. It is only in cholam that there is some surplus which is sold away. Kudiraivali gives a good yield and hence it is largely consumed as a food-produce. Cholanattu is largely grown for feeding the cattle.

All the cotton is directly sold to one Thavasikonar who resides in the village and carries on money-lending business. Since he is the only financier of the ryots, especially after the liquidation of the Co-operative Society in 1932, they feel obliged to sell the produce to him and none else, though there is no stipulation to that effect. But there is not much difference in the price that he pays and that which they may get outside, after incurring the expenses of cartage and the communal levy on sale (mahimai). The ryots in their needy times have to resort to the Konar for money (for purchasing seed, manure, and labour charges during weeding, etc.), and the

loan is readily given. The Konar awaits repayment at the time of the harvest and it is impossible for the ryots to sell the produce outside and at once clear the loan with the cash received. He is not considered to be unfair in fixing the price. The ryots say that they do enquire about the prices prevailing in the neighbourhood and do not believe that they can be exploited by the Konar paying them a low price. Since they do not keep the produce with them even for a few months after harvest but have to dispose of all at once to meet the Konar's demand and the kist, it is possible they get only less than what they can get if they were free to store the produce and sell for the best price after watching the market. Under the existing conditions, in the village, the seller cannot exercise any real influence in settling the prices. Nor does the Konar pay the price in cash; he adjusts it to the loan account and if the ryot wants cash, it is taken as a fresh loan. Actually therefore, the ryots do not get cash for their produce.

Brokers or agents of the merchants at Sivakasi also visit the village and purchase senna, groundnuts, and tobacco. The villagers do not take any of the produce to the town nor do they sell to any local shop-keepers in retail. There is no mandi-merchant in the village, except the Konar who himself disposes of cotton and other produce sold to him to the wholesale merchants at Sivakasi.

In 1916, the villagers were said to take the cotton to Sathur and Virudupatti and sell it to the agents of the many ginning companies there. Other crops were sold to the merchants who visited the village.

Produce sold out to the local dealer and agents from outside.		Reserved for consumption in the village.	
Cotton	.. 450 podhis.	Paddy	.. 300 kotahs.
Groundnut	.. 150 kotahs.	Cholam	.. 60 "
Tobacco	.. 700 thulams.	Ragi or keppai	.. 270 "
Gingelly	.. 8 kotahs.	Kambu	.. 200 "
Plantains, senna, etc. worth Rs. 200.		Kudiraivali	.. 265 "
		Castor seed	.. 1 kotah.
		Chola nattu	.. 1900 cart loads.

In 1916, the villagers were said to have sold 200 candies of Kapas valued at Rs. 36,000 and 400 thulams of Tobacco for Rs. 500.

PRICES OF CHIEF CROPS

	1936.	1916.
(1) Cotton		
(a) Karunganni	.. Rs. 30 per podhi	Rs. 40
(b) Nadu	.. " 25 to 28	
(c) Cambodia	.. " 30 per podhi	Not grown in the village.
		" 50
(2) Tobacco	.. As. 8 to 12 per thulam	" 1-4
(3) Groundnuts	.. Rs. 5 per kotah	—
(4) Senna	.. As. 4 per thulam	As. 12
(5) Cholam	.. Rs. 12 per kotah	Rs. 10
(6) Keppai	.. " 8 per kotah	" 9
(7) Kudiraivali	.. " 6 per kotah	—

PRICES OF KARUNGANNI COTTON PER BALE OF 500 LB.

Year.	Maximum Price. Rs.	Minimum Price. Rs.
1928	266	215
1929	250	195
1930	190	120
1931	140	90
1932	155	90
1933	145	110
1934	160	130
1935	170	140
1936	145	120
1937 (up to March)	180	150

The nearest market for produce is Sivakasi. A new railway station was opened on March 1, 1937, at Tiruttangal and the distance to the village from the station is by direct route about 2½ miles and by short-cut 1½ miles. But till the opening of the new station, Sankaralingapuram was the nearest railway station which is 4 miles away.

There has been no attempt to adulterate, damp or otherwise lower the quality of the produce. There is no scope for such action as in the first place a variety of crops are not grown and secondly, whatever is grown is for local consumption except cotton and a little of plantains, groundnuts, tobacco and senna.

No serious attempt to form a co-operative society for the sale of produce has been made. The Agricultural Society mentioned in the original survey had been used as a further source of borrowing

and it was liquidated in 1923 itself. It did not serve the purpose of helping the ryots to sell the produce.

Purchases.—Rice, tamarind, salt, gingelly oil, dried chillies, onion, cummin and mustard are the chief articles that have to be purchased by the villagers. The comparatively well-to-do families get the above directly from Sivakasi and the rest purchase them from the village shops. Chillies were grown till ten years back but since they do not thrive well on this soil they have been given up. Neighbouring villagers bring vegetables to this village and sell them in exchange for grains like kudiraivali, cholam and kambu. Rice is the staple food in almost all the Naidu families. Boiled rice imported from Rangoon is bought. The two Brahmin families and a few Naidu families use rice of a superior sort. The articles are bought both for cash and credit. Between 25 and 30 families purchase on credit and they get half a measure less per rupee. Besides, the time of repayment is fixed and interest is charged for the period, rates varying from 15 to 25 per cent. Betels, snuff, beedi, etc., are also sold in the shops but there is no toddy shop in the village and I am assured that drinking as a regular habit is completely absent even among the depressed classes.

In the village there are seven provision shops, four of them with an invested capital of Rs. 300 and three of them with about Rs. 100. The monthly sales are on an average Rs. 60 in the big shops and Rs. 20 in the small ones. Articles are mostly given on credit and the shopkeeper knows the worth of the individual customers and the amount on credit rarely exceeds Rs. 10 for an individual. Only grain is received to the credit of the account. This is sold at Sivakasi. The profit works out at $1\frac{1}{2}$ annas in the rupee.

Cloth-dealers visit the village once a month regularly and there is no necessity for the majority to go out of the village. For agricultural purposes (seeds and chemical manure), purchases are made in the nearest town of Sivakasi to which there is ready access by bus every one hour, the bus fare being three annas.

Prices of articles purchased in the village shops—

Rice	..	6 measures per rupee.
Tamarind	..	7 annas per viss.
Gingelly oil	..	15 annas per measure.
Chillies	..	Rs. 4 per thulam.
Salt	..	11 measures per rupee.
Mustard	..	Rs. 3 per thulam.
Cummin	..	Rs. 6 per thulam.
Onions	..	10 annas per thulam.

The local weights and measures are—

1 Podhi	..	16 thulams.
1 Thulam	..	$6\frac{1}{2}$ viss.
1 Kotah	..	96 Madras measures.

Total Production of the Village.

Commodities.	Quantity.	Value. Rs.
Cotton	.. 450 podhis	14,000
Nathu (fodder crop)	.. 1900 cartloads	9,000
Paddy	.. 300 kotahs	2,000
Cholam	.. 60 "	640
Ragi (keppai)	.. 270 "	1,650
Kambu	.. 200 "	1,900
Kudiraivali	.. 265 "	1,600
Gingelly	.. 8 "	150
Groundnuts	.. 150 "	750
Castor seed	.. 1 "	10
Tobacco	.. 700 thulams	500
Other crops	.. —	300
Total.		32,500

Live-stock and other animal products.

(As the chief animal product for sale is ghee I give below only the average quantity of ghee produced annually and in the total income only the proceeds of ghee should be included).

Milk.—250 measures per day on an average (milk is sold at four measures per rupee).

Only about 25 per cent is consumed by way of milk and curd.

Ghee.—180 tins per year (A tin of 10 measures costs Rs. 15). Approximately Rs. 2,700 per annum.

Hides and skins.—(of animals dead in the village) Rs. 15. They are given away freely to the Chakkilians.

Cattle Manure.—Approximately 200 cartloads per year. (A cartload of cattle dung may be collected in two days). It is valued at Rs. 3 per cart, total Rs. 600.

Poultry, Eggs, etc.—Rs. 75.

Income from non-agricultural occupations.

The Barber gets six marakkals of grain per annum from 60 families, besides collecting food from the caste people twice a day. On a marriage or funeral occasion he may get an income of Rs. 2 to 3. He will also be able to get free meals for all the relations who go over with him for the function. For the whole year, the family income amounts to Rs. 135.

The Washerman.—The same as the above, but he will get more by way of extra perquisites, say Rs. 5 per annum. The annual income for each of the two families is about Rs. 70.

The Tailor gets the same rate of wages as the barber and the washerman, but charges separately if new clothes are to be made. He has a sewing machine, though he has not learnt to meet the requirements of the well-to-do in the village. His duty is to repair the old clothes that are brought to him and supply *chunam* to the houses. His annual income comes to about Rs. 80.

The Carpenter gets no meals and works at the same rate of wages. His duties are to make and repair the ploughs. There is a long-standing custom of giving him on marriage occasions a minimum of rupee one, but generally he gets more—Rs. 2 to 3 from each of the leading ryots for whom he works. His annual income works to about Rs. 100.

The Chakkilians are useful to the ryots in more ways than one. They attach themselves to well-to-do ryots in the village and whenever they are displeased or not satisfied with the income received, change their service.

Generally they continue to serve under one ryot from 2 to 3 years. There are also some who have been serving one family hereditarily. Though this kind of service resembles that of the Padial system, there is a distinct and fundamental difference between the two, in that, in the latter system, the person is bound to the landlord and he is not free to change the master or liberate himself unless he has cleared his original obligation to the master. In the former case, it is more out of convenience that the Chakkilian remains under one master for a series of years than change often and he has no great difficulty in getting himself free if he so chose to do. A few there are, however, who say that the padial system did exist in the village and the padials were not allowed to run away without substituting another in their place and the master was bound to pay the usual rate of wages even if they had no work. The Chakkilian is employed for menial work in the

master's house, to clean the grains after they are brought from the fields, and repair the *valthole* (leather tube of the kamali). Besides he supplies a pair of sandals to each member of his master's family. The sandals that he makes are found to be the best suited for walking on the fields. In his spare hours, he is also asked to work in the fields of the master (as in the weeding season when the master has to seek outside labour). Then the same wages as that paid to outside labourers (as. 4 to 6) will be given to him in addition to his customary wages. He also acts as a messenger in the case of death in the master's family. On such occasions he will be paid separately the travelling expenses if the distance is long.

The usual rate of wages is fixed in proportion to the produce grown; for every 20 kotahs of grain that the master gets, he will be paid 20 marakkals. He may get on the whole Rs. 60 per annum.

The Goldsmith makes the gold ornament called *thali* or *man-galyam* for which he gets from as. 2 to 3. On the first birth day of every child he will get eight annas to bore the ear (earboring ceremony).

The Pandaram supplies flowers and gets meals.

Head Load Cooly—The rate of hire is four annas per head for every male, and two annas for every female per day.

Cartage is Rs. 1-4-0 to the town of Sivakasi (4½ miles) and Rs. 2 to Virudhunagar (4 miles).

Priests.—There are four Gurus (Vaishnavite Brahmins) at Srivilliputhur who camp in the village for fifteen days from the month of Panguni and take Biksha. They visit the village once a year after due notice. Besides being sumptuously fed during the stay, they get from Rs. 20 to 25 cash from the village caste people.

For the annual ceremonies (Thithi) a Smartha Brahmin is called for from Sattur. He gets on an average Rs. 2 besides rice, vegetables, pulses, etc.

TOTAL INCOME OF THE VILLAGE.

	Rs.
From agriculture (income of landlords, tenants, agricultural labourers, etc.)	.. 37,600
Non-agricultural occupations	.. 2,280
Live-stock and other animal products	.. 8,400
Hides and skins	.. 15
Cattle manure	.. 600
Poultry	.. 75
Grand total	.. 48,970

The total income of the village, agricultural and non-agricultural ascertained family-war, and commodity-war, comes to Rs. 48,970. This works up to an average of Rs. 295 per family or Rs. 73-5-0 per individual per annum. The average monthly income of a family is Rs. 24-8-0 and of an individual Rs. 6-2-0. Deducting the land revenue we get an income of Rs. 279 per family and Rs. 69-6-0 per individual per annum.

TRANSACTIONS OF THE VILLAGE THROUGH THE POST OFFICE

Received in the Post Office—

Year.	Money orders.		V.P.P.		Registered letters.
	No.	Amount.	No.	Amount.	
		Rs. A.		Rs. A.	
1934	30	450 8	7	19 7	22
1935	22	435 1	2	6 6	40
1936	20	445 10	9	48 0	13

Remittances to the villagers caste-war—

Caste of the payee.	1934.		1935.		1936.	
	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A.		Rs. A.		Rs. A.
Naidu	.. 27	385 8	19	390 1	19	415 10
Ayyar	.. 3	65 0	1	10 0	—	—
Konar	.. —	—	2	35 0	1	30 0

From outside British India—

Year.	No.	Amount.
1934	2	57
1935	1	50
1936	—	—

Remittances from the Village—

Caste of the payee.	1934.		1935.		1936.	
	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A.		Rs. A.		Rs. A.
Naidu	.. 17	75 4	7	22 6	37	115 4
Ayyar	.. —	—	1	5 0	3	8 0

It will be interesting to note the following remittances to the (Weekly) *Ananda Vikatan*, not as regular subscriptions, but towards entrance fees of the crossword puzzles that appear in it. There are also frequent remittances to the Reliance Assurance Co., Bangalore. Four have taken policies in the above company and send their premia through a single person. Other remittances are to relations and to priests; none for business purposes.

	1934.		1935.		1936.	
	No.	Amount.	No.	Amount.	No.	Amount.
		Rs. A.		Rs. A.		Rs. A.
To <i>Ananda Vikatan</i> ..	11	41 4	2	3 6	11	40 8
To the Insurance Company ..	—	—	4	11 0	6	24 2

Savings Bank.

The two Brahmin families have Savings Bank Accounts, and among Naidus there is only one with Rs. 50 to his credit. Of Sathani caste, there is one. Of the Brahmins, the Ayyangar (local temple priest) has deposited Rs. 402.

There are a good number of registered letters from the village to various high officials of the district. The monthly sale of postage stamps, etc., is estimated by the Postmaster to be Rs. 4 for this village alone.

The Branch Post office, which is an extra-departmental one, is located at Tiruttangal and serves fifteen villages at a minimum distance of 1¼ miles and a maximum of 4½ miles. There is only one postman (who is not equipped with conveyance) and consequently he visits each village once in three days. A boy is every day sent to Tiruttangal to receive the letters to Vadamalaipuram.

Economic condition of the villagers.

Wages.—The different classes of permanent labourers have the customary rates of wages fixed up for a long time and they are always paid in kind. The price of produce is not taken into account but wages are based on the proportion of the produce that the landlord can spare for the different kinds of services he has to seek. Further, it is convenient for the labourers to receive the wages in kind and for the landlords to pay them so, as the former are always in need of grain. But the labour that is employed for

field work is paid for in cash. That is liable to frequent changes for often the demand for labour is greater than the supply available as it is during the weeding season for cotton.

Hence all the labourers who have definite functions assigned to them in the village receive the customary wages in kind supplemented by cash on marriage occasions and funeral ceremonies when there is need for cash; and all those labourers (who are recruited from outside) whose work is seasonal receive money wages. In the original survey it was stated that the wages were generally paid in money. It is true only if the above distinction is borne in mind.

Unemployment.

The labourers in the village have work in the fields for ten hours a day and two hours outside. They have work throughout the year and there is no unemployment as such. On the other hand, there is dearth of labour. Even the ryot who has a big holding and considered the Mudalali of the village has to wade his way through the fields with his family members, both women and children, from morning to evening. The Pattadar will be free from hard work for three months, i.e. Masi, Panguni and Chitrai (from the third week of March to the first week of June). Even then he will go round the fields at least once a day. The same is the case with the tenants who have to incur all the expenses of cultivation.

No educated person is unemployed.

A Labourer's Family Budget.

The number of members in an average family (landless labourer) can be taken as four and two of them can be taken as earning members. The customary rate of wages in kind is three measures per day and the family can be expected to get work for 250 days in a year, in which case

The total annual wages = 1500 measures valued at	Rs.	95
Supplemented by cash on occasions	"	5
Total earnings for the year	"	100

Current prices of staple foods per measure—

Rice	..	3 annas	6 pies.
Ragi or keppai	..	1 anna	3 pies.
Kambu	..	1 anna	6 pies.
Varagu	..	do.	

The family has to purchase other articles only by barter from the village shop and generally the labourer pays more grain, than if he were to pay cash for them.

The actual quantity of food necessary for the family conforming to the existing standard of living among labourers in the village is given below. This will show by how much the income falls short of the minimum considered necessary, which is itself very low.

Daily. Ragi (Keppai) is the staple food as rice is used only rarely by this class.

Three times a day—3 measures	..	0	3	9
Chillies, tamarind, dried fish, etc. (Masala samans as they call it)	..	0	0	6
Salt	..	0	0	2
Total for the day	..	0	4	5
The above for one year	..			100 12 1

Monthly—

Rice twice, at 1½ measures, per day— three measures	..	0	10	6
Kambu thrice, at 2 measures per day— 6 measures	..	0	9	0
Oil—¼ measure	..	0	3	6
Vegetables	..	0	2	0
Total for the month	..	1	9	0
For one year	..			18 12 0
Mutton for the whole year	..			5 0 0
Annual total expenditure on foodstuffs	..			124 8 1
Clothing, fuel, repair of huts, etc., would cost at least	..			25 0 0
Total annual expenditure on all items	..			149 8 1

The family does not take ghee, milk, buttermilk etc., and the items in any meal are but two or three at the most.

It will be fairly correct to say that a landless labourer's family gets only about two-thirds of the income necessary for subsistence even on a low standard.

Indebtedness.

There are 12 persons who are completely free from debt and have also made savings to the extent of Rs. 15,000. One of them is the Konar, the local moneylender, who has invested about Rs. 10,000 in loans to neighbours and Rs. 3,000 in jewellery. The extent of indebtedness in the village is about Rs. 1½ lakhs and they have total assets worth Rs. 4 lakhs—as against Rs. 1 lakh and Rs. 2·90 lakhs respectively in 1916. The chief cause of indebtedness is the acquisition of material assets and conveniences out of borrowed funds. Almost all the debts are of a long standing nature and they were incurred for purposes of investing chiefly on houses and lands. The large sums invested in houses have become dead capital and the lands have become unprofitable for cultivation. The tendency now therefore is to dispose of the lands. But there is no effective demand. The absence of sources of income other than land has of late forced the villagers to resort to the money-lender even for the maintenance of the family. The rate of interest varies from 8 per cent to 25 per cent. None that borrowed has liberated himself from debt.

Communal Income.

The communal income is chiefly derived from a levy called Mahimai. It is levied on all the goods that are sent out of the village and that come into the village. This is not collected directly by the Panchayat Board but given on contract to the highest bidder. A maximum rate is fixed for all the articles and the contractor's levy should not exceed the rates fixed by the Board as maximum. This prevents the exploitation of the ryots by the contractor levying monopoly rates. The restriction of fixing the maximum rates does not also adversely affect the contractors as the sum they pay to the Board is sufficiently low to allow them a reasonable profit. The actual amount depends upon the estimate of the yield of the produce for the year and the proportion that is sent out (i.e., the gross produce less the quantity kept in the village for consumption).

The communal income for 1934-35	..	Rs. 519 4 0
1935-36	..	" 348 8 0
1936-37	..	" 368 8 0

The above sum of Rs. 368-8-0 for 1936-37 is derived from the following sources :—

	Rs.	A.	P.
The village podhu mahimai	..	160	0 0
Common shops	..	10	0 0
Lease of cocoanut trees	..	1	8 0
Betel trade	..	16	8 0
Trade in cotton seed	..	31	0 0
From hotel	..	5	0 0
Right to collect cow-dung—			
Masi sani Kuthagai	..	3	4 0
Panguni to Ani	..	25	8 0
Adi to Purattasi	..	8	0 0
Avani to Arpasi	..	7	8 0
Karthigai and Margazhi	..	9	4 0
Provision shops (for 7 shops at Rs. 13 each)	..	91	0 0
Total ..		368	8 0

Maximum rates of Mahimai fixed by the Board in force from 1934—

		Rs.	A.	P.
Cotton	.. for one podhi	..	0	5 4
Sweet potatoes	.. per cartload	..	0	4 0
Plantains	.. "	..	0	2 0
Plantain leaves	.. "	..	0	2 0
Brinjals	.. "	..	0	4 0
Onion	.. "	..	0	8 0
Senna	.. "	..	0	2 0
Empty snuff packets	.. "	..	0	2 0
Sugarcane	.. "	..	1	0 0
Tobacco	.. "	..	0	4 0
Fodder	.. "	..	1	0 0
Gingelly	.. "	..	0	8 0
Pulses	.. "	..	1	0 0
Castor seed	.. "	..	1	0 0
Chillies dried	.. "	..	0	4 0
Fuel	.. "	..	0	4 0
Palai	.. "	..	0	1 0
Groundnuts	.. per kotah	..	0	8 0
Pickles	.. "	..	0	1 0
Greengram	.. "	..	0	1 0
Pulses	.. per bag	..	0	0 2
Cotton seed	.. "	..	0	4 0
Ghee	.. per tin	..	0	4 0
Cattle	.. per head	..	0	0 3
Sheep, goat, etc.	.. per head	..	0	0 2
Betel leaves	.. per basket	..	0	0 2

Kaval Fees or Protection Fees. For 1936-37 the Board has fixed it at one anna per acre of cultivated land. Previously it was fixed at annas two. There are two watchmen and the whole amount that is collected is distributed equally among them. In the current fasli, the amount comes to Rs. 96-7-6, out of which Rs. 68-7-0 was collected till March 1937. In 1933-34 Rs. 249 (at annas four per acre of cultivated land) was collected. In 1934-35 Rs. 186-12-6 (at annas 2 per acre of cultivated land) was collected.

The Profession Tax was levied only in 1933-34 at the insistence of the Taluk Board authorities but on representation by the Panchayats the tax was abolished.

Expenses met out of the communal income.

Major portion of the amount goes to the celebration of the festivals, twice every year, when the Deity is carried from the famous shrine at Tiruttangal to the river-banks of the village. The festivals occur in the months of Ani and Chitrai when a sum of Rs. 150 is spent. In 1925, a temple (Perumal Koil) was built in the village and one priest (Archaka) is employed on a salary of Rs. 150 per annum. A gift of 3 acres of land was also made to the temple by a Naidu family. No yearly festival (Brahmotsavam) is celebrated in the village temple and there is now a proposal to celebrate only once a year the festival of the Tiruttangal deity. This is due to the meagre communal income out of which it is increasingly difficult to celebrate another festival (the Muthalamman festival) in the month of November (Arpasi) when a sum of Rs. 50 is spent. This is collected from among the Naickers themselves and does not form a charge on the Communal Income. Expenses on religious festivals have fallen by more than half since 1916.

The Sanitary Condition of the Village. The main street of the village presents a clean appearance. This is perhaps due to the civic consciousness among the Naidus who form the majority of the population. They are well dressed, their houses are well-kept and most of them have a sense of cleanliness. This does not mean that nothing is wanting in the improvement of the sanitary condition of the village. The drainage system must be improved, as during the rainy season water stands stagnant in the streets making it difficult to traverse the roads. The numerous lanes that open out from the main streets are not cleaned regularly. The roads themselves require urgent repairs.

This comparatively fair sanitary condition and habits account for the absence of any epidemic or endemic diseases like malaria, plague, tuberculosis, small-pox, etc. Cholera has visited this village only in 1925, when about 25 people succumbed to the disease. Immediate action was taken to inoculate the people and a Health Inspector was also stationed in the village. But since then, the fear of cholera is absent, though the surrounding towns and villages are affected by the epidemic almost every year.

There has been no snake-bite.

Medical assistance has to be obtained from the town of Sivakasi. There is no other dispensary in any village nearby. This seems to be an essential requisite. Though no serious cases necessitating outside medical aid have so far occurred in the village, a dispensary here may serve as a centre for other neighbouring hamlets and also for the ryots here who cannot be said to be exempt from the ordinary fever and other diseases.

Infant marriage is unknown in the village, as the girls are married only after attaining puberty, i.e., between the ages of 12 and 18 or even 20 in some cases. The fact that the girls are married after puberty does not in any way reduce the marriage expenses. But it is only the reduction in their income from land that has forced them to spend less on marriage occasions. This is out of necessity. The minimum is said to be now Rs. 300 and the maximum Rs. 800. Previously, between Rs. 1,500 and 2,000 was spent on marriage.

There are eight drinking wells including the two in the Paracheri. Water is used from the wells and it is good. Only the two Brahmin families take water from the river for drinking purposes. All the others use only the wells. Some of them (only a few) take their bath in the river and wash their clothes. The depressed classes are not prohibited from using the river for bathing and washing purposes.

Consumption of food-stuffs.

In the nature and quantity of food taken there is little difference among the various castes except the two Brahmin families. Even the periods and time of taking food among the castes are almost the same. The difference arises when we divide the village into income-groups (as division into professional groups cannot be accurate). The well-to-do persons as well as the small landholders and tenants have taken to rice as the staple food. Only the agricultural labourers with meagre income are still sub-

sisting on ragi, the cheapest grain available. All the castes (Brahmins excluded) eat meat which is a permanent item in the menu of the well-to-do. There is no waste in the cooking, keeping and serving of food. In the mornings the food cooked at night and kept over is taken. At noon fresh cooked food is taken without any side-dishes. Only in the night they take full and leisurely meals. The different hours mentioned above are so arranged as to suit the hours of work in the fields. They generally take their bath in the evening after return from the fields.

Following changes in the diet in the last 20 years may be noted :

1. Rice has become the staple food for three-fourths of the population.
2. Coffee is taken regularly by more than half among the Naidus and the rest take it at frequent intervals. Tea is not drunk.
3. Tobacco is used for chewing only by a very few, while snuff is used by many persons, women as well as men.

Education.

There is one elementary school conducted by the Panchayat Board. It is now accommodated in the Mandapam to the north of the village, but was formerly in the building of the Co-operative Society from 1923 to 1932. Previous to 1927, it was managed privately. There are three teachers, one trained Headmaster with a salary of Rs. 27 and two untrained Assistants, with a salary of Rs. 7 each. The school offers instruction up to the 5th standard and the Panchayat has passed a resolution to enforce compulsory primary education. A monthly census of the boys of school-going age is taken by the Headmaster and all of them are brought to school, either by persuasion or by taking action under the Act.

The average duration of education at the school is 3 years. No school fees are charged but as per the rules the land cess was increased from one pie in the rupee to three pies in the rupee, and the amount collected is given to the Panchayat Board. The total expenditure on the school is Rs. 550 without any corresponding income. It is managed with great difficulty and private financial contributions were also obtained to maintain it.

Strength of the School in November 1936.

	Boys.	Girls.	Total.
Caste Hindus ..	33	37	70
Panchamas ..	4	1	5
	37	38	75

The Headmaster admits that the children, especially the boys, are sometimes taken away from the school to assist their parents in the field work. The attendance has to be kept up with great difficulty. All classes of ryots without distinction feel the loss of the work by sending the children to school. This is so because even the highest caste-folk in the village, the Kammavars including ladies in the family, have to go to the fields for work. The loss is felt keenly, not by a particular class of people but by those who have no other members to assist in the family. The Headmaster estimates that 25 per cent of the children attending school will be useful to the ryots. He says that the parents want even the young ones below nine to work in the fields and contribute their quota of service. Hence great difficulty is experienced by the teacher in getting the boys to the school, as in December 1936, about a dozen students had absented themselves regularly on the plea of work in the fields. The actual loss is that the ryot will have to pay two annas per day to substitute the boy's work and in a month he may have to hire four or five times, i.e., it comes to about Rs. 7½ per annum.

LITERACY AMONG CASTES.

Caste.	Males.	Females.	Total.	Percentage of the total population of the caste.
Naidus ..	113	48	161	39
Asaris ..	5	1	6	27
Edayars ..	7	1	8	15
Barber ..	2	—	2	67
Pandaram ..	—	—	—	—
Semman ..	4	—	4	40
Washerman ..	2	—	2	14
Maravars ..	8	—	8	25
Chakkiliyans ..	2	2	4	12
Brahmans ..	3	2	5	55
Total ..	146	54	200	

The Village Library.—From 1927 the Library is being managed by the Panchayat Board and the Headmaster is in charge of the same.

Number of books in stock—Tamil—303; English—81.

In 1936, about one hundred books were declared to be unfit for use and auctioned. In Tamil there are 60 books containing

Puranic poems. The Tamil section is frequently made use of by the students and the elders. There are four persons in the Naidu caste well versed in Puranas but cannot be called Pundits. The English books are read only very rarely, by the Headmaster and four others employed outside who come to the village when on leave. Two of them are elementary school teachers, one a vaccinator, and the other a forester.

The Panchayat Board has decided this year (1937) to appoint a lady teacher and open a kindergarten section for the girls. The Headmaster of the school is also the correspondent for the Panchayat Board and performs manifold duties as keeping registers of the Panchayat Court and the Board and preparing statement or petitions to the higher authorities or officials. He does not get any additional remuneration.

There are no regular subscribers to newspapers but the vernacular dailies, *Dhinamani*, *Jayabharathi* and the weekly *Ananda Vikatan* are often purchased and read. Such reading is limited to a dozen persons.

Village Administration—The Panchayat Board.—The village administration is carried on by the Panchayat Board, the Panchayat Court, the Karnam and the Village Munsiff. The Panchayat Board commenced its work in 1924. There are eight members including the President and the election takes place every three years. There is no severe contest in elections and one admirable feature is the harmony that prevails among the villagers. The functions of the Panchayat Board are :—maintenance of the roads, drainage, drinking wells, sanitary administration, maintenance of the temples and conducting the yearly festivals, levying of the local fees and the management of the school and the library. Two drinking wells were sunk recently bringing the total to eight, all of them having water perennially. Till 1927, streets were lighted; and a separate tax was levied for the purpose. The rubbish is collected in a corner of the village and auctioned at the end of the year and the proceeds never exceed Rs. 3. Regular monthly meetings, and special meetings if necessary, are held by the Board and all the members assemble on due notice.

The Panchayat Court is constituted of seven members who, like the Board members, are elected every three years. It has jurisdiction to impose fines and pass decrees up to Rs. 50. The village is a peaceful one and no criminal complaint has been lodged since 1927 in which year there were five. Till the end of November 1936, there were 9 civil cases and all of them were disposed of. In

1932, 1933, 1934 and 1935 there were 14, 1, 2 and 6 civil cases respectively. All these suits are on promissory notes and are small dues to the local shops. There is litigation only consequent on the liquidation of the Co-operative Society and still suits are pending. Otherwise there is none in the village engaged in litigation and all offences and disputes are dealt with in the village itself without resort to the courts.

The nearest police station is at Sivakasi.

RECONSTRUCTION.

Every village in India offers scope for improvements, economic as well as social. But few villages in South India have attained the reputation for corporate activities of every kind that Vadamalapuram had done and maintained for about twenty years. The zeal and enthusiasm with which the various improvements were brought about elicited admiration from all the officials and non-official leaders who visited the village and noted its activities. Its co-operative society was "the earliest and one of the most flourishing societies in this part of the Presidency". The first Registrar-General of Panchayats considered its Panchayat as "one of the best in the Presidency, and the Panchayatdars and the villagers deserve to be congratulated not only on what has been already done, but also on their readiness to do more." He selected this Panchayat as the headquarters of the first Panchayat Union. A District Educational Officer observed that the school, run by the Panchayat, was "a model one and was an ornament to the village." The President of the Madras Provincial Co-operative Union after seeing the co-operative society, the school, the library, the new roads and wells remarked: "If I am now confirmed in my resolve to proceed with the Provincial Co-operative Union's scheme of Rural Reconstruction, it is in no small measure due to the achievements of Vadamalapuram". All this is high praise, almost extravagant, one might be tempted to say, in the light of later events.

Improvements in the following directions have been made in the village :—

1. The starting of the first co-operative society in the district and successfully working it for more than 15 years.
2. The opening of a grain-lending institution.
3. Formation of streets. Two streets in the village are named as Tottenham Street and Ramamurthi Road.
4. Lighting of streets.
5. Construction of drains.

6. Construction of roads, culverts and wells.
7. The introduction of the scheme of compulsory education.
8. Formation of an Young Mens' Association.
9. An efficient Panchayat Board for the village administration.
10. A well-organised system of fees and taxes.
11. A library of useful books.
12. Holding of weekly markets.
13. Experiments in the new methods of cultivation as seed selection of cotton, use of oil engines and iron ploughs.

All the activities enumerated above, except the Panchayat Board, Court, and schools have ceased the reason being the burden of debts due to the co-operative society. The liquidation of the society has made the village a bad place to live in instead of the 'pleasant place' it was even up to 1930. It must be said to the credit of the villagers that in spite of all difficulties they have the same zeal and enthusiasm for common improvement of the village and for reviving the activities which they were forced to give up. Mr. T. G. Rutherford, I.C.S., Registrar-General of Panchayats in 1930, in recommending this village as the model one to the District Boards Rural Reconstruction Committee, wrote, "When I visited the village last, I was much struck by the progress made in converting it into a reasonably pleasant place to live in and by the evidences of a live community-spirit. I remarked then that it bids fair to become the model village of South India. I think the foundations laid by the villagers working through their co-operative society and Village Panchayat may be carried upwards to the complete edifice of a re-constituted Indian village and that the result will be more satisfactory than if some other area in which the will to improve has not been so evident, is selected." And yet this village was not selected.

The Village has scope for the following improvements. The improvements suggested can be brought about only after some arrangement is made to liquidate the debts due to the Co-operative Society.

1. Introduction of a variety of commercial crops—chiefly sugarcane and plantains. To grow such crops the manure available in the village is not sufficient. Hence a part of the holdings should be grown with green manure. Further as the village is well situated near the trading centres of Sivakasi and Virudhanagar there

should be a co-operative institution for the disposal of the produce directly in those centres, e.g. the village can possess common carts. Similarly, cotton can be stored in a common godown and graded locally and then disposed of at a favourable price instead of selling it immediately after harvest. The Co-operative Credit Society (if a fresh one is started) can advance on the security of the produce.

2. Vegetables can be grown for home-consumption in the space available in the backyard of each house and fruit trees and shade trees can also be planted alongside the roads.

3. New methods of poultry keeping can be easily taught to the villagers, practically all of whom are non-vegetarians.

4. A railway station, a branch post office and a dispensary are all immediate requisities for the village. It is already mentioned that the railway line passes the village at a distance of a furlong. A flag station can be opened as an experiment without any heavy expenses.

5. The river Arjuna has now no bridge and runs through the mainroad at the fourth mile from Sivakasi. During the flood season, for more than a week, a number of carts carrying cotton, tobacco, and other merchandise have to wait on both sides of the river until the water subsides. Buses, too, cannot ply then and this is a great inconvenience and loss, both to the traders and the moving population. A bridge over the river Arjuna is an imperative necessity.

APPENDIX

HISTORY OF THE VADAMALAIPURAM CO-OPERATIVE SOCIETY.

The society was registered on the 8th January 1909 as a co-operative credit society on unlimited liability basis. The authorised capital was Rs. 10,000 divided into 200 shares of Rs. 50 each, of which Rs. 5 was payable on application and the rest in 45 equal monthly instalments. No member could take more than 7 shares. The maximum borrowing capacity of the society was Rs. 20,000 and that of a member Rs. 1,000, at the rate of Rs. 200 per share.

The society began to function in February 1909 with 13 members—the number has proved to be inauspicious once again—and Rs. 65 of share capital. Membership, deposits, loan transactions,—all increased steadily, and recoveries were punctual for the first three years. Thrift was promoted by the organisation of chit fund and recurring deposits and every one was induced to deposit after each harvest. The then Registrar of Co-operative Societies singled out the society for praise: "The Society being itself a good one seems to have had good influence over the neighbouring societies. It evinces interest in matters agricultural and no doubt it will continue its useful work." The society borrowed at 7½ per cent or less and lent at 9 per cent. No loans were given for marriages. All loans were given on personal security. Mr. R. Ananda Rao was the founder, the 'life and soul of the society.' His services were recognised by the early Registrars.

Even in 1913-14, there was a decline in membership, in deposits received and in the recovery of dues. In 1916, two suits had to be filed and decrees obtained. Still transactions continued to be fair and dues to the Central Bank were regularly remitted. Serious defects were noted in 1919-20. 60 loans had passed due dates of repayment, the instalments of principal and interest had not been paid to the District Bank. And yet 30 fresh loans for Rs. 1,623 were issued apparently for agricultural improvements. Larger number of loans and of greater value were granted in the following years 1920 to 1924, for agricultural improvements, reduction of prior debts, purchase of cattle and of land (only one case), and for marriage expenses, etc. Later on outstandings could be cleared only by sanctioning a fresh loan—a mere book adjustment. Curiously enough, the number of members increased from 1920—from 54 to 60, 69, 70, 76 and 79 in the succeeding years. The maximum borrowing capacity of the Society was raised from Rs. 20,000 to Rs. 25,000 in 1922, Rs. 30,000 in 1923, and to Rs. 45,000 at the end of 1924.

Though its decadence had begun in 1920, it was not noticed for long. Its earlier reputation brought it unmerited reward. It was one of the 20 good societies chosen by the Government of Madras in 1922 for a Rural Development Grant. It got Rs. 1,759, out of which street drains were constructed. In 1923, a sum of Rs. 3,000 was sanctioned by the Assistant Registrar for construction of a building for the co-operative society. The sum was considered insufficient. The General Body of members resolved to appropriate Rs. 2,000 from the collections of the society for this purpose. This

too was found inadequate by the President who debited Rs. 1,824 in the account without any sanction even by the Board. The building thus constructed was occupied in August 1923. Some profitable use was devised for this white elephant. At a meeting held on the day after which it was opened, it was resolved to hand over the building to the Elementary School and utilise the educational grant of Rs. 2,500 for the construction of an upper floor on it for the use of the society. The Assistant Registrar objected to this on the ground that the Board had no right to give the building away to Government in lieu of the grant as it was the property of the society. No arrangement was made for the repayment of the debt incurred in construction. A lot of correspondence followed. At the end of 1924, a deputation went to Madras to the Registrar who objected to the society taking over the management of the school or taking a grant of Rs. 2,500 from the District Educational Council. It was then decided to sell the building outright if a good offer was forthcoming or of retaining the building and developing the transactions of the society and building up a reserve fund equal to the amount spent on the building. The Srivilliputtur Banking Union acceded to the request for the extension of the period of the repayment of the loan to 15 years from 1925.

The Society, however, continued to suffer losses and except in two years could make no contribution to Reserve Fund. Positive slackness was in evidence in allowing several loans to get time-barred without any action being taken, in failing to execute decrees obtained in certain cases, in failing to pay the dues to the Central Bank promptly, in the default of Panchayatdars, all of whom except one, had borrowed to the extent of nearly Rs. 5,000.

In October 1932, the Secretary of the Srivilliputtur Banking Union filed an execution petition against the Society through its members for the realisation of the amount decreed to it in the award, by arrest and sale of the properties of seven members. The respondents opposed contending that they could not be proceeded against, as the award was only against the Society. The petition of the Bank was dismissed with costs by the court which followed the decision of the Patna High Court that "an award passed against a co-operative society cannot be executed against its members as the society is a different legal person from its members" even though based on unlimited liability.

The only way now open to the Bank was to have the Society liquidated. The Registrar cancelled the registration of the Society in March 1932 and appointed the Sub-Deputy Registrar of Ramnad to be the liquidator. The order stated: "The Bank was not able to realise its dues even after executing the decrees. An enquiry under Section 35 of the Act was held. On 30th June 1931 the Society owed to the Central Bank Rs. 30,108 under principal and Rs. 2,969 under interest. Loans to the extent of Rs. 19,482 under principal and Rs. 5,816 under interest were outstanding against members and almost the entire amount was overdue. Loans amounting to Rs. 1,036 were estimated to be bad debts. The financial condition of the Society is very unsound and the Central Bank recommends the immediate liquidation of the Society. The Deputy Registrar, Tinnevely, also recommends cancellation of registration since its affairs cannot be improved."

The President of the Society appealed to the Government to set aside the order of the Registrar, stating that the facts were not correct and inferences were based on prejudiced reports, the depression was responsible for the

arrears, that no enquiry was held under Section 35 and no credit was given, in calculating the assets of the Society, to the building worth Rs. 4,455, to the Reserve Fund of Rs. 3,513 and the garden lands worth more than Rs. 2,000 in possession of the Society. Further the Society's Directorate had been changed and it was assured that vigorous steps would be taken to collect the arrears. The Society was willing to have a special officer appointed as per by-law No. 62 but no such opportunity was allowed.

A perusal of all the records leaves one in no doubt as to the mismanagement of the Society's affairs by the Panchayat. Large sums have been lent among a few members for purposes not really agricultural. The villagers had been originally indebted to the Nadar money-lenders of Sivakasi; and the loans from the co-operative society helped to clear off those loans at higher rates of interest. This process was completed by 1922. This emancipation was at the expense of the Society whose dues were mounting up meanwhile. No effort was made to recover the dues from members. Panchayatdars were among the worst defaulters; they were said to have distributed many of the loans among themselves and their close relations and friends. Loans were sometimes applied for, sanctioned and issued in two days or even the same day. Property statements were not prepared regularly and when prepared showed bloated values—just to increase the maximum borrowing capacity.

On the other hand some blame attaches also to the Srivilliputtur Banking Union, which had been far too lavish at one time in granting loans to societies, especially in 1925-6, when it received a subsidy of Rs. 13,000 from the Madras Provincial Co-operative Bank which was based on the loan it took of Rs. 4 lakhs from it. The Governing Body members and Directors of the Banking Union had been themselves great borrowers, having had to pay Rs. 1 lakh to the Union out of a total of Rs. 2.62 lakhs owing to it. There were other societies in the Union which were hardly better than Vadamalaipuram. One can understand, however, the attitude of the Directors of the Union after their failure to execute the decrees against members of that society. The pressure of some lovers of Vadamalaipuram, like Mr. Ananda Rao, who happened to act for a time as Secretary of the Union, that the village should be chosen as a Rural Reconstruction Centre under a scheme in 1928-29 perhaps added to the irritation.

After all, liquidation has not enabled the financing institution to recover its dues from the society. Not more than a fifth of the dues could be realised by attachment and sale of land in these days of depression. There are 48 societies under liquidation, owing to the Banking Union Rs. 4 lakhs, of which not more than Rs. 2¼ lakhs could be recovered. Perhaps if a Special Officer had been appointed as prayed for and time had been given to sue particular debtors and gentle pressure had been brought to bear on them, more could have been realised. Liquidation has, in the view of the villagers, led to the loss of domestic happiness and bred distrust and isolation in a village not long ago famous for its communal harmony.

GANGAIKONDAN *

(*Tinnevely District.*)

BY

B. NATARAJAN, M.A.

Preliminary.

The village of Gangaikondan lies 2½ miles north-west of the Railway station of the same name. The village is not one contiguous area, but comprises a few subdivisions within a radius of 2½ miles. Apart from Gangaikondan proper, the following are the subdivisions: Vadakkur and Kilur; Rajam Pacheri¹; Aladi, Pungam, Anatalai and Turaiyur Pacheries. The village is 8 miles from Tinnevely and is reached by motor buses plying every half an hour. The Madras Trunk Road cuts through the very heart of the village. On to the north runs the Chittar river, to the south lies the extensive tank known as Chirukulam, to the east lie wet lands and to the west is a large tract of dry red soil and a cluster of palmyra trees that mark the northern fringe of the great "Palmyra forest".

History of the Village.

Gangaikondan is a village of great antiquity. The walls of the Garbagraha of the local Siva temple are covered with inscriptions in the ancient Vatteluthu characters. The inscriptions range over a period of nearly seven centuries—from the ninth to the sixteenth—a period seething with intense activity in the Tamil land. A galaxy of celebrated scions of the Imperial Colas, among whom are such conjuring names as Raja Raja the Great, Rajendra Deva and Kulottunga Cola, find prominent mention in the inscriptions. A list of five Pandiyan kings also adorns the inscriptions.

The village appears to have been originally one of those innumerable gifts made to Brahmins during the palmy days of the Tamils when the munificence of their monarchs freely flowed. The full name Gangaikonda Cola Caturvedimangalam points to that. It was probably gifted away by Rajendra Cola (1011-44 A.D.) who assumed the title of Gangaikondan in honour of his victorious exploits in Northern India.

* Summary of a Thesis which was awarded the Gokhale Prize in 1935.

1. In the previous survey, Rajampacheri was left out from the list of subdivisions. On inquiry I found the word is not *Paracheri*, as given in the previous survey, but *Pacheri*, which means the home of Pallars who were once the most numerous of people in the village. *Paracheri* means the home of Parayas. Rajampacheri has now become the home of shepherds.

A lingering vestige of historical curiosity deserves mention. The caste men referred to as Kshatriyas in this survey are locally known as Rajus. The Rajus of Gangaikondan have nothing in common with the Telugu speaking people of the same name. The former are worshippers of Siva and are staunch vegetarians. They claim their descent from the immortal Pandiyas and now marry with Vellalas. A mocking mud wall around their houses serves the memory of the magnificent bastions of these fallen princes.

Of more recent historical interest is the bridge across the Chittar. This splendid construction owes its existence to the princely generosity of the Zamindar of Ettayapuram, and the untiring zeal of Captain Horsely, the Engineer, whose memory is still green in the district.

Population—Changes in the Population of the Village from 1881.

Year of Census.	Males.	Females.	Total.	Average Annual difference.
1	2	3	4	5
1881	1,423	1,438	2,861	
1891	1,476	1,476	2,952	+ 9.1
1901	1,514	1,551	3,065	+ 11.3
1911	1,675	1,820	3,495	+ 43.0
1921	2,193	2,169	4,362	+ 86.7
1931	1,879	1,852	3,731	- 63.1

It will be seen from the above figures that from 1881 there has been a steady increase in population, the average annual increase in the decade 1881-91 being 9.1 and that in the next being 11.3. With the beginning of the twentieth century, however, this increase was by leaps and bounds for over two decades. The increase in the 1st decade was 430, being nearly four times the rate of increase in the previous decade. The increase in the next decade was 867, i.e., about twice the increase of the previous decade. In the last decade, however, not only has the population ceased to increase; it has on the other hand positively decreased, the average annual decrease being 63.1.

The increase in population upto 1921 needs no special consideration, as it was an increase along with the rest of India, if not of the world. But in the 1931 census, we find that while the total population of India, nay even of the district and the taluk, has had an increase, the village under survey has registered a decrease of nearly 631 persons in ten years, and this despite the fact that there has been an excess of 392 births over deaths in this decade, more or less as in the previous decades.

STATEMENT SHOWING THE QUINQUENAL FIGURES OF BIRTHS AND DEATHS.

Years.	Births.				Deaths.				Annual average birth.	Annual average death.	Annual excess of births over deaths.	Total excess of births over deaths.
	Males.	Females.	Total.	Total.	Males.	Females.	Total.	Total.				
1	2	3	4	5	6	7	8	9	10	11		
1911-15	340	282	622	300	255	555	124.4	111	13.3	67		
1916-20	347	335	682	213	217	430	136.4	86	50.4	252		
1921-25	380	385	765	288	307	595	153.0	119	34.0	170		
1926-30	379	378	757	286	249	535	151.4	107	44.4	222		

We have thus to account for a real decrease of $631+392=1023$ persons in the decade, of which 499 were males and 524 females.

Emigration to Tea Estates.

This has been going on ever since the first planter set his foot on the Western Ghats some 30 years ago. It is of a seasonal nature and is confined to the depressed classes like the Pallars and Pariars. This number, according to the estimate of the villagers and some returned emigrants and the labour agents of the U.P.A.S.I.* does not exceed 200 persons yearly. They leave the village for the tea gardens of Solaimalai in the months of July and August; stay on there for about nine months in the year and return during March and April, in time to have their crops harvested and enjoy the harvesting season. Now, every decennial census is taken on the last day in the month of February of the census year, when most of the labourers who had gone to the hills have not returned. So their absence naturally affects the real population of the village. But this is not peculiar to the census of 1931. Nor is there any evidence to show that the migration was greater in recent years. In fact, while recruitment had been steady in the first half of the decade, it has been gradually decreasing in the latter half, until finally in the last year (1933) due to depression in the industry, migration practically ceased.

Exodus to Towns.

This, there are reasons to think, might have brought about the decrease in population. When a village gets overpopulated in relation to the cultivated land available, under-employment and unemployment on land become acute and force a part of its population to find their means of living elsewhere. The new education imparted to youths afforded a townward attraction. The decline of the indigenous handicrafts of the village forced the craftsmen to seek their livelihood in towns.

The following two tables give an idea of the communities that have contributed to such exodus:

* The United Planters' Association of South India.

1. Caste Hindus.

Caste.	Former survey. Families.	Present survey. Families.	Increase or Decrease.
1. Brahmans. ..	100	75	- 25
2. Pillaimars ..	31	30	- 1
3. Maravars ..	102	105	+ 3
4. Shepherd ..	60	50	- 10
5. Barbers ..	5	3	- 2
6. Oilmongers ..	12	8	- 4
7. Betelmen ..	50	40	- 10
8. Carpenters ..	6	5	- 1
9. Blacksmiths ..	6	3	- 3
10. Goldsmiths ..	6	4	- 2
11. Dhobis ..	3	2	- 1
12. Potters ..	10	6	- 4
13. Fishermen ..	20	20	..
14. Tondamans ..	3	2	- 1
15. Pipers ..	4	3	- 1
16. Brothel Women ..	2	..	- 2
17. Kshatrias ..	3	3	..
18. Muhammadans ..	5	5	..
19. Kaikolars ..	20	6	- 14
Total ..	448	370	- 78

2. Depressed Classes.

Caste.	Former survey Families.	Present survey Families.	Increase or Decrease
1. Pallans ..	175	161	- 14
2. Ezhuvans. ..	8	6	- 2
3. Paraiyans ..	8	8	..
4. Shanars. ..	8	18	+ 10
5. Chakkiliyans ..	14	5	- 9
6. Kuravans. ..	2	1	- 1
Total ..	215	199	- 16
Grand Total ..	663	569	- 94

Thus we can estimate the loss to the village by emigration at about 500 individuals during the decade. While the emigration of any one family from the village means so much reduction in its population, the increase of families on the other hand is no positive index of a corresponding increase in the total population except in

certain cases. For, there is a tendency of late for some families who have been living together for years to divide and set up separate homesteads. For example, among the Shanars, according to the previous survey there were only 8 families. But now there are 18 families. The addition of 10 families, however, does not mean the addition of about 50 individuals to the population of the village. No single family in this caste has come from outside during the last 18 years. The increase in families has occurred only because of the operation of the tendency of families to subdivide. One family of Shanars alone, which the previous surveyor has recorded as containing 18 members, has now divided into 4 separate families. Other families too have done the same. But the total population of the caste has not been thereby sensibly affected as will be seen by the following figures taken of the number of individuals living then and the number living now :

Survey.	No. of Families.	No. of individuals.	Males.	Females.	Children.
At the time of the last survey ..	8	50	20	18	12
At the time of present survey ..	18	55	22	20	13

This explains the fact that while there is a considerable number of emigrants from the various castes, the number of homesteads has not decreased to a corresponding degree. When a family leaves the village bag and baggage, the house it occupied is not left deserted. The head of the family disposes it of to somebody in the village and soon afterwards a big family divides itself and a branch of it begins to occupy the house instead. Hence an increase in the number of families must not be taken for an increase of population. On the other hand a decrease in the number of families is a certain index of decrease of population, for so many people have definitely left the village perhaps for good. There is no case of a decrease in number of families by two families amalgamating into one. Among the Blacksmiths and Goldsmiths, for instance, more than six families have left the village during the past fifteen years. But the number of homesteads or families has not decreased, for as stated before in the case of Shanars, sons who had lived under one roof have set up separate establishments without increasing the total strength of the caste.

The exodus has been greatest among the Brahmins. Within a space of 18 years nearly 25 families have left the village. Men of this caste find it increasingly difficult to get on in the village. The Brahmins in this village began as landholders. An aged Brahmin gentleman told me that some fifty years back they were 120 families strong, possessed 100 ploughs between them, owned 800 acres of nanja land out of the 1000 acres, 3000 out of 3,500 acres of black soil and 3,000 out of 3,500 acres of red soil in the village with a further right to a poramboke area of 3500 acres for purposes of grazing cattle—all between 106 share-holders. But their total possessions in the village today have dwindled to 250 acres of nanja land, 100 acres of black soil land and 1000 acres of red soil land of which only 100 are cultivable. This is because the Brahmins ceased to take personal interest in land. They were content with merely letting the land on lease or varam on terms more or less dictated by the tenant. From active agriculturists they have degenerated into idle rent-receivers. Their standard of life and ceremonial expenses have risen more than in any other community. The old and simple habits of the orthodox or Vaidik Brahmin who was content with a pair of dhoties and angavastrams for the whole year, which he scrupulously washed himself every morning, have given place to costly clothes of cotton and silk. The standard has gone up higher with a majority of Brahmin women. They want more silks, more jewels and more vessels, in silver too. A mixed diet of rice, ragi and cholam has given place to that of superfine rice as the staple. The increasing resort to higher, English education, has been another drain for Brahmin families. They were not only the first to take to it, today they are almost the one community in the village who have sought it wholesale. Although this may not fully account for their decline in numbers in the village, it is certainly the cause of emigration of a considerable number of Brahmin families and their lack of interest in land. It looks as though the Brahmin thrives best in towns and the rural soil is uncongenial to his genius.

There are, however, some exceptions to this in the village. There are some Brahmins who, if they do not actually till the soil, perform the equally important task of supervision and management. If they do not wield the spade and drive the plough, they at least spend a good part of the day in the open fields, keeping a vigilant eye on the agricultural operations. But on inquiry I found that the prosperity of even these families could not be attributed to agriculture alone. They carry on another important function, viz., money-lending. A village money-lender cannot help

flourishing. But those who remain as rent-receivers pure and simple find it increasingly difficult to make both ends meet in the face of new and costlier ways of living. The trend of decline noticed in the previous survey, so far as the Brahmans are concerned, continues.²

Next in importance is the shepherd caste. About ten families have emigrated from the village during the past 18 years. They have gone to the towns in search of manual labour. They were a landless lot, who followed in the past their hereditary calling of tending sheep. As this pursuit is on the wane for various reasons, they preferred to emigrate to towns rather than swell the agricultural labour of the village.

The rest of the emigrants were from castes whose hereditary occupation was not agriculture. Thus of the decrease of two families of barbers, one became extinct and the other has emigrated. Of the oilmongers about 7 families have gone out, of whom a few have gone to distant places like Penang and others to neighbouring towns. The same is true of the decrease in the case of betelmen also. The blacksmith, the goldsmith, the weavers (Kaikolars and Ezhavas) and the scavengers have many of them left for towns in search of better wages.

The communities, however, whose main occupation is agriculture, like the Vellalas and Maravars, have remained intact. The Maravars have in fact, slightly increased in numbers. This points to the conclusion that the village industries provide less and less opportunities for the respective craftsmen. That does not mean that the agricultural classes are prospering. While these handicraftsmen with their professional skill may find employment elsewhere, the agriculturists are not wanted outside.

Land.

When the last survey was made an increase of 7.88 acres was noted in the area of wet cultivation over that at the Resettlement time. There has been practically no increase in wet land cultivation since 1915. But the area under dry cultivation has increased appreciably, from 6069 acres during the resettlement of 1908-09, to 6,107 in 1915, and to 6,314 according to the revenue figures of 1932.

2. "The Brahmans are deteriorating in numbers and prosperity. Other castemen show signs of progress." *Some South Indian Villages*, p. 55.

Land.	According to revenue accounts.	As per resettlement of 1908-9.	Fasli 1322-26 (1912-13 to 1916-17) Average.	Fasli 1326-31 (1916-17 to 1921-22) Average.	Fasli 1331-36 (1921-22 to 1926-27) Average.	Fasli 1336-41 (1926-27 to 1931-32) Average.	As per present survey 1934.	As per previous survey (1915).	Dif. between 1908 and 1934.	Dif. between 1915 and 1934
	1	2	3	4	5	6	7	8	9	10
	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
Wet.	1,015	1022	1028	1030	1031	1031	1031	1030	9	1
Dry.	6,068	6069	6107	6132	6288	6314	6314	6107	245	207

There is no more irrigated land available for cultivation. The maximum has long ago been reached. There were only 5 acres of wet land and 90 acres of dry land unoccupied during the Resettlement. There is now an increase in wet land of 9 acres and in dry land of 245 acres. This excess of land taken up for cultivation came by an extension over the poramboke lands converted into dry lands and also by a conversion of a small extent of dry into wet lands. The following statement will illustrate how every available acre of land has been occupied and brought under the plough:

	Occupied.			Unoccupied.			Inam.	Poramboke.
	Wet.	Dry.	Total.	Wet.	Dry.	Total.		
	1	2	3	4	5	6	7	8
	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.	Acs.
According to revenue accounts	1015	6068	7083	1	30	31	540	3556
According to Resettlement ..	1022	6069	7091	5	90	95	548	3509
According to previous survey ..	1030	6107	7137	0	49	49	537	3509
According to present survey ..	1031	6314	7345	0	0	0	537	3350

It is striking that there is no cultivable land lying fallow. The extent of land, both wet and dry, for which pattas were granted in the twenty years, from 1912 to 1932, is seen from the following statement:

AREA OF LANDS GRANTED ON PATTAS.

Fasli.	Year.	Dry lands.	Wet lands.	Total.
1		2	3	4
		Acs.	Acs.	Acs.
1322 (1912-13)	..	15-23	1-60	16-83
1323 (1913-14)	..	2-37	0-10	2-47
1324 (1914-15)	..	0-97	0-93	1-90
1325 (1915-16)	..	2-81	0-33	3-14
1326 (1916-17)	..	—	—	—
1327 (1917-18)	..	—	—	—
1328 (1918-19)	..	2-66	—	2-66
1329 (1919-20)	..	—	—	—
1330 (1920-21)	..	0-57	0-7	0-64
1331 (1921-22)	..	50-50	—	50-50
1332 (1922-23)	..	4-31	—	4-31
1333 (1923-24)	..	31-76	0-48	32-24
1334 (1924-25)	..	76-68	0-41	77-9
1335 (1925-26)	..	24-49	0-3	24-52
1336 (1926-27)	..	5-10	0-49	5-59
1337 (1927-28)	..	6-35	—	6-35
1338 (1928-29)	..	20-40	—	20-40
1339 (1929-30)	..	—	—	—
1340 (1930-31)	..	10-30	0-14	10-44
1341 (1931-32)	..	—	—	—
Total for 20 years.	..	254-50	4-58	259-8
Annual average	..	12-72	0-23	12-95

Pastures:—

23.97 acres are reserved as cattle stand and 1088.65 acres are set apart for grazing. Little change has taken place with regard to this since the last survey. The cattle also feed on patta lands and Government wastes. The area of poramboke of the village includes 206.17 acres, which have been notified as "Reserved Forest" under Section 16 of the Forest Act, though they are only full of the thorny babul trees (flat topped accacias) with a sprinkling of margosa and other trees, and harbours some rabbits, hares and a few deer.

Below is the list of a few important pattadars of pasture lands:

Names.	No. of acres held.
Joint patta of 5 shepherds from Rajavalli-puram	800
Sundara Ayyangar	600
Kallabiranswami of the Perumal temple	500
Udaya Reddi	400
Dewan Pillai	300
Venkatesa Ayyar	150
V. M. Rama Ayyar	100
4 pattadars (each)	50

The patta pasture land is a source of income to the pattadars, though of late it has tended to decrease considerably owing to the increasing cost of labour in collecting the cattle droppings. One pattadar estimates that the income from one acre of pasture land would be Rs. 5 per annum. There is a tendency towards the decrease of patta pasture lands.

Trees.

Trees cover an area of 45 acres, of which only 6 are under fruit trees, as per Village Register. No new plantation has been undertaken since the last survey. The palmyra is the most important of these trees. The total assessment on the palmyras of the village was Rs. 273-3-0 in Fasli 1317 (1907-08); Resettlement raised it to Rs. 403-8-0.

At Resettlement the assessment on other fruit trees on patta lands was cancelled. The Government waived their right to the timber of such trees and left them in the undisturbed possession of the former tree pattadars. Tree pattadars have been allowed to plant fruit trees on assessed wastes and porambokes at existing rates. The Government have retained their right to the timber of such trees. Particulars of them are given below:

Kind.	Rate.			Number.	Assessment.		
	Rs.	As.	P.		Rs.	As.	P.
Coconut	0	2	0	—	—	—	—
Tamarind	0	4	0	1	0	4	0
Mango	0	4	0	29	7	4	0
Iluppai	0	4	0	85	21	4	0

Irrigation.

The Government and private irrigation works are noted in the following statement. The Sirukulamkal (channel) is supplied from the 19th Anicut on the Chittar river and the Sirukulam (tank) is fed by the above channel. There are also two rain-fed tanks in the

village by name Pappankulam and Pallankulam which are situated to the right and left of the main road respectively. The former with an area of 40 acres is bigger than the latter by about 4 times. But in spite of their considerable extent, the tanks are very shallow and can retain very little water. Together they irrigate no more than 30 acres.

IRRIGATION WORKS AND THE AREA IRRIGATED.

Name of work.	Source of supply.	No. of wells in the Ayacut.	Ayacut of irrigable area according to Resettlement.		Total Resettlement demand.	Govt. Inam.
			Acres.	Cents.	Rs. As. P.	
Sirukulam (tank) in R. S. No. 1849.	Fed by the Sirukulamkal.	6	784	73	4,586 15 0	Govt. Inam.
			8	36	41 13 0	
			793	9	4,628 12 0	
Sirukulamkal (channel).	From the 19th Aicut on the Chittar--R.	3	212	2	1,235 10 0	Govt. Inam.
			3	11	17 7 0	
			215	13	1,253 1 0	
Pallankulam (tank) in R. S. No. 1647.	Rain fed.		5	99	24 0 0	Govt.
Pappankulam (tank) in R.S. No. 1820.	do.	2	24	91	99 11 0	do.
Total Government.			1027	65	5,946 4 0	
Total Inam			11	47	59 4 0	
Grand Total			1039	12	6,005 8 0	

At the original Settlement the ryots undertook to keep the sluices clear of silt, to erect ring bunds in front of breaches and, when necessary, to clear the distributing and drainage channels at their own cost. This obligation, known as *Kudimaramat*, continues during the period of Resettlement, but it is ill discharged. For, the actual condition of canals, wells, etc., is very unsatisfactory. Due to strong winds, the tanks are getting shallower and shallower and the ryots complain that nothing is done towards deepening them. Indeed the removal of the upper silt would go a great way in deepening them, and this the ryots are but too willing to undertake as it will incidentally profit them by serving as manure; but before this silt is removed, the permission of the Department of Public Works is required. This means, they apprehend, delay and expense. The main channel—the one that leads to the Sirukulam—is cleared by the Department of Public Works only once in 4 or 5 years, after repeated and loud complaints. The ryots feel that it ought to be cleared annually and it is to the neglect of this important operation they attribute frequent damages by floods, etc.

The minor channels are cleared twice or thrice every year and this is done by *kudimaramat*. 40 labourers for one day are required for clearing channels that irrigate 100 acres. Each labourer is paid at the rate of 4 annas. This charge is always borne by the landowner and seldom by the tenant. Usually some leading landholders pay these labourers in advance, execute the work and later collect from the ryots their fieldwar share.

There is also a feeling among some of the ryots that the flow in Chittar (river) is not so steady of late as it used to be a decade ago. The vagaries of the river have increased. This, they attribute to the clearing of huge forests in the Courtallam ghats whence the Chittar takes its rise. How far their belief is correct, I am unable to verify. The point, however, needs further examination.³

Well-Irrigation.

There are 46 wells in the village, out of which 40 are said to be in good condition and irrigating 20 to 25 acres of land, though formerly (1912 to 1918) 30 to 40 acres used to be supplied by these wells. Little change has occurred in the method of lifting water from the wells. The same old system of *kamalai* worked by a pair

3. There are only about 12 acres of dry land in the village on which wet crops are raised. They pay a water-rate differing with the nature of the crop. For paddy it is Rs. 3 per acre, and for cholam Rs. 2-4 per acre. Hence the question of water-rate does not assume any prominence here.

of oxen still continues, occasionally supplemented by labourers lifting water with the aid of the Thula.

Wells are of various sizes. The Maximum size is 20 yards long, 20 yards broad and 15 yards deep. The Minimum size is 10 yards long, 10 yards broad and 15 yards deep.

The cost of sinking a well varies from Rs. 500 to 1000. Twenty years back Rs. 300 would be enough on an average. Usually after a well is sunk, a stone rivetment is built round. There is only one instance of brick structure.

The sinking of a well is a speculative venture in this tract. Sometimes it is cheaply done. But if hard rock occurs, the problem becomes difficult. In some parts of the village 7 yards must be dug before water is reached. In such cases the minimum cost amounts to Rs. 1000—Rs. 500 for the actual digging operations and Rs. 500 for masonry.

Though according to official accounts 40 wells are in good condition, only 20 wells can be said to be in really useful condition. Of this 7 are on wet lands so as to enable the ryot to raise a punja crop sometime after a paddy harvest. The rest are all on punja lands. Never is a wet crop like paddy raised by well irrigation. The oldest wells were sunk 50 years ago and for the past ten years no new well has been dug. Sometimes the building cost of the well is out of all proportion to the digging expenses. It is even in the ratio of 5 : 1. No system of contract is prevalent in the digging of wells. It is always done by the landholder himself, with the help of labourers, whom he directly employs. The cost of maintaining a well in good condition is about Rs. 5 per annum. The cost of putting up a kamalai lift work is Rs. 16 of which the wood work alone costs Rs. 5. The number of days that a crop has to be watered differs with different crops. It is three times for cholam, six or seven times for ragi, twice for gingelly and once in every 6 days for chillies. The cost of raising a Thula (the lift worked by two men) is Rs. 6. The customary wage paid for operating a kamalai per day is 4 marakkals of grain. One kamalai works for 7 hours a day and will water about half an acre. The money charge for one kamalai is Re. 1. Formerly it was Rs. 1-8-0.

A good part of cultivation by lift-irrigation is carried on by Pallars and Shanars, very hard working field labourers. The landowners of the higher castes do not consider it profitable to carry on well-cultivation when one has to pay for the cost of lifting water. No wonder the area under well-cultivation, as well as the beriz, shows a tendency to decrease annually.

Occupation of Land: Tenancy.

The various forms of tenancy in vogue in the village have been described by the previous investigator. The following is by way of supplement.

The practices governing the share of the landlord and that of the tenant vary not only with the nature of cultivation (i.e., wet or dry) but also with the fertility of different soils. There is also prevalent the system of lease, known as Kattuguthagai. By this a tenant is bound to pay the landlord a stipulated quantity of grain, whatever be the actual yield. All the risks and all the expenses are undertaken by the tenant, the landlord paying only the kist to Government. The rent paid for one acre of nanja land of average fertility is 7 kottahs (1 kottah=112 Madras measures). This has been the customary rent for generations, and there is little change in this respect since the previous survey. Though the rent is supposed to be fixed, when the yield is really poor, and especially due to unexpected natural forces, the landlord agrees to a remission. Sometimes a proviso is added that in exceptional circumstances some reduction would be granted. The lease is fixed for only one year at a time, but it is generally renewed, the document being drawn afresh every year.

Varam or share tenancy is the next most important form of tenure, by which the actual yield is shared between the landlord and the tenant in certain proportions. Where the landlord takes greater interest in cultivation and incurs greater expense his share also is greater. Thus lands that are close to the village and over which the landlord can exercise constant supervision are leased out on varam basis by which the yield is divided in the proportion of 3 : 1. In this case manures of all sorts are supplied by the landowner; but the other expenses like seed, transplanting, weeding, watering charges etc., are all met by the tenant. But the harvest charges are common and one-fourth of the straw goes to the owner. This, the ryots assert, is customary and not an occasional exaction, as noted in the previous survey.

But where land is inaccessible to the landholder and where the landholder does not possess manure and other materials of his own, he often lets it on the varam basis of 2:1. In this varam harvesting charge is common. All other charges are borne by the tenant. The landlord however gets 4 bundles of straw for a kottah i.e., about one-tenth of the total of straw per acre in addition.

There is yet another variety of varam tenure, known as 'Pare' (Nominal). Here the tenant's duty is confined to watching the crops growing, timely watering and care of the bunds. With these his responsibility stops. All the rest of the charges are borne by the

landowner. The tenant gets a share of one marakal or kurni for every kottah of yield ($kurni = 1/21$ of a kottah). In addition he receives presents on occasions like pongal and deepavali. He also gets half a rupee for every marriage that takes place in his house in addition to a sum of Re. 1 known as *Kumbidu panam* (saluting fee). All the tenants of this class belong solely to the Pallar community. This tenure is resorted to in cases where the landowner while possessing stock and supplies of seed, manure etc., does not have a permanent set of agricultural labourers attached to him or he himself is not prepared to work on land.

The above are the chief systems of tenure in practice in the better class of wet lands. But in the case of inferior wet lands—lands where the soil is saline—a different tenure prevails. The crop is divided in equal shares between the landowner and the tenant. This system is locally known as *sev-varam* (literally exact—half sharing).

In the case of punja lands that are rainfed, the *varam* shares between the ryot and the tenant are in the ratio of 2 : 3. The harvesting charges are common.

The previous survey noted a kind of *varam* tenure viz., (d)⁴ where the tenant was to provide labour alone, for which he got one-eighth of the produce. This tenure approximates to the Pare or Nominal tenure sketched above and it is probably to this that the said (d) refers. But in the case of the Pare the customary share of tenant is only $1/21$ (i.e., *kurni* for kottah) of the produce and not $1/8$; and also the tenant provides only certain items of labour such as watching, watering and tending of bunds, and not the whole labour.

It was stated in the last survey that 'Rents are always paid in kind.' This might apply to wet lands, but not to dry or garden lands where cash rents have been in vogue. It is not uncommon for a ragi or cholam growing land to fetch a cash rent of Rs. 25 per acre.

These are the traditional methods of renting land and they prevail even to this day in the village. And whether for *kuthagai* (lease) or for *varam* (sharing) the Pallas, Shanars, Betelmen and Maravas are the principal hereditary castes of people who form the bulk of the tenantry.

A slow change is taking place in the relative shares of the landlord and tenant. The increasing tendency to absentee landlordism is taken advantage of by the tenantry who put forth demands for greater share than the customary one. Thus, the system of *varam* whereby the tenant got one-third of the produce

is slowly giving place to the *sev-varam* system (exact half and half share). The same is also true in the case of the tenure known as Pare or Nominal *varam*. Here the labouring tenant demands more reward in the name of *kalanali* or threshingfloor reward. Further, formerly these labouring partners were paid wages by a measure much smaller than the standard one called *kothu-nali* (wages measure), whose actual capacity is only $2/3$ of a Madras measure. But now this is disappearing and the demand is for his share in the full and genuine Madras measure.

In addition, the tenants now require greater inducement to cultivation by way of cash advance (*Muthalkadan*). No interest is charged on this sum, and it is invariably returned to the landlord in the form of grain as soon as the harvest is over. This is in fact a source of gain to the landlord, for what he loses by way of interest he more than makes up by getting repayment in grain as at the harvest season, grain is selling low and the money due is calculated in terms of this low price. Sometimes seed has to be advanced by the landlord. For this, however, interest is charged by the landlord. When one kottah (112 Madras measures) of seed is advanced, the tenant must return 128 measures of paddy as soon as the harvest is over. Of these 16 excess measures that the landlord gets, $5\frac{1}{2}$ is deemed as the interest (or *vasi*) and the rest is treated as compensation for dryage and is known as *kachal paduvasi*; for, seed has to be selected from the best paddy and dried twice in the sun before it becomes fit for sowing. There is a growing feeling among the landlords that the tenants have to be sought after at present and given sufficient encouragement before they agree to take up land on *varam*.

All the ryots whom I consulted are certain that there has been a great increase in the number of tenants in the last 15 or 20 years. The majority of them are of opinion that 50 per cent of the total agriculturists are tenants exclusively and about 10 per cent are both tenants and petty landholders. Many of these tenants are also agricultural labourers in their spare time.

Extent of holding.		No. of owners in	
		1916.	1934.
Below	1 acre	105	100
	1 to 5 acres	220	600
	5 to 10 acres	250	50
	10 to 20 acres	100	30
	20 to 50 acres	160	50
	50 to 100 acres	90	3
		925	833

⁴ Some South Indian Villages, p. 59.

While there is on the whole a reduction in the number of landholders, there is less concentration of lands in the hands of big landlords. Petty holdings, on the other hand, have multiplied—the holdings between 1 and 5 acres. Medium holdings of 5 to 20 acres have been evidently broken up and more or less subdivided.

Land Revenue.—The Land Revenue of the village as fixed at the Resettlement of 1908-09 was Rs. 9,230-12-0. The exact statement as given in the village register is reproduced below:—

Description of soil.	Taram.	Double or single crop.	Rate per acre.	Area.	Assessment.
		Wet Land.	Rs. A.	Ac. Cents.	Rs. A.
1. Worst black loam ..	11	2	5 0	215—53	1,077 9
2. Inferior do. ..	9	2	6 4	670—34	4,189 10
3. Inferior red loam ..	11	2	5 0	105—63	528 2
4. Ordinary red loam ..	11	1	4 0	30—90	123 11
Total ..				1022—40	5,919 0
		Dry Land.			
1. Worst black loam ..	5	1	0 9	11—69	6 9
2. Inferior do. ..	4	1	0 13	3—45	2 13
3. Inferior red loam ..	5	1	0 9	8—64	4 15
4. Ordinary black loam.	3	1	1 2	2032—93	2,289 2
5. Worst red loam ..	6	1	0 6	11—46	4 5
6. Worst red sand ..	7	1	0 4	4000—98	1,003 0
Total ..				6069—15	3,311 12

On comparison with figures in the previous survey, there would appear to be in the case of wet lands a reduction of 60 acres, and in the case of dry lands an addition of 77.76 acres. But really there is no such reduction or addition. There were two printers' errors in the publication of the previous survey, which should be corrected. Under inferior black loam, 610.34 acres should be 670.34 acres, and under inferior red loam 86.4 acres should be 8.64 acres.

The rates of land revenue in the village cannot be said to be high. Being situated at the "tail-end" of the Chittar irrigation system, it is moderately assessed. In the last survey, the incidence of land revenue was estimated at 10·8 p.c. of the net income on wet lands and at less than 2 p.c. on dry lands. Judged by the net income at present, in the few cases where accounts are well kept, the incidence has increased three-fold on wet lands and six-fold on dry lands. This is due mainly to the fall in prices.

STATEMENT SHOWING THE REVENUE FROM RYOTWARI HOLDINGS.

Years.	Dry.			Wet.			Total extent.	Total assessment.	Water rate.	Total of Cols. 7 & 8.	Deduct remissions.	Net Demand.	Add miscellaneous revenue.	Add cesses.	Total Beriz.
	Extent.	Assessment.		Extent.	Assessment.										
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)		
	Ac. Rs.	Ac. Rs.	Ac. Rs.	Ac. Rs.	Ac. Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.		
(1912-13 to 1916-17) ..	6107	3,605	1028	5,955	7135	9,560	23	9,583	108	9,475	339	777	10,591		
(1917-18 to 1921-22) ..	6132	3,622	1030	5,969	7163	9,592	28	9,620	15	9,605	391	777	10,773		
(1921-22 to 1926-27) ..	6288	3,683	1031	5,977	7319	9,660	17	9,677	81	9,596	313	885	10,794		
(1926-27 to 1931-32) ..	6314	3,690	1031	5,977	7345	9,667	37	9,704	68	9,636	330	929	10,895		

It will be seen from the above statement that the total assessment of wet and dry lands has been steadily increasing from the time of the Resettlement. That this has been brought about by an extension of cultivation is obvious when we compare column 6 with column 7 in the statement.

Agriculture:

The area under principal crops is given in the statement below. The last survey takes the figures of 1915 as base. It also gives the average extent cultivated in certain years. These years are not consecutive. Nor is it clear on what principle they (1902-03, 1905-06, 1908-09) were selected for illustration. I have, however, gathered the annual figures of the extent of land under principal crops for 20 years from 1912-13 to 1930-31 and struck their quinquennial averages, as these are bound to be better indices of agricultural and economic changes than figures selected only for certain years. I have also included in the list some more crops, as these have assumed some importance, however slight, in later years. Cultivation was greatest during the quinquennium 1917-18 the total average acreage under principal crops for the last quinquennium (1927-28 to 1931-32) is even below that of the first period taken into account, (1912-13 to 1916-17).

QUINQUENNAL AVERAGE OF THE AREA UNDER PRINCIPAL CROPS.

Crops.	1912-13	1917-18	1922-23	1927-28
	to 1916-17	to 1921-22	to 1926-27	to 1931-32
Cereals.	Acs.	Acs.	Acs.	Acs.
Paddy ..	1062.3	1173.8	1056.0	1189.6
Cholam ..	230.3	269.1	93.7	128.5
Kambu ..	817.3	646.6	633.0	657.0
Ragi ..	70.4	179.6	152.6	167.3
Samai ..	133.2	218.6	119.6	81.7
Others ..	109.1	101.9	136.4	101.1
Pulses.				
Horse gram ..	133.9	345.1	195.6	211.3
Black gram ..	11.4	61.6	46.8	24.0
Others ..	34.5	52.9	16.9	6.6
Industrial crops.				
Sugarcane ..	.1	.08	Nil.	Nil.
Cotton ..	965.5	1064.4	1009.7	944.7
Gingelly ..	129.1	162.7	282.8	135.3
Castor ..	23.6	47.9	13.7	4.7
Other oil seeds ..	.06	3.8	2.9	1.0
Senna ..	39.4	100.0	100.8	51.0
Others ..	Nil.	80.6	67.0	54.3
Garden crops.				
Chillies ..	5.2	4.4	22.2	37.9
Plantains ..	3.6	2.3	3.7	1.0
Fruit trees ..	1.9	.7	2.0	2.4
Other vegetables ..	19.8	50.2	55.7	14.0
Other trees ..	77.2	146.8	146.4	149.4
All other crops ..	214.0	137.3	107.1	57.9
Total ..	4081.86	4850.38	4264.6	4020.7

THE SEASONS OF CULTIVATION.

Crop.	Time of cultivation.	
	First crop	Second crop.
Paddy.	June to September	October to February
Senna	April to September	(In dry) October to January
Cholam	(In wet) April to September.	(In dry) October to January.
Kambu	do.	..
Ragi	(Wet) May to August	(In dry) October to December
Cotton	September to February	..
Pulses	September to December	..
Sugarcane	May to March	..

Methods of Cultivation.

There has been practically no change in the season of cultivation of the several crops, all these 20 years.

The actual methods of cultivation of various crops are noted below, which was not attempted in the previous survey. The cultivation of wet crops like paddy differs little from place to place in South India, but there is a great deal of difference in the methods of cultivation of dry and garden crops from district to district.

In the cultivation of paddy in the village are involved two principles. One is the principle of rotation of crops and the other is the selection of the types of paddy to suit the soil, the season and the particular tastes of the people. It is not in all years that paddy is raised on double crop wet lands both during *kar* and *pishanam* seasons. A dry crop, mainly cholam which as mentioned before requires less labour, is raised in the *pishanam* i.e., in the period from October to February. It is difficult to raise paddy a second time in the year. Apart from the principle of rotation, during *pishanam* strong winds set in and the tender paddy plants cannot stand them. Water too is not available in sufficient quantity during this season and without an assured supply of water, the growing of paddy is a gamble. If water is either scarce during the *kar* season or if it arrives so late as in the month of Masi (February to March), then a variety of paddy known as *Avasara samba* (quickly maturing *samba*) is raised. Seedlings which are 25 to 35 days old are transplanted and the crop matures within 75 days. Again, if water is not abundant during the month of *Karthigai* (November to December) then another variety known as *Irkisamba* is raised,

which is harvested not later than the 30th of Masi (March 15th). On the other hand if water is available very early in the season, as for instance in the month of Avani (July to August), then a variety known as Kadaikulathan is the type of paddy resorted to by the ryots. For, this is a crop that takes a long time to mature i.e., about 130 days. These adjustments to the vagaries of nature have been adopted and handed down to the villagers from generation to generation, and at the commencement of every season the ryots decide among themselves the variety to be raised for that season.

Besides the varieties of paddy noted above, different classes of people raise different crops. The agricultural labourers and tenants generally consume the rice of the variety known as Ari-kiravi, and hence at least in one of the plots that the tenants cultivate they raise this variety so as to satisfy their own needs. It is a red variety and the husk being quite thin, the grain contains a greater proportion of rice than the grain of any other variety. The lower castes, hard agricultural labourers as they are, need a larger quantity of rice than other castes and hence this is the variety that fits in with their demand. A similar variety cultivated is known as Maikuruvai. It is also a red variety and is said to be very nutritious. Hence in cases of varam the landlord often makes it a point to have that variety raised which he likes best for his own consumption. Sometimes the share of the tenant's white paddy is exchanged for the landlord's share of red paddy.

There is another variety of paddy, which is sown on saline soil. This is known as *Uvar venran* (meaning victor of saline soil), and is believed to have been evolved by repeated process of selection by experienced cultivators. But this variety is coarse and black and is rather hard to digest, though considered nutritious.

Among the dry crops raised ragi takes an important place; for it is the main staple of the tenant class, the Pallars. The cereal is very nutritious, it also yields abundant and nutritious fodder for cattle. It is a four-months crop. The ears are cut off as they ripen, leaving the stalks standing till all of them are mowed down at the end. Threshing is performed only after the reaped plants have been heaped to 'sweat', when the grain becomes loose in the husk and then it is easily trodden out by cattle.

Next to paddy cholam is the crop which occupies the largest area. The crop is raised with very little labour. The proverb is : சோம்பேறிக்குச் சோளம் வெள்ளாண்மை i.e., cholam is the crop of the lazy man. But it is a crop that grows with a minimum

of rainfall or irrigation and with a minimum of labour. The yield is abundant and the grain is nutritious, while its stalk forms an excellent fodder for the cattle of the locality, which relish it green or dry. Cholam is also grown as a pure fodder crop, but this is of a different variety from the cholam that is grown for human consumption. It is chiefly grown in gardens by well-irrigation when there is a prospect of the stock of paddy straw going low. But its cultivation is very limited.

Among the dry crops, kambu derives its significance by the peculiar position it takes between a wet and a dry crop. It is as delicate as any wet crop in that deficient or excessive rain injures it to an equal degree. Its importance can be seen by the extent of cultivation taken up by it. The ryots consider kambu as 'very cooling' to the system; the cattle too pick up wonderfully. The soil is ploughed, manured and then the seeds are sown. After about six weeks it is interploughed and occasionally weeded also. Very fatal, however, is failure or excess of water during the flowering season of plants. The plants are reaped by cutting off the ears of corn as they ripen. The harvest thus extends for many days.

Betel vine may be taken as the best instance of a garden crop intensively cultivated. The extent of land under cultivation of this crop is very small. This is partly because from time immemorial the cultivation of this plant is confined to one particular caste in the village, viz., the betel-men (இலைவாணிபார்). Also, it cannot be raised every year on wet land, as it will then exhaust the soil. Hence a principle of rotation has been followed from ancient times. The creepers when once planted will go on for three years. After this paddy is grown on the field consecutively for two years, and then again betel is cultivated. The heavy cost of cultivation due to the intensive process adopted acts as a further restriction on extensive planting. The intensive nature of the cultivation may be noted from the fact that four acres of betel are cultivated by as many as forty families.

In the cultivation of betel vine we find a relic of the traditional method of cultivation on a joint-basis, then known as *Samudaya bhogam*. Generally these men have little wet land of their own and a number of families rent about half an acre. On this joint tenancy basis they divide the land among themselves and each raises 15 to 25 plants. But only one man among the joint tenants—usually an old man who is held in much esteem by his caste brethren and deemed as their chief—is held responsible for the total lease amount, additional tax etc. That betel or kodikal (கொடிக்கால்) is one of the most profitable of

garden crops raised is seen from the fact that a farm of 1 acre and 30 cents of betel cultivation fetches a rent of Rs. 110-12-0 per annum.

A brief description of the actual process of cultivation may not be out of place.

A plot of wet land is prepared in the month of April or November. About a couple of months previous to the planting of the creepers, trenches looking like narrow irrigation channels, are dug 2 feet broad and 1½ feet deep. Water is then allowed to stand in them. The soil in the space between two of these trenches is then turned up with hand hoes (for the narrowness of space does not permit ploughing by oxen) and manured with ashes and other rubbish. On the soil thus prepared the seeds of Aghathi are sown. After these seeds have sprouted and plants come up a yard high, the betel creepers are planted in the intervening space between every two of these Aghathi plants. Water is baled to the creepers by hand from the adjoining ditches several times a day until the young plants take root and spring up. After that period, the creepers are less frequently watered until it exceeds no more than a couple of times a day. This process helps the plants to climb up and spread luxuriantly over the Aghathi plants. The leaves are plucked at frequent intervals till the plant lives its period of three years.

Gingelly also deserves mention as it is a crop grown both on wet and dry lands, but chiefly on the latter. Agelong experience lays it down that black soil is the best for raising gingelly crop. எள்ளு விதைக்க இருங்காடு; கொள்ளு விதைக்க கல்லாங்காடு (Black soil for gingelly and uplands for horsegram.) Like cholam it is an easy crop to raise as it requires little water. Hence is the proverb current: இளைத்தவன் ஏழு வருஷத்துக்கு எள்விதை (Let the poor man cultivate gingelly for seven years). Gingelly is a commercial crop; it is the raw material of a subsidiary industry of the village, which is now declining, the oil-pressing industry.

Of the commercial crops raised in the village, Senna has an interesting history. The redsoil of the village was found to be best suited for the cultivation of this crop. When nanja lands were let on lease for senna the landholders used to get Rs. 2-8-0 for 8 cents i.e., Rs. 31-4-0 for one acre. The average rent for the same during the previous survey was Rs. 25 per acre⁵. The crop was raised annually on a considerable scale till the year 1924, after which the area of cultivation has fallen from 200 to a paltry 20 acres. The decade witnessed a decrease in demand for the produce, as it is said that some cheap substitutes have been discovered.

5. Some South Indian Villages, p. 64.

But in 1933 there was a rise in demand for the produce once again. The prices went up out of all proportion to the previous level. While one Bharam (500 lbs.) fetched only Rs. 36 previously now it sold for Rs. 100. This huge rise in the price of the commodity has again turned the minds of cultivators to this crop.

The fluctuating area of cultivation of the crop is due to the price factor which is entirely controlled by a foreign market. To the villagers it appears as a gamble. But in the neighbouring villages of Rajavallipuram, Thazhaioothu, etc., one can see as one passes along that the crop is cultivated on a more extensive scale, inspite of the vicissitudes of the market. The soil in those places is said to be better suited to the cultivation of this crop. At Thazhaioothu there is a European exporting agency directly dealing with the cultivators. The produce is exported to foreign markets via Tuticorin, but a small proportion—it is said, the inferior variety consisting of the tiny leaves at the extreme tip—is also sent to Bombay.

Senna is sown in the month of Margali (after December 15th). During Vaikasi (or after May 15th), when the winds blow strong, the plucking of leaves begins and it continues up to the month of Avani or August. The stubbles (கட்டை) again sprout up and grow on for another year. Thus leaves are plucked three times before the plant runs its destined course of life. But the leaves of the first plucking are considered to be of the best quality. As in the case of tea leaves, senna leaves also require some care in preservation, lest they should get dry and crumble, thus becoming unfit for exportation.

‘Cotton is the most important of the commercial crops and occupies an extensive area but it is mostly raised by two big landholders in the whole village.’ The cultivation of this crop by petty landholders or by petty tenants is entirely unknown in the village. Apart from the area cultivated by these two gentlemen, the rest of the cotton area is entirely cultivated by ryots of neighbouring villages.

The black cotton soil of the village, as well as of the whole district, is best suited to the cultivation of cotton. It is almost the only crop, whose harvest is not finished by the end of the month of Thai (January-February). It is usually harvested in the months of Chithirai (April-May) and the harvest sometimes extends to the month of Avani (July-August).

6. They are Mr. Veerabahu Chettiar of Vadakarai and Mr. Chodalamuthu Mooppanar.

The old indigenous Karunganni cotton is the variety grown. When it was suggested that Cambodia cotton might with profit be tried, the ryots were not convinced. The unprecedented fall in prices has so paralysed them that they refuse to repose their faith in anything.

Agricultural Stock.

CENSUS OF AGRICULTURAL STOCK

Items.	(1914-15)	(1919-20)	(1924-25)	(1929-30)
Bulls and Bullocks ..	526	440	496	712
Cows. ..	294	180	253	314
Bulls and Heifers under 4 years ..	214	179	238	174
He-Bufferaloes ..	43	30	38	39
She-Bufferaloes ..	190	159	223	174
Bufferaloes under 4 years ..	111	89	163	197
Sheep ..	2817	2198	2822	3126
Goats ..	682	480	675	1220
Horses and Ponies ..	3	Nil.	Nil.	Nil.
Donkeys and Mules ..	11	8	14	15
Carts ..	107	103	102	99
Ploughs (wooden) ..	263	232	248	248

These are the figures recorded by village Karnam in the quinquennial censuses of live stock and implements in the village.

In the previous survey, the figures given were evidently those of 1914-15.

Any one who has any acquaintance with the village can hardly trust the figures of the Karnam who does not take this work seriously. He simply takes the figures of the previous census and makes some alterations based on guess work. Thus the cattle census goes on, like the blind leading the blind, one error giving place to a second modified one. Actual enquiries among the villagers confirm this view.

Let us take the case of sheep, goats etc. The Karnam is very little acquainted with their number, nor does he care to ascertain approximate figures. In the census of 1929-30, it is recorded that there is an increase in the number of sheep and goats over the figures for 1924-25. This, according to the shepherds of the village is totally wrong.

They affirm that the total strength of sheep and goats in the village consists of 4 flocks (kidai) numbering about 2000; that annually the flock is decreasing in number and that to say that there is an increase is far from the truth.

In the case of cows, oxen and buffaloes, the statement of the Karnam is again suspect. The attempt to correlate the number of oxen to the number of ploughs is evident. In 1914-15 there were 263 ploughs and against them only 526 oxen. That is exactly a pair for a plough. What a curious coincidence! In the next census a very slight variation. Only six oxen seen to be wanting to match 232 ploughs exactly. In the next census again the perfect proportion of 2:1 (496:248) is struck. In the last census, however, the Karnam made a very slight deviation with regard to the number of ploughs. It became 247 instead of 248. But as against this the bulls and bullocks have suddenly increased by an enormous percentage. On investigation, I find that no such conclusion can be supported. The ryots found it less and less profitable to buy cattle ever since the disappearance of boom prices and hence if there be any change they believe it would be only in the opposite direction.

The customary extent of land cultivated with the aid of a single plough and a pair of oxen is 3 acres of wet land. Hence the term one-plough landowner, ஒரேக்காரன், is applied in the village to one who owns 3 acres of nanja land. Among the small landowners there are few who own the number of ploughs needed. The petty tenants, on the otherhand, offer their ploughs for hire as a mode of supplementing their income from land. But the oxen of the hired ploughs are usually of poor quality, and hence ploughing by hired ploughs is notoriously scratchy. Therefore, big landowners prefer to maintain enough number of ploughs of their own. Incidentally this increases the quantity of cattle manure as well. But when the season is very busy, even they have to hire ploughs sometimes, especially for wet cultivation. The average cost of hiring a plough including the services of the ploughman is 12 annas a day.

The ploughs continue to be of the primitive type. The cost of a ploughshare was 4 annas about 30 years ago. But during the past 15 years the cost has gone up to 8 annas.

The reason put forth by the ordinary ryot for not using the iron plough is that it is too costly for him. As this could not be the plea of big landowners, I made enquiries about it at the farm of Mr. S. V. Nallaperumal Pillai in the neighbouring village. The agent of the farm took me to the store room where the agricultural implements were kept and pointed to 5 iron ploughs bought for Rs. 50 on the advice of the manager of the Koilpatti Farm of the Agricultural Department. These had a rusty appearance and the agent said that they were tried only once, for the first and the last

time. He said that the bulls of that part of the country were not strong enough to pull these comparatively heavy iron ploughs. The contention of the petty ryots that the iron ploughs are prohibitive in cost is certainly valid when we realise that a wooden plough made in the village costs only Rs. 2-8-0 (of which the wood costs 0-8-0 and the Kozhu (iron) costs 0-4-0) whereas an iron plough costs four times as much. The levelling implement known as Maram costs Rs. 2 in all and it will last for 5 or 6 years. Thus every plough must have for its accompaniment at least a pair of oxen, one wooden levelling implement and one spade. The average cost of a spade is Rs. 1-8-0. It usually lasts for one year only. All the implements are made locally in the village by the carpenter and the blacksmith.

Thus the rich and the poor, the educated and the ignorant go on in their hoary way of ploughing with the primitive wooden ploughs used since the days of their forefathers.

Manuring.—Cattle-dung continues to be the main manure of the village. The owners of the pasture lands employ full time labourers, who collect the cattle droppings on them. A part is used in their fields and the rest is sold to other ryots. A cartload of cattle-dung with a capacity of 3 kottahs or 336 Madras measures costs Re. 1 and the cart hire for taking 1 cartload to the fields is 4 annas. Of the 13 cartloads of cattle-dung normally required for an acre of land, only 5 are obtained from the village proper; and the rest are got from neighbouring villages, where there is no wet cultivation and also from the grazing grounds. In the village proper the ryots and their women gather the cattle droppings diligently and store them up in heaps on commons and back-yards. There are some poor old women in the village of the low castes, who make a profession of it, all day long going and collecting the droppings on wasteland, roadside and hedges, where the cattle roam in search of coarse herbage. Only a very small portion of the total cattledung is used as fuel; for the village is close to a large area of reserved forest, and so wood-fuel is comparatively cheap. Besides this cotton and kambu stalks are also used as fuel. The previous survey estimated that all the available cattle-dung was used as manure, except a very small percentage, "perhaps 10 per cent, which is used for cleaning the houses and for fuel."

Cattledung is used as fuel in the form of cakes or bratties only for boiling milk, as experience has proved that it is just the fuel

supplying the required heat steadily, thus preventing the overheating and overflowing of milk. Many a Tamil proverb current in the village would show the value attached to cattle dung and other farm-yard manures. But cattle urine is generally allowed to run to waste; there is only one landholder in the whole village who has constructed the cattle shed in such a way that very little of it is wasted.

Green manures are applied to the wet lands alone. They are chiefly wild shrubs like kolinji (wild indigo) and avarai. About 95 per cent of the shrubs are brought from outside the village in cartloads (1 cartload = 20 headloads). Green crops are seldom raised on fields for manure. The shrubs come chiefly from Koilpatti taluk, a dry tract, and green manure is of little use to dry crops. The cost of a headload is 3 to 4 annas and hence a cartload of green manure costs about Rs. 5. About 12 headloads are usually applied to a kottah of paddy land. This will work out at Rs. 5 per acre of wet land, in addition to which one has to pay for transport to the fields from the roadside and for cutting and treading them into the puddle.

Besides these shrubs, the leaves of trees like vakai and margosa and the stalks of cholam are also used.

After harvest stalks and pods of crops like gingelly are invariably burnt in heaps and their ash is returned to the soil. In addition, there is a considerable proportion of ash in the village sweepings used as manure. Tank silt is regarded as a good manure, particularly where the soil is sandy, but the difficulties of collecting it, of late, have been great. There is a method practised in the village, it is said, for the past 20 years by which a saline soil is converted into a soil of better class. The upper layer of the saline soil is scraped to a depth of 6 inches, heaped at a corner of the field and is allowed to be washed off through the canal during rains. Next, red gravel is spread in a thick layer; and over that an equal quantity of fine dust (கார்ப்படிமண்) is spread. Tank silt is then applied and over that sheep are penned. By this elaborate and diligent admixture of different soils, the saline properties of the original soil disappear quickly.

As regards chemical manures, an interesting change has taken place. At the time of the previous survey, it was recorded that the chemical manures used were nil. Subsequently however, about eight or ten years ago, sulphate of ammonia and phosphates were introduced into the village by the agents of Shaw Wallace and Co. After a harvest or two, these became popular, as the yield went up to an appreciable degree. But later they were given up on the ground that these artificials are useful only to produce

immediate results; but in the long run, they tell on the native properties of the soil.

But the fall in price of village produce has so heavily affected the ryots that of late many of them have abandoned the application of chemical manures, even for this important purpose of stimulating plants that languish. It is said that generally the agriculturist is now content with applying whatever manure he himself gathers and is growing more and more reluctant to buy from outside even the necessary cattledung.

The Chakkilians told me that bone is not collected and used as manure. Almost the whole of it is wasted by the carcass of the dead animals being buried. But at Kadambur only 8 miles off, there is a bone crushing mill, buying all the bones available especially in urban areas.

Costs and profits of cultivation.

Wet lands.

Most of the ryots do not keep accounts acting on the adage உழவன் கணக்குப்பார்த்தால் உழவுகோலு மிஞ்சாது meaning: If the ryot calculates costs even the plough share will be lost. The few who keep regular accounts are comparatively big landholders belonging to the higher castes, two of them being Brahmins and one a Vellala. The following is an extract of costs and profits of cultivation taken from the books of Miras Ramier who cultivates 10 acres of wet land of his own. The accounts relate to the period from April 1933 to April 1934.

Crop.	Yield.	Value.
		Rs.
Paddy	56 kottahs	.. 392
^s Ragi	8 kottahs	.. 126
Gingelly	$\frac{3}{4}$ kottahs	.. 15
Straw	350 bundles	.. 70
Income Total		.. 603
Cultivation expenses:—		404
Balance		.. 199
Kist and cess		.. 65
Net Profit (10 acres)		.. 134

This means that the average profit from one acre of nanja land is about Rs. 13-6-0. It must be pointed out, however, that

8. The dry grains are raised on the wet land after the principal crop is harvested. They form the 2nd crop.

the cultivation expenses noted in this case comprise only those items which have been paid for in cash. They do not, for example, include the wages paid to the 3 labourers in kind at $5\frac{1}{2}$ kottahs of paddy per annum, in addition to the feeding they get twice a day. This works to about $3\frac{1}{2}$ kottahs of paddy per head, or about Rs. 75 in all. On the other hand, these labourers being the regular *pannaiyals* of the mirasdar, their duty is not confined to the cultivation of the ten acres of nanja land. They do other kinds of work for the landlord, and it is a problem as to what proportion of their wages is to be credited to the account of the cultivation costs of the ten acres of nanja.

Further, the accounts do not allow depreciation and maintenance charges incurred by the mirasdar in keeping oxen, and using agricultural implements etc. He bought two pairs of oxen in August last, costing Rs. 150 and Rs. 105 respectively. He expects that they would work for another four years and will then sell for Rs. 50 and Rs. 30 respectively. This is, however, on the assumption that they do not fall a sudden prey to diseases. Then there is the cost of maintaining these bullocks, and feeding them with cotton seed, gram etc., in addition to straw; of course against this is to be set off the income by way of manure and the services they render to the mirasdar, when he uses his cart for travelling. All this renders calculation of the cultivation expenses very difficult.

A third item which has not been taken into account is the price of the seeds sown, except in the case of ragi; for the latter alone was purchased for cash and hence it figured in the accounts. But seeds of paddy and gingelly were his own and hence were left out of reckoning like the payments in kind.

I had the pleasure of visiting an unusually big and well kept farm just outside the village, belonging to Mr. Nallaperumal Pillai, one of the biggest landholders in the Tinnevely district. The gentleman lives in Tuticorin but he has his kanakupillai or agent, an old employee with years of honest service to his credit, living on the farm. Though this farm is outside the village under survey from the revenue point of view, it is contiguous to the village. Regular accounts are kept, a study of which may throw some light on conditions of the village under survey: The extent of the farm is 100 acres, of which 60 acres are nanja or wet land and 40 acres are punja or dry land. The wet lands are cultivated by the owner himself (i.e., his agent does it) and the dry lands are rented out on the varam basis of 2:1. In addition there are 150 acres of red soil which is pasture land. There are 200 palmyra

trees 100 coconut trees and 11 mango trees on the estate. The palmyras are let on lease or kuthagai and they fetch an annual rent of Rs. 72 when toddy is tapped, but it is not every year that this is done. In some years the palmyras are leased out for the tapping of sweet juice in which case they fetch a rent of Rs. 48 only. In the *pishanam*, paddy is raised on the wet land and during *car cholam* or *ragi*—if there is water—is the crop raised. About 1 acre and 30 cents are cultivated with betel and are leased to betelmen. A part of the nanja land is also let on lease. The following is a true extract reproduced from the accounts of the farm for the Kollam Era 1108, beginning with the month of Avani, i.e., from August 1932 to August 1933.

Income.		Expenditure.	
	Rs. As.		Rs. As.
Miscellaneous ..	13 0	Cotton seed (for plough cattle 7 pairs) ..	218 15
Red soil Pasture ..	108 6	Paddy stock ..	709 2
Palmyra lease ..	72 0	sheep folding ..	36 6
Nanja lease ..	109 4	Dung manure ..	48 2
Betel farm ..	110 12	Agricultural labour ..	444 3
Paddy sale ..	2,718 0	Management charges ..	348 7
Gingelly yield ..	81 0	Do. payment in kind ..	526 2
Coconut & mango trees ..	97 8	Loss incurred by non-payment of tenants, remission of rents etc., ..	48 9
Total ..	3,309 14	Total ..	2,379 14
Net income ..	Rs. 930 0 0		
Land Revenue, cesses, etc. ..	565 14 6		
Net profit ..	364 1 6		

The above expenditure does not include items such as the charges for repairing the agricultural implements, nor any allowance for depreciation of bulls etc.

The farm was bought in 1919 by Mr. Nallaperumal Pillai for the sum of Rs. 75,000. He has sunk a well at a cost of Rs. 2,000 and has put up buildings, including cattleshed, for Rs. 4,000. On the whole the landlord has invested Rs. 81,000 on the farm, and on this he realized in 1932-33 only Rs. 364-1-6. In other words land in the village of Gangaikondan gives a net return of .45 p.c., when it is under farm management! And this when two items of expenditure are not taken into account.

As against this high cost of cultivation and the very low yield of land, it is interesting to note what they were at the time of the last survey of the village. The investigator's estimate of the cost was Rs. 34-8-0 and value of yield Rs. 70 per acre of wet land, which left "a profit of Rs. 35-8-0, out of which the kist of about Rs. 6 must be paid." Wet land yielded, therefore, a net profit of Rs. 29-8-0 per acre. Dr. Gilbert Slater, the Editor, in a footnote estimated the yield at a higher figure and reached the conclusion that "This would leave a profit of Rs. 55-8-0 out of which the kist of Rs. 6 must be paid" i.e., a net profit of Rs. 49-8-0 per acre. What a tremendous fall in farm income!

It is not possible to demonstrate whether the small landholder's expenses are greater or smaller, in the absence of actual accounts. But these small land-owners themselves admit that their expenses of cultivation are not really very different from what the big mirasdars spend, while the income of the latter is greater; for they can afford to stock their produce till prices improve and then dispose of them at the highest prices available. Besides marketing facilities, they have the capital and influence by which they can get water to their fields at the proper time, apply scientific manure when the crops show signs of drooping and effect many other improvements which the needy small ryot cannot think of. But it is because of these very things that his cost also goes high. He does not reckon on the returns he would get every time he spends, and much of the labour which the small holder himself does along with members of his family is done on the farm by paid labourers. But in calculating the real cost of cultivation, as distinguished from the money cost of cultivation, the labour rendered by the ryot must also be taken into account and if this principle be followed, there would be found little difference in the costs of cultivation per unit between the big landlord and the petty ryot. Other things being equal, if costs rise, upto a certain point the yield also rises and what the petty landowner gains by intensity of agricultural operations, he loses by want of capital necessary for the timely purchase of requirements like fertilisers and the lack of facilities for marketing his produce when prices are high.

Dryland-cereals.

We may proceed to study the cost of cultivation on dry land. The account given below is that of a land-owner of considerable means, Mr. Kulathu Ayyar, a retired Overseer of the Public Works Department, who keeps regular accounts.

Following is the account relating to the cultivation of 10 marakals (or nearly $\frac{1}{2}$ kottah i.e., .83 acres) of punja land, with cholam in the car season of 1932.

EXPENSES.

	Rs.	As.
Sheep dung	..	4 0
Ploughing	..	3 12
Seed	..	0 8
Watering by Kamalai	..	10 0
Watching	..	6 0
Harvesting (8 persons at 2 annas each)	..	1 0
Threshing, winnowing etc., (16 persons at 2 annas each)	..	2 0
Total	..	27 4

INCOME.

Sale of 4 kottahs at Rs. 8 each	..	32 0
---------------------------------	----	------

Thus there is a profit of Rs. 4-12-0 on $\frac{4}{5}$ acre of dry land of which Rs. 0-12-0 must be paid towards land revenue. This leaves a net profit of Rs. 4 for the field of $\frac{4}{5}$ acre or Rs. 5 per acre. The land is *karisai* or black soil land.

The previous investigator, after detailed estimates for an acre of *karisai* land, wrote: "Deducting Rs. 20 for the cost of cultivation and Re. 1 for the kist, there remains a profit of Rs. 69. Taking an average of good and bad years in *karisai* (black) lands the ryots can expect from Rs. 50 to Rs. 70, whilst in the red sand he can get only Rs. 10 to Rs. 20." The land here taken for comparison is also black soil land. But instead of the average of Rs. 50 to 70 that was the net profit of the ryot in 1917, he now gets about Rs. 5 per acre.

It is obvious that the difference is very great. Such a gulf cannot be occasioned by the mere fall of prices alone. Have prices fallen to $\frac{1}{10}$ and less of what they were in 1919? No. The investigator valued 9 kottahs of cholam at Rs. 90 when he surveyed. That means a kottah was fetching Rs. 10. The actual sale price of one kottah of cholam in 1932 realized by the ryot is Rs. 8. Thus there is a fall of only 20 per cent in the dry grain. But as against this the fall in the profit is over 90 per cent. We

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have to turn elsewhere for an explanation of this phenomenal difference. First, it is necessary to see what changes have taken place in the costs of cultivation, whether any new items have entered into the costs, or whether any original item of costs has gone up, or whether the present list includes items which were not included by the previous investigator.

In the item of manure, according to the previous survey, both cattle dung and sheep dung were applied, amounting to a total of Rs. 7-8-0 for 1 acre. But in the field taken for study in the present survey, the ryot has applied sheep manure alone valued at Rs. 4 to a field of $\frac{4}{5}$ acre. Thus on the whole in this item, there is no increase, but only a decrease of about Rs. 2 when we consider the relative area of the two fields.

In the item of ploughing the rate for 1 acre then was Rs. 7-8-0 and now the cost for about $\frac{4}{5}$ an acre is Rs. 3-12-0 only. Thus there is really a reduction in this item also.

As regards seed, according to the accounts of the previous survey, it cost Rs. 1-8-0 for one acre. But now, seed for $\frac{4}{5}$ of an acre costs only annas 8 or $\frac{1}{3}$ of what it was formerly. Thus in this item also there has occurred a reduction in costs.

Finally against the item of labour charges for harvesting, threshing etc., the previous investigation put down Rs. 3 for one acre. The present rate is Rs. 3 for $\frac{4}{5}$ of an acre. Thus in this item there is a slight increase, but probably the harvesting charges whether for one acre or for $\frac{4}{5}$ of an acre are not very different.

There are two major items in the new accounts which were absent in the accounts of the previous investigation. They are the charges for watering and for watching. Of these two, the former may not be necessary in every year. But the ryots say that it becomes necessary on an average almost every alternate year.

As regards the other item, watching, it is certainly an indispensable expenditure in the case of cholam crop. But among the petty landholders and landholders of lower castes, the task of watching the crops day and night, from a hut improvised either on a tree or on the bund of the field is often carried out by the ryot himself or by some member of his family, including women. Hence this item may not enter into the actual costs of cultivation of many petty ryots and perhaps this might have been the reason why the item was not included in the costing accounts of the previous

investigation. But it certainly is a factor that enters into the costing accounts of the big landholder.

Garden Land—chillies.

Coming to garden land, the following figures were taken from the account books of Miras Ramaier. The crop cultivated is chillies, and it is not safe to generalize on the costs or profits of cultivation of garden land from this crop alone. They differ with different crops.

The field measured 56 cents and the accounts are as below for the year 1932.

EXPENDITURE.

	Rs.	As.
Seedlings	..	4 8
Sheep manure	..	4 0
Ploughing (6 times)	..	4 8
Dividing the field into plots (4 labourers) i.e. preparing the bed for the seedlings	..	1 0
Planting (4 labourers)	..	0 8
Watering (once a week and thus 3 months or 12 times) by 2 Kamalais	..	24 0
Watering (once in 5 days and thus 3½ months or 21 times by 2 kamalais)	..	42 0
Weeding (4 persons)	..	6 0
Intermediate manure—Pigdung 2 cartloads	..	2 0
Labour do.	..	0 8
Total	..	89 0

INCOME.

	Rs.	As.
3 Pothies (60 Tulams)	..	120 0
Net Income	..	31 0
Land Revenue	..	3 8
Net profit for 56 cents of land	..	27 3

This gives a net profit of about Rs. 50 per acre. In 1933 the same gentleman cultivated chillies over an extent of 1½ acres and realised Rs. 200 net profit. But it is not always that this rate of profit is realised; for sometimes a disease known by the name of உதிரோய் attacks the plants and the flowers wither away before they become pods.

According to the previous survey, the cost of cultivation of an acre of garden land was Rs. 177. The amount of Rs. 144 put down against two full time labourers appears too high according to the standards of remuneration given to agricultural labourers in the villages. The investigator does not state to what crop of garden cultivation his figures relate, while he states it in the case of dry land as relating to cholam. This precludes us from comparing the estimates given by the previous survey with the accounts obtained during the present survey. Hence his conclusion that "the yield is estimated at roughly from Rs. 150 to Rs. 250" is not very helpful for our purpose.

Let us come back to the cultivation of chillies, the most profitable of all the crops raised in the village. It is planted in the middle of April and is on the field till the rains in October. It requires plenty of watering and like most garden crops constant tending. Hence, little wonder that the ryot who puts in his own labour or that of his family in watering, ploughing preparing the bed for the young plants etc., realises a greater return than the mirasdars of the type whose accounts we have examined. And hence it is that Miras Ramier who let the 1½ acres of lands on lease got only Rs. 50 and another field of 64 cents was leased at only Rs. 18. The rents for garden cultivation have been paid from time immemorial in cash (known as *Swarnadayam*) except a small quantity which is given to the landlord rather as a present for his personal use than as an addition to his share.

Though figures of comparative costs and profits of garden crops are not available, we have some idea of comparative rents charged. Formerly the rent charged for 1 Kurni or Marakal of garden land (1/21 of a kottah or 1.68 acres) was Rs. 3 and now the rent for the same is only Rs. 2-4-0. Thus there is a fall in the returns to the landlord from Rs. 37½ per acre to Rs. 28; i.e., by 25 per cent.

Tenant's costs and profits of cultivation.

The above are the costs and profits of cultivation for wet, dry and garden lands as carried on by some landowners. In comparison with these, it would be interesting to note the costs and profits of land tilled by tenants. The following is the account given by one Michael, a Palla Christian convert of the Antalai Pacheri. He is a tenant and cultivates 2 kottahs (2 × 1.68 acres) of paddy land which belongs to a Brahmin landlord. He owns 2 ploughs and 2 pairs of bullocks. The basis of varam is 1/3 for the tenant and 2/3 for the ryot. The account was given from his memory.

EXPENSES

	Rs.	As.
Seed (paddy 1 kottah of the kadakaulathan variety)	..	10 0
Ploughing (32 ploughings by 24 ploughs: 4 ploughs per kottah of land each ploughing 4 times)	..	18 0
Manure; Green (20 bundles)	..	15 0
Do. cattle dung (20 cartloads)	..	10 0
Sheep manure	..	10 0
Transplanting (42 persons at 3½ annas each)	..	8 9
Weeding (thrice, 60 persons at 2½ annas each)	..	9 6
Harvesting (in kind; 1½ persons per kurni or 30 for a kottah; 30×4½ measures=135 measures)	..	10 0
Threshing etc., (16 persons at kurni each; in kind)	..	4 8
Cartage (5 cartloads)	..	5 0
Do. (for carrying paddy to the landlord's house 1 mile distant)	..	6 8
Total	..	106 15

INCOME.

	Rs.	As.
Yield (21½ kottahs at Rs. 7)	..	150 8
Straw 100 bundles	..	20 0

As 2/3 of the grain and about 20 bundles of straw go to the share of the landlord, the share of the tenant's income is:—

Grain	..	Rs. 50 2
Straw	..	„ 16 0
		„ 66 2

This shows that the tenant has lost over Rs. 40 on the cultivation of two kottahs of wet land. The cultivators realise that the whole thing is a huge loss, but they stick on to it as there is nothing else to be done. Further many of the items of cultivation above noticed are not paid for in cash and part of the work on land is carried out by the tenant and his family. Thus, for example, he ploughs with his own bullocks, the seed is his own, the manure is what he has gathered in addition to that left by his cattle, the carting is done by employing his own bullocks and the members of his family both women and children do a part of the work of

weeding, planting, harvesting etc., the value of which might be estimated as follows:—

Transplanting	..	Rs. 2 3
Weeding	..	„ 4 11
Threshing	..	„ 1 11
Ploughing	..	„ 18 0
Total	..	„ 26 9

The tenant and his family prefer to work on such terms, to working as coolies even though the former might mean less income.

As for the landlord, he is comparatively better off. He gets his lion's share of 2/3 of the crop, besides 20 bundles of straw for his milch cow and the only charge he has to incur is the land revenue of about Rs. 10. Hence small wonder it is that land-owners find it more worthwhile to let the land on tenancy and be content with their traditional share and the tenants on their part find it increasingly profitless to cultivate land.

Subsidiary Industries.

Handloom Weaving:—There is ample evidence to show that the handloom weaving in the village has almost decayed. The Kaikolars, who at the time of the previous survey were twenty families strong, have now dwindled to six. The Ezhuvas who form another class of weavers have decreased from eight families to six. The total number of looms has also come down from 20 to 14. Of this 6 are in the possession of the Ezhuvas. Even of this 6, only 4 are being regularly worked. The Kaikolars have emigrated either to towns like Tinnevely, where they get more regular work or to places like Madura and Papanasam where they are employed in the weaving mills. One family has emigrated to Iratchi at Ettayapuram where they carry on weaving, it is believed, with less precariousness. Of the Ezhuvas one family has left for Tuticorin, and another for the Papanasam Mills. Whereas the total number of persons engaged in weaving at the time of the former survey was 30, it is now only 20.¹⁰

Following are the results of a detailed inquiry into the circumstances of a few families of Ezhuvas and Kaikolars, which may be considered fairly representative of the state of industry in the whole village.

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The six families of Ezhuvas contain a total of 30 persons of whom 9 are men, 6 are women and 15 are children (12 girls and 3 boys).

The looms now used have fly-shuttles. This is a distinct advance from the conditions that obtained during the previous survey when it was noted that "all looms are of the primitive type." The looms are bought at Tinnevely. The price of a loom has now come down from Rs. 40 to Rs. 20. Most of these looms are 15 years old. The introduction of the fly-shuttle does not seem to have materially improved their condition.

Of the six looms four are regularly worked and the other two occasionally. The yarn used is 20 counts. The previous survey records that though the yarn used was cotton of inferior quality it sometimes went up to even 30 counts. But now it never goes above 20 counts.

At the time of the previous survey, towels, blankets and cheap sarees were woven in the village. At present there are no blankets woven, but towels, dhoties and sarees form the only articles of production. The Ezhuvas make towels (Thundoos) and dhoties (veshtis) only. The towels are 1½ yards long and 1 yard broad. They are sold at 4 annas each. The dhoties are 5 cubits long and 2¾ cubits broad with silk border, ½ inch wide. A pair of dhoties is sold at Rs. 1-4-0.

The cost of yarn required for one towel is 3 annas. The weaver works from 7 a.m. to 5 p.m. Working at this rate, he turns out on an average one *madi* (of 4 towels) per day. Taking the days of rest, etc., into consideration, he finishes on an average 20 *madies* or folds consisting of 80 towels per mensem. Each towel is sold at As. 4. Hence he earns only Rs. 5 per mensem.

The cost of yarn used in making a pair of dhoties is Re. 1. If he works for the same number of hours as in weaving towels, he can finish a pair of dhoties a day and earn As. 4. On an average he finishes 30 pairs a month and thus earns Rs. 7-8-0 per mensem.

The yarn is bought in bales, and each bale costs Rs. 4-8-0. It is bought either in Tinnevely or in the local cloth shop kept by a Brahmin cloth merchant. There is a difference of as. 4 in cash price between the two places on every bale. Although this is intended to cover the cost of transport the weaver would much rather walk to the town and thus save as. 4. Yarn is locally bought

either when the weaver's stock has run low and he finds that he cannot run up to Tinnevely immediately or when he has no ready cash. The local cloth merchant accommodates a weaver with a bale of yarn until the time when the latter turns it all into finished products and markets them. For this he charges an extra 2 annas per bale.

Here it must be mentioned that the 4 annas that the weaver makes per day is not merely the wages he gets for the 10 hours of labour he puts forth. It also includes the remuneration for such additional labour and trouble as when the products of the loom have to be marketed. The towels and dhoties are carried in bundle by the weaver himself who retails them at the hamlets and in the fairs at Kythar, Maniachi, Sivalaperi etc., which are some miles from one another. The 4 annas that is thus scraped goes in part to meet the expenses that the weaver has incurred for gum, oil, winding etc.

The depression has had disastrous effects on the economic condition of weavers. It has plunged a set of thrifty men into perpetual debt. It has dislodged some of them from their native homes. None has left who had the remotest chance of scraping a living in the village. It has reduced their daily earnings from 4—6 annas, to 2 annas 6 pies—4 annas.

Of the six families of Ezhuva weavers mentioned above four pursue weaving as the sole occupation. The other two combine a little agriculture with weaving. The head of one of them possesses one acre of wet land which he himself cultivates and the other owns 15 marakals of nanja ($5/7 \times 1.68$ acre) besides cultivating on lease some punja lands for which he pays an annual rent of Rs. 17.

The latter of the two narrated with much frankness his actual circumstances. He has a wife, two daughters and one son. He weaves dhoties and earns about Rs. 7-8-0 per mensem and the boy manages to make Rs. 3 per mensem by weaving towels. Thus their total income from weaving alone is not more than Rs. 10-8-0. They take a mixed diet of rice, ragi and cholam as they cannot afford to live upon rice alone. Ragi or cholam is taken during the day time and rice only at night and on important occasions. On the whole they need 1¼ kottahs of paddy worth Rs. 8 and Rs. 3 worth of dry grains per mensem. Grains alone cost Rs. 12. But weaving brings in only Rs. 10-8-0. How to meet the rest of the obligations? Agriculture which is secondary has ceased to be a profitable occupation and he would be thankful to the Gods if his

land would help him pay the kist. He makes a few rupees profit from the punja lease he has taken. He has occasional social obligations which should be met if life is not to be made intolerable for him. The only course is semi-starvation and a deeper plunge into debts.

Kaikolars make dhoties of 20 counts and coarse sarees, chiefly used by the poor people. There is no improvement in their looms unlike in the case of Ezhuvas. The old pit-looms go on undisturbed. Of the 6 looms worked, 5 are used for the purpose of making dhoties and only one for sarees.

On a loom $2\frac{1}{2}$ bales of yarn are fed for weaving ten sarees. The cost of production of 10 sarees is as follows:—

COST OF PRODUCTION OF 10 SAREES.

	Rs.	As.
$2\frac{1}{2}$ bales of yarn at Rs. 4 14 0 each	..	12 3
Preparing the yarn	..	1 0
Reeling	..	0 8
Warping	..	0 8
Starch	..	0 6
Gingelly oil $\frac{1}{4}$ measure	..	0 2
Total	..	14 11

Thus the cost of manufacturing 1 saree is Rs. 1-7-6, or Rs. 1-8-0 approximately. The sarees are of the inferior type and measure 7 yards long. They are not sold locally but taken to the Kythar and Maniachi fairs and sold on an average of Rs. 1-12-0 cash. Thus he earns As. 4 per saree. The weaver works from morning to evening. He finishes only $\frac{3}{4}$ of a saree per day. That is he earns 0-3-0 per day. He works for only 20 days in the month. Eight days in the month are taken in going to the markets for retailing his woven stuff and two days are spent in rest. This would mean that a Kaikolar weaver in the village who weaves sarees earns about Rs. 3-12-0 or roughly Rs. 4 per mensem.

In the case of dhoties, one loom of yarn will turn out 12 pairs of dhoties, a single dhotie measuring 5 cubits long. The weaver earns about 2 annas per pair. As only one pair can be woven per day and as he works only for 20 days in the month, he makes about Rs. 2-8-0 per mensem. Due to the fall in the price of yarn, the cost of production of a pair of dhoties has fallen from Rs. 1-4-0 to Rs. 1-3-0; he is now making about Rs. 3-12-0 per mensem.

Thus the Kaikolar weaver weaving dhoties on his old fashioned pit looms earns only half of what the possessor of the fly shuttle is able to make.

The Kaikolars attribute their low condition to competition from mills like Papanasam and also to the heavy fall in the general price level which has decreased the demand for their goods.

Weaving forms the main occupation of the Kaikolars. But like the Ezhuvas they also combine agriculture with it. 3 men have lands of their own, but these are very inconsiderable being 10, 8 and 6 marakals of punja land only. They cultivate these dry lands themselves. Only one man has taken land on varam. None of them, however, possesses any plough of his own.

The yarn is bought invariably from the local Brahmin cloth merchant, because he extends credit facilities. But he charges about 6 annas higher than the price at Tinnevely. Interest is charged at the rate of 12 per cent per annum. The accumulated balances are after a time converted into a lump sum debt.

Their indifference to the introduction of improved looms is due not only to their ebbing economic condition, but to their decreasing strength in the village as families leave it bag and baggage. No attempt has ever been made towards the two castes, Kaikolars and Ezhuvas, co-operating and producing fabrics on their combined strength. The caste system seems to be the great impediment.

The movement for the revival of the charka has not affected the village, as there is not a single instance of charka plying to-day.

Artisans

The carpenters earn a daily wage of 12 annas, and 4 annas in addition as allowance for meals. The blacksmith also earns the same wages but his allowance is only 2 annas. The goldsmiths are said to earn a rupee per day and the stone mason gets the same as the blacksmith. The carpenters are said to be the most thriving of these artisans, as unlike their brethren they alone get work almost the full year round. The recent rise in the price of gold has adversely affected the goldsmiths to a considerable degree. Very rarely are jewels now made. Since the past five years an immigrant goldsmith is working at Kilur. Besides himself his family consists of his wife, 3 boys and 2 girls. Formerly he was earning one rupee per day. He cannot now scrape together more than 6 annas per day. The goldsmiths are paid double the normal rate for making the Thali during the marriage occasions. He is also given rice worth half a rupee,

The carpenter and the blacksmith are paid customary fees known as *swathanthriyams*. In return for these, they repair the agricultural implements of the landholders any number of times. A single plough landholder, or landholder of 3 acres, pays 16 Madras measures of grain to the carpenter and 8 for the blacksmith. If there is an extension in the acreage of cultivation, the carpenter also demands more. The blacksmith gets half of what the carpenter gets, viz., 8 Madras measures for 3 acres. All the artisans are paid 6 Madras measures of grain, 1 coconut, 4 or 5 plantain fruits sugar candy, betel, sandal paste etc., in addition to 1 or 2 annas, on marriage occasions in the landlord's family.

Of the other artisans of the village, the lot of the barbers, washermen and Chakkilias is the most deplorable. They are on the lowest rung of the economic ladder.

There are 4 families of Chakkilias near the shepherd quarters at Rajampacheri, with a total of 20 persons. Of this 7 are men. 3 of them earn their livelihood by taking the buffaloes to the pasture for grazing. The total number of buffaloes so tended by them is 75. They are paid at the rate of 2 measures of grain (about $\frac{1}{2}$ Madras measure) for each buffalo. The cows and oxen are tended by a few shepherds. The shepherd at Rajampacheri alone takes 50 cows and 40 oxen for grazing daily. He is paid at the same rate as the buffalo-tenders. One Chakkilian is doing the work of scavenging at the public choultry of the village and two others carry on leather and shoe work, these being the traditional occupation of the caste.

Supplying of milk is another subsidiary occupation in the village. It is chiefly done by the women of the shepherd caste. A cow bought for Rs. 25 gives a gross monthly yield of Rs. 4 by way of milk, buttermilk, ghee; but of this Rs. 2 goes to meet the expenses of feeding it. The balance, Rs. 2, forms the remuneration for the trouble taken and the capital invested. Buffaloes are also reared, but there is no demand for buffalo milk except in coffee-hotels. Generally it is converted into butter-milk and ghee for sale. A Madras measure of milk sells for 4 annas and the price has been stationary over a long period of time.

About 25 families of the shepherd caste earn their living as servants and menials of landlords, chiefly Brahmins.

A number of women belonging to the low castes, chiefly Pallars, are engaged in the work of cutting grass morning and evening and selling it in bundles. They earn about 2 annas per day as a result of more than 4 hours of labour.

Tapping of palmyra tree for sweet and fermented toddy is another vocation exclusively followed by Shanars in the village. An expert climber manages about 40 trees per day, climbing each tree twice. The palmyra juice is taken by villagers as a sweet beverage. It is sold at one anna a pot, and the juice extracted in the evening sells at 4 times the price. A good part of the juice is converted into jaggery. It was recently reported that the possibilities of converting it into white sugar and developing it as a cottage industry are very great. While the toddy contractor and the Abkari department realise ample income, the man who taps does not earn more than 6 annas a day.

Oil-crushing is another subsidiary industry. But the industry has been languishing of late. Of the 3 oil mills recorded in the previous survey only two are working at present and that too at certain seasons only. The oil mills are of the old pattern which involves much labour and energy. The reason stated by the oil-mongers for the decadence of the industry is that it is not paying at present owing to the competition of oil crushed in mills in towns. They have to take to other professions, chiefly trade. Gingelly, Margosa and Iluppai seeds are crushed into oil. It is the custom with villagers to give a certain quantity of seed and get a fixed quantity of oil and cake in return, allowing a customary share for the oil crusher for his trouble.

Rearing of sheep is another important subsidiary occupation. There are 4 kidais or flocks consisting of 2000 sheep. Only about 100 are goats and the rest are rams. About 100 are he-sheep, and 550 are lambs.

There is a large decrease in the total number of stock. It is only $\frac{1}{3}$ of what it was some 15 years ago. This decrease is attributed by the shepherds to shrinkage of pasture lands for the grazing of sheep. Ever since the Forest Panchayat was established, goats and sheep were prevented from grazing in the forest, lest they should destroy the young trees. Formerly, they were allowed to graze in the forest at a fee of 2 annas per sheep. Even this practice came into vogue only 25 years ago. But that too was stopped with the advent of the Forest Panchayat. Hence the sheep are grazed on waste lands which are becoming less and less available. Due to this under-nourishment the sheep suffer from a disease known as *Oolai* (*உலி*)—water running through the nose constantly. Of late the shepherds have taken about 300 acres of dry red soil on a lease of Rs. 200 per annum, merely for the purpose of grazing their sheep.

The rearing of flocks, and going about the country driving the herd for penning on fields are done by the owner-shepherds as well as by paid men. When paid, the working shepherd gets Rs. 20 to 25 for a period of 13 months, exclusive of his food. Usually the sum is paid at the end of the full term. But sometimes he is paid in instalments, after an expiry of 6 months when he has put in satisfactory service.

Those in charge of herds are of all ages—from boys of twelve upto quite old men. The maximum number of sheep a single shepherd owns is 200 and the minimum is 30. A few of them join together until the flock assumes the strength of a fold or kidai and then they go about for penning them on the fields. Goats are milked only for medicinal purposes, but sheep are never milked. Goat's milk is priced higher than even cow's milk, but the demand is occasional.

Fishing is another subsidiary occupation. The number of families of fishermen is the same. They fish chiefly in the Chittar river and in the tanks. But the fishing rights in the tanks, Sirukulam and Pallankulam are the rights of the village God—Shasta Shanbagath Swami worshipped by Brahmins, and the rent is fixed at Rs. 76-8-0; and the fishery of Pappankulam is settled in the names of Venkataramaier and others at Rs. 11-4-0 per annum for 30 years from Fasli 1318 (1908-9). The fishermen make a bare living and with difficulty they are managing to keep the wolf from the door.

Poultry keeping and pig rearing are other subsidiary occupations. The former is chiefly done by Pallars, Maravas and shepherds. But there is no demand for eggs of the village and the fowls are susceptible to diseases which are contagious and they die in numbers. The pigs are useful for their dung which forms a valuable manure for crops like chillies. But they are reared more for meat on festive occasions. Pallars and Maravars rear them, and there are 30 pigs in all in the village.

A few women make a living by collecting cattle dung and also fuel and dried leaves from the waste lands. These are done by people of low castes.

Driving bullock carts for hire is another subsidiary occupation followed by about 30 men of the village. Of the total number of bullock carts, only about 10 are used exclusively for agricultural purposes. The rest are used for carrying stones and gravel from the quarries and other similar purposes. Even landlords who keep bullock carts for their own agricultural purposes let them on hire

during the spare time and make an income. There are 8 springed bullock-carts and they ply between the village and the Gangaikondan Railway Station. The cost of hire for this distance of 3 miles is annas 6. Formerly it was annas 12 and more. But since the past few years buses have begun to ply between Tinnevely and Kythar and these pass through the very centre of the village at regular intervals. Now people prefer to go by bus to the Railway station. Besides, the depression has touched the pockets of all and many middle-class persons who used to go by bullock carts now walk their way to and from the Railway station. The cart-driver belongs mainly to the shepherd and Maravar castes.

There are some Kuravars who make and sell brooms, baskets, etc. A number of persons and prominent among them the women of the lower castes are employed as coolies in building operations—private and public. The Railway and the Public Works Department provide some scope for their employment. A man is paid 6 annas per day, and a woman 3 annas per day.

Marketing of Village Produce.—The former survey estimated the quantity of paddy sold outside the village at 400 kottahs. But the ryots now consulted think that this is a very low estimate. The area of paddy cultivation has not appreciably increased; nor has the yield per acre undergone any perceptible change. There is an average area of 1000 acres of paddy land. Estimating the annual average yield per acre at 6 kottahs of paddy, the total production of the village would be 6000 kottahs. If we assume that a family of 5 members consumes 1 kottah of paddy per mensem, the 700 families of the village would require 8400 kottahs of paddy per year. But the village produces only 6000 kottahs, or if an allowance be made for second crop cultivation, it would be about 7500 kottahs of paddy per year. This shows that there is really no excess of paddy to be sold but that the production of the village is barely sufficient to meet the demands of local consumption. But in spite of it, after each harvest cartloads of paddy are sent to Kythar market. The percentage of the quantity of grain sent to the Kythar market to the total sold outside the village is estimated at 80. The total quantities of the different grains sold outside are estimated by one landholder as below :—

Paddy.	3000 kottahs.	400 as per previous investigation.
Cholam.	100 "	Nil. "
Ragi.	500 "	Nil. "

This means that either a large number of people are consuming only a very small quantity of paddy supplemented by other

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grains or that many of the ryots are below the starvation level, cultivating and producing and exporting their produce without themselves being able to consume it. Which of these is true can be definitely proved only by a further study of the average yield of other food crops, of the exact quantity exported from the village and the family budgets of a greater number of ryots, rich and poor

The bulk of the grains goes to the weekly fair at Kythar which is held on Thursdays. The rest goes to the fairs at Maniachi and Melapalayam which are held on Tuesdays and a small quantity to the Sivalperi fair which is held on Mondays. The prices at these centres determine the price of paddy or other grains in the village. They are also sold in the neighbouring villages. The grain merchants visit the village on alternate days during the season. There are about 3 local dealers also. They discourage competitors from outside by creating trouble for them in numerous ways. Paddy goes even as far as the Sathankulam market, about 40 miles distant from the village. The difference in price is ordinarily rupee one, of which annas 12 is for cart hire, the rest is the dealer's commission. But the road to Sathankulam is not in good condition during the rains. Between the market at Kythar and the village, there is always a difference of 8 to 12 annas in the price. The fairs at Sivelperi and Maniachi are equidistant, but the demand is chiefly from Kythar. The higher price of 8 to 12 annas at the latter places includes the middleman's commission of 6 to 8 annas and the cart hire of 4 to 6 annas per kottah. There is no professional measurer of grain. The man who does the work gets kurni measure of grain or 4 annas for every kottah that he measures.

Considerable loss and inconvenience is caused to the ryots by having to pay kist in 4 instalments fixed at the time of Resettlement. The *Kistbandi* extends from February to May. But the wet crops are harvested from the end of January to the end of March; and the dry crops from December to February except in the case of cholam which is cut in March and April. This necessitates borrowing on the part of the ryot to meet the land revenue demand or selling his produce at very low prices ruling after the harvest. The produce is seldom sold in time to pay the first two instalments. This is the version of the Karnam himself. The ryots prefer to borrow. The interest charged on such short-term loans is 4 pies per rupee per mensem. Very few ryots can hold up their produce for a considerable length of time. The richer among them wait and sell paddy from July 10th to August 15th. But some crops cannot be held for long even if the ryots wish; for instance, cholam is harvested in August and sold in September, as it cannot

stand long storing. But other grains like ragi and gingelly are held for a period of one year and even more. Ragi is held for even two years. Undoubtedly the present kistbandi arrangement works as a great hardship on the poorer ryots. It is desirable to have it changed to the four months beginning from April.

Village Trade.

One distinct change noticeable is the increase in the number of retail shops in the village. The wares range from simple village produce to the latest scents and soaps of foreign manufacture. But the rate of profit is smaller now than at the time of the previous survey. Various causes have contributed to this. The increase in the number of shops, other things being equal, is itself a sufficient cause. The purchasing power of the people has also fallen, on account of fall in the price of village produce.

The advent of the bus service between the village and the neighbouring centres has reduced the number of pedestrians and consequently affected the sales of hotels and betel shops. And yet coffee hotels have increased, as the habit of taking refreshments in the hotel is growing. Of the five hotels, only one is kept by a Brahmin and all the rest by Saivite Non-Brahmins who sell eatables at a much cheaper price. Hence the lower orders always resort to the Non-Brahmin hotels. But the middle class people prefer the costly Brahmin hotel for its coffee and the better quality of some of the stuffs available there. False sense of prestige and inferiority complex also play a part. Coffee is too costly a drink for the poor man in the country parts, and is not sold in the Non-Brahmin hotels, where only a decoction from dried ginger with jaggery dissolved in it is available. The sales in the Brahmin coffee hotel are higher than in the Non-Brahmin hotels. But except for the younger generation, the Brahmins of the village themselves do not resort to the hotel habitually. Many of these hotels depend largely on the passing pedestrians from the neighbouring villages who go to the Sub-Registrar's Office at Gangaikondan. The average sale in a hotel is about Rs. 2 per day and the hotelman makes about 8 annas per day. His family invariably assists him in the preparation of things.

The number of cloth shops has increased from 2 to 3. One cloth merchant also sells yarn to the local weavers. The merchants extend credit to customers. To some extent this makes it difficult for the local weavers to market their produce in the village itself. Hence they have to go to other markets. For goods sold on credit, they always charge a higher price, besides interest.

The total stock of the 3 shops is valued at Rs. 4,000. The cloth merchants are not making any large profit at present.

There are four *maligai* shops where all sorts of provisions are retailed, including vegetables, which are got down from the Kythar fair. The oldest and the most prosperous of them is kept by one Mooppanar, a man belonging to the betel-men caste. Formerly he was the only provision merchant in the village. These shops also stock grains including paddy and cholam and retail them to the labourers. They stock on an average 10 kottahs of paddy in each shop. There is a difference between the retail price and whole-sale price of grains, ranging from 6 to 12 per cent.

Besides these shops, there are a few others in Anatalai Pachcheri and in Vadakur. In the former place, there are six shops kept exclusively by Mohammadans. The chief customers are the Pallars of the locality. The total stock of the six shops put together would not come to more than Rs. 250. The shop-keepers combine agriculture with trade. They are petty pattadars who cultivate their own land. The maximum area possessed by any one of them is 1 acre. They are not indebted. Their daily income from trade alone ranges from 4 to 8 annas per day. They buy wholesale from Tinnevely and retail them here. Most of the Pallars make their daily purchases in these Mohammedan shops and only on festive occasions they go outside to the bigger shops. The relationship between the Mohammedan shopmen and the Palla customers is very cordial. Credit is extended to a small extent, but punctually paid back. Purchases are paid for in kind, particularly during the harvest.

In Vadakur there are two shops kept by betelmen. The shops are not in a prosperous condition. They have sprung up only very recently. They sell betel, condiments and other articles of kitchen use.

Sale Value of Land.

The value of land has gone down with the fall in the value of produce. A generation back, that is at the beginning of the present century, dry land was selling on an average at Rs. 8 per kurni and wet land at Rs. 50 per kurni (or 8 cents). This fact has been also recorded in the report of the previous survey. But in the war and post-war boom years the sale value of land went up *pari passu* with the price of produce from land. Since the last 5 years land values have slumped to the level that was prevailing at the beginning of the century. This will be clear from the following statement,

Value of 1 Acre of Land

Land.	30 years ago.	15 years ago.	At present (1934)
	Rs.	Rs.	Rs.
Dry. ..	110	200	125
Wet ..	600	1200	750

The value of dry land is about one-sixth of wet land. Land values have fallen by about 37.5 per cent from those prevailing 15 years ago and have nearly reached the level prevailing 30 years ago. While the price of paddy has fallen from Rs. 14 per kottah in 1919 to Rs. 7 in 1934, i.e., by 50 per cent., the price of land has fallen only by about 38 per cent.

CHANGES IN THE PRICES OF GRAINS.

Crop.	Price per kottah in rupees.							
	1916.	1923.	1930.	1931.	1932.	1933.	1934.	
	Rs.	Rs.	Rs.	As.	Rs.	As.	Rs.	As.
Paddy (maximum price)	10	14	9	0	8	8	7	8
Do. (Harvest price)	10	13	7	8	7	0	6	8
Cholam	10	15	10	0	9	0	7	0
Ragi	12	12	9	0	8	0	7	0
Gingelly	12	30	27	0	24	0	18	0

Indebtedness.

The difficulty of obtaining correct data of the annual amount of debt contracted by the villagers remains the same as it was at the time of the last survey. According to the estimate of the villagers in 1916 the extent of indebtedness was 1 lakh of rupees. Their present (1934) estimate of indebtedness comes to about Rs. 2,71,000. Thus within a period of about 17 years, the amount of indebtedness has almost trebled itself. Meanwhile, a period of boom prices has run its course enhancing the borrowing power of the ryots and it has been followed by a period of depression which has reduced their purchasing and borrowing power and capacity to repay.

There are about ten principal moneylenders in the village who have lent Rs. 275,000 among the villagers, only Rs. 100,000 of which are secured debts, the rest being on promissory notes. 80 per cent. of the moneylenders are Brahmins. Though there are 5 moneylenders at least, lending more than Rs. 10,000 each, only three are

paying income-tax. It is easier to conceal pronote transactions from official eyes. Before the depression, the personal credit of the ryots stood high, and there was little risk in lending on pronotes to them.

But, since the past 5 years a change has been noticed in the attitude of the moneylenders in this respect. As they have found that it is impossible for the debtors to pay interest as agriculture does not pay, they deem it wise to insist on better security. And they prefer usufructuary mortgages to simple mortgages or promissory notes. Thus with the fall of prices a tendency to take less risk in the business is noticeable.

Of the 2¼ lakhs that is estimated to be the indebtedness of the ryots, about Rs. 50,000 has been borrowed by the Brahmins themselves. Of the remaining Rs. 2¼ lakhs, one-third is borrowed by Maravars and the rest is distributed among the Pallars, betelmen, shepherds and fishermen.

The rates of interest vary with the credit of the ryots, the amount of the loan, its duration and other allied factors. The following are the rates of interest which prevailed about 12 years ago and those obtaining at present. The figures were given by a moneylender.

RATES OF INTEREST

Principal. Rs.	12 years ago.		At present. Percentage.
	Interest per rupee per annum.	Percentage.	
1—10	3 pies	18¾	12
10—25	2½ "	15⅝	
25—50	2 "	12½	
50—200	1¾ "	10⅝ ¹⁶	
200—500	1½ "	9⅝	10
500—1000	1¼ "	7⅝ ¹⁶	9
1000—5000 and above.	1 "	6¼	6 to 7½

While these might be considered the general rates, the exceptions to them are so numerous, particularly in the case of amounts below Rs. 100, that these figures must be accepted with caution.

According to the moneylenders, the causes of increase of indebtedness are litigation, ceremonies, new wants and style of living.

While formerly, money was borrowed for buying land and improving it, it is now borrowed more for non-productive purposes like celebrating marriages and satisfying newly created wants. A sudden fall in prices cannot put an end to habits cultivated during a long period of high prices.

There is a feeling among the moneylenders that their profession is passing through troublous times. A great deal of compromise and tact are required for money dealings at present. Only those who are prepared to recover dues in several instalments can get on as moneylenders. Of the total amount of money lent at present, it is expected that only one-third can be recovered in cash, and that too in several instalments; one-third will be returned in the form of landed property and the rest can be recovered in part through the civil courts.

Indebtedness among the peasant proprietors and tenants— Shepherds.

There are some 50 families of whom practically all are tenants. Almost all of them possess land, but the total does not exceed 15 kottahs of wet land and 200 acres of dry land. The maximum number of acres possessed by a single individual is only 5 and that possessed by a single family is 21 acres, including wet and dry. The 15 kottahs of wet land and the 200 kottahs of dry land are distributed among them in the following proportions:

No. of acres.	Wet.	No. of acres.	Dry.
	No. of pattadars.		No. of pattadars.
4	1	150	50
3	1	50	30
2	1	—	—
1½	1	—	—
5	20	—	—
	separate individuals		
15	24	200	80

Excepting the two pattadars who own 3 and 2 acres respectively, the rest of this caste live as tenants.

Such a class of petty pattadars who are also tenants and who supplement their income by such means as the tending of flock, doing manual labour and who were in the past, according to their statement, practically free of debt are today steeped in it without

any exception. The total amount of their indebtedness is estimated by them at about Rs. 15,000. The rate of interest charged varies from 12 to 24 per cent. The main reasons given by them for such indebtedness are increasing marriage expenses, building of houses, losses from agriculture and the unprofitableness of tending sheep. Marriages are now celebrated on a more expensive scale as the former simple habits of the shepherds are slowly dying out. Every marriage costs at least Rs. 500. Frequent have been the outbreaks of fire in the village of Rajampacheri, the cause of which is not yet known. The shepherds sustained heavy losses on account of these outbreaks of fire and with a view to avoid any further risk and danger they are constructing tiled houses with borrowed money. Drink is another cause of indebtedness. About 20 young shepherds have taken to drinking toddy, thanks to the temptation offered by a shop set up in their midst by a Shanar three years back. The habit is spreading among the rest of the caste contributing towards reckless ways of living and borrowing.

But there is no instance of borrowing with the purpose of making any unusual improvement in land or for any new investment in trade or other professions. Of the sum of Rs. 15,000 borrowed by the shepherds, one-third is on promissory note and the rest on mortgage of property. They agree that it is the fall in the price of produce which has worsened their condition as since its commencement cultivation became a losing proposition and tending of sheep a profitless occupation. During the past 5 years Rs. 1000 worth of property consisting of houses and garden lands have been taken away in lieu of debt obligations. The whole of the credit is advanced by a few Brahmins of the village. They find it impossible to pay the interest. Out of the 50 families, only 10 men are literate. Not one knows the rudiments of English. The shepherds maintain that if the fall in prices continues for another five years, the whole land now under mortgage will be given up for good.

Pallars.

The following is the account of indebtedness of a Palla tenant, Michael by name. He owns 24 cents of nanja, 72 cents of dry red soil and $\frac{5}{8}$ chains of black soil valued on the whole at Rs. 800 at the present level of prices. They were bought about 12 years ago, when prices ruled high. Seven years back he mortgaged his property and raised a loan of Rs. 300 at 12 per cent. from a Brahmin moneylender to buy 3 pairs of bullocks and also to make other minor agricultural improvements. Of the 3 pairs of bullocks, only 3 bullocks survive. And these 3 aged oxen would not now

fetch more than Rs. 40 in all. He was paying interest regularly for the first 3 years, but since the last 4 years he is unable to pay it and only a month back the accumulated interest of Rs. 150 and the principal were compounded and a fresh document was drawn up for Rs. 450. But he has got a further debt of Rs. 470 on promissory notes from various persons. This, he says, was also borrowed from time to time for agricultural expenses. Of this sum Rs. 100 is borrowed from a Brahmin, Rs. 100 from a Marava, Rs. 75 from a betelman, Rs. 60 from a Marava woman, Rs. 50 from a shepherd, Rs. 20 from a Hindu Palla, and another Rs. 20 also from a man of the same caste. For sums between Rs. 20 and 50, 18 per cent. is the interest charged and for sums of Rs. 100 and above, 12 per cent. is charged.

The condition of Hindu Pallars is not better. They live side by side with the Christian Pallars in Anatalai Pacheri and number about 400 persons including children. They have very little land of their own and most of them are tenants and agricultural labourers. They form the majority of the annual migrants to the plantations. The maximum of wet land owned by a single Palla is $1\frac{1}{2}$ kottahs. There are only 3 such men in the whole Pacheri. Of the rest, there is one man who possesses $1\frac{1}{4}$ kottahs, another who possesses 1 acre, there are six who own $\frac{3}{4}$ kottah each, one who owns $\frac{1}{4}$ kottah, and two own $\frac{1}{3}$ kottah each and there is one who owns $\frac{8}{21}$ kottah. These were bought during the period of high prices when their savings and credit stood high. They paid from Rs. 75 to 100 per kurni at the time of purchase. Now all are indebted. The total indebtedness among them is estimated at Rs. 10,000. The rate of interest is from 12 to 18 per cent, or sometimes when interest is paid in kind, particularly for small sums during the planting seasons he is charged kurni or 1 marakal of paddy for an advance of Re. 1 for a period of six months. This works to a rate of $66\frac{2}{3}$ per cent. per annum at the present level of prices. But the principal lent to a single individual at this exorbitant rate at a time does not exceed Rs. 10.

The Pallars are a very hard working class of hereditary agricultural labourers and tenants. Their women work on fields. They own about 50 ploughs and the requisite number of oxen. A few of them rear pigs which number about 20. Almost all of them keep poultry. But they complain that the hens and fowls get a sort of disease frequently and that eggs are not readily sold in the village. Almost all of them are pure agriculturists, petty peasant-proprietors, tenants and agricultural labourers, all in one. The Hindus among them contribute about Rs. 5 per family

towards the celebration of 6 *kodais* to propitiate their devil-gods. The Catholic Pallars—all the converts in the villages are Catholics—contribute Rs. 1-8-0 per family towards the church funds.

A family consisting of a man, a wife and 3 boys require about $\frac{3}{4}$ kottah of paddy and Rs. 3 for extra expenses for a month. In other words a family of 5 persons of this caste lives on a sum of Rs. 8 per mensem. Their women do not have much of jewels and their marriage expenses do not exceed Rs. 100. Though their standard of living is so low, they are all indebted. The *per capita* debt among them would be Rs. 300 to 400. One and all, they state that agriculture is the cause of their borrowing and they have seldom borrowed for any other purpose.

Maravas.—The Maravas are the remaining important class of cultivators whose condition requires study. It is generally believed that they are much better off at present than they were some 20 or 25 years ago. Among them both men and women work hard. They supplement their earnings from agriculture by such subsidiary sources of income as keeping poultry, tending sheep, hiring carts, collecting and selling cattle droppings etc. They resist all temptations to adopt an expensive standard of living. Excepting two people, none has built a new house although many can afford to do. In addition, as they come of a set of people who were once notorious free-booters, the other communities of the village used to give them inams as a sort of blackmail to be free from their attack. These go by the name Swathanthriams. They continue even to this day.

The Swathanthriams are the hereditary claims of 22 shareholders of whom two are headmen. The *kalanali* or the threshing-floor fee is the inam given to them for having guarded the crop all the year round. They get 4 measures, (2 for harvest and 2 for threshing) for every harvesting day. But it is said that double this quantity is got by making demands both on the tenant and on the landlord. And on communities like the Pallars they multiply the demand two or threefold, and that for every season. In addition Re. 1 is got from them as *Thozhu vari* or cattle-shed fee for every cattle-shed under the assumption that they kept cattle safe from being stolen. Rs. 1-12-0 is got from the shepherds for every marriage they celebrate and Re. 1 for every *kodai* or devil-dance festival they hold. Pots are got from the potters, it is said without payment, and the services of barbers, washermen etc., are not adequately remunerated. For keeping every cart that has come to the village safe through one night half-an-anna has to be paid. The goldsmiths charge them only one-fourth of the normal making

charges, and the Shanars supply occasionally toddy and palmyra juice and also 24 thulams of jaggary as inam. The Vettians and the Thalayarries invariably belong to this community.

Not all the Maravas are recipients of such income. Only the 22 shareholders who are entitled to these dues from ancient times claim them. Though their exaction is sometimes felt by the poorer ryots, it has become a matter of course. But the Maravas are also industrious and put by something very regularly. It is said that new property is mainly bought in the name of their women. They spend very little on marriages and other ceremonies. Almost all of them own lands to some extent and they possess ploughs. A good number of them go out to work in the plantations, but there is no regular exodus among them.

The following is the account of the transactions of a Marava, Guruswami Thevar, by name :—

	Rs.
Borrowed $\frac{1}{2}$ for trading purposes and $\frac{1}{2}$ for agricultural purposes in the month of Masi (February to March) 1104 (1929) on promissory note at 15% interest	600
Returned June to July, 1929	300
Balance due	300
	Rs.
For marriage (Jan. to Feb. 1930) at 15% on promissory note	200
Borrowed on mortgage of 6 marakals of nanja and 8 acres of punja	200
At 12% in Feb. March 1931 due to loss in business	665
Total	1,365
	Rs.
Returned in July to Aug. 1933	100
The six marakals of nanja land was disposed for Rs. 714 and the amount returned	714
Balance due	551

He says that the creditors always buy the mortgaged property at a higher price than others because for one thing the creditors do not pay ready cash but only set it off against the money due to them and for another, the creditors have no other go but to buy them against whatever sums they have lent.

Ezhuvas :—Among the Ezhuva weavers both the persons who own land are involved in debt. The man who owns 1 acre of wet land and who cultivates it himself is the richest man in the community there and he is indebted to the extent of Rs. 900. This was a loan obtained for the purpose of buying land. It appears that he had some savings and when a plot of one acre came up for sale, he wanted but Rs. 550 to complete the purchase. The loan was contracted in 1928. He expected that he would not only pay the interest but also pay back the whole sum in instalments from the produce of the land. Accordingly he mortgaged his newly bought property and raised the loan of Rs. 550 at 12 per cent. per annum from 2 different sources. Rs. 300 was lent by a Brahmin moneylender and Rs. 250 from out of the Palaniandavar temple funds. The people of this caste have a Subramania temple of their own and there was a temple fund of Rs. 250. The temple has no other property except a few palmyra trees, which yield about Rs. 7 per annum. All the available fund that the temple possessed has been lent to the weaver. It is one of the traditional forms of co-operation that the villagers can think of, as the temple funds were but the accumulated contribution of the devotees of the caste. Of course the deity is also sharing the suffering of his devotees, as he has no festive pujas at present.

Coming back to the condition of this indebted weaver: from the year after the one in which he bought his land, prices of produce began to fall abnormally. He could not pay his interest dues which have accumulated to the tune of Rs. 900. He has no prospect of paying it back in the near future. The debt is threatening to engulf not merely the part of land for which he contracted it, but the whole of his property including his house and belongings.

The plight of the other weaver whose economic condition was dealt with in detail in the section on Subsidiary Industries, is not less deplorable. Two years back, he had to give a grown-up daughter of his in marriage. He had to present the bride with jewels worth about Rs. 200 and meet the marriage expenses amounting to Rs. 50. As against this, he had about Rs. 100 on hand, which was the result of stinting and saving, during a period of 4 years preceding the depression. Hence he had to borrow Rs. 150. He has got it from a Marava on personal security at 12 per cent. per annum. The Brahmins seldom lend "on trust". Nor was he willing to pledge the little property that he has.

The rest of the weavers are all indebted in some degree or other to the local yarn merchant. The effects of the depression and debt

on the economic condition of the weavers and their reaction on their occupation are better imagined than described. Women among them have very few jewels and a majority, it is said, are wearing only the indispensable minimum of Thali.

Kaikolars.—In the case of the other caste of weavers, *viz.*, Kaikolars, indebtedness has assumed importance only since the depression. Prior to that the total indebtedness of the community was not more than Rs. 100. Now it is thrice that amount. Lands were purchased and houses were erected during the period of high prices. Money was invested in business also. Now business has proved a failure, and land un-remunerative. Their annual expenses for religious purposes amount to Rs. 10 per head. Every man pays Rs. 5 for the Vinayakar temple and Rs. 4 for the Amman. A marriage costs about Rs. 300, of which Rs. 200 is for making jewels. The latter is considered a piece of good investment, for it acts as a reserve in times of real need. The debts are all contracted with the Brahmin money-lenders against the security of lands and houses. Even if the creditors are willing to dispose of their land, and liquidate the loans, they are physically unable to do so, as there is no demand for land. The money-lenders are less willing to lend against the security of houses, as these houses in the quarters of other castes would be of no personal use to them, nor do houses fetch a decent rent in the village. There is no instance of a Brahmin money-lender taking up a house of another caste, though he attaches it through the court.

Co-operative Credit.—There are two societies in the whole village, one for the highest and one for the lowest community. The Brahmins have one and the Pallars also have one. The society conducted by the Brahmins was started in January 1912 and it was observed in the course of the previous enquiry that "it has not been able to cope to even a small degree with the indebtedness of the village."¹¹ The same applies with greater force today. The Society is controlled by the moneylenders themselves and the Village Munsiff, himself a moneylender, is its Secretary. Even among Brahmins, it is not resorted to by the poor. But the rich landlords and money-lenders often borrow from the society though they are not really in need of money themselves. Suspicion is widespread that they re-lend the money thus borrowed to the petty ryots of low castes who are outside the co-operative movement, charging exorbitant rates of interest and thus making a clean profit out of

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the transaction. The total amount borrowed from the society is Rs. 5,000.

The other Co-operative Credit Society referred to as having been organised for the Pallars is also not very popular. It was established 9 years ago. The maximum amount of money lent by the Society is only Rs. 1,600 just about 1/6 of the total indebtedness of the Pallars. The maximum number of shares that a single individual can hold at a time is 5, but the total number of shares taken by all the Pallars, and Muhamadans who have also joined the Society, is only 20. The ryots who are comparatively better off do not join the movement and the poor find it of no use for them, as they cannot get loans in time. They want loans chiefly for agricultural purposes and the elaborate formalities of application, meeting and sanctioning involve too much delay for the Society to be popular. One member said that it was some 6 months since he had applied for a loan of Rs. 50 but it was yet to be given. Further many of them are already indebted to the money-lending masters and they are afraid to displease them by borrowing elsewhere. The introduction of co-operative credit society has not swelled their indebtedness, but it has not displaced the money-lender. The Palla peasants are punctual in repayment and there is no instance of civil action taken to realise the arrears.

Education.

Many of the tenants and labourers, especially of the lower castes, like Shepherds, Maravars and Pallars are illiterate. But among the Brahmins and Vellalas there is practically no man who is not versed in the three R's. Among women, most of the Brahmin ladies—particularly of the younger generation—can read and write and they spend their leisure in reading Tamil novels and Puranic stories. But this cannot be said of the Vellala women. There is a Local Board Tamil school at Gangaikondan proper which teaches up to the fifth standard. There are 3 men teachers and one lady teacher. Brahmin boys and girls constitute the main strength of the school. Of every 5 boys on an average, 4 are Brahmins and the remaining one either Vellala or of some other caste. The school is more popular than it was 15 years ago. There are 70 pupils in the 5th standard alone, which was the total strength of the whole school at the time of the previous survey. There are 34 in the 4th standard and an equal number in each of the other classes. About 5 boys who pass out of this school annually go to Tinnevely town for higher education in the high schools. They hold Railway passes and travel by trains, walking the distance from the village to the

Railway station. Of the 150 families of Pallars only about 10 are literate in the sense that they can sign their names. But at Anatalai Pacheri an elementary school is run by the Catholic Mission of Palamcottah. There are 56 pupils on the rolls. The proportion of various communities is as follows :—

Catholic Christians (Pallars)	..	20
Protestant (C.M.S.) (Pallars)	..	1
Hindu—Maravas	..	8
" Carpenter	..	1
" Ezhuvas	..	2
" Kaikolar	..	2
" Washermen	..	2
" Pallars	..	20
		—
Total	..	56
		—

Of these 48 are boys and 8 are girls. Only one of the girls is a Hindu belonging to the dhobi caste and of the rest 6 are Catholic girls and one is a Protestant girl. Though teaching is carried on up to the 5th Standard, recognition is given only up to the 4th Standard. So far only one boy has proceeded to an English school from this elementary school. Two boys have gone to Kailasapuram for studying in the Higher Elementary School up to the 7th Standard. There are two teachers for the school. The Headmaster is a Palla Catholic convert. This Catholic Christian institution is a boon to the depressed classes. The attendance of children is regular except during harvest season, when they are employed. All caste boys of Vadakur numbering 30 attend a pial school. The teacher is paid a fee of 4 annas per mensem for every boy. He is an old man belonging to the Marava caste and he whispered into my ear that the parents were not very regular in their payments. But including presents and all, he makes about Rs. 7 to 10 per mensem.

The majority of the shepherds, Maravas and weavers are illiterate. They all depend upon their moneylenders for keeping the accounts of money borrowed from them and also of the amount returned at various times. But there is an eagerness among all the castes to send their boys to school more regularly than before, as may be seen in the higher attendance at present than 17 years ago.

The Village Administration.

The streets are not well cleaned. The village Thotti or scavenger goes only to the Brahmin and Vellala streets. The streets of other people are kept in a dirty state. The dwellings of the lower orders are not so clean as stated in the report of the previous sur-

vey. The ryots pay a village cess of 7 pies per rupee of land revenue but they feel that no adequate benefit is derived. Nothing is done towards bettering the sanitary conditions or lighting arrangements of the village. Nor is any improved road laid out to facilitate agricultural operations. The ryots particularly who own bullock-carts, until recently, felt the pinch of tolls. Frequent fires have been breaking out in the shepherd quarters at Rajampacheri and no action seems to have been taken to put an end to them. In general the villagers have a reverence, sometimes amounting to fear, for the Village Munsiff and the Karnam. Besides their pay and *maniam* the village servants occasionally get presents, principally in kind.

Retrospect

There was a spell of prosperity during the war and post-war years. But this was the bulging of a bubble. It began and ended in the adoption of a costlier style of living by the villagers. No basic improvement in the village economy was effected either by way of better methods of tillage or of resuscitation of the dying handicrafts. The depression that followed nearly completed the destruction. It has depleted the village of a good number of its artisans. Absentee landlordism has increased as a result of the gradual exodus of the educated classes of the village. Subdivision of holdings has gone apace. The credit situation has got worsened. Indebtedness has swelled. Co-operation has not touched the fringe of the problem. Incidence of land revenue has become heavier. Sale value of land has slumped. Agriculture has ceased to be a business proposition. The slight improvement in literacy is no adequate compensation for this economic retrogression. Unless the villagers are prepared to take a lesson from their past economic history and concertedly turn to the best advantage any golden opportunity that the cycle of time may present them and stabilize their ill-balanced economy, the future is gloomy indeed.

In concluding the report of his survey in 1915 the previous investigator wrote: "There is no doubt that reviewing the economic condition and prospect of the village we find visible signs of retrogression. The old cottage industries which were the chief occupation of females and which contributed in no small measure to the material prosperity of the villagers have entirely disappeared."¹² These remarks apply with added force at the present time and afford a more fitting conclusion to the present than even to the previous survey.

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PALAKKURICHI

(Tanjore Dt.)

By

S. THIRUMALAI, M.A.,

Palakkurichi lies 8 miles south-west of Negapatam and is six miles from Sikkil Railway Station. The survey number of the village is 98 and the village is under the Ryotwari system of tenure. As in the rest of the Cauvery Delta there are neither hills nor forests near the village. The river Kaduvayar, a branch of the river Coleroon, is 3½ miles to the north and is the source of water-supply to the channels that run through the village.

Population.

The population of the caste-village is 437 and of the Paracheri 432 distributed as follows:

Section	Families	Total individuals	Males.	Females.	Boys.	Girls.
Smarthas	1	4	2	2	-	-
Ayyangars	4	9	3	5	1	-
Naidus (Kammas)	32	128	36	45	28	19
Pillais (Saivites)	1	2	-	2	-	-
Padayachis	29	135	39	46	30	20
Vellalars	13	46	13	20	9	4
Dhoby	1	4	1	2	1	-
Barbers	2	8	3	2	1	2
Kammalars (artisans)	11	41	13	14	11	3
Sanar	1	1	-	1	-	-
Muhammadan	1	4	1	3	-	-
Drummer	3	10	3	5	1	1
Chettiyars	2	6	1	2	1	2
Yadhavas (cowherds)	8	31	14	10	4	3
Thevar	1	6	1	2	2	1
Koravans	-	2	2	-	-	-
Pariahs	73	325	86	100	70	69
Pallans	23	88	22	24	17	25
Chakkiliyans	2	19	7	7	3	2
Grand Total	208	869	247	292	179	151

The families of Christians and Oddars, mentioned in the original survey, left the village as early as 1920. There are two Koravans who have no houses of their own but have taken up residence here and serve as watchmen. Among the Brahmin families one (Ayyangar) lives here temporarily. He is the Karnam of Ottathattai, a village half a mile to the east.

THE POPULATION OF THE VILLAGE AT THE DIFFERENT CENSUSES.

Year of Census.	No. of inhabited houses.	Population.					Religion.			
		Males.	Percentage variation.	Females.	Percentage variation.	Total.	Percentage variation.	Hindus.	Muhammadans.	Christians.
1901	154	349		420		769		746	9	14
1911	173	406	+16.35	463	+10.24	869	+13	842	12	15
1917*	177	-		-		851	-2.07	835	12	4
1921	166	366	-9.85	383	-17.28	749	-13.81	739	7	3
1931	177	364	-5.5	406	+6	770	+2.67	767†	3	-
1937† May	213	426	+17.03	443	+9.1	869	+12.86	865	4	-

*Original survey.

†Present resurvey.

‡Of these, 372 were Adi-Dravidas who were not officially classed as Hindus in the 1931 census.

Between 1917 and 1937 the total number of families in the village has increased from 177 to 208, i.e., by 17.51 per cent. and the population has increased from 851 to 869, i.e., by 2.12 per cent. The very small addition to the population during the past twenty years is due to the emigration of caste families from the village between 1911-1921, especially in 1920. The population has actually decreased by 13.81 per cent during the period. Between 1921-1931 the population has increased only by 2.67 per cent against 10.3 per cent for the whole Province. But in the past six years, i.e., from 1931 to 1937 there has been a steep increase in the population by 12.86 per cent.

POPULATION OF THE CASTE-VILLAGE ACCORDING TO AGE.

	Under 5	5 to 16	16 to 25	25 to 50	Over 50 years.
Males	18	62	22	75	43
Females	11	46	25	88	47
Total	29	108	47	163	90

POPULATION OF THE PARACHERI ACCORDING TO AGE.

	Under 5	5 to 16	16 to 25	25 to 50	Over 50 years.
Males	28	59	21	79	22
Females	39	64	44	59	17
Total	67	123	65	138	39

Percentage of Effective Population (i.e., active workers between the ages of 16 and 50) = 48.05 for the caste group and 47 for the Paracheri.

There are 46 widows and 15 widowers in the caste-village and 17 widows and 10 widowers in Paracheri.

STATISTICS OF BIRTHS AND DEATHS GIVEN IN THE VILLAGE ACCOUNTS.

Religion.	Deaths.			Deaths.			Deaths.		
	1935.			1936.			1937. (upto the end of April)		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Hindus.	6	9	15	4	4	8	5	2	7
Panchamas.	2	2	4	10	3	13	3	2	5
Muhammadans.	-	-	-	1	-	1	-	-	-
	8	11	19	15	7	22	8	4	12

Death at different ages.

Year.	Below 1 year.	Between 1 & 5 yrs.	Between 5 & 16.	Between 16 & 25.	Between 25 & 50.	Over 50.	Total.
1935	1	2	3	-	4	9	19
1936	5	1	4	2	3	7	22
1937 (April)	4	-	-	-	4	4	12

Causes of Death

Name of disease.	Incidence of Death.		
	1935.	1936.	1937. (April)
Fever ..	2	4	-
¹ Kanai (கணை) ..	3	-	2
² Mantham (மாந்தம்) ..	-	4	-
Dysentery ..	2	1	1
Diarrhoea ..	1	-	-
Consumption ..	1	1	-
Asthma ..	1	-	-
Cholera ..	-	4	2
Abortion ..	-	1	-
Anaemia (சோகை) ..	1	1	-
Old-age ..	7	3	3
Abcess ..	-	1	-
³ Vadham (வாதம்) ..	-	-	2
Other reasons ..	1	2	2
	19	22	12

Births.

Caste.	1935.			1936.			1937. (upto the end of May)		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Kamma ..	2	1	3	3	1	4	1	1	2
Padayachi ..	2	3	5	4	4	8	1	-	1
Kammalar ..	2	-	2	1	-	1	-	-	-
Vellalar ..	-	-	-	-	1	1	-	-	-
Chettiar ..	-	-	-	1	-	1	-	-	-
Drummer ..	-	-	-	1	-	1	-	-	-
Konar ..	-	-	-	-	1	1	-	-	-
Pallar ..	1	1	2	-	1	1	3	-	3
Parayar ..	5	3	8	4	9	13	4	2	6
Chakkiliar ..	-	-	-	1	1	2	-	-	-
	12	8	20	15	18	33	9	3	12

Prior to 1936 the register of deaths took no note of the caste of the deceased. This is a serious handicap in interpreting the

1. Kanai = Kanai-c-cûtu—a disease of children (*Tabes mesenterica*).
2. Mantham=Manta-cappi—Infantile convulsions with delirium, due to indigestion.
3. Vadham = Vatanöy—Neuralgia—Rheumatism.

statistics, as it is not possible to find out the incidence of a disease on any particular caste.

Land. The Resettlement was introduced into the village in Fasli 1333 (1924) and the present re-survey village comprises the whole of the old village of Palakkurichi and a part of Cholavidyapuram. Hence, there has been an increase in the total area by 4.09 acres.

AREA OF DIFFERENT CLASSES OF LAND (ACRES).

	Occupied.			Unoccupied.			Inam.	Communal Poramboke.	Total.
	Wet.	Dry.	Total.	Wet.	Dry.	Total.			
Prior to Resettle- ment.	977.73	70.02	1047.75	2.13	2.34	4.47	4.23	185.76	1242.21
According to Re- settlement.	976.60	72.13	1048.73	2.13	2.34	4.47	3.25	185.76	1242.21
After Re-classifica- tion in 1935.	976.60	73.4	1049.64	0	3.47	3.47	3.25	185.85	1242.21

AREA UNDER CULTIVATION IN FASLI 1346 (1937).

Class.	Total Area	Area cultivated	Percentage of cultivated area to total area in the class.
	(Acres)	(Acres)	
Wet ..	976.60	944.93	97
Dry ..	73.04	17.49	23
Assessed waste ..	3.47	0.13	4
Poramboke ..	185.85	2.14	—
Inam ..	3.25	0.56	16
Total ..	1,242.21	965.25	

There are no lands watered by wells. Nor is there pasture land other than the common waste. Cattle graze on the patta lands, unoccupied assessed lands and communal porambokes. There is no wood or forest near the village.

DETAILS OF THE COMMUNAL PORAMBOKE.

	Acres.		Acres.
River ..	61.33	Cart-track ..	2.76
Canal ..	52.32	Road ..	2.05
Village site ..	23.53	Road and canal ..	1.12
Tank ..	11.96	Burial ground ..	1.08
Threshing floor ..	10.15	Street ..	1.02
Odai ..	6.50	Bunds ..	0.80
Footpath ..	5.79	Temple ..	0.44

There are eight threshing floors in the village, as against 19 noted in the previous survey, perhaps because of more common-waste and other private wastes within the Natham being used as threshing floors.

Irrigation.

There are eleven tanks in the village, of which four are seed-bed tanks. Only four tanks have water at all times. Three tanks are reserved for bathing and drinking purposes. Two tanks were sunk within the past ten years, one by the Taluk Board and the other by the Department of Health. There are no wells in the village and the practice of sinking temporary wells during summer, mentioned in the previous survey, is not now prevalent. There are no other sources of water-supply for purposes of irrigation than the channels taking off from the Kaduvayar. The Kudirai Sevaganor Poduvaikal irrigates 818.3 acres. The Therkodi Poduvaikal irrigates 158.3 acres as per 1935 reclassification.

There are three methods of irrigation:— (1) by *flow* directly from the channel to the level lands; (2) by *baling* where lands happen to be on a higher level and the water cannot flow directly, the ryot makes arrangements for water lift, when a remission of Re. 1 is allowed per acre called the baling remission; and (3) by *percolation*. An excess charge is made in this case, the present rate being Rs. 7-8-0 per acre.

Of the total cultivated area, 91.11 acres (of which 55.55 acres are dry and 35.56 acres are wet) remain uncultivated. Of the 91.11 acres of uncultivated land, 22.60 acres are *thidal* or high-lands that have to be levelled down if they are to be brought under cultivation. This is quite possible and worth the expense, as fodder or other dry crops can be grown on these lands. Apart from the area under *thidal*, there are bits of land which are, no doubt, fit for cultivation but are left fallow, because they are held under joint pattas. It is not easy for anyone to cultivate the extent of land one is entitled to, as long as subdivision does not take place or the co-sharers of the holding do not agree.

Occupation of land. Of the total cultivated land, only 105.90 acres are sub-let and cultivated by tenants. The rest are cultivated by the pattadars themselves. There are 215 pattadars for the whole village, out of whom 90 pattadars are non-residents and 6 have gone to the Straits Settlements. And so, there are only 119 resident pattadars (including the seven local temple deities). All the resident pattadars cultivate their lands directly and on

the whole there are 22 non-cultivating pattadars. There are ten tenants who own no land and the agricultural workers (excluding the pannayals) who neither rent nor own land number eight.

DISTRIBUTION OF PLOTS ACCORDING TO SIZE.

Size.	No. of plots.	Per cent.	Area	Per cent.
			(Acres).	
1 Cent and below 5 Cents	47	4.82	12.04	1.14
5 Cents " 10 "	100	10.25	18.60	1.82
10 " " 20 "	156	15.98	20.77	2.00
20 " " 30 "	82	8.40	19.56	1.90
30 " " 40 "	51	5.23	16.84	1.62
40 " " 50 "	44	4.51	19.62	1.90
50 " " 1 Acre	164	16.80	94.15	8.95
1 Acre " 2 Acres	151	15.47	196.27	18.67
2 Acres " 3 "	83	8.50	198.88	18.95
3 " " 4 "	37	3.79	124.98	11.90
4 " " 5 "	26	2.66	114.38	10.86
5 " " 6 "	21	2.15	116.20	11.05
6 " " 7 "	11	1.13	70.57	6.76
7 " " 8 "	1	0.10	7.24	0.66
8 " " 9 "	—	—	—	—
9 " " 10 "	2	0.20	19.54	1.90
	976		1049.64	

Thus for an area of 1050 acres, there are 976 plots. The smallest plot is 1 cent and the largest plot is 9.96 acres. The average size is 1.08 acres. 81.5 per cent of plots covering 38 per cent of the total area are below 2 acres.

SIZES OF THE PROPERTIES ACCORDING TO KIST PAID IN 1937

Pattas paying.	Number.			Per cent.	Area	Assessment
	Single.	Joint.	Total.			
					(Acres).	Rs. A.
Re. 1 & less	16	19	35	16.28	5.34	16—2
Rs. 10 & less but over Re. 1	32	30	62	28.84	54.45	323—11
Rs. 30 & less " Rs. 10	51	16	67	31.16	175.74	1,176—1
Rs. 50 & less " Rs. 30	16	1	17	7.90	97.39	653—10
Rs. 100 & less " Rs. 50	20	4	24	11.16	269.69	1,715—11
Rs. 250 & less " Rs. 100	7	—	7	3.26	157.63	1,101—5
Rs. 500 & less " Rs. 250	1	—	1	0.47	60.57	374—8
Rs. 1,000 & less " Rs. 500	1	1	2	0.93	228.83	1,533—1
Total.	144	71	215		1049.64	6,894—1

There is none paying kist of over Rs. 860.

SIZE OF THE PROPERTIES ACCORDING TO KIST IN THE YEAR
OF RE-SETTLEMENT (1924).

Pattas paying.	Number.			Per cent.	Area Assessment	
	Single.	Joint.	Total.			
					(Acres).	Rs. A.
Re. 1 & less	13	13	26	15.29	3.84	12-10
Rs. 10 & less but over Re. 1	37	19	56	32.94	52.58	290-13
Rs. 30 & less „ Rs. 10	46	6	52	30.59	160.65	917-8
Rs. 50 & less „ Rs. 30	10	—	10	5.88	69.76	395-11
Rs. 100 & less „ Rs. 50	13	—	13	7.64	169.53	869-4
Rs. 250 & less „ Rs. 100	9	—	9	5.29	222.12	1,293-5
Rs. 500 & less „ Rs. 250	2	—	2	1.18	133.74	768-11
Rs. 1,000 & less „ Rs. 500	2	—	2	1.18	236.51	1,351-5
Total	132	38	170		1048.73	5,899-3

Thus 45 per cent of Pattadars pay kist of below Rs. 10 each. 76 per cent of them pay below Rs. 30. Before Resettlement (1924) corresponding percentages were 48 and 79.

SIZES OF HOLDINGS AND THEIR ASSESSMENT IN 1937

Holdings.	Number	Percent	Area.	Assessment
			Acres	Rs. A.
Below 1 acre	72	33.49	27.23	140 12
Between 1 and 10 acres	119	55.35	392.79	2626 0
„ 10 „ 25 „	18	8.37	251.60	1728 5
„ 25 „ 50 „	3	1.40	88.62	491 7
„ 50 „ 100 „	2	0.93	159.69	1047 2
„ 100 „ 250 „	1	0.46	129.71	860 7
Total	215		1049.64	6894 1

88.84 p.c. of the holdings are below 10 acres. The average holding in the village is 4.88 acres.

Rents.—Rents are usually paid in kind. Lands are let mostly on the system of *Kuttagai* as only the failure of seasonal rains necessitates the lease on *Varam*. On lands of inferior type also where the yield is uncertain *varam* is the rule. In the latter case, for every one hundred *kalams*¹ harvested, the tenant gets 30 *kalams*. The prevailing rates of *kuttagai* vary from 6 to 8 *kalams*

1. 2 *Padis* (or Madras measures of 120 *tolas* each)
= 1 *Marakkal*.
12 *Marakkals* = 1 *Kalam*.

per *Ma*,² according to the fertility of the soil. The average may be worked at 7½ *kalams* per *Ma*, or 150 *kalams* per *Veli*, i.e. 23 *kalams* per acre. The straw entirely belongs to the tenant either on *Varam* or *Kuttagai*, except a small quantity which is given to the landlord for storing paddy. In certain cases advances of paddy are made to the extent of 20 *kalams*, but this will be deducted on the threshing floor when the produce is shared and only the balance will be given to the tenant. When a tenant takes a larger holding on lease he is advanced from Rs. 50 to 60 for purchasing bulls and this loan bears no interest. He will have to re-pay the amount within the stipulated time. No advances for manure, seeds etc. are made by the landlord. The tenant has to incur all the costs of cultivation and the land-owner pays only the kist. The agreements are either oral or written.

The lease is generally for one year, and automatically renewed at the end. It must be noted that even though the tenant might have taken a holding on *Kuttagai*, if the crops fail, produce is shared on the *varam* principle.

Though the system of *Kuttagai* is meant to give the tenants an opportunity to improve the land and profit by the increased yield, actually the reverse is the case, because the tenants generally have no capital to meet the initial costs of cultivation. The short period of the lease offers no incentive either.

Land Revenue. The total kist of the village for the current *Fasli* (1346) is Rs. 6911-9-0.

LAND ASSESSMENT ON OCCUPIED LANDS AT DIFFERENT PERIODS.

Year.	Total Kist	Increase over the previous
	Rs. A.	Rs. A.
Before Resettlement <i>Fasli</i> 1331 (1922)	4318 0	
<i>Fasli</i> 1332 (1923)	4990 9	+672 9
At Resettlement <i>Fasli</i> 1333 (1924)	5899 3	+908 10
On Reclassification <i>Fasli</i> 1344 (1935)	6911 9	+1012 6

The pre-settlement rates varied from Rs. 0-8-0 to Rs. 2-6-0 an acre on dry lands and from Rs. 3-2-0 to Rs. 5-12-0 on wet single

2. 1 *Kuli* = 144 Sq. ft.
100 *Kulis* = 1 *Ma*. = about ⅓ acre.
20 *Mas.* = 1 *Veli*. = 6⅔ acres.

crop lands. The Settlement Rates (1924) varied from Rs. 1-8-0 to Rs. 2-8-0 an acre on dry lands and from Rs. 4 to Rs. 6 an acre on wet single crop lands. The Reclassification rates (1935) vary from Rs. 1-8-0 to Rs. 2-8-0 an acre on dry lands, and from Rs. 5-4-0 to Rs. 8-4-0 an acre on wet single crop lands. Inam lands (charitable) pay a quit rent of as. 4 per acre. The total kist on wet lands amounted to Rs. 6732-12-0; on dry lands Rs. 161-5-0; on assessed waste Rs. 9-12-0 and on Inam lands Rs. 7-12-0.

ASSESSMENT ON DIFFERENT CLASSES OF SOIL

Wet or Dry	Description of soil	Taram	Rate per Acre.	Area	Assessment.
			Rs. A.	Acres.	Rs. A.
Wet	Good regar clay (3-2)	7	7 2	526-08	3751 3
"	Inferior regar clay (3-4)	9	5 4	31 15	163 10
"	Ordinary regar clay (3-3)	8	5 15	282-78	1688 4
"	Good loamy regar series (4-2)	6	8 4	137-10	1130 3
Dry	" (4-2)	6	2 6	37-00	88 15
"	Good clay regar series (3-2)	5	3 0	7-51	22 7
"	Inferior clay regar series (3-4)	7	1 12	27-80	48 10
"	Ord. clay regar series (3-3)	6	2 6	0-22	0 8
				1049-64	6894 1

RATES AT RESETTLEMENT OF 1924

Wet or Dry	Description of soil	Taram	Rate per acre	Area	Assessment.
			Rs. A.	Acres	Rs. A.
Wet	3-2	8	5 15	537-00	3189 7
"	3-3	9	5 4	271-46	1425 10
"	3-4	10	4 12	31-15	148 0
"	4-2	7	7 2	136-99	976 9
Dry	3-2	5	3 0	7-51	22 7
"	3-3	6	2 6	0-22	0 8
"	3-4	7	1 12	27-12	47 7
"	4-2	6	2 6	37-28	89 3
				1048-73	5890 3

The principle followed in reclassifying the soil was to increase the taram of the land by one degree and assess it as per the rate for that taram. Thus the rates have been increased as follows:

RECLASSIFICATION AND CHANGE OF RATES (1935)

Soil	Taram	Rate	has been changed to	Soil	Taram	Rate
		Rs. A.				Rs. A.
3-2	8	5 15	"	3-2	7	7 2
3-3	9	5 4	"	3-3	8	5 15
3-4	10	4 12	"	3-4	9	5 4
4-2	7	7 2	"	4-2	6	8 4

On reclassification in 1935, 2-13 acres of wet lands were classed as dry.

The kist is collected in 3 instalments now: February, March and April. Four years back there were 4 remittances from the village. The Khar harvest is done in January, and the karnam says that collection work is difficult in February, and crops have to be sold in a hurry. In the present fasli, there is no balance due but in the previous two years, there were arrears of kist of Rs. 133 and Rs. 169.

There are eight persons who combine agriculture with other main occupations. Two of them act as commission merchants for the disposal of paddy. Four of them carry on money-lending business in the village and the other two are the local karnam and the village Munsiff.

Agriculture.

AREA OF OCCUPIED LANDS UNDER EACH OF THE PRINCIPAL CROPS

Crops	Fasli 1346 (1936-37)	Fasli 1345 (1935-36)	Fasli 1332 (1923-24)
Paddy	Acres	Acres	Acres
Khar	2-78	0-42	
Sandhikhar	38-13	41-25	
Kuruvai	62-02	60-70	
Samba	842-00	835-82	
Total	944-93	938-19	878-58
Cholam and Ragi	0-18	0-01	0-05
Pulses			
Blackgram	0-55	0-34	
Greengram	3-41	3-57	1-55
Cowgram	0-06	0-13	
Total	4-02	4-04	

Crops.	Fasli 1346 (1936-37)	Fasli 1345 (1935-36)	Fasli 1332 (1922-23)
<i>Oilseeds</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>
Gingeli	0.10	..	1.94
Castor	..	..	0.31
Mahua (Illuppai)	0.01	0.01	..
Others	..	..	0.07
Total	0.11	0.01	2.32
Chillies	2.00	1.44	1.97
Turmeric	0.15	..	..
Plantains	1.11	1.53	0.81
Vegetables	1.09	1.16	0.42
Fruit trees	1.10	1.02	1.64
Cocanuts	1.22	1.22	..
Palmyra	0.03	0.03	..
Areca palm	0.01	0.01	..
Flowers	0.11	0.13	..
Bamboos	2.21	2.28	..
All other crops	4.15	1.77	1.82
Grand Total	962.42	952.84	889.16

The whole of the area actually yields only one crop per annum. More than 50 per cent of the lands can bear a second crop. Of the lands classed as dry 2.43 acres are cultivated with paddy.

Area of minor Inam lands under cultivation. Of the total extent of 3.25 acres, 0.56 acre only is cultivated with the following crops:

Paddy		Acres.		Acres.
Samba	0.26		Chillies	0.04
Kuruvai	0.14	0.40	Vegetables	0.01
Plantains	<u>0.01</u>	0.01	Mahua	0.10
		Total	0.56	

Of the lands classed as Assessed Waste (3.47 acres) 13 cents are assigned for cultivation and are cultivated with paddy.

CUSTOMARY CROP CULTIVATION.

Samba	..	From	September to February.
"	..	"	October to February.
Kuruvai	..	"	December to February.
"	..	"	August to October.
Khar	..	"	August to January.
Sakhar or sandikhar	..	"	Aug.-Sep. to January.

Ploughing begins in July and generally lasts up to the middle of October which can be taken as the ploughing season, and sowing is completed within fifteen days on all the lands, and transplanting for samba is done after forty-five days. There are a few who broad-cast the seed and leave the crop in the seed-bed for a period of more than three months due to inconvenience of transplanting. It takes on an average four days to plough one acre with one plough. After ploughing till the land becomes even and is in a puddled state, the seed is sown, which takes three hours. In a day one acre can be transplanted with twelve labourers. Eight labourers are required to reap one acre in a single day. Single transplantation is not customary in the village. Only the old types of ploughs are used and four to five acres are cultivated per plough. For baling, the primitive and common type of water-lift is used. Oil engines were never tried in the village.

Manuring.

More than 50 per cent of the quantity of cattle dung collected is used for fuel. Cattle urine is not utilised, nor are green manures, chemical manures or any animal manures used. Chemical manure was tried by two families and given up after two years. They say that the use of chemical manure is not profitable unless applied regularly every year in increased quantities. The rate for penning 300 cows is Rs. 3 and 2 marakkals of paddy per night; for penning 100 sheep the fee is Rs. 2. There are only two sheep-folds in the village.

Babul (Karuvellam) trees which are found in plenty in the village provide wood for fuel as well as for the simple agricultural implements. Timber is obtained from Negapatam for house building.

There have been no recent improvements in the methods of cultivation, and the villagers being very conservative, it will be a difficult task to induce a majority of them to adopt new methods. But there are about twelve persons interested in agricultural improvements and if by proper demonstration they are induced to adopt new methods of cultivation, it is certain that others also would follow in the wake.

Garden Cultivation. There are about 600 coconut trees in the village, and the yield is estimated at 75 coconuts per tree per year. The Karnam informed me that he planted 35 trees some ten years ago and only 20 of them now yield. The value of the yield of an acre under plantains is Rs. 250. An acre of land can be planted with 1000 plantains.

Insect pests. The chief insect pests are the *kuruthupuchi* and the *kallipuchi* that destroy the paddy crops. The Samba crops were affected with the pest last year. I was informed that a few insects were even caught and sent to the Agricultural Demonstrator's Office. The remedy suggested was to sow a different variety of seeds. This advice was not followed.

Live-Stock.

	1937.	1916.
Working Oxen	222	191
Cows yielding milk	151	124
Buffaloes used for draught purposes	12	8
She-buffaloes	60	51
Young stock of the above species	131	not given
Sheep and goats	259	427

Besides the above there are two breeding bulls in the village. There are no bulls used both for breeding and work. In 1935 there were two she-buffaloes used for work but now none. Asses, mules, donkeys, and pigs are not found in the village. A pair of oxen would be required for every 16 *mas*. (about 5 acres).

There are 52 carts and 128 ploughs in the village while in 1935 there were 48 carts and 115 ploughs. Ploughs, carts and bullocks are not hired out. Poultry-keeping is not a permanent feature in the village.

Cattle diseases.

The chief diseases are Vekkai (Rinderpest), Adaippan, and Yoke-galls. The first two diseases visit the village at intervals of 3 or 4 years, when almost all the animals attacked succumb to the disease. In 1932, 1928, and 1925 there were 7, 14, and 7 deaths respectively due to adaippan and in 1930 there were 68 deaths due to Vekkai. The villagers do not get any assistance from the Veterinary Department.

Though there are two breeding bulls in the village owned by two different land-lords, the villagers do not take advantage of them but purchase their cattle from outside instead of trying to breed locally. The breeds in this area are known as "Tanjore Mottais," the offsprings of the "Jathimadu." They are purchased through the local broker (tharagan) from private owners. A few purchase them at the cattle fairs at Mannargudi and Tiruthurai-poondi. The average price of a pair of bullocks used for field work is Rs. 75 and that of a superior type used for carts, Rs. 100. They serve for a period of not less than five years and are sold

away afterwards for Rs. 25. The average price of a cow is Rs. 30 and that of a she-buffalo Rs. 25. The cows yield milk at half-a-measure (Madras) per day and the she buffaloes three-fourths to one measure. The price of milk is one anna per seer, or annas five per Madras measure.

Straw forms the chief food for cattle and is available at all times. In addition half the number of bullocks in the village are fed on cotton seeds mixed with bran and gram. All the cows and she-buffaloes are given cotton seeds mixed with a little quantity of oil-cakes, bran and gram. The average cost of maintaining the milch cattle is two annas per day. The ration of food given to the bullocks that work in the fields is not regular, but differs according to the periods when they have work or not. They subsist on straw only in the off-season (four months at intervals) when they are not used for any other purpose. Hence the cost of maintenance of a pair of bullocks can be estimated only at four annas per day. The bullocks that pull carts have work almost throughout the year and the cost of maintenance per head works out at 2 as 6 pies per day.

Sub-division and Fragmentation of Holdings.

After Resettlement in 1924 the cases of sub-divisions were not frequent. Hence if a major portion of the holdings are too small for the maintenance of the family, it is not due to any considerable extent to recent sub-division. A close examination of the holdings shows that there had been sub-divisions to a great extent previous to resettlement. All the inconveniences attendant upon fragmentation are present here in spite of the system of *Parivarthanai* (exchange of lands to secure contiguous plots) that had been noted in this village.³ There has been no case of *Parivarthanai* in the past ten years. The small pattadar has no other avenue for employment, except working under the well-to-do land lords as field labourer. Here too the chance of his getting regular work is uncertain as every landlord has his own pannayals. Possessing neither initiative nor training nor resources to take up any other occupation, the small pattadar really leads a miserable life.

It cannot be said that any permanent improvement like the sinking of a well has actually been prevented by fragmentation

3. It was a difficult business even before; the rich owner would not part with any plot to oblige the poor neighbour; and the poor were very much at the mercy of rich neighbours.—*South Indian Villages*, p. 80.

alone. But when there arises the desire for improvement, excessive fragmentation and sub-division of lands will surely prove a serious handicap to introducing new methods of cultivation.

CASES OF SUBDIVISION OF HOLDINGS SINCE 1924.

Year.	Survey number.	Extent Acres.	Assessment.	New Survey number.	Extent. Acres.	Assessment at settlement rate.
			Rs. A.			Rs. A.
1925	22-1	0.51	3-0	22-1a	0.12	0-11
				22-1b	0.39	2-5
1930	33-2	2.58	15-5	33-2a	1.26	7-8
				33-2b	1.32	7-13
1931	12-2	2.22	13-3	12-2a	1.76	10-7
				12-2b	0.46	2-12
1931	12-3	1.20	7-2	12-3a	0.43	2-9
				12-3b	0.77	4-9
1935	38-1	4.48	31-15	38-1a	3.65	26-0
				38-1b	0.83	5-15
1935	60-1	3.24	23-1	60-1a	0.90	6-7
				60-1b	2.34	16-11

A FEW CASES OF FRAGMENTATION OF HOLDINGS

I. N. G. Ramiah Nayudu. The whole extent of 99.12 acres is distributed over 57 different places.

Survey No.	Total sub-divisions.	Total extent.	The plot of the holder.	Extent.
		Acres.		Acres.
2	3	6.83	2-3	0.96
			2-1	5.65
86	9	4.32	86-2	0.07
98	39	13.92	98-19b	0.01
			98-22	0.06
			98-23a	0.02
128	10	3.86	128-4	0.07
			128-5	0.89
130	24	9.00	130-2	0.27
			130-12	0.12
191	3	4.98	191-3	0.38
			191-1	4.38
193	6	5.24	193-3	2.01
			193-5	0.07
249	50	12.95	249-50	0.47

Survey No.	Total sub-divisions.	Total extent.	The plot of the holder.	Extent.
		Acres.		Acres.
250	31	15.71	250-4	0.30
			250-6	0.05
			250-8	0.09
			250-12	0.85
33	3	4.50	33-3	0.88
80	4	5.14	80-3	1.28
90	4	3.94	90-4	1.72
92	10	6.97	92-1	2.44
103	19	5.66	103-19	0.20
104	20	6.00	104-11	1.06
106	16	4.25	106-6	0.94
107	9	7.55	107-9	0.82
126	4	5.96	126-2	3.42
			126-3	2.12
132	8	3.02	132-4	0.13
133	15	5.16	133-14	1.15
135	10	6.63	135-1	0.04
149	4	5.49	149-2	2.52
150	16	7.28	150-14	0.90
155	5	6.42	155-2	3.24
163	6	7.18	163-2	1.16
164	4	4.94	164-1	2.35
			164-3	1.36
169	1	5.26		5.26
170	2	6.04	170-1	5.88 (170-2 is the channel)
189	2	6.82	189-1	5.68 (189-2 „)
190	2	5.30	190-1	5.07 (190-2 „)
192	2	7.28	192-1	6.88 (192-2 „)
194	4	5.56	194-4	0.10
195	7	6.45	195-5	0.36
			195-7	0.05
199	2	5.70	199-2	5.47 (199-1 „)
200	3	4.64	200-2	0.10
201	4	6.19	201-1	3.46
			201-3	0.55
207	5	7.40	207-2	0.65
214	6	5.08	214-5	1.60
215	6	5.07	215-6	0.78
225	2	5.23	225-2	2.56
226	3	4.45	226-3	3.09
233	2	4.07	233-2	3.76 (233-1 „)
237	5	6.53	237-1	3.10
239	20	11.17	239-4	0.27

Survey No.	Total sub-divisions.	Total extent.	The plot of the holder.	Extent.
		Acres.		Acres.
II. <i>Santhanakrishna Naidu</i> . The total extent of 13.27 acres is distributed over 15 different plots.				
103	19	5.66	103-10	0.09
14	5	5.64	14-2	2.16
64	6	7.59	64-2	0.58
81	8	7.78	81-5	0.28
95	15	7.73	95-2	2.30
106	16	4.25	106-4	0.24
			106-5	0.44
131	10	4.79	131-3	0.97
133	15	5.16	133-1	0.66
			133-3	0.39
135	10	6.63	135-6	0.60
228	6	6.40	228-6	0.80
234	7	5.56	234-3	0.28
238	1	2.15	238	2.15
239	20	11.17	239-18	1.33
III. <i>R. Gopala Pillai</i> . The total extent of 7.45 acres is distributed over 10 different plots.				
98	39	13.92	98-36	0.05
40	8	4.57	40-6	0.81
55	4	4.95	55-3	1.04
56	4	4.76	56-4	2.11
77	7	5.14	77-4	1.74
78	10	5.80	78-1	0.27
			78-9	1.02
88	6	6.31	88-3	0.10
98	39	13.92	98-7	0.20
			98-3	0.11
IV. <i>Ramachandra Ayyar</i> . The total extent of 3.73 acres is distributed over 5 different plots.				
247	24	10.19	247-5	0.10
			247-6	0.23
55	4	4.95	55-2	1.45
125	5	5.87	125-4	1.62
135	10	6.63	135-7	0.33
V. <i>N. Janaki</i> . The total extent of 1.49 acres is scattered over 3 different plots.				
249	50	12.95	249-48	0.22
121	8	5.98	121-4	0.77
150	16	7.28	150-1	0.50

Survey No.	Total sub-divisions.	Total extent.	The plot of the holder.	Extent.
		Acres.		Acres.
VI. <i>Venugopala Naidu</i> . The whole extent of 2.06 acres is scattered over five different plots.				
103	19	5.66	103-15	0.08
215	6	5.07	215-3	0.77
230	24	11.50	230-20	1.13
239	20	11.17	239-12	0.07
215	6	5.07	215-1B	0.01
VII. <i>Panchanatham Pillai</i> . The total extent of 2.03 acres is scattered over three different plots.				
249	50	12.95	249-22	0.09
19	7	7.04	19-6	0.58
87	4	5.52	87-2	1.36
VIII. <i>K. Narayanaswami Naidu</i> . The total extent of 2.93 acres is scattered over three plots.				
250	31	15.71	250-16	0.12
125	5	5.87	125-3	0.28
163	6	7.18	163-6	2.53

The Village Streets and Houses.

The area of the village site is 28.53 acres. The east street alone is solely occupied by the Nayudu caste and in the other streets all the castes including some families of Nayudus live side by side. There is a separate portion called the Aghaharam or Sannadhi street facing the Perumal Koil. There are four houses and one thatched hut with a cemented pial in the Aghaharam that belong to the temple, and there are only two houses that are owned by Brahmin families. Of the houses belonging to the temple, one is taken on lease by the local Karnam at Rs. 6 per annum for 40 years, with right to rebuild the house and rent it. He is entitled to the value of the superstructure at the end of the period. He uses the thatched hut mentioned above as his office-room. There are also two Naidu families that now reside in the Aghaharam rent free. They have dedicated their lives to the service of the temple by collecting funds. Most of the caste-houses have pandals (of cocoanut leaves) erected in front.

The depressed classes are scattered in four corners and they are all at a considerable distance from each other. The reason

seems to be that most of them being pannayals, the landlords so built the huts as to be situated near the lands on which they had to work. The dwellings of the depressed classes are very incommensurable and the surroundings extremely untidy. The average area of the site of a hut is 375 sq. ft. There are no tiled houses in any of the four Cheries.

The total number of houses in the caste-village is 114, out of which 59 are thatched, 52 tiled and 3 terraced, and the total number in the Paracheri is 102, all of them thatched. Of the total number of 216 houses only 213 are occupied. The maximum distance of cultivated lands from the home of the cultivator is one mile.

More than 50 per cent of the houses have gardens attached, where some of them grow vegetables. There are 12 houses where crotons and other flower plants adorn the front.

VEGETABLES GROWN WITHIN THE VILLAGE SITE.

Name of Vegetables or crops.	Area	Name of Vegetables or crops.	Area
	Acres.		Acres.
Elephant yam (karanai)	.. 0.06	Plantains	.. 0.08
Drumsticks (murungai)	.. 0.02	Nellikai	.. 0.02
Beans (avarai)	.. 0.03	Country orange (narathai).	0.04
Snake gourd (podai)	.. 0.12	Cocoanuts	.. 0.06
Cluster beans (kothavarai)	.. 0.03	Tamarind	.. 0.12
Ladies' finger (vendai)	.. 0.01	Black gram	.. 0.04
Bitter Gourd (pagai)	.. 0.02	Green gram	.. 0.22
Greens (keerai)	.. 0.03		—
Brinjals (kathiri)	.. 0.01		.. 1.73
Chillies (milagai)	.. 0.82		

Thus the extent of land devoted to vegetables of all kinds is 1.73 acres of which tree crops occupy 24 cents. The total area of land that can be brought under garden or vegetable cultivation within the village site is 6.80 acres. The extent actually grown with the vegetables mentioned above is divided among 51 pattadars.

Subsidiary Industries.

There are no subsidiary industries in the village. It was stated in the previous survey that four carpenters had combined to make carts locally for sale. I am informed that the group broke up in 1920, and there is only one now who is making carts for the

village. The minimum price of a cart is Rs. 60 and the maximum Rs. 100.

The Village Trade

The well-to-do in the village who number only about 20 purchase the commodities required for consumption and production at Negapatam. The rest buy them at the weekly shandies of Kottur and Kilayur. The village shops, of which there are four in number, stock all the ordinary articles of consumption including coffee seeds and tea. Articles are sold in the village in exchange for grain. Vendors of vegetables and fruits, and hawkers of clothing also visit the village at frequent intervals.

Paddy is the chief product sold out, and 12,000 kalams of paddy are yearly disposed of and 8,000 kalams reserved for consumption locally. The prevailing price of samba is from Rs. 1-5-0 to Rs. 1-7-0 per kalam (24 Madras measures). The average price of the paddy sold out can be modestly estimated at Re. 1-2-0 per kalam. The nearest market for goods is Negapatam eight miles away and the nearest railway station is Sikkil at a distance of six miles. There are two commission merchants in the village, of whom only one buys paddy on a large scale. It is not incumbent upon the ryots to sell the produce to the local dealer; and 25 per cent of them sell the paddy to dealers who come from neighbouring villages. There is no forced sale of produce due to financing by the trader and it is one good feature that the seller can choose between buyers. But the price is the same, whether the produce is sold to the local dealer or to the outsider who may go to the village.

Communications

The village is not well connected by road with the commercial centre of Negapatam. There is no bridge over the Vellayar in the south, which must be crossed to proceed to Kilayur or Velanganni which attracts a regular stream of pedestrians every day. At the southern boundary of Palakkurichi the Vellayar and the Chandra-nadhi join together and this is the place where people on either side cross the river. This is a dangerous spot especially for the labourers (both men and women) in the Christian village of Kadathilakarai on the other side, who work on the border lands of the village and must perforce swim across the river often times. One cannot definitely know when the water will be full in the river or low as the shutters are closed and opened without notice. The roads are in a very bad condition, narrow and tortuous.

Total Agricultural Production and Income of the Village.

Products.	Value.
<i>Vegetable Products—</i>	
Paddy (20,000 kalams)	.. Rs. 22,500
Pulses (150 measures)	.. „ 25
Cocoanuts (20,000)	.. „ 600
Plantains	.. „ 250
Others (Chillies, vegetables, bamboos, fruits, etc.)	.. „ 100
Total	.. „ 23,475
<i>Animal Products.—</i>	
Milk, curd and ghee	.. „ 12,500
Cattle manure (160 cartloads)	.. „ 500
Fish	.. „ 10
Hides and skins, etc.	.. „ 10
Total	.. „ 13,020
Grand total	.. „ 36,495

Income from Non-Agricultural Occupations.

The cartage is Re. 1 to Negapatam and As. 12 to the Kivalur or Sikkil Railway Station. For carrying paddy, it is as. 2 per bag. There are 16 carts available for hire in the village. The head-load cooly is paid from as. 3 to 6. The blacksmith and the carpenter get 6 marakkals per veli from each family. The barber and washerman get their remuneration both in cash and grain. The barber gets from 1 anna to 2 annas according to the capacity of the payer and the washerman charges at three pies per cloth. If in grain, they get from 1½ to 5 kalams from the caste-families. On the whole a family of barber and washerman will get 120 kalams per annum. The Chakkiliyans in this village do not pursue their hereditary occupation of mending shoes; they work as field labourers on a daily wage of two measures. Nor do they take the carcasses of dead animals. They are given away to the Parayas. Even the Pallars think themselves superior and do not touch them. One Mirasdar told me that when paying wages or measuring grain to the Pannayals, he should not give precedence to the Palla or the Paraya but should pay them at the same time, as each thinks his is the superior caste.

There is no priest in the village; hence a Smartha Brahmin is got from the village of Tirukuvalai, for performing the annual ceremonies (Srardhas) and marriages. The Nayudus here have

their own religious head a Vaishnavite Brahmin at Addangi (in the Telugu districts). There is no one residing here at present.

Total Income of the Village.

	Rs.
Agricultural	.. 28,275
Live-stock and other animal products	.. 13,000
Non-agricultural occupations	.. 3,400
Total	.. 44,675
Land revenue	.. 6,912
Net income	.. 37,763
Per capita income	.. 43 7 0

TRANSACTIONS OF THE VILLAGE POST OFFICE.

Year.	Money orders.	V.P.P.	Registered letters.	Unregistered parcels.	Insured articles.	R. M. O.
	No. Value.	No. Value.			No. Value.	No. Value.
	Rs. A.	Rs. A.			Rs.	Rs. A.
1933	22 315-13	4 112-4	57	2	2 300	1 163-3
1934	40 607-8	5 28-7	62	1	8 1,740	3 358-8
1935	26 619-8	9 27-15	42	-	3 850	4 440-15
1936	49 1,174-15	17 82-14	42	1	1 200	2 308-5
1937 (May)	18 265-3	2 6-6	23	-	-	3 412-8

REMITTANCES TO THE VILLAGE—CASTE-WAR.

(includes both Insured and M.O.'s)

Caste of the payee.	1933.	1934.	1935.	1936.	1937.
	No. Value.	No. Value.	No. Value.	No. Value.	No. Value.
	Rs. A.	Rs. A.	Rs. A.	Rs. A.	Rs. A.
Nayudu.	15 327-11	22 376-10	20 467-8	34 700-3	11 135-3
Pillai.	3 12-12	4 38-6	1 2-0	1 7-12	3 43-0
Mohammad.	1 7-14	-	-	-	-
Chettiar.	3 230-0	11 1,780-0	6 920-0	1 5-0	-
Padayachi.	2 37-8	4 61-0	1 50-0	7 639-0	1 2-0
Asari.	-	1 20-0	-	1 1-0	-
Brahmin.	-	6 71-8	-	6 22-0	1 50-0
Paraya.	-	-	1 30-0	-	1 15-0
Edayar.	-	-	-	-	1 20-0
Total	24 615-13	48 2,347-8	29 1,469-8	50 1,374-15	18 265-3

REMITTANCES TO THE VILLAGE FROM OUTSIDE BRITISH INDIA
(SINGAPORE AND KUALALUMPUR).

Year.	No.	Value. Rs.	Year.	No.	Value. Rs.
1933	-	-	1936	7	835
1934	4	150	1937	2	35
1935	2	38			

SAVINGS

Of the remittances to the village, the approximate saving out of earnings made outside was estimated as follows:—

	Rs.	
For 1933	400	or 65.5% of the total amount recd. for the year.
" 1934	1,800	" 76.6%
" 1935	950	" 66.1%
" 1936	800	" 58.1%
" 1937	35	" 13.2%
(May)		

REMITTANCES FROM THE VILLAGE (BY MONEY ORDER).

Year.	No. of M.O.'s.	Total sent.	Lawyer's Fees, etc.	Education.	News- papers.
1934	25	Rs. 305-11	Rs. 140	Rs. —	Rs. —
1935	28	" 326-12	" 50	" 10	" —
1936	35	" 378-15	" 30	" 20	" 1-0
1937*	29	" 535-13	" 15	" 79	" 6-4

(* up to April)

There is one large remittance of Rs. 200 in 1937 which was for business purposes, the payee being in the service of a Film Company. Other remittances are to relations etc. As for the amount under education, it was sent to defray the expenses of only one boy who is receiving university education.

There are about 25 Savings Bank Accounts with the post office to the extent of Rs. 1,000. The monthly sale of postage stamps etc. is estimated by the Postmaster at Rs. 25.

The (extra departmental) Post Office was established in the village 30 years ago and it is at present the only beneficent institution here. It serves 12 villages, to a maximum distance of 2½ miles. There is only one postman for the Office, who is not provided with conveyance.

ECONOMIC CONDITION OF THE VILLAGERS

The Padiyal: Padiyals or Pannayals form the labouring class of whom there are 95 families. Wages are paid in kind supplemented by cash occasionally. A pannayal, when he binds himself to a land-owner, gets Rs. 75 for his marriage. The landlord also builds a hut for him. This is the nucleus of the perpetual debt of the pannayal who becomes a territorial serf. He can be transferred with the land and the landlord can get him back even if he runs away. Only 75 *kulis* (one-fourth of an acre) of land are given to him for cultivation for his own family. The expenses of cultivation are borne by the landlord. Besides he gets one kalam of paddy for every ten kalams that he may reap in a day. The rate of wages for reaping is 2½ measures for every kalam that is reaped. Such work he has for forty-five days in a year. At intervals of two or three days he is given annas two to three for drinking, or he may take two marakkals of grain. On occasions, ceremonies and social functions he is rewarded in grain and cash according to the generosity of the landlord. On the whole a pannayal can get at the most 60 kalams of grain and Rs. 8 in cash per annum, i.e. about Rs. 75 in all. The landlords complain that it has become very difficult nowadays to extract work from pannayals, as they fight for more leisure. At the time of my visit I was told that one Pannayal had run away and the master was trying to get him back by force. There is no unemployment among agricultural labourers or educated persons.

The pattadars spend their time more in supervision work. Except those that have large holdings, they have work only for three to four hours in a day, and the labourers have work for 10 hours. Sixty percent of the pattadars can take to some subsidiary occupation instead of idling away the time as they do now.

Indebtedness. There are six who have liquid assets to the extent of Rs. 20,000. Loans have been granted by them to neighbours in the village and outside. The total indebtedness of the village is three lakhs of rupees or 43 times the land-revenue demand. One has been adjudicated for a debt of Rs. 75,000. There are only 10, who are completely free from debt and 15 more whose debts are not heavy. The rate of interest charged by the money-lenders is nothing very high; it is, for secured loans 9 per cent and for unsecured loans 12 per cent. But the majority of borrowers have not been able to pay back, and now find it difficult even to pay interest dues.

RATES OF INTEREST ON PRONOTES DURING THE ABOVE PERIOD

Year.	Maximum rate	Minimum rate	Year.	Maximum rate	Minimum rate
	per cent.	per cent.		per cent.	per cent.
1923	9	4½	1930	18	18
1924	18	12	1931	18	12
1925	12	12	1932	9	9
1926	18	6	1933	18	12
1927	12	6	1934	"	"
1928	18	12	1935	12	"
1929	18	6	1936	18	"

Communal Income

The two main sources of communal income, are the leases of fishing and of trees, from which Rs. 20 and Rs. 70 are got respectively. The administration and supervision of the communal income is in the hands of a non-official group of the leading ryots in the village. Annually Rs. 300 is spent for the festivals of the Perumal Koil by private contributions which are in the nature of an undertaking to incur a day's full expenditure. The total expenditure for the festivals of all the five temples in the village is Rs. 500.

Sale of Land.

Sale of land is not common in the village and the Karnam stated that there was only one case of sale since 1925. The value of land is from Rs. 0-12-0 to 1-0-0 per kuli or Rs. 230 to Rs. 500 per acre.

Sanitary condition of the village. The roads are very unclean and the rubbish is not swept away regularly and stored at a particular corner. Fuel heaps and cow-dung cakes are often spread in front of most of the houses making them unsightly. The insanitary condition of the village is the chief cause of the diseases mentioned above. There have been stray cases of malaria. Cholera takes its toll once in two or three years. There has been no case of snake bites. There is no hospital within easy reach of the village nor are there local physicians. The barber's wife attends to cases of delivery. Purdah is not observed by the Mohammedan family. Infant marriage is not common in the village. The Brahmins alone marry the girls before they attain age.

The villagers use the same tank for bathing and drinking though they do not wash their clothes there. The quality of the

water is so bad that it must naturally cause illness. In summer the depth of the water in the tank is just a foot; and below that it is all mud.

Consumption of foodstuffs.

The Nayudu families in the village have taken to coffee as a regular habit. Fifty per cent among the other caste people use coffee. Tea is used only rarely. The staple food of the whole population is rice. Vegetables are used occasionally by the labour class and milk products are not at all used by them. About 75 per cent of the caste people use milk products, atleast buttermilk. Drinking is a regular habit with the pannayals. Snuff and tobacco are used by all classes.

Education.

There are two schools in the village, one maintained by the District Board and the other by the ryots of the village. This school was started on account of the unpopularity of the teacher of the Board School. It seems the latter remained closed for a time owing to complete boycott. On the other hand the teacher attributes the poor strength of the school to the lack of interest among the villagers. He says that though he had personally gone to each and every house and requested the parents to send their children to school, his words were neglected on the excuse that the youngsters had work at home and in the field. This looks plausible as the children carry meals to their parents in the field, take care of the cattle and do other sundry duties. The private school is conducted on a pial, and classes are held from 7 to 10 in the morning and 5 to 7 in the evening. The time is suited to the convenience of the ryots' children. Besides, an efficient teacher has been appointed and they are impressed by his teaching. Hence this school is preferred to the Board School.

The Board School was started in 1925 with a strength of 70 pupils, of whom 19 were girls. It has now a strength of only 27, of whom 4 are girls (last year it was 37 boys and 9 girls). Padayachis, Nayudus and Kammalars contribute most to the strength.

Till now the Paraya and the Palla children were not admitted in the school, but this year (1937) the teacher has persuaded their parents to send them to the school. The school is housed in a rented building which consists of an open space in the front, a verandah, two halls and again open space in the backyard. The building is suitable enough for a school, but it is not well kept. The very entrance is marred by the straw heaps belonging to the owner.

No picture adorns the walls. Due to the poor attendance the teacher does not hold the classes to the full length of time.

The strength of the school can be improved with an efficient teacher at the head having a zeal for work. As it is, the school does not meet the object for which it was intended and surely it is an economic waste.

Expenditure on the school per mensem :

	Rs	A.	P.
Salary of the teacher	21	0	0
Rent	5	0	0
Sweeper	0	8	0
	26	8	0

Till 1930 the school was conducted by two teachers.

LITERACY.

Caste.	Males.	Females.	Total.	Percentage to the total population of the caste.
Nayadus ..	41	10	51	40
Brahmins ..	4	4	8	61
Padayachis ..	22	6	28	20
Kammalar ..	11	-	11	27
Drummer ..	3	1	4	40
Vellalar ..	11	-	11	24
Chettiars ..	1	-	1	16
Edayars ..	2	-	2	6
	95	21	116	

There are six who can talk and read English, and four can write English. There is a temporary resident for the past two years who is versed in Tamil Puranas on which he discourses to people who gather around him. There is only one who has received college education having got through the Intermediate Examination in the Annamalai University, and he has decided to take his B.A. course in the Christian College at Madras. Among those in

service outside may be mentioned the following. One of the Naidus is working under a Nattukottai Chetty (the Zamindar of Devakottai) on a monthly salary of Rs. 75. In the Smartha Brahmin family one is employed in the Nizam State Railway, another in the Settlement Department, and the last is a medical practitioner at Tanjore. None has settled in the village after receiving a good education.

Recitations of poems and dramatic performances were conducted previously during the Health Week Celebrations. For the past five years there are no such activities.

There is none subscribing continuously to any newspaper. At present there is only one who gets the vernacular daily *Dhinamani* which is read by him, his relations and friends.

The branch of the Theosophical Society mentioned in the original survey went out of existence some fifteen years back, and since then there has been no attempt to revive it. Even the fact of the existence of the branch is not known to any but the surviving members of that period. While it was in existence the activities of the branch were confined to the few rich men in the village and the movement was not popularised.

Village Administration.

There is no Panchayat Board for the administration of the village but there is a Panchayat Court for the settlement of disputes, which was inaugurated in 1923. The village is attached to the Police Station at Velanganni, and a constable keeps a regular watch over the village.

There is no peaceful settlement of disputes among the villagers themselves. The people are inclined to go to court even for simple matters which could be settled by arbitration or compromise through friends of both the parties. There are about twelve persons engaged in litigation and there are two who are in debt in consequence of litigation. One of these narrated to me the history of how his life was ruined merely because of the excessive sums required to conduct the suit filed 22 years back for the recovery of a sum of Rs. 5,000, which is still pending with appeals and counter-appeals!

The Panchayat Court consists of five members who are elected every three years. It has jurisdiction to impose fines and pass decrees up to Rs. 50.

CASES DISPOSED OF BY THE PANCHAYAT COURT.

Year.	Criminal cases.	Civil cases.	Total principal.	Total interest.
			Rs. A.	Rs. A.
1923	—	3	62-15	4-14
1924	—	6	187-3	24-14
1925	—	7	160-2	7-14
1926	1	9	175-6	17-10
1927	7	9	188-3	0-6
1928	13	9	237-4	55-13
1929	6	5	118-6	31-0
1930	2	8	154-4	24-2
1931	2	6	69-14	1-10
1932	2	3	65-0	24-11
1933	—	11	267-8	37-2
1934	6	10	286-13	15-12
1935	—	1	37-1	—
1936	1	3	56-3	—
1937	1	1	5-0	2-12
1937 May	—	1	5-0	2-12

Village Improvement and Communal Harmony.

The village has been drifting more towards economic deterioration. An important cause of the set-back is the existence of party cliques and lack of union among the members of the Nayudu caste who form the predominant land-owning class. It will be rather surprising to note that this little village is divided into three camps and one or the other refuses to fall in whenever there is the talk of improving the amenities of the village. I may cite an instance. There is a sincere desire on the part of all sections to have a Panchayat Board for the administration of the village. As the population is less than one thousand, another village has to be tacked on to this to meet the requirements of the law and get the approval of the Registrar General of Panchayats. One of the parties suggested Ottathattai, a village half a mile to the east which is always associated with this village. There are only a few houses at Ottathattai and all of them own lands at Palakkurichi, and have identified themselves with the interests of the people of this village for the past so many years. This proposal to combine Ottathattai and Palakkurichi to form a Panchayat Board was opposed by another equally strong party which suggested another village. Since all those that belong to Ottathattai are well educated and hold influential positions, the opposing party is afraid that Palakkurichi proper may be neglected and they may not have any voice

in the administration of the village if Ottathattai is clubbed with this. On account of these local conflicts the Panchayat Officer has allowed the paper to lie over.

A Panchayat Board is the first necessity to take up active village improvement and there is no doubt that the experience and education of the people of Ottathattai (which has already been made a pleasant place to live in) will prove of inestimable value if that village is allied with Palakkurichi.

After forming a Panchayat Board attention must be paid to have a protected water-supply, reserving at least one tank exclusively for drinking purposes, if no experiments could be immediately made of sinking wells within the village site. Next in importance is a rural dispensary.

The ryots can bring the whole area under cultivation levelling down the *thidal* or high-land and grow green manure and fodder crops for the cattle. The ryots are too inert and unenterprising to launch on such schemes, which are ultimately bound to pay.

ERUVELLIPET

(South Arcot Dt.)

By

A. K. VEERARAGHAVAN, M.A.

Eruvellipet is a small village in the Tirukoilur Taluq, South Arcot District, and is situated on the northern bank of the river Malattar, branch of the Southern Pennar. The main river Pennar runs north of the village at a distance of a mile and a half. This situation between two rivers, resembling *two fences (Iru veli)** accounts for the name. There is a Tamil proverb to the effect: "before butter melts the Pennar will be in floods" which indicates the suddenness of the appearance of floods in that river. The village is eight miles from Villupuram and ten miles from Panruti, and is situated on the 107th mile of the Great Southern Trunk Road between Madras and Trichinopoly which runs via Villupuram. This road is kept in as good a condition as at the time of the last survey. In fact the Pennar Causeway and the bridge over the river Malattar, constructed in 1931, have considerably increased the importance of the road; for motor traffic has been diverted to this road from the road which runs through Pondicherry, as this avoids delay at the French border Customs Chowkies. The Causeway has also facilitated regular bus service between Villupuram and Kallakurichi running through Thiruvennainallore and Tirukoilur and to Cuddalore and Thittakudi. Before the opening of the Chord line of the South Indian Railway between Villupuram and Trichinopoly (in 1921) passengers had to alight either at Villupuram or at Panruti, and cover the distance by bullock carts. Now the passengers alight at Thiruvennainallore Road station and do the distance of about two miles by carts.

Though in summer the river Malattar looks dry on the surface, it is the source of numerous spring channels two of which start about 2½ miles above the village. The nearest forest is more than ten miles from the village, and on the west in the distant horizon are visible ranges of hills such as the Tiruvannamalai hills, and hill ranges between Salem and Kallakurichi. There are small villages on all sides, but not all of them accessible by good roads.

* The village is spelt as *Iruvellipet* in Revenue records, while Postal authorities spell it as *Eruvellipet*.

Population.—The total population of the caste village is 692 individuals in 100 households. The Muhammadan families have left this village for another one, Arasur. There they have opened provision stores and cater to the needs of the surrounding villages, sometimes bartering their goods in return for paddy especially during the harvesting season.

CENSUS OF POPULATION.

	1901.	1911.	1921.	1931.	1937.
Houses inhabited ..	132	142	154	188	187
Males ..	535	583	530	524	564
Females ..	506	567	523	503	546
Hindus ..	1,033	1,139	1,035	1,017	1,110
Mohammedans ..	..	..	8	10	..
Others ..	8	11	10	..	..
Total ..	1,041	1,150	1,053	1,027	1,110

Following are the figures of families and the number of persons in each caste :—

Caste.	No. of families.	No. of persons.	Caste.	No. of families.	No. of persons.
Brahmin.	1	6	Naidu.	2	12
Reddiar.	13	57	Vadukar		
Vannia.	101	512	Naicken.	1	3
Nainar.	3	17	Potter (Kulala).	1	9
Karnam			Barber.	1	7
(Karunigar).	4	14	Thomban.	1	3
Achari.	4	19		—	—
Washerman.	4	15	Total.	140	692
Vania Chetty.	4	18		—	—

In preparing the Death statistics the Village Munsiff has not clearly put down the cause of the deaths in each year. For instance, in 1935, out of 33 deaths 3 were due to respiratory diseases, 3 due to dysentery, and the rest were classified under 'other causes'. In 1936 again, one death was due to dysentery, one to respiratory disease; 21 died of 'other fevers' and 3 of 'other causes'. The Munsiff does not take pains to get at the correct cause of death, but simply classifies deaths under the 'other causes' as the easiest way out.

The Cheri where the Pariahs live is on the southern side of the road on the border of the village. There are 87 homesteads with a population of 418.

SOUTH INDIAN VILLAGES: A RESURVEY

	Adults.	Children.	Total.
Males ..	124	90	214
Females ..	126	78	204
Total ..	250	168	418

Land.—The total area of the village is 1131 acres distributed as follows:—

	Acres.	Cents.
Wet lands ..	557	35
Dry lands ..	138	65
Inam ..	24	38
Dry land unoccupied ..	7	35
The area under communal Poramboke ..	406	30

There are no woods and forests, but there are scattered over the village about 3978 trees (fruit and shade). The most important are the Palmyrahs numbering about 2290. Tamarind trees number about 120, Iluppai 159, Mangoes 138, Coconut 127, Puvarasu 134, and Karuvelam 613. Of the trees yielding timber are Kattu-vagai 40, Kodukkapalli 30, Nuna 48, and Nochi 100.

Water Supply.—The two chief sources of irrigation are the tank and the spring channel and the surplus water from the wet lands in the Thenmangalam village. The tank gets its supply of water from the Pennar through the Reddi channel. This channel is about 15 miles in length, and this channel has to irrigate many villages on its way. If the lake is full then its water will be sufficient for three months. But since there is a continuous supply even when the water is being used for irrigation purposes, it easily irrigates the whole village for more than seven months.

The Malattar channel, as it is called at the Anicut, begins from the Anicut at Sithilingamadam, and is the source of many spring channels. This river runs for about 6 miles more where it exhausts itself in the river Gadilam. Some few miles to the east of the anicut another channel starts from the river Malattar known as Koraiar. This supplies water to Emappur lake, and the surplus water runs through a channel which exhausts itself into Malattar. The rains during Ani and Adi (the summer months) bring water to this river, and for four months there is water in this river. The river is important because it serves as the source of numerous spring channels. There are two sources of two spring channels about a mile and a half to the west of the village. One serves this village, while the other irrigates Karapattu, a neighbouring village. Every year this channel gets silted up by sands carried down by the floods in the river and the sand is removed as

IRRIGATION

Name of work.	Source of Supply.	Surplus flows to.	Classification assigned to work.	No. of wells in ayacut.	Area registered as wet.				Total assessment demand.			
					Single crop.	Double crop.	Single crop.	Double crop.	Rs. A.	Rs. A.	Double crop.	Rs. A.
(a) Iruvellipet Eri.	Reddi Vaikal from Pennar river.	Eri in village in Avianur (Cudalore Taluq).	Govt.	—	351-22	—	1,998	6	—	—	—	—
(b) Malattar Spring Channel.	—	—	Inam	—	9-51	—	58	13	—	—	—	—
(c) Drainage of wet fields of Thenmangalam village.	—	—	Govt.	—	168-43	7-74	1,056	4	57	9	—	—
	—	—	Inam	—	9-95	—	62	6	—	—	—	—
	—	—	Govt.	—	29-94	—	159	2	—	—	—	—
	—	Total.	Govt.	—	549-59	7-74	3,213	12	57	9	—	—
	—		Inam	—	19-46	—	121	3	—	—	—	—
	—	Grand Total.			569-05	7-74	3,334	15	57	9	—	—

usual by the co-operative labour of the villagers. The channel was dug at considerable expense and its maintenance in an efficient condition always costs the people a great deal of labour, the money value of which was estimated at from Rs. 600 to Rs. 800. The whole of the work was carried on under the Kudimaramat system. The moral pressure put upon the people is always sufficient to compel the families owning land to contribute their respective share of labour.

There are 32 wells in the village, only three of which are now used for irrigating the fields. Two are worked with the improved bullock lift, while the other is worked with kavalai. There are 27 wells for domestic use, three of which were at one time worked by oil engine, but not now. One well is worked by kavalai to water the garden in the compound of the leading landlord's house. Wells in other houses supply water for the household and the small garden in the backyard of almost every house. Most of the people use the water from the spring channel for drinking purposes. The higher classes, however, get the water at the springs in which the spring channel takes its source in the bed of the river.

Occupation of Land.—When land is let for cultivation to tenants there is a distinct understanding between the tenant and the landowner that the gross produce should be divided equally between them; or that a fixed rent in money or kind should be paid. When land is let on condition that the tenant and the owner of the land should divide the gross produce from the land in a certain proportion, it is known as Varam. In this village the fixed proportion in which the produce is divided is always half and half. But when land is cultivated by a tenant on condition that he should pay a rent fixed beforehand to be paid in kind or cash, it is known as Kuthagai. In all these cases the owner of the land pays the land revenue.

Varam or share tenancy minimises the risk to the cultivator and induces the landlord to take a direct interest in seeing that the tenant cultivates the land properly. The landlord, to ensure proper cultivation, generally helps the tenant with a loan the equivalent of which is to be paid in kind at the time of harvest. The tenant, in many cases, pays interest on the loan. Thus, if the landlord advanced the tenant six measures of paddy seeds at the time of sowing the land the tenant has to pay 12 measures of paddy at the time of the harvest. This doubling process is adopted, however, only in the case of the loan of seeds. If the land is let on Kuthagai no advance is given since the landowner cannot easily get it back.

Under the system of Kuthagai or fixed rents, there is a definite agreement as to the amount of rent to be paid and as to the medium in which it is to be paid. But even in cases where a money rent has been agreed upon, it is in many cases paid in kind for it is convenient for the tenant to do so and profitable for the landlord to accept such payments. Rents are also paid in cash but not so commonly. Where a money rent is fixed and the rent is actually paid in kind, its quantity is determined by the current price of the produce.

The area cultivated by the Pattadars is 302·33 acres. The area sublet and cultivated by tenants on Varam is 140·35 acres, and that on Kuthagai 250·30 acres. The number of cultivating pattadars is 129. The number of tenants who have no patta land is 124. The number of those who own a little land in addition to cultivating on Varam or Kuthagai is 37. The number of those who cultivate land on Varam system is 81, and on Kuthagai system 34. There are 19 non-cultivating pattadars, and of these all except one live in the neighbouring villages with their other lands in those villages, and so they lease out these lands on Varam or Kuthagai. The one individual, who is a lawyer at Cuddalore has sublet his lands, but they are at present not cultivated. These non-cultivating landowners had managed to acquire land in this village by giving loans on the security of land, and when the cultivators failed to repay, as was usually the case, there was transfer of land, and the former landowners have sunk to the position of tenants cultivating the same land on Varam or Kuthagai.

The number of agricultural labourers who neither own nor rent land is 210, while the number of those who own land but do not rent is 24, who do not own but rent land is 49, and who both rent and own land is 21.

Paddy lands are let out both on Varam and Kuthagai. If on Kuthagai, the landowner gets 10 to 16 kalams (each of 36 Madras measures) of paddy per cawni ($1\frac{1}{3}$ acres). If on Varam, half the produce is the share of the landlord. As for groundnut, if let on Kuthagai and if the field is sown with groundnut alone as a wet crop on dry field, the rent is Rs. 75 (per cawni), and is paid in cash. If it is sown with Kambu or Ragi, i.e., if cultivated with a dry crop, the landlord, when he collects the Varam on Kambu, fixes the rent on the basis of the groundnut crop, and the rent is either paid in cash (the amount depending on the nature of the crop, and fixed by the landlord) or the produce is equally divided as on Varam.

In the case of paddy, usually the straw belongs to the cultivator, but in certain cases four bundles of straw per cawni are due to the landlord. If the tenant who cultivates on Varam grows some vegetables on the land, the landlord gets a share. If the land is let on Kuthagai, the landlord gets no share of the straw nor of the vegetables.

There is no difficulty in getting tenants. The lease period is for a single crop. The same ryot generally gets the lease for the succeeding years; but it depends on the nature of the cultivation by the tenant. No written agreement is ever entered into. The tenants generally take good care of the land, and so the fertility of the land is not adversely affected by the tenancy system.

LAND REVENUE AND CESS

	Rs.	A.	P.
Land Revenue	.. 3,497	12	0
Total water-rate: Dry	.. 67	14	0
Wet	.. 335	7	0
Cesses	.. 464	5	7
Poramboke	.. 11	2	0
Cess	.. 1	4	8
Inam	.. 38	3	0
Cess	.. 15	6	6
Total kist for the village	.. 4,491	6	9

Pattas paying Rupees.	Fasli 1330 (1920-21).			Fasli 1346 (1936-37).			
	Single.	Joint.	Total.	Extent of land.	Assess- ment.	Total Pattas.	Assess- ment.
				Acs. Ctrs.	Rs. A.	Rs. A.	
1 and less.	16	23	39	6-82	18-13	41	17 9
Over 1 and less than 10.	77	21	98	77-88	381 7	108	442 2
Over 10 and less than 30.	25	7	32	110-72	580 4	38	647 8
Over 30 and less than 50.	6	1	7	52-35	269 14	5	197 14
Over 50 and below 100.	4	1	5	66-23	353 8	4	315 5
Over 100 and below 250.	1	..	1	24-88	135 0	1	107 9
Over 1,000.	1	..	1	354-10	1758 14	1	1769 13
	130	53	183	692-98	3497 12	198	3497 12

DRY LAND.

Description of soil.	Occupied.				Unoccupied.			
	Taram.	Rate per acre.	Extent.	Assess- ment.	Extent.	Assess- ment.		
		Rs. A.	Acs. Ctrs.	Rs. A.	Acs. Ctrs.	Rs. A.		
4-5	6	1 6	14-42	20 0	..	..		
5-1	4	2 4	39-96	78 10	..	..		
5-2	5	1 11	41-06	69 9	0-30	0 8		
5-3	6	1 6	29-38	40 6	..	..		
5-4	7	1 2	15-86	17 14	7-05	7 15		

WET LAND.

Description of soil.	Taram.	Single crop or double crop.	Rate per acre.		Extent.	Assess- ment.	
			Rs. A.	Acs. Ctrs.		Rs. A.	
3-3	5	1	5 15	28-01	166	6	
3-4	6	1	5 5	213-62	1,135	5	
3-5	7	1	4 12	47-56	225	15	
4-2	3	1	8 5	39-83	331	4	
4-3	4	1	7 2	53-90	384	5	
4-4	5	1	5 15	135-89	807	0	
4-5	6	2	7 7	7-74	57	9	
		1	5 5	30-78	163	9	
		1	..	549-59	3,213	12	
		2	..	7-74	57	9	
				557-33	3,271	5	

The land revenue for wet lands thus ranges from Rs. 4-12-0 to Rs. 8-5-0, and for dry lands from Rs. 1-2-0 to Rs. 2-4-0. The area of double crop land is only 7 acres, 74 cents.

Agriculture :—Crops.—The most important crop is paddy. Paddy is cultivated both as a wet and as a dry crop. This village is mainly a wet village. In addition to paddy, sugarcane and groundnut are grown. The dry lands are cultivated with groundnut, kambu, thenai, ragi, varagu, gingelly, casuarina, blackgram and castor.

Paddy.—Paddy is generally cultivated as a wet crop. The first ploughing is done in Adi. Six ploughings are the minimum. Ploughing is done upto a depth of 3 to 4 inches. The manures applied are: if green manure, Iluppai, wild leaves, indigo, leaves of Puvarasu, Vembu, Kattuvagai and Thumbai pundu. About 80 bags of Iluppai leaves are applied to one acre, costing a rupee per 20 bags. The leaves are trampled into the puddled fields, and then ploughed at least once before the seeds are sown. If farmyard manure is applied, 15 cartloads of manure are applied per acre. Oil cakes and sulphate of ammonia too are used as manure. Messrs. Parry & Co. sell a mixture of manure called paddy manure or fertiliser. The seed is kept immersed in water for 3 days and then sown. The sowing is generally finished by the 15th of Avani. The seed is sown broadcast and thick. The seed rate is 9 marakals or 27 measures per cawni sown on 8 cents of land. Water should always stand on these fields for one week after sowing. As soon as the sowing is finished on these plots, fields are prepared to receive the seedlings. Transplanting is done between the 15th of Purattasi to the 5th of Karthigai. For the first four days about half an inch of water should be allowed to stand. Afterwards not less than 3 inches of water should be supplied every week.

From Purattasi to Thai the fields should be watered regularly every week. By the end of Thai watering should be stopped as soon as the crops are fully ripe. But if the sowing is late the watering should be extended. Within about ten days when the ground is a little dry, harvesting is begun in Masi. From Masi harvesting is carried on upto the 30th of Chitrai. Harvesting is done by both men and women with the scythe. The plants are cut very near the ground. 30 kalams of paddy would be considered the average yield per cawni, but even 40 kalams can be reaped from one cawni.

When water is available, as soon as Sambha is harvested, Sornavari is cultivated. It is a 3 months' paddy crop. The season is from Masi to Vaigasi. On one cawni 25 to 30 kalams can be expected at a minimum cost of Rs. 20. Kar is another variety of paddy sown in Chitrai. The irrigation of Kar is done entirely by the water from the spring channel. Here too 35 kalams could be had as the maximum yield, but the average is only about 25 kalams.

Dry paddy is known as *puzhudikal paddy*. Ploughing begins with the first rains in Panguni. Farmyard manure is applied or

else sheep are penned on the land. The land is ploughed to a depth of about 6 inches. Ploughing is done between Panguni and Adi. By the 15th of Adi the seed is sown broadcast. The seed rate is 21 measures per acre. About 45 to 60 days after sowing the field is irrigated from the lake to a depth of 3 to 4 inches. This should be repeated once in a month. The crop is harvested by the end of Margazhi, before Pongal. It is a 5 months' crop. The fields are watered only in Purattasi, Aippasi and Karthigai. About 30 kalams can be taken to be the maximum yield on a cawni, and about Rs. 15 as the average expense. The varieties of paddy grown in this village may be summed up:—

1. Chinna samba (5 months' crop).
2. Sirumani or Garudan samba (6 months' crop).
3. G. E. B. No. 28 of Palur farm (4 months' crop).
4. Sadai samba (5 months' crop).
5. Pumbalai (5 months' crop).
6. Sigappu garudan samba (5 months' crop).
7. Vellai garudan samba (5 months' crop).
8. Therkathi garudan samba or Muthan samba (5½ months' crop).
9. G. E. B. No. 22 (a variety which yields more).
10. Mattakkar (4½ months' crop).
11. Pungar (6 months' crop from the end of Chithrai to Purattasi).
12. Manakkathai vellai
Sigappu Manakkathai
Karuppu Manakkathai

4 months' crops. If it is late for samba, one of these along with Mattakkar is sown. The crop is on the ground from Karthigai or beginning of Margazhi to the end of Masi.

13. Sirage samba, Sittirakkali samba, Pattarai samba, Muthukuruvai and Vadam samba are some more of the varieties of samba grown here. Chitraikar and Chitrai sornavari alone pay well.

Groundnut.—Among dry crops groundnut is the most important. It depends mostly on rainfall, but in some cases it also gets irrigation from wells, and spring channels by means of kavalai and picotahs respectively.

The dry cultivation of groundnut, depending on rainfall, is Manawari. The ploughings begin in Chitrai. Farmyard manure is applied, from 20 to 30 cartloads per cawni. In Vaikasi or Ani, as soon as it rains, the manure is spread over the field. On these fields groundnut is never sown by itself, but only along with kambu or thenai. Kambu or thenai seeds are first sown broadcast at the rate of 3 measures per cawni. Then groundnut seeds are dropped in the furrows made by four ploughs, driven one beside another, at regular intervals of half to one foot—the seedrate being 36 measures per cawni. The crop depends upon rainfall alone. Within a week after sowing, the seeds sprout, and in about 20 days after sowing weeding is done with a handhoe. Kambu forms grains in about 30 days, and thenai in about 40 days. They take about 30 days to ripen. Both kambu and thenai are harvested within 75 days after sowing. The groundnut left on the field is harvested from Karthigai to the end of Margazhi. The plants are at first pulled out of the ground by hand, and the nuts separated. Then the soil is loosened with a spade or mammatti. The women coolies then pick out the pods and are paid at the rate of 3 pies per marakkal of seed collected. One cawni can yield 5 to 20 kalams of groundnut.

Groundnut is also grown as an irrigated crop, with water from the channel. It is sown alone, or sown along with ragi. If sown alone, ploughing begins in Margazhi and should be finished by the end of the month. Sheep are folded on the land, to manure it. If this manure is not available, farmyard manure is applied, at the rate of 20 to 30 cartloads per cawni. The field is then divided into small plots, allowing for channels, one foot by half foot, running parallel at a distance of 6 yards. The seed rate is 36 measures per cawni. The seeds are sown with the help of a hoe, at regular intervals of about 4 inches. The very next day, water is lifted on to the fields with the *picotah*. On the 5th day shoots begin to appear. Watering is thereafter done once a week. The crop is harvested in Adi. The field is ploughed and the plants are pulled out. Then the soil is loosened with a spade or mammatti and the seeds are picked out. On one cawni 30 to 50 kalams of nuts may be harvested.

Ragi is often grown with groundnut; ploughing begins in Karthigai. Ragi is transplanted, since broadcasting of ragi is not paying, for the weeds affect the growth. Farmyard manure or sheep manure is applied. About the 15th of Margazhi, on 6 cents of land, 4 measures of ragi seeds are sown thick, and watered the

same day, and covered with farmyard manure. It should then be watered once in 3 or 4 days. At the end of about 25 days, the plant should be transplanted, on the plots (Pathis) prepared. On the 3rd or 5th day the field should be watered. The next watering should be after a week, and after that two waterings once a week. After that the watering should be once in 10 days. After 3 months from the date of sowing, the crop is harvested. At the end of Thai when the weeding is done in the ragi fields and watered on the 3rd day, the groundnut seed is sown at intervals of about 4 to 6 inches with the help of a hoe. The shoots appear in 5 days. The seed rate is 36 measures per cawni. Groundnut crop is harvested in Adi. Harvesting is, as usual, done by ploughing and loosening the soil with a spade. If the soil is sandy, the spade alone is enough. Anything from 10 to 40 kalams of groundnut may be obtained on one cawni, according to rainfall and outlay.

Cotton is cultivated only this year, and only 2 or 3 acres are set apart for it. It is said that cotton growing is profitable only when the ryot cultivates the crop himself.

Gingelly is either sown alone or along with mustard, ragi and cotton. The seeds are sown in Karthigai or Margazhi, the seed rate being 3 measures per cawni. If sown along with mustard, ragi and cotton, 1 measure of mustard, 1 measure of ragi and 4 tukkus of cotton (5 visses) are all mixed together and sown broadcast. Gingelly is harvested towards the end of Masi and the beginning of Panguni. 2 to 5 kalams of gingelly seed would be the yield. Mustard is reaped towards the end of Thai (i.e. in about 40 days after sowing) and the yield is about 12 measures. Ragi is harvested by the 15th of Chitrai. 2 to 3 kalams can be expected as net yield, after paying the coolies. Cotton picking begins from Purattasi and goes on till Thai. 1 to 1½ barams of cotton can be picked per cawni.

Varagu, always cultivated alone, is sown in Vaikasi or Ani, after the ploughings are over which begin in Panguni; and the seed rate is 15 measures per cawni. The seed is sown on 4 days, ploughing the field after sowing a few measures each day, 4 measures on the first day, 3 measures on the second, third and fourth days, and 2 measures on the fifth day, and the soil is afterwards levelled with a *padal*. The crop is harvested between Karthigai and Thai, and 10 to 30 kalams can be expected from a cawni, and sold at 32 to 34 measures per rupee. The straw is used as fodder

and as manure, and to a smaller extent for medicinal purposes. There are three varieties of Varagu; Kulla Varagu, a five months' crop, Sadai Kuruvai, a six months' crop and Perum Varagu, a seven months' crop.

Sugarcane is also cultivated, but at present only 6 acres are under the crop. The expensive nature of cultivation, along with the fact that it is a twelve months' crop, requiring water throughout, stands in the way of its becoming more popular.

The field should be dry. Trenches, 1 foot broad and 1 foot deep, are dug at regular intervals of 2 feet in parallel rows. The sugarcane tops known as *kozhunthadai* are cut 1 foot in length each. 12,000 setts are necessary for 1 cawni. After a week water should be allowed to flow in these trenches, and setts are dropped on the bunds at regular intervals of 1 foot. They are then placed horizontally on the ground so as to be slightly visible. The setts can be planted from February to May. After a week the plants should be watered, and after that watering should be done once a week. After 3 weeks, weeding should be done. On the third day after weeding, the plants should be watered. Watering should be done once a week or 10 days for four months from the date of planting. In the sixth week after planting, the plants are supplied with manure. For 1 cawni, 2 barams of groundnut oil cake or castor oil cake, but generally groundnut oil cake (40 maunds), 2 bags of sulphate of ammonia are mixed and a handful of this mixture is applied by hand to each plant, and then covered with a spade. The same day the plants should be watered. After 60 days from the date of first manuring, a second dose of manure is applied. 3 barams of oil cake and 3 bags of sulphate of ammonia are applied just as before. This time the soil on the bund should be liberally spread over the manure to give more strength to the rising plants. The same day the plants should be watered. After that watering should be once in 10 days. 2 months after the second feeding, another dose of manure is applied. 2 barams of oil cakes and 2 bags of sulphate of ammonia are mixed and applied as before. But this time the bund between the rows of plants is converted into a channel for the flow of water, and this soil is applied to the stems of the plants so that they can have more strength. In the 11th month the crop is cut. The cutting extends over a month. The crop is cut near the ground, and after cutting off the tops, the canes are sent to Nellikuppam.

The maximum cost of cultivating sugarcane per cawni is about Rs. 300 and the return varies from Rs. 500 to Rs. 1,000, which

depends upon the quality of the soil. Three varieties have been popularised by Messrs Parry & Co. They are Fiji B., C.O. 281, and P.O.J. They give an advance of Rs. 120 per acre if the total area is below 10 acres, and if the area is above 10 acres, Rs. 140 per acre. This sum is given in three instalments of Rs. 60 first, Rs. 60 when the second dose of manure is applied, and Rs. 20 when the final dose is applied. In addition to this, the company, which acts as commission agent, arranges for supplying those who plant sugarcane, on security bond, the manure for ragi, paddy and groundnut as well. This amount is deducted when the final payment is made for the canes. The ryot has no need to meet the freight charges for canes, as the company meets the same and deducts the amount at the final settlement of accounts.

Sugarcane is also planted on dry lands with the help of water from the spring channel, on the same principle as done on wet lands.

Blackgram, horsegram, Perum pairu are all grown on dry land to a small extent once in 4 or 5 years. Karamani is grown on dry land; its leaves are used as manure on wet land.

Single transplantation of paddy is never practised here. Paddy is more often transplanted in bunches of five and six, and at times even more; Ragi also is never transplanted singly, but in twos or threes. The ryots are of opinion that even if the Agricultural Department could show profit, they could not expect the same profit, since they cannot command the same amount of capital or water facilities or supervision. This therefore stands in the way of adoption of the improvements exhibited at the Agricultural Demonstration farms at Palur, Palakuppam and Eraianur.

643 acres 68 cents yield one crop per annum, while 40 acres 70 cents yield two crops per annum.

AREA UNDER DIFFERENT CROPS

	Fasli 1330 (1920-21).		Fasli 1345 (1935-36).	
	First crop.	Sub-sequent crop.	First crop.	Sub-sequent crop.
	Acs. Cts.	Acs. Cts.	Acs. Cts.	Acs. Cts.
Paddy	.. 510-10	184-56	530-41	6-47
Groundnut	.. 37-38	..	24-12	..
Sugarcane	.. 13-16	..	25-89	..
Kambu	.. 23-56	..	8- 3	..
Thenai	.. 3-09	0-15	..	6-59
Ragi	.. 35-23	6-53	10-74	21- 6
Varagu	.. 2-16	..	2-83	..
Gingelly	.. 7-27	25-42	..	5-41
Plantains	.. 0-89	..	..	..
Other trees	.. 44- 0	..	..	..
Casuarina	.. ..	..	14-93	..

Implements.—Two kinds of ploughs are used. One is the old-fashioned Indian wooden plough, the other is the Iron plough known here as the Monsoon plough. The former can plough 1 acre of wet land in 3 days and dry land in 2 days.

The various other implements used are the spade or mam-matti, Kalaikottu for removing weeds, scythe, the bill-hook, crow-bar, Parambu or the levelling plank, Padal used for levelling the soil on dry land, and Thattu. Zinc buckets are used for Kavalais and improved water lift, and iron buckets for picotahs.

At present no oil engine is used to lift water from wells, though a ryot living in this village has an oil engine recently installed on the border of the village in the Thenmangalam area. Until 10 years back there was an oil-engine which was used for irrigation as well as for sugarcane crushing, and helped the cultivation of ragi and groundnut. But this engine was sold away.

There are at present 2 kavalais and two improved bullock lifts for lifting water. A pair of bullocks can serve well only for a year, if they lift water either with kavalai or with the improved lift; but with sufficient care they can be made to serve efficiently for two years. Then they are sold at the shandy at Madapattu 3 miles away, or at Andrayanallur 10 miles away or at Valaiakarkuppam 12 miles away. New pairs are purchased in the same

shandies. The bullocks used for this purpose would cost at least Rs. 70. Bullocks of the value of Rs. 150 per pair will easily serve for 2 years, and can irrigate a larger area. Buffaloes costing Rs. 40 are also used, but the area irrigated will be much less.

There is no garden cultivation. Only recently a landlord cultivated plantains on 50 cents of land. In the backyards of houses the following are the main vegetables raised: brinjals, pumpkins, beans, turmeric, and greens. Pomelo, limes, plantains and coconut trees are grown for fruits. There is one mango tope, where various varieties are grown, but even here the number of trees is small. There are casuarina topes, occupying over 25 acres.

Pests.—Two years back, sugarcane and groundnut were affected by pests. Messrs. Parry & Co., instructed the ryots on methods of combating sugarcane pests, but the ryots were not able to carry them out because of their expensiveness. The pests disappeared with the rains.

The groundnut crop is affected by a red moth which eats the leaves and stunts its growth. Here too, the moths disappear with the rains. The ryots tried to pick out the moths, but their number made this work impossible. About 6 years back paddy was affected by Mothira (Ring) Puchi. It affects the grains. This persisted for two years, and then disappeared. Now no pests affect the plant. Gingelly is generally (even now) attacked by Kondai Puchi. It affects the formation of seeds. There is no way to combat it. The ryot has to be content with what is left. When gingelly is about to be harvested (just before a month) the plant is affected by the 'Naval' Puchi. It affects the oil contents of the seed. The ryots find no way to combat this.

Agricultural Improvements.—It is said that the Agricultural Department has not helped the ryots to any considerable extent, as the methods suggested are too expensive and quite beyond their means. Seven years back single transplantation of paddy was practised. This was discontinued owing to its expensiveness. More wages had to be paid to the labourers, and more manure was applied as the ryot wanted to be sure that the single seedling did grow, while in the case of transplanting in bunches of 5 or 6, less manure was applied. Further, single transplantation should be done in the proper season, i.e., in Purattasi, but last year, due to the late rains, transplantation could be done only in Karthigai. Again it required more personal supervision. The seed beds required more attention.

The plants should be sown at intervals of about 4 inches, instead of 7 inches as now done. After so much care a ryot could expect, no doubt, about 50 kalams of paddy on land which produces otherwise 30 kalams. Though there is a high yield the greater cost stands in its way, and so it has now completely disappeared. But the Department is of the opinion that single transplantation has the best chance in South Arcot district. Only in tracts where water could be easily drained away i.e., where the soil is nearly 50 or 55 per cent sandy and where the level of the fields is on a par with or a little higher than the water level, single transplantation can succeed: while in places where the fields are flooded as in Tanjore Delta, when the Cauvery and Coleroon are in floods, the plants are not able to send deep roots, and almost float on the surface of the soil. But where the water drains away, the plants are able to send deep roots and are more firm. The argument against single transplantation that it is more costly is, according to them, baseless. There is no necessity for more manure, since the plants are able to get the plant food in the soil itself by means of their deep roots. But when rains fail, and the soil cracks with a very slight draught, the practice of single transplantation may result in a loss, since the seedlings wither away, unlike in the other case where even if one seedling fails the others in the bunch will grow. The Department therefore, now advises not so much single transplantation as "economic" transplantation.

For the last 8 years two varieties of paddy G. E. B No. 28 and No. 24 introduced by the Agricultural Department are cultivated here. The ryots generally apply only oil cake manure as the fertilisers sold by Parry and Co., are costlier. Further the agent of the company demands payment on the due date, even if it necessitates a forced sale. The merchant selling oil cakes is not so exacting, though he charges an interest of 12 per cent on the amount due. Again, the ryots are not able to distinguish between the new and old fertilisers; if old, a greater number of bags are required for a proper growth. Many small ryots do not buy any manure, but only apply the farmyard manure they have been able to collect. They use green leaves also which they get from the trees.

The ryots are ready to adopt any improvement which the Agricultural Department put forward, provided it is within the means of the ryots. They would like to see an agricultural demonstration plot in the village itself worked by a ryot, but under the supervision of the Department. The ryots believe that the old practice is on the whole sounder than the new methods suggested. At present the area under the charge of an Agricultural Demonstrator is far too big to be efficiently looked after, and so an increase in the

number of Demonstrators is necessary if the introduction of new agricultural methods should have any chance of success.

Livestock.—The village has 183 oxen, 210 cows, 134 he-buffaloes, 41 cow-buffaloes, 131 young ones of both species, 299 sheep and 147 goats, and 7 donkeys and 6 pigs.

Three-fourths of the ryots here breed their own plough cattle. They buy cows. Those who ply carts for hire buy bullocks from outside. The cattle are fed only on straw when they return home in the evenings, and at times bran mixed in water. During the day they are allowed to roam about and fend for themselves on the riverside. The ryots cannot afford to feed the young ones both day and night. They cannot afford to buy straw and so they have got to manage with the little straw they get from their lands. No particular attention is paid to the younger ones; they are let loose with the herd. Further, since there are only a few acres of dry lands here, the ryots do not cultivate cholam or any other fodder crop as the ryots of a village 11 miles from here do, which enables them to sell their cattle at Rs. 70 or 80 per head. Here the young ones are given only straw, and when they grow up are used for ploughing purposes. The people here prefer he-buffaloes for ploughing purposes. They say the character of the soil here adversely affects the life of the oxen that plough the fields. Due to the clayey character of the soil they want the slow moving buffaloes to pull their ploughs so that they could plough the fields thoroughly. Even with regard to he-buffaloes the ryots breed their own cattle. The young ones when they grow old are used for ploughing purposes, and also for transporting manure to the field, since they stand more strain. Lastly, the Padiyal does the ploughing and his merciless beatings can be borne only by the buffaloes.

Those who buy cattle go to the neighbouring shandies at Madapattu, Athiyur, Andarayanallur, Valaikarakuppam, Panruti, Madagadipet (in French territory, about 16 miles from here). Those who buy cattle for ploughing purposes buy them at prices ranging from Rs. 10 to Rs. 25 and for cart bullocks they pay Rs. 50 to Rs. 100 per head. These animals come from Shasti, Mallur, Bangalore, in the Mysore State and from Tiruvannamalai. When they become useless they are sold at shandies. But some are kept till they die, when the carcase is given to the Adi-dravidas. All the animals here appear very weak and the want of good pasture is very keenly felt. In May and June, when the lake is dry the bed is used as a grazing ground. The harvested wet lands also serve as grazing ground.

Gingelly oil cake, husk, and groundnut oil cake, cotton seeds, and pottu, (husks of pulses) are all given for the cows and she-buffaloes in the milking season, while only straw is given when they run dry. Bulls are given husk and groundnut oil cake. Plough cattle get cotton-seed, horsegram and husk, ragi flour (in the form of porridge), and he-buffaloes husk and groundnut oil cake in the ploughing season. For goats, leaves of babool, peepul etc., are cut and given, while sheep are allowed to look after themselves.

The chief cattle diseases are Komari or Foot-and-mouth disease, Anthrax, and Rinderpest. For Komari, the ryots apply phenyle or margosa oil over the affected parts. Also a mixture of camphor, spider's web, chunnam and garlic is applied. In some cases, the cattle are made to stand in the water where the fish eat away the insects, and then they are made to walk on the hot sand. In some cases, green leaves along with incense are tied round the neck after reciting some mantras.

Anthrax proves fatal in 90 per cent of the cases. The Village Munsiff reports to the Veterinary Department, and they inoculate the animals. Rinderpest is not fatal in every case but in 50 per cent it proves fatal. The animals are inoculated. Perumarunthukodi, a creeper, is used as an antidote. Horse-gram-kanji or Manakathai Rice Kanji is the feed given during sickness.

Ploughs owned by Vanniahs and Adi-Dravidas are hired out. Ploughing for one day is paid at the rate of as. 4, but if the demand is slack they can be had even for 3 as. They work from 6 a.m. to 11 a.m. or 7 a.m. to 12 Noon. If the villagers requisition the services of ploughmen from other villages, they pay the same wage, but give them in addition one meal.

Carts owned by Vanniahs are hired out. For one day they pay 12 as. or Re. 1 per cart. For going to the railway station they demand 4 as. For carrying things from the wet fields which are a little further away from the station 8 as. is paid, but from dry land it is only 4 as. Carts are engaged to transport paddy, sugarcane, casuarina, etc.

There is also the custom of letting the cows on Varam. By this method the owner of too many cows and calves is able to have his animals reared by some others. The young calf is entrusted to the care of a person who rears it at his own cost until it calves in time and in return for his trouble he gets the first calf. When the cow gives birth to a second calf, the owner gets the cow back with the second calf. The owner has the option to let the man have the cow again when it runs dry, and the man would get

the next calf for his trouble. The owner would then get the fourth calf. The man tries to get a cow inspite of all the trouble one has to undergo in looking after it, since in an Indian household to have a cow is a very auspicious thing, and he is also assured of a small supply of cow-dung which he can use for plastering floors, walls, etc., and as fuel, and a little that is left along with the household sweeping serves as manure for his tiny plot.

Manuring.—The most general form of manure is farmyard manure. Herds of cattle and sheep are also allowed to rest on the land intended for cultivation, the former during the day and the latter by night, and the urine and dung deposited on the land are regarded as a very valuable form of manure. Green manure also is used. Leaves of Nuna, Katuvagai, etc., are brought from a small forest about ten miles from here, and the ryots pay Rs. 1-8-0 to Rs. 1-12-0 for every 12 bundles. Avarai, Kolinji, and Indigo are at times brought from the neighbouring villages. Karamani plant, Thakkaipundu, Sunnhemp, Pugayilaipundu and Milagapundu are also used as green manure.

Among chemical manures Sulphate of Ammonia and Superphosphate are used; they can be had at Villupuram, Panruti, and Tiruvannainallore. Javvu (a mixture of hoofs, intestines, horns and other refuse from the slaughter yards), and bonemeal are obtained at Pondicherry and Ranipet. Fish manure obtainable at Calicut, groundnut oil cake at Villupuram, castor oil cake, and Pungam oil cake are also used. Paddy fertiliser, Ragi fertiliser and Sugarcane fertiliser are obtainable at the Parry & Co.'s depots at Villupuram and Chittanangur.

90 per cent of cow dung is used as manure, and only 10 per cent is used as varattis by the potters and others. For *puzhuthikkal* only farmyard manure is used, but for all others farmyard manure and green manure are mixed. Those who cultivate the land themselves find it enough if they apply only 12 cartloads, while others who cultivate with the help of labourers have to apply about 24 cartloads of manure, for the land is not so well ploughed as in the other case.

On dry lands generally sheep are folded. If manure is applied, 12 cartloads are applied as a general rule. But in some cases even 20 cartloads are applied.

Cattle urine is wasted. No trouble is taken to store it, since storing is very expensive. The Agricultural Department has made the ryots understand its value, but they cannot finance it.

Sulphate of Ammonia is always mixed with other farmyard manure or green manure. The fertilisers for paddy, ragi and sugarcane are obtainable from the depots of Messrs. Parry & Co., on cash or credit. If on credit, interest is charged at 9 per cent but the loans can be cleared off within three months without paying interest. The cost is Rs. 4-10-0 per bag of 80 lbs., and Rs. 6-6-0 per bag of 120 lbs.

Sulphate of Ammonia and Superphosphates are obtainable from East Asiatic Company and Indo Chemical Industries Company. These two companies have commission agents at both Villupuram and Panruti. These companies do not give credit. The cost is Rs. 3-4-0 to Rs. 4 per bag of 80 lbs.

Groundnut oil-cake costs Rs. 54 per ton, and castor oil cake Rs. 40 per ton. These are obtained both from the commission agents and private merchants. These oil cakes are generally imported from Bangalore, Mysore and Madras. Vellore, Yedapadi (near Salem) and Madras send castor oil cakes. All the chemical manures are obtained from Madras and Ranipet.

About 25 acres are under casuarina. The ryot retains a small quantity of fuel for his use, and sells the rest at Villupuram or at Madras. He takes the wood to Villupuram by cart, and to Madras he books a wagon at Tiruvannainallore Road station. For building, making carts and implements, wood is obtained from the trees growing within the village, from the forests near Tiruvannamalai and also from the forest about 10 miles from the village. Teakwood and rosewood are bought at Villupuram, Cuddalore and Panruti. Bamboos are bought from Villupuram, Panruti and Tirukoilur.

Housing.—The village site occupies an area of 8 acres 84 cents. The caste Hindus live together. The Adi-dravidas live in a separate colony by themselves on the other side of the road and on the bank of the river Malattar.

The village site has been fully occupied. But at present there is no demand for building sites. The families which split, generally partition their own houses and live there. There are gardens attached to the houses, where many sorts of vegetables are grown, and a part of the gardens is held on pattahs. There are 4 streets in the caste village, 3 of them running parallel to each other, and one connecting the ends of the three streets. There are 140 families living in the 100 houses in this village. There is only one storeyed building. The majority of the houses are thatched, while 20 are tiled.

The Cheri consists of three very narrow lanes. There are 87 huts, all built in a line. There are no windows for these houses, and the entrance is generally a doorway 5 ft. by 2½ ft. Some huts have wooden doors, but most of the huts have the coconut leaves plaited for their doors.

The maximum distance of cultivated lands from the houses of cultivators is about 2 miles by road and 1½ miles if one cuts across the fields.

Artisans.—Agriculturists have no subsidiary industries in this village. The artisans of the village are carpenters, smiths and the potter.

The carpenter and blacksmith repair the agricultural implements. They are given a fixed share of the produce at the harvest. For repairing carts and such other works they are paid at the current rate. Excluding the 'swadantram' at the harvest, they are given paddy for Pongal and Deepavali. They have service Inam lands, and in addition some have other lands. Some of them have lent money also on simple mortgage and mortgage with possession. The carpenter gets about Rs. 45 and 20 kalams, and the smith about 20 kalams of paddy and about Rs. 120 annually. The potter too gets a share of the produce annually from each household. The potter is expected to supply the number of pots the family requires. But some pay for the pots in cash and do not give paddy. He gets food too on certain occasions.

The goldsmith has purchased some lands here with the money saved from his earnings and by money-lending. Now he lives by the land and his business is very dull.

One out of the five families of oilmongers has opened a shop here—a petty one. The rest own oil mills. For pressing gingelly, 6 annas is paid for 21 measures which is pressed at one time. In addition to the 6 annas he gets about 5 to 10 palams of oil, and 25 to 30 palams of oil-cake. For pressing groundnut and Ilupai seeds, 5 annas is paid for 21 measures done at one time, in addition to the same quantity of oil and oil-cake.

The washermen and the barber too are paid annually a quantity of paddy, which depends on the strength of the family. On the whole, each of them gets about 15 kalams of paddy annually. In addition the washerman gets cooked food or 'Kanjipadi', i.e., raw rice, from his customers every day. The barber gets remnants of foods at night from some of his customers.

Village Trade.—The chief agricultural requirements are the chemical manures sold by Messrs. Parry & Co., and Sulphate of Ammonia and Superphosphate from the agents of East Asiatic Company and Indo Chemical Industries Company and from private merchants. Bone meal and fish manure are supplied by the agents and private merchants in the neighbouring trade centres and green manure is obtained from the neighbouring forest.

The principal articles offered for sale by the ryots are the surpluses available of paddy, ragi and cumbu. The other food stuffs which they require have to be purchased from outside. The big families and the middle class go to Villupuram and Panruti. The big families usually stock things for a year or six months. The middle and lower classes buy what they want including vegetables in the shandy at Madapattu 3 miles away. Onion is brought to the village by traders from Salem, Chinna Salem, Athur and other places. Some barter onion for Varagu at $1\frac{1}{2}$ thukkus of Varagu for 1 thukku of onion, and in the case of rice 1 thukku of rice for 1 thukku of onion or 16 thukkus for a rupee. These traders generally go to the places where the commodities they require are grown extensively and exchange their own commodities there. For instance the trader whom I met was on his way to Tindivanam, where he was sure of getting Varagu on easy terms, and for this he had come all the way from Salem where onion was in abundance.

The lower classes get things from the local petty shops and small provision stores at Arasur about half a mile away. Vegetables are brought here in headloads from Athiyur for sale. As for salt, the trader takes his own cart and goes to Markanam, a place about 55 miles from here for purchasing salt. He sells it at a profit, ($10\frac{1}{2}$ measures per rupee) in the village on his return. Groundnut oil and gingelly oil are also sold in the streets. Iluppai oil-cake is also sold in the streets. Tamarind too is brought in cartloads and sold here. It is brought from Krishnagiri and other centres in Salem District and sold at 9 to 10 thukkus per rupee. Chillies (green) are got from Sendamangalam at a cost of annas 3 to 4 per thukku. Chillies (dried) are got from the same place. There are three varieties costing annas 12, 14 and Re. 1 per thukku. Jaggery is sold at 7 to 8 thukkus per rupee.

For the last 2 years dholl, Bengal gram, green gram, etc. are not brought in cartloads and sold in the streets, but before that they were brought from Chidambaram side for sale. Now they are bought in shops at Panruti, Villupuram, at the shandies, and

at the store at Arasur. Gingelly and groundnut oil are brought here from Parangiyur and Avianur. Gingelly costs Re. 1 per thukku. The well-to-do families who produce gingelly and groundnut on their fields get the seeds pressed in the village itself.

Kerosene is brought in the store at Arasur by the middle and lower classes, but bigger families get kerosene in tins from the commercial centres.

The Madapattu shandy 3 miles away now serves the villagers. Formerly, 8 years back, the shandy was at Tiruvonnainallore about 7 miles from here, and it was shifted to Madapattu. The shandy at Athiyur was also started about 8 years back. The ryots buy cattle mostly at the shandies at Madapattu and Andarayanallore.

Only sugarcane and casuarina are sent by rail, the former to the Nellikuppam factory, and the latter mostly to Madras. The other articles paddy, groundnut, ragi etc. are taken to either Villupuram or Panruti by bullock carts and sold to the agents of the various companies there or to the private merchants. If casuarina is sent to Villupuram, it is sent only by carts. Twenty years back pack bullocks used to convey the produce to the market. Loaded bags were placed upon their backs, and the animals driven to the neighbouring towns where the commodities would find a sale. There were very few carts. But now all the transport of goods is done by carts, and this has been made easy by the good condition of roads, and the construction of causeways.

Sugarcane grown here and in all the neighbouring villages is all sold to the East India Distilleries and Sugar Factories Ltd. worked by the agents, Messrs. Parry & Co., at Nellikuppam. They have arranged with the South Indian Railway to run special goods trains from Tiruvonnainallore road station. One can see special goods train of about 20 waggons full of canes leaving this station every night in the cutting season. The freight charges are paid by the Company first, and deducted when they pay the price for the canes to the suppliers.

Groundnut is sold at Villupuram and Panruti to the East Asiatic Coy., Rally Bros. and Louis Dreyfus Coy. and also to private merchants. The brokers meet the carts even on the road and try to take the carts to their respective mandi merchants, promising very often a good tiffin in a hotel, or offering some such temptation.

As for paddy, the merchants from Panruti or Villupuram or from the neighbouring villages come here at the time of harvest and buy paddy here. They take the commodity to Villupuram or

Panruti and sell it there. Sometimes the ryots themselves take paddy to the merchants or sell in the streets.

Traders finance the ryots on the security of produce. The ryots generally sell the produce to the merchants at the prevailing market rate. But there is no legal obligation to sell the produce at once to the particular merchant. But the ryots generally do so in order to clear the arrears lest they should be tempted to spend it otherwise.

The weights and measures in use are: the *thukku* equivalent to 50 palams, *thirakal* instead of the common balance, 2 measures marakkal and $3\frac{1}{2}$ measures marakkal for measuring groundnuts. For measuring oil, 1 *thukku* sombu and $\frac{1}{2}$ *thukku* sombu (brass pots) are used. In measuring paddy, people use a bigger measure when they buy grain and a smaller one when they sell grain, and even in the process of measuring itself there is fraud. Milk and its products are generally adulterated. Never was any co-operative society for the sale of produce, or for the matter of that for any other purpose attempted here.

PRICES.

	1932.	1933.	1934.	1935.	1936.	1937
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Paddy: (per kalam):

Harvesting season:

Vadam Samba	Rs. 2-4	2-4	1-12	1-12	1-12	2-0
Samba	" 2-8	2-4	2-0	2-0	2-0	2-0

Later:

Vadam Samba	" 2-4	2-6	1-12	1-12	1-12	?
Samba	" 2-8	2-7	2-4	2-4	2-8	?

Groundnut (per Candy):

(Dry) Pakka	" 24	35	35	40	36
(A little wet)					
Katcha	" 22	30	30	36	32

Sugarcane for the last 4 years:

1 ton	C.O.	Rs. 10
	P.O.J.	" 11
	Fiji	" 12

The village is easily accessible, being on the main road from Madras to Trichinopoly. The Railway station also is very near. The two important commercial centres Villupuram and Panruti and all the shandies are connected by very good roads. But the neighbouring villages are not connected with this village by good roads—some by no roads at all.

Generally a few ryots combine together and engage a cart to take the produce to the market. Some times a ryot who goes to town to buy some goods for himself gets something for another also if he is requested. In cultivation there is informal co-operation. Some four or five people join together in cultivating a plot of 7 or 8 cawnies. They divide the expenses and the loss or gain also equally. Further the ryots help one another in ploughing and other field work. The price obtained in the nearest large market is always higher than the price the ryot receives at the village. The merchant generally gets a margin of at least Rs. 2-8-0 for one cartload of grain he sells in the market centre and after paying Re. 1 for the cart, and 6 annas per cartload as commission to the broker he gets a net profit of Re. 1-2 per cartload of 12 kalams.

CONSUMPTION AND SALE.

Quantity consumed in the village.		The quantities sold out.	
Paddy	1,780 kalams.	Paddy	3,450 kalams.
Ragi	300 "	Ragi	35 "
Kambu	205 "	Kambu	35 "
Varagu	55 "	Groundnut	130 candies.
Gingelly	65 "	Sugarcane	200 tons.
Thenai	30 "		

Wages.—Wages are paid in kind and in money. The wage rates here are very low. For harvesting paddy the labourers are always paid in kind, but for weeding, transplanting etc. the wage is paid in kind in 50 per cent of the cases. Reaping paddy is paid for at 3 measures in addition to one midday meal. For weeding, the wage ranges from 1 anna to $1\frac{1}{2}$ annas or, $1\frac{1}{2}$ measures of grain. Both men and women are employed and given the same wages but at times men are given more; if in kind 2 measures and if in cash 2 annas. For transplanting, men coolies are engaged to collect the seedlings in bundles, and take them to the fields, where women coolies plant the seedlings. The men coolies are paid 3 annas with one midday meal. Women coolies are paid $2\frac{1}{2}$ annas with one midday meal.

In the case of ragi cultivation, to dig the channel and divide the field into plots men are given $2\frac{1}{2}$ annas each with a midday meal. For collecting seedlings men are paid $2\frac{1}{2}$ annas a day with a midday meal. Women coolies who plant the seedlings are paid $1\frac{1}{2}$ annas with one midday meal. For watering men are paid $2\frac{1}{2}$ annas to 3 annas with a meal. Women who do the weeding are

paid $1\frac{1}{2}$ annas and men 2 annas. For harvesting men are paid 2 annas and women $1\frac{1}{2}$ annas.

For sowing groundnut seeds men are paid 2 annas and women $1\frac{1}{2}$ annas. For watering men are paid $2\frac{1}{2}$ to 3 annas. For loosening the soil with a mammatti, men are paid $2\frac{1}{2}$ to 3 annas with a meal; while for picking the nuts women are paid 3 to 6 pies for every marakkal of nuts collected.

Piece Wages for digging trenches in preparing the field for sugarcane cultivation vary from Rs. 10 to Rs. 12 per cawni. About 10 years back the same work would have cost Rs. 18. For planting the tops men are paid 3 to 4 annas with a meal. For weeding women are paid $1\frac{1}{2}$ to 2 annas a day, and men 2 to 4 annas. For applying manure, men are paid $2\frac{1}{2}$ to 4 annas with a meal. For cutting the canes, the coolies are paid at the rate of 2 annas per cartload. Generally we find that when the labourers work from morning to evening they get a midday meal in the form of porridge in addition to wages.

Seasonal Migration.—Agricultural labourers find enough work in Thai, Masi and Panguni. In Chitrai, Vaikasi and Ani, there is not enough work though there may be a little weeding work on *kambu* fields. They do not go out anywhere. But in Aippasi, Karthigai and Margazhi they do not find work on the fields and so in these three months the labourers with their families (about 20 to 30 families—both from caste Hindu quarters and from the Paracheri) go south-west as far as Salem which is about 80 miles from here, to the south as far as Ulundurpet about 15 miles from here, and to north-west as far as Tiruvannamalai and Chengam about 60 miles, for picking groundnuts. They return in January to be in time for the Pongal. They go to Chidambaram and those parts by the end of Panguni to be there for the harvest, and stay there for about two months. Some of them work as masons, some serve in hotels etc. in towns.

For the last 20 years none has left the village as cooly for Overseas plantations. 3 men and 3 women of the Vanniah caste, and 4 men and 3 women from the Cheri went to Madras in December and returned in February to be here during the harvesting season.

Padiyal system.—A semi-servile system of labour still survives in the *Padiyal*. Padi means in Tamil a measure, and Al means a person. This derivation indicates one of the chief incidents of the service which consisted in the regular payment by the landlord

of a certain number of measures of paddy or other food grains per mensem, whether the landlord with whom he contracted to serve provided him with work or not all the year round. The padiyal is given 11, 14, 18 or 22 measures of paddy or other grains according to the work done. In addition to this he is given one mid-day meal in the master's house in the form of porridge. He is also entitled to Kalavasam (kalam in Tamil means a threshing field) which consists in the payment to the labourer of a certain quantity of grain collected, at each of the principal harvests on the threshing field. Such payments vary from 18 to 36 measures of paddy, and from 9 to 18 of ragi. Besides these, he is entitled to one cloth every year during Pongal or Deepavali, or as an alternative cash up to a rupee. If a marriage takes place in the master's house, he is presented with one cloth. If there is child birth in his house, he is given from 4 to 8 annas, a little gingelly oil, 3 measures of paddy, and when a death occurs in his family he is given Re. 1 and 12 measures of paddy. For Deepavali and Pongal, he gets $1\frac{1}{2}$ to 2 annas. In addition to all these, the padiyal is given a small present of 4 annas when he goes to Mailam, a religious centre about 25 miles from here. If in the middle of the year he wants to buy a saree for his wife, he asks for a loan. The master advances the sum and then deducts generally 2 measures every month in his *padi*, in repayment of the loan.

The labourer starts work at 5 in the morning. An interval of 15 to 30 minutes is given for taking morning kanji which is usually brought to him by some member of the family to the place of work. Another interval of an hour is given for his noon kanji whether in his master's house or in the field.

Even now there are people who bind themselves to serve under this system in the same old way. The person who wants money for marriage or other domestic purposes proceeds to a landlord and secures from him a loan, usually of Rs. 30 to 40. In return he executes a deed (*a copy annexed at page 181*) agreeing to serve his creditor for a monthly payment in kind, and he is obliged to serve as padiyal till his debt is cleared off. Usually, the payments he secures under this system are hardly sufficient for his subsistence, and so he is not able to make any savings with which he could pay off his liabilities and free himself from his obligations. But there have been cases of padials who have gone out to neighbouring taluks to earn money by picking groundnuts, and by saving they have been able to repay their debts. There are about 15 persons of this type here. Two or three generations of men belonging to the same family have continued to serve as

padiyals under landlords belonging to a single family—The boy at first works on a monthly wage, and then when he is grown up gets an advance for his marriage and thus becomes a padiyal. In this manner this system has gone on for quite a long time in these parts. There are now 85 padiyals in this village.

Rural Credit and Indebtedness.—About 31 families in the village have savings to their credit. The total savings of all now stand at Rs. 17,200. Sums are generally lent to neighbours, some on simple pronote, some on simple mortgage, and some on mortgage with possession, and some on pledge of jewels. Only 3 people are now having the Post Office Savings Bank accounts.

The total indebtedness of the village stands at a very high figure, amounting to Rs. 1,71,954.

The debts are due to various causes. The major portion of the debts are hereditary, which have to be repaid by the present generation, true to the old Hindu tradition. For the past five years cultivation has not been paying and this has necessitated borrowing. Generally the people borrow in the hope of a good harvest in the coming year from which they expect to repay the loan, but since their hope is belied by a poor harvest they are not in a position to repay, and the principal along with the interest rapidly mounts up to a high figure, double and treble the amounts borrowed. This necessitates in the end the sale of their lands.

Borrowers pay 12 per cent interest on mortgage loans, 18 per cent on loans by pronote, and $37\frac{1}{2}$ per cent on loans obtained by pledging jewels within the village itself, $18\frac{3}{4}$ per cent on loans obtained by pledging jewels in the Marwari shop either at Villupuram or Panruti, and $7\frac{1}{2}$ per cent on loans obtained by pledging jewels in the Kannika Parameswari Bank at Villupuram. This bank was started only a year ago, and is otherwise known as the Dindigul Bank. 6 per cent is charged on loans granted on pledge of produce, which is stored in the warehouse for which rent is charged, $4\frac{1}{2}$ per cent on pledge of jewels. This rate is in force for the past six months only, and before that it was $7\frac{1}{2}$ per cent. They deduct 3 months' interest in advance from the sum lent. The interest should be paid every month. If the debtor fails to pay the interest, then a fine of one anna for Rs. 100 per day is charged. Jewel loans are advanced upto 75 per cent of the value of the jewels, which should be of gold. If the man fails to pay interest for 3 months, notice is given to the party intimating auction of the article pledged.

The villagers prefer the Marwari to the bank, because the bank accepts only gold jewels, and insists on regular payment of interest. The Marwari charges a month's additional interest if the debtor fails to pay the interest on the due date, even if it is delayed by a day. But on account of the trouble and expense to go to Villupuram or Panruti, the ryot prefers to pledge the jewels with neighbours even though he has to pay an interest of $37\frac{1}{2}$ per cent.

16 per cent of debtors have liberated themselves from their debts, but in all cases only by selling some or all of their lands. But the general tendency is to postpone the repayment of the loans as long as possible. At present therefore the credit of the villagers stands at a low ebb.

Communal Income and Expenditure.—The right to fish in the spring channel is let out on lease, and generally the rent is about Rs. 35. Last year keen competition raised the rent to Rs. 50. This amount along with some contribution by the leading landlord, the Kambattam Reddiar, is spent on Lakshminarasimhaswamy. The deity is brought from Parikkal, a place about 7 miles from here on the 5th day of Thai for Abhishegams etc. and then taken on to the river Pennaiar, about 2 miles from there. The deity is kept there till 5 p.m. and then taken back to the village and from here to Parikkal. The expenses incurred amount to about Rs. 80 and is partly met by contributions from the Kambattam Reddiar.

There is no further source of the communal income. The trees on the roadside are leased out annually by auction, but the lease amount goes to the Local Fund. The fishery rent is paid by about a dozen people, and the right to fish in the lake is auctioned. The income varies from Rs. 400 to Rs. 1,000, which is divided among those who pay the tax, in proportion to the tax they pay. The *vezhal* grass in the lake, which once brought in Rs. 800 fetched only Rs. 40 last year.

Another important festival is the Brahmotsavam in the Ponni-amman Koil. The festival is in Vaikasi or Ani, and extends over 12 days. The total expenses amount to Rs. 300 but the expense for each days' festival is met by 10 different families. The last two days' expense is met by the Kambattam Reddiar. On the night of the Car festival there is an open air dance and the expense is met by the whole village, each family contributing according to its capacity, varying from 2 as to Rs. 3.

On Vijayadasami, and on Mattu Pongal, the trident is taken out in the streets. After taking back the trident, the people go

from house to house to 'take betel leaves and nuts' from each house. On this day each family incurs an expense of Rs. 2 to Rs. 3. The expense in taking out the Goddess on both these days is met by the Kambattam Reddiar.

Five families have jointly contributed a fund from which on each Krithigai day they buy and send flowers worth about Rs. 2 to the deity at Mailam. This practice has been going on for the past 30 years, and the supply has never failed.

Sanitation and Health.—The general sanitary condition of the village is good. The village has been free from cholera and malaria for the past 3 years. But cases of chicken pox occur every year. There have been cases of snake-bite when the men were working in the fields, but none was fatal.

All diseases are treated by the native doctors with the help of herbs. There is a Local Fund dispensary at Tiruvonnainallore, but very few go there. The people have more faith in native physicians. Some go to a quack (a Muslim lady) at Villupuram. Mantrams play a very important part in treatment of snake bites and even fever.

The villagers store their manure in the backyards of houses if there is space enough, or else they store the manure on the borders of the village site. The streets are kept tolerably clean, the first street being the best in this respect. The only insanitary habit is that water is allowed to stagnate near the wells. But even here, since there are only a few wells in the village, and water is used for cleaning vessels, not much harm is done, since the quantity of water used is very small.

Except a small number of families the people depend on the spring channel for their drinking water supply, since the water in the wells is a bit brackish. The channel, which never runs dry, supplies water not only for drinking and bathing purposes but for all washing purposes as well.

In the Cheri, there is only one well which supplies drinking water to the whole population, and the well in the morning attracts a large crowd.

Some Vanniars and Adi-Dravidas marry their children very young but generally post puberty marriage is the rule in all the castes here.

Education.—There is only one school in the village, a Board Elementary school which teaches up to the fifth standard, though this year there are no students in the highest class. The school can

accommodate about 60 students. The school building consists of one big hall, 30 ft. by 60 ft. and a small room adjoining the hall. All the four classes are accommodated in the hall.

The school is now in the charge of 2 teachers. The Headmaster comes from Alankuppam, and his assistant from Parangiyur. The Headmaster is a Higher grade trained teacher and his assistant Lower grade trained.

There are at present 35 boys and 5 girls on the rolls. The daily attendance varies from 20 to 25. The school working hours are from 9 to 11-30 in the morning, and 2 to 4-30 in the evening. From April to August, the hours would be from 8 A.M. to 10-30 A.M., and 2-30 P.M. to 5 P.M. The students generally come late after attending to all the work at home, and the masters have often to go out to collect the students. The average duration of school life is from the 6th to 13th year. 8 students from Alankuppam and a Muslim boy from Arasur attend the school. Generally all the boys in a family do not attend school. Some help their fathers by tending cattle, cutting grass for cattle, and carrying meals to their fathers working in the fields. Some even take a hand in ploughing. When there is only one boy, the cultivator has to engage another boy to tend his cattle, and this almost always tells upon his finance.

The boys of the Cheri do not attend school. Though they are entitled to be admitted, parents are afraid to send their boys to the school. But they are keen on a school of their own. They have got a site for the school and guarantee a good attendance. They are very keen on this, but fear keeps them down from giving vent to their feelings.

Boys who pass out of the school go to the Board Higher Elementary Boys' School, where free education is given. At present six students are attending that school. The distance of 3½ miles is covered by some by walk and by some by cycles.

There are no pundits or specially educated persons in this village. There are about half a dozen educated men here who have all studied upto the sixth form. One of them has studied in the Intermediate class and then discontinued. The village can boast of only one law graduate, who is now a Commissioner of the Hindu Religious Endowments Board, Madras—Mr. E. V. Sundara Reddi, M.A., B.L., who helped Dr. G. Slater in his pioneer survey of this village.

Newspapers are read in the village. They are *Dinamani*, *Jayabharathi* (daily and weekly) and *Ananda Vikatan*—all Tamil papers, and these play a very important part in moulding the political opinions of the people.

Amusements.—There are dramatic performances now and then. During the Brahmotsavam, on the night of the Car festival day, there is a performance which is always a religious play. Last year a party from Arasur enacted 'Hiranya' and this year a party from Mangalampatti near Vridachalam enacted another play. People here have no histrionic talents and so parties from outside are brought here.

Village Administration.—There is no regular panchayat system in the village. The village administration is carried on by the Village Munsiff and the Karnam. The police administration is in the hands of one Thaliary and 2 Thottis, who help the Village Munsiff in the collection of Land Revenue.

The officials touring round camp at the Travellers' Bungalow at Arasur. The Special Loans Officer is very often camping here to dispose of many cases of loan applications.

Civil litigation is a very common feature, while crimes are rare. Civil litigation has landed many in debts, but the suits themselves are due to debts. The villagers borrow and when they do not repay, the creditor files a suit and the borrower tries to escape the burden by asking the creditor to cultivate the land himself.

Petty offences and civil disputes are dealt with in the village itself without resort to any courts.

Improvements needed.—The village was once sure of two crops but is not now so confident. The spring channel has been badly neglected, and if this could be repaired annually, the channel water would be of great use. Further the lake water is also wasted unnecessarily. If it could be conserved and used with care, the ryots could easily get two crops out of their lands every year.

Further the distance of the fields at the extreme ends is about 2 miles and the cost of cultivation of these fields is enhanced by the difficulties of transporting manure, produce etc. The value of a road through the fields would be great.

Lastly, the ryots will benefit greatly by a consolidation of the holdings. At present the holdings are very much scattered and are very small, making the cultivation uneconomic. Here again the Government interference would be beneficial, if a transfer of lands could be effected to form consolidated holdings.

The condition of the village, though not prosperous at present, may be expected to improve with a rise in the price of the produce, coupled with the reforms mentioned above.

COPY OF A PADIYAL INDENTURE

(Translated)

Padiyal Advance (Loan) Bond executed on 23rd June 1916, to Mr.Reddiar, son of Mr.Reddiar of Eruvellipet, Tirukoilur Taluq, on the personal security of..... of Eruvellipet by (1)son of..... and (2)son of, both of Alankuppam.

Received cash this day towards marriage expenses by No. 2 of ourselves: Rs. 21-11-0; due already from No. 1 as per acknowledgement: Rs. 4-5-0. Altogether due to yourself by both of us Nos. 1 & 2, Rs. 26.

It is hereby agreed that in lieu of payment of interest on this sum of Rs. 26, No. 2 of ourselves will serve as Padiyal under yourself receiving the customary dues of Kalam,¹ Kalavasam,² and Lakkapanam.³

If any inconvenience is felt by No. 2 which prevents his discharging his duty as a Padiyal, No. 1 will discharge that duty without fail. If both of us stay away from work, it shall be the duty of the person standing surety for us to produce both of us before you. If both of us do not agree to work, we shall, besides, being liable to punishment under Act 13 of 1859,⁴ make good any loss in the crops incurred thereby.

1. Kalam consists of grains broken and mixed with dust and left on the threshing floor, after threshing, winnowing and measuring out produce.

2. Kalavasam is the annual remuneration in kind, usually 60 Madras measures of paddy.

3. Lakkapanam is a corrupt form of 'Rokkapanam' and is the cash paid, amounting to about Re. 1 per annum.

4. Workmen's Breach of Contract Act is perhaps referred to, which provided for penalties, including imprisonment, on labourers who had received advances from their masters but failed to discharge their duty agreed to. This Act has since been repealed, in 1925.

DUSI

(North Arcot Dt.)

By

A. K. VEERARAGHAVAN, M.A.

This village is in the Cheyyar Taluk in the North Arcot District. The village includes Pudu Dusi, a small colony of Vanniahs formed about 10 years ago, Anumanthapettai and Nathakollai, a hamlet on the border. The village is 6 miles from Conjeevaram Railway Station, and is on the metalled road from Conjeevaram to Wandiwash. The river Palar runs about a mile and a half to the north of the village.

On the western border there is a hill about 5 miles long and about 100 feet high forming a natural bund to the great Dusi-Mamandur Tank, the second biggest tank in the district supplying 32 villages with water for irrigation. Of these 32 villages, only in 18 is irrigation by direct flow possible; in the other 14 villages irrigation has to be done by baling or other methods. There are 3 breaks in the hill, and these are filled in by heavy masonry by the Public Works Department.

Formerly Dusi was the headquarters of the Deputy Tahsildar, but as a measure of retrenchment the office was shifted to Cheyyar. Now it is the headquarters of the Police and Abkari Sub-Inspectors of the Taluk, and the Sub-Registrar of Assurances.

Population.—The total population of the village is 1316 dwelling in 288 houses. The population increased from 1266 in 1916 (the year of last survey) to 1710 in 1932, but has since fallen to 1316 in 1937. This striking fall is due to a large number of families having emigrated from this village. Families have moved to Conjeevaram, to Madras, to Tirupathi and to Tiruvottiyur and other places seeking means of livelihood. The Agraharam specially presents a very deserted appearance, as a number of houses which have been left vacant are derelict.

There are a number of castes in this village, as noted below, most of them following their hereditary occupations:—

Castes.	No. of families	No. of persons.	No. of children.	No. of adults.
Vaishnavite Brahmins	35	160	58	102
Saivite Brahmins	7	34	16	18
Vellalas	13	53	15	38
Chettis	8	32	10	22
Naidus	2	7	2	5
Gramani	1	8	4	4
Naickers	160	771	273	498
Karunigar	1	10	4	6
Barbers	3	19	7	12
Potters	3	11	5	6
Washermen	3	9	3	6
Artisans	5	31	11	20
Oddars	3	12	4	8
Komuttis	2	4	1	3
Muslims	11	56	27	29
Valluvars	8	36	11	25
Dasiri	1	3	1	2
Professional classes	8	60	33	27
	294	1316	485	831

There are 72 houses in the Agraharam, 66 houses in the non-Brahmin streets, 84 houses in Pudu Dusi and Anumanthapettai, 13 and 15 houses in the Valluvar and Vellala streets respectively and 38 houses in Nathakollai.

On an average there were between 1906 and 1910—61 births annually, between 1911 and 1915—61 births, between 1916 and 1920—62 births, between 1920 and 1925—58 births and between 1930 and 1935—60 births; the death rates for the respective periods were 43, 39, 54, 36 and 37 annually (Appendix II).

There is no cheri attached to this village, but there are cheris in the neighbouring villages.

Land.—There are 485.14 acres of wet land, 231.31 acres of dry land, 1081.4 acres of common pasture and waste. 48.62 acres are under Inam. There are three wells supplying water only for 3.35 acres. There are no forests, and the fruit and shade trees have decreased rapidly. The site Pudu Dusi now occupied was a tamarind tope and it had to be cleared. Following are among the trees now found: Tamarind trees 134, Coconut 230, Palmyra 190, Nuna 133, Margosa 113, Karuvel 11. The total number of fruit and shade trees is 920.

FRAGMENTATION OF HOLDINGS IN WET LAND.

Patta No. 60.			Patta No. 57.		
Field No.	Extent Acs.-Crs.	Assessment. Rs. A.	Field No.	Extent Acs.-Crs.	Assessment. Rs. A.
87-3	0-34	4 7	25-1	0-49	2 10
104-5	0-54	6 1	73-3	0-10	0 10
118-1	0-46	5 3	78-5	0-21	1 5
146-3	0-27	3 1	108-3	0-50	6 9
180-2	0-17	1 15	110-2	0-30	3 15
198-3	0-94	9 5	5	0-59	7 12
226-25	0-5	0 11	116-2	0-51	6 11
253-1	0-19	2 8	177-4	0-55	7 4
255-11	0-16	1 1	184-1	0-83	5 15
257-6	0-33	2 1	228-7	0-5	0 5
295-2	0-83	9 5	232-9	0-56	7 6
310-6	0-51	5 12	241-3	0-31	4 1
313-1	0-35	3 15	7	0-14	1 13
3	0-21	2 6	257-7	0-28	1 12
331-1	0-51	5 1	294-3	1-17	13 3
346-3	0-72	7 2	302-3	0-35	3 15
446-1	1-1	8 8	315-1	0-51	5 12
465-1	0-35	3 7	318-3	0-55	6 3
465-3	0-73	7 3			
468-3	0-47	4 10		8-00	87 1
469-3	0-58	5 12			
473-1	0-46	4 9			
475-3	0-77	7 10	Patta No. 59.		
478-2	0-32	3 3			
488-2	0-63	6 4	Field No.	Extent Acs.-Crs.	Assessment. Rs. A.
493-2	0-6	0 10			
	11-94	121 10	41-2	0-74	3 4
			5	0-6	0 4
			62-5	0-25	1 9
Patta No. 49.			139-8	0-11	1 1
			158-2	0-58	4 4
Field No.	Extent Acs.-Crs.	Assessment. Rs. A.	159	0-46	3 14
59-2	0-55	7 4	165-4	0-61	6 14
61-3	0-56	3 8	226-2	0-2	0 4
5	0-27	1 11	228-10	0-11	0 11
7	0-14	0 14	231-8	0-3	0 4
123-1	0-46	5 3	19	0-5	0 6
155	0-95	8 0	291-2	0-31	3 1
226-10	0-5	0 11	293-1A	0-35	3 15
306-4	0-37	4 3			
				3-68	29 11
	3-35	31 6	Has also Dry Land.		
			44-5	0-40	0 7

WET LAND (Contd.)

Patta No. 41.			Patta No. 199.		
Field No.	Extent Acs.-Crs.	Assessment. Rs. A.	Field No.	Extent Acs.-Crs.	Assessment. Rs. A.
231-14	0-3	0 4	166-2	0-65	6 7
232-2	0-4	0 8	168	0-52	5 2
299-3	0-68	5 5	170-2	0-18	2 0
490-3	0-2	0 3	196-3	0-75	7 7
499-2	0-64	7 10	206-3	0-33	5 4
499-2	0-26	2 9	231-9	0-3	
232-3	0-4	0 8	328-3	0-58	6 8
			381-4	0-7	0 11
	1-71	17 15	5	0-6	0 10
			7	0-24	2 6
			8	0-7	0 11
Has also Dry Land.					
431-4	0-90	0 15		3-48	37 2
443-1B	0-32	0 5			
3B	0-25	0 4			
	1-47	1 8	Patta No. 259.		
			Field No.	Extent Acs.-Crs.	Assessment. Rs. A.
			356-2	0-36	
			418-2	0-87	
			452-2A	0-73	
			491-3	0-29	
Patta No. 268.					
				2-25	22 13
Field No.	Extent Acs.-Crs.	Assessment. Rs. A.			
171-1	0-54	6 1	Patta No. 590.		
177-2	0-52	6 13			
200-3	0-53	5 15	Field No.	Extent Acs.-Crs.	Assessment. Rs. A.
207-2	0-88	8 11			
236-2	1-15	15 2	103-2	1-02	10 1
320-4	0-56	6 5	190-2	0-96	9 8
370-5	0-56	5 9	301-1	1-27	14 5
385-3	0-46	5 3	357-1	1-17	13 3
478-4	0-41	4 1	484	0-55	5 7
479-2	0-3	0 5	496-1	0-75	7 7
497-1	0-75	7 7			
	6-39	71 8		5-72	59 15

Water supply: Drinking Water.—Two tanks supply pure water; well water is brackish. One of them, Hanumantharayan-kulam, has been ill cared for. The Government used to grant Rs. 3 annually for clearing the tank. Last year Rs. 100 was granted for a thorough repair. But it has not been done. In summer months there is only about a foot and a half of water, and that too is very muddy water. The Government has appointed a Board of five members with an elected President for taking care of this tank. The Board has not so far taken care to spend the grant in clearing the tank of the mud.

The other tank, Dharma Iyengar Kulam, gets its supply of water from the Dusi-Mamandoor tank. This water too is not fit for drinking. Further, when the supply from the big tank fails, the tank runs dry.

This scarcity of water supply necessitates people going to a tank a mile from the village known as the Vandikkarankulam, or else to the Palar. But as many have no carts to go to such distant sources for fetching water, the majority use the water from these two contaminated sources.

The Sitteri or Dusi Thangal also supplies water for drinking purposes. This tank gets water from the rains in October and November. It can supply water for five months. It gets the surplus water from Vagai Thangal. This year a little water came with the rains in the summer months. This water was used for drinking, bathing and all other purposes as well. The sanitary condition of this tank is deplorable.

Irrigation.—The largest source of water for irrigation is the Mamandoor Hissa Tank. It depends for its water supply upon the Palar anicut channel which passes through the tanks of Vengalattur, Tiruppanamur and Sittattur villages and the Rajakkal channel. The Rajakkal channel takes off from the river Palar about 10 miles from here. The head of this channel was silted up during the floods of 1931. Last year this channel was partly cleared with the subscriptions raised from all the villages under the ayacut of this tank. If this channel can be cleared fully, a regular supply of water can be assured to this tank. In the course of the last 12 years, only in 1931 and 1935 was the tank full. When full, the tank could supply water for 18 months. Last year the supply lasted only for six months. This tank is under the control of an Irrigation Panchayat, consisting of elected members from all the villages under the ayacut of this tank and is reconstituted once in

3 years. While the water supply is generally adequate for the first crop, it is often inadequate for the second crop.

A glance at the area cultivated with 2 crops shows the enormous variations in the area cultivated under the second crop. This can only be accounted for by a failure in the supply of water for the second crop. When the water supply from the channels leading from Palar fails, second crops cannot be raised. For example, in Fasli 1327 the area under second crop was 875.4 acres, and it had fallen to 0.44 acres in Fasli 1345. The years Fasli 1330, 1331, 1333, 1335, 1341, 1342 and 1343 have been comparatively good, with the second crop area averaging about 400 acres (Appendix III). The first crop area has been almost constant—averaging about 400 acres.

The area under second crop under the Sitheri repeats the same story, in that the years fasli 1329, 1332 have been good, while all the other years have been bad. But here, even in the first crop area we find a gradual decrease (Appendix IV).

Occupation of Land.—Besides the lands cultivated by patta-dars themselves lands are leased out to tenants on Varam (share) and on Kuthagai (fixed) tenures. About 40 per cent of wet lands are let on Varam and the rest on Kuthagai. When the land is let on Kuthagai, the expenses of cultivation, i.e., seed, labour, manure, etc. are borne by the cultivator. The owner pays the kist. The Kuthagai rate for one *thalai* (45 cents) varies from 12 to 15 kalams of paddy and so the rate for an acre varies from 26 to 32 kalams (Kalam is equal to 10 marakkals of 4 Madras measures each). The landlord gets in addition 4 *Tharai* (head loads) of straw. When the growth in any year is not good due to failure of irrigation the landlord generally gets a little less of his usual share.

When the land is let on Varam the landlord supplies seed and manure and pays the kist. The tenant supplies only labour. The landlord gets 5/6 of the produce as his share. Of the straw he gets only one *tharai*. In addition to his 1/6 share, the tenant gets kalavasam, *thaladi*, *poradi* and *minvai*—gleanings of the threshing floor after harvest—only when he supplies his own ploughs and oxen. But when the landlord, in addition to the seed and manure, also supplies ploughs and oxen, he gets out of a produce of 60 marakkals, 53 marakkals as his share, and the ryot gets only 7 marakkals. The landlord gets all the straw. The tenant gets also as his share: kalavasam—3 or 4 marakkals, *thaladi*—2 to 6 marakkals, *poradi*—1 marakkal and *minvai*—1 or 2 marakkals.

If the landlord has not the manure necessary, or the seed, then he pays cash to the tenant for the purchase of manure or seed. The landlord supervises the cultivation work, unlike in the case of Kuthagai.

The rent is always paid in kind and never in money.

The number of cultivating pattadars is 167. 46 pattadars have let the lands on Varam and 113 pattadars on Kuthagai. Of the 326 pattadars, 107 live outside; 14 are at Madras, 38 are at Conjeevaram, 13 at Ayyankulam, and the rest are scattered over Mysore, Cheyyar, Tiruvottiyur, Avadi, Wandiwash, Sriperumbudur, etc. The area cultivated by pattadars is 191.99 acres; that cultivated on Varam is 173.55 acres; on Kuthagai 333.87 acres. About 135 cultivate lands taken on Varam or Kuthagai and have no patta lands of their own. The absentee landlords let their lands on Kuthagai and get their share through their agent in the village; or they come to the village personally and take their share. The absentee landlords prefer the Kuthagai system, since there is no necessity to be on the spot at harvest time to prevent the tenant playing any tricks.

The tenant would seem to prefer the Kuthagai system. Under this, there is no interference from the landlord and the little manure that he has to apply to the field can be supplied from his own stock of manure. Further there is an incentive to work since he gets all that is left after paying the stipulated quantity to the owner. Under the Varam, though the tenant gets only 1/6 as his share, generally he manages to get much more, by thefts and by playing tricks while threshing the grain etc. The landlords let their lands on the border of the village, which require no manure since they get the sewage water, on Varam since the landlords need not supply the manure but still get the 5/6 share, though it is actually a little less in the end.

The Karnam, Blacksmith, Goldsmith, Carpenter and Oil presser have all let their lands on Varam. The barber too who owns some lands has sublet them. Five of the Muslim families who own lands have sublet them on Varam.

Under joint ownership, the joint owners divide the field and carry on the cultivation either themselves or by subletting their portions on Varam or Kuthagai.

There is no difficulty in getting tenants. The tenants themselves go to the landlords to get lands on Varam or Kuthagai. The term of tenancy is for a year and land is usually left with the same

ryot so long as the landlord is satisfied with the work of the ryot. This has no harmful effects on the land since the landlords personally supervise the cultivation.

The landlord gives advances in the form of seed manure, and even grain for the daily needs of the cultivator if he requires it, or in cash if he wants it. The ryot repays the loan at the time of harvest. No interest is charged on any advance by the landlord.

Land Revenue.—The land revenue for dry land is Rs. 266-10-0. The land revenue for wet land is Rs. 4745-5-0 (Appendix V). The land revenue for wet land ranges from Rs. 4-6-0 to Rs. 13-2-0 per acre. The lands are classified as follows. There are 7 tarams in Class I, and 4 tarams under Class III. The dry rates are Re. 1-1-0. and Rs. 1-9-0 per acre (Appendix VI).

Since the supply of water in the Mamandur Hissa Tank has been failing in recent years, those lands on which there are compounded rates suffer, since there is not enough water for the second crop. The condition is worsened, as it was last year, when there is no remission for the loss of one crop.

82.97 acres are in the category of one-crop land under both the tanks, while 432.13 acres are put down as under two crops.

Cultivation: Chief crops.—The wet lands are cultivated with paddy. Ragi is grown on one crop land under Dusi Thangal. On dry land, Groundnut, Castor, Red-gram, Karamani and Horse-gram are grown.

Paddy (1) First Crop Varieties on Wet Land:—

- | | |
|--------------------------|--|
| (i) Pichavari | Transplanted as well as broadcast. Purattasi to Marghazi. |
| (ii) Sirumani Samba | Sown in Avani-Purattasi and reaped by the end of Marghazi. |
| (iii) Kichili Samba | |
| (iv) No. 8 Samba | |
| (v) Bangalore Manakattai | |

(2) Second Crop Varieties on Wet Land:—

- | | |
|------------------------|--|
| (i) Sornavari | Broadcast in Panguni and reaped in Adi. |
| (ii) Madangal Samba | Transplanted in Vaikasi and reaped in Avani. |
| (iii) Vella Manakattai | |

(3) *Dry Crop Varieties* :—

- | | | |
|-----------------------------------|---|--------------------|
| (i) Vadam Samba | } | Avani to Marghazi. |
| (ii) Mosanam | | |
| (iii) Sinna Samba | | |
| (iv) Kichili Samba | | |
| (v) Kappam Samba or
Kappam Kar | | |
| (vi) Pisini | | |
| (vii) Sirumani | | Avani to Thai. |

On wet land Sirumani samba is the most commonly cultivated and on dry land Vadam samba. Though the yield of these two is about the same as of the others, these two fetch a better price in the market, and for consumption Sirumani is preferred by all. Chinna samba also fetches a good price, but is not cultivated here, since the soil is not fit for it. Hence Vadam samba on dry cultivation (puzuthi) and Sirumani samba on wet (sedai) are the most commonly cultivated.

Paddy is sown broadcast on high and loamy soil; if transplanted, on low and clayey soil. The land is manured with about 8 cartloads of manure and sometimes even as low as 4 or 5. For sowing broadcast, the seed rate is about 10 marakals, and for transplanting 5 marakals. Formerly about 10 marakals of seed used to be sown for transplantation, as it was sown thick. Water must always be standing. Now one gets an yield of 20 to 27 kalams of paddy. They are aware that with about 15 cartloads of manure, they could expect at least 35 kalams, but the economic resources are so scanty that manure is not applied liberally or even adequately. Further the rains in Adi are liable to wash away the manure and so the ryots do not apply so much for the first crop in the revenue year as for their second crop, when there is no rain and when the lands are cultivated with wet paddy.

When cultivated in (puzuthi) dry, one can expect at present 15 to 20 kalams of paddy.

Ragi.—Ragi when cultivated on wet land is grown on one crop land under Dusi Thangal. As soon as samba is harvested in Thai, the land is ploughed (only if there is at least a month's water supply in the Thangal). Seeds are sown in seed beds in the beginning of Thai and the seedlings are transplanted by the beginning of Masi (i.e. in about 25 days after sowing). The crop is harvested

by the 20th of Chitrai. The land is then left waste till Adi, when it is again ploughed for samba crop.

Even on double crop land if there is not sufficient water in the lake for samba crop, the lands on the border of the Channel leading from the tank are cultivated with ragi. This crop too is transplanted. The seeds are sown in the beginning of Thai transplanted at the end of Thai or beginning of Masi, and harvested in Chitrai. This crop was cultivated last year but due to want of water in the tank this year (1937) it has not been cultivated.

The seed rate for ragi crop is about 2 measures for an acre, and is sown on about 3 cents of land. The produce varies from 8 to 10 kalams an acre.

Groundnut has been cultivated on wet lands too but only when the water in the tank has not been sufficient for raising another paddy crop. In this case when groundnut is grown, the water is preserved and used in the succeeding year for raising, if possible, 3 crops.

Mixed Crops.—Groundnut cultivated on dry land is sown in the months of Adi and Avani and harvested in Karthigai. It is sown along with karamani and blackgram in furrows at intervals of about 3 yards. Horsegram is sown in Adi or Avani and harvested in Thai. Round this field castor and cholam are sown. On the field to be cultivated with groundnut, 4 marakals of groundnut seed, $\frac{1}{4}$ measure of castor, $\frac{1}{2}$ measure of redgram and $\frac{1}{4}$ measure of karamani are sown. 20 to 30 kalams of groundnut seeds can be expected as yield.

All these crops depend purely upon rain. This year gingelly has been sown in Chitrai and will be harvested by the end of Vaikashi or beginning of Ani.

Only about 10 cents are under plantains. Vegetables are grown only in backyards of houses. Only last year the plantains were planted, and so far have yielded no returns. The same landlord was having plantains in fasli 1341 on the same plot as now, just on the border of the village site. This was watered by a well which fell under repair and so the plantation was given up. Only last year the well was repaired. The plantains were cultivated more for leaves than for fruits.

Fluctuating Area under crops.—The area under paddy has been falling every alternate year from fasli 1323 to 1329. Then for 3

years the area was a little steady, but again from fasli 1334 to 1340 the area came down, and again for 3 years we find more than 1000 acres under paddy each year. The area fell once again in fasli 1344 and 1345, but rose again in 1346. The lowest mark was reached in fasli 1345, when the area was only 583·30 acres, and the highest was in fasli 1327 when the area was 1434·97 acres. The area under ragi too shows the same feature, the area in fasli 1345 was 7·58 acres and that in fasli 1327 was 58·44 acres. For gingelly the fasli 1336 saw the largest area, 56·77 acres, while in that year 669 acres were under paddy. Last year groundnut reached a very high figure, since 53·46 acres were under that crop, the next best to fasli 1324, when 57·48 acres were cultivated with groundnut. Thus we find that the area under dry crops has reached high figures only when the area under paddy fell, i.e., when there was not enough water supply for a paddy crop (Appendix VII).

Insect Pests.—There are three kinds of insect pests which attack the paddy crop: 1. Thalpuchi, 2. Annapuchi and 3. A red insect much like a silk worm. The ryots are not able to combat them successfully. The groundnut crops are affected by Kadalaika puchi.

Agricultural Improvement.

Kichili samba was introduced here only two years back by one gentleman, and now it is cultivated by many. Single transplantation of paddy is not practised here. Paddy is transplanted in twos and threes and not more, since if they are transplanted in bigger bunches, the crop would be very close and growth would be affected. Practically no improvement has taken place in the methods of cultivation or in the crops. In a neighbouring village, Pallavaram, about a mile and a half from here, rapid improvements have taken place. New varieties of paddy and sugarcane have been introduced. Iron ploughs are used there. But in this village only the ordinary wooden ploughs are used. There are only 3 wells here. One well on the western side near the Mamandoor Tank bund is now useful for raising a third crop on the land. About 5 years back a ryot constructed a well costing Rs. 200. The well collapsed in six months, and the ryot had to close it since he could not afford to spend another big sum on the well. The high cost of sinking wells stands in the way of an increase in the number of wells. The soil being loose, the sides of the wells have to be built of stone, and this accounts for the heavy expenditure. Further this year

one ryot was digging a big well on the border of the Koranganil-muttam village, and after having dug to a depth of about ten feet came across a thick layer of hard rock which would cost a good deal to be blown up and so gave it up. No oil engine has ever been used.

The Agricultural Demonstrator of Cheyyar has demonstrated the utility of new methods. Sugarcane can be grown with profit here, but there must be a regular water supply for nearly a year, and this can be assured only when there is a well.

The agriculturists try to get seeds from the Demonstrator at Cheyyar, but since it takes a long time for the ryots to get them, the villagers get the seeds from the neighbouring villages so as to sow in time, since there is nothing in agriculture which is so important as sowing in the proper season.

Further, unless the methods demonstrated are within the means of the ryots, they stand little chance of being adopted by the ryots.

Live Stock.—There are at present 280 oxen, 222 cows, 172 young ones, 117 he-buffaloes, 122 she-buffaloes, and 73 young ones; 125 sheep and 43 goats. The number of oxen showed a downward tendency till fasli 1341, but the figures have rapidly risen. In the case of cows too, the fasli 1341 was the worst as there were only 50 cows. The fasli 1345 shows an improvement as regards live-stock (Appendix VIII). The low figure in fasli 1341 is explained by the fact that there was an extraordinary sale of livestock since the people were hard-pressed. But when we look into the remission figures, only in 1343 and 1344 do we find any substantial remissions.

<i>Remissions in</i>	<i>Rs.</i>	<i>As.</i>	<i>Ps.</i>
Fasli 1341	..	14	4 0
„ 1342	..	55	11 0
„ 1343	..	2,959	5 0
„ 1344	..	1,391	8 0
„ 1345	..	13	1 0

Hence the Livestock census for fasli 1341 may not be said to have been correctly taken.

The villagers both buy and breed cattle. The bullocks that are reared here are used for single bullock carts. They are fed on husk, oil-cake, straw and grass, but no special treatment is ever accorded to those animals. They are only let out with the common herd and are not specially cared for.

Draught bullocks for ploughing and other field work are bought at the shandies at Kushamanthal about 7 miles from here held on Wednesdays, at Walajahbad about 13 miles to the east held on Mondays. The price varies from Rs. 20 to Rs. 50 per head. The southern breeds are used for this purpose.

Bullocks for the carts are bought at the shandies at Ranipet, held on Fridays, and the price varies from Rs. 100 to Rs. 200 per pair. During the Vaikasi festival at Conjeevaram, they are brought from Ranipet and from the neighbouring places. Here the villagers buy them at prices varying from Rs. 100 to Rs. 200. For cart use both northern and southern breeds are bought. The southern breeds are preferred since they do not require so much feed, as the northern breeds. Animals that became weak or old are sold in the shandies at very cheap prices varying from Rs. 20 to Rs. 50 per head. The tenants more often buy cattle which are about to be taken to the slaughter yard at very cheap prices, costing as low as even Rs. 6 per pair. Then they use the pair for a crop and then dispose them off. The tenants help the animals in breaking hard soils by adding their own labour with a spade, unlike in the case of animals supplied by a landlord in which the harvested land, the stubble, should be broken by the animals alone which is a strain on the neck and lowers their general efficiency.

The people buy he-buffaloes before the ploughing season in the shandies. What an ox can do in 10 days, a he-buffalo can do in 3 days, for though a he-buffalo works slowly and steadily the fields can be ploughed deeper. Hence he-buffaloes are preferred for ploughing purposes. The price varies from Rs. 20 to Rs. 25 per head, and after the season they are sold at prices varying from Rs. 15 to Rs. 20 in the shandies. They cost more to be maintained, since they eat straw and have got to be taken to water daily. That is why he-buffaloes are sold away soon after the ploughing season. A cow yields one to two measures of milk, while a cow-buffalo would yield $\frac{1}{2}$ to $1\frac{1}{2}$ measures per day, but the lactation period is longer in the case of a cow-buffalo. In only 2 houses there are cows of northern breed. They are specially looked after; for crossing, the stud bull at Conjeevaram was used, but even that has now been disposed of by the Department.

Cart bullocks are given horse-gram, husk, oil-cakes, straw and grass. Much care is bestowed on these animals.

Plough bullocks are given the above feed only during the ploughing season, and at other times only straw and husk are given with an occasional piece of oil-cake.

Cows are given husk, grass, straw, gingelly oil cakes, green gram and Bengal gram. This feed is given only during the lactation period, and when they run dry are given only husk and straw.

She-buffaloes are given husk, straw, grass and gingelly oil cakes, while he-buffaloes are given husk and straw during the ploughing season.

The common cattle disease is Anthrax. However, only 5 per cent of the cattle are lost. Native medicine is given and the affected cattle recover. About 4 months back an ox was affected by 'Kuthirai vali', but it was able to recover after the administration of indigenous medicines. In October last year Surra was prevalent and 25 animals were inoculated against this disease. The cattle affected by any disease are taken to the Conjeevaram Veterinary Hospital, where they are treated. The Veterinary Officer from Cheyyar visits this place four times in a year, when he attends to the needs of the cattle here.

Manuring.—Farmyard manure is the most important manure used. Nearly 50 per cent of the cattle dung is used as fuel. Since Conjeevaram, a big town, is very near, people take the cow-dung cakes to this place and find a good sale there. Farmyard manure is bought both within the village itself as also from neighbouring villages. The ryots get also the street sweepings from the Conjeevaram Municipality bought in public auction in heaps, which they divide among themselves.

From 7 to 12 cartloads of dung are used for manuring a cawny of wet land for the first crop and half of the quantity is applied for the second crop, and that too only by a small minority of the ryots. On dry lands from 12 to 20 cartloads of manure are applied for groundnut crop and paddy. For gingelly and other crops, 6 to 10 cartloads of manure are applied, since these lands depend mainly on rainfall.

Silt from the Mamandoor Hissa tank is also applied to the dry fields of groundnut, paddy and varagu. Those who own carts usually apply about 20 cartloads while others apply not less than 15 cartloads.

Cattle urine is wasted here; because the people are not aware of its usefulness, nor are they willing to incur the expenditure, though some of the big landlords have converted part of their houses into cattle sheds.

Pig manure, sheep and goat manure are also applied, specially for ragi cultivation. Pig manure is always used along with farm-

yard manure and household sweepings. For every cawny, 2 or 3 cartloads are applied, a cartload costing Rs. 2 at Conjeevaram.

A flock of about 150 animals will take 3 nights to manure a cawny, and usually Rs. 3 or its grain equivalent at the market rate is paid.

As for green manure the leaves of Vembu, Kattuvagai, Pungam, Thumbai poondu and Poovarasam are used, and are obtained from this village as well as from the neighbouring villages. No green manure crop is cultivated. Gingelly leaves, groundnut leaves, leaves of red gram, and ragi stalks are all used as fuel and not as manure. Ragi stalks are also used as fodder for cattle.

Chemical manures are used to a very small extent. Superphosphate and bone-meal are applied, but the quantity is very small. The most favourite are the farmyard manure and the pig manure. Those with no money apply only the silt obtained from the tank.

Wood for building, making carts etc., is available in the village itself. Teak-wood, bamboos, iron ware, and everything concerned with house building are bought from Conjeevaram or Madras. When trees in poramboke area are auctioned, they are bought by the villagers for fuel purposes. There is no casuarina tope here, but casuarina wood is bought from the neighbouring villages, viz., Ukkal 7 miles from here, Arasanipalai 10 miles from here, Vembakkam 6 miles, Valathotam 1½ miles and Kamagampallam 2 miles from here.

The Village Streets and Houses: The entire village site covers an area of 41 acres, distributed as follows:—

Dusi	..	17.67 acres	Vannia Street	..	1.40 acres
Pudu Dusi	..	3.65 acres	Valluva Street	..	2.18 acres
Anumanthapettai		12.80 acres	Nathakollai	..	3.30 acres

The different castes occupy separate parts of the village. The Agraharam is isolated from the rest, and the Vanniahhs live to the east and north of the Agraharam. The Mudaliars live to the north-west of the Agraharam. Pudu Dusi, Anumanthapettai and Nathakollai are for the most part occupied by the Vanniahhs and other castes. The Valluvars live in a separate street and so do the Vania Chetties.

There are no depressed caste people in the village, but the residents of Kurankanilmuttam and Abdullavaram possess

dry lands in this village, and they have also taken lands on Varam or Kuthagai in this village.

There are ten terraced houses and 60 tiled houses in the Agraharam. There are 2 storeyed houses in this village. There are on the whole 10 terraced houses, 2 storeyed houses, 111 tiled houses, and 165 thatched houses.

Every house in the Agraharam has a garden at the back of the dwelling, and so have the houses in the non-Brahmin quarters like the Mudaliar street and the Vania Chetty street. Beans, pumpkins, turmeric, greens and other common vegetables are grown in these gardens.

The maximum distance of cultivated lands from houses is about 2½ miles, if one goes by road and about 2 miles if one cuts across.

There is at present no place available for constructing houses, but as there is no demand for building sites, the want of space is not felt. Many houses are now in fact vacant if they have not already fallen down. Now a plot about 40 feet by 60 feet would cost about Rs. 100 and the same plot about 10 years back would have cost Rs. 150.

The main road connecting Wandiwash to Conjeevaram is rather well kept, but communication is not made secure during the rainy season, due to the break in the causeway on the river Palar. During the floods of 1931 the causeway was washed away and it has not since been repaired though now the work has been taken up.* This break was causing difficulty in transport when the river was in floods.

Pudu Dusi is a small colony of Vanniahhs who have settled in the space between the main road and the Sitteri. This came into existence only about 10 years back and now there are 75 houses in this colony. In Anumanthapettai and Pudu Dusi there are nine streets, 2 running north to south, 7 west to east. The Police Station, the Police lines, the Sub-Registrar's Office are all in Anumanthapettai.

Nathakollai is a hamlet of this village on the south-west. There are 38 houses in this village. There are only 2 castes here, Vanniahhs and Oddars. There is no road connection to that hamlet. The hamlet is situated about three-fourths of a mile from the main road. At present the carts have got to go only through the fields. Another most essential want keenly felt by the villa-

* The work has since been completed.

gers is the water-supply of the hamlet. At present drinking water is available at a maduvu or pool 3 furlongs off which is now almost dry. There is no well at all in this hamlet and hence the scarcity of water for drinking and other domestic purposes.

Subsidiary Industries. The weaving industry is steadily developing. There were 2 looms in fasli 1334, 5 looms in fasli 1341, 8 looms in 1344 and 10 looms in 1345. These looms are owned by seven persons and one owner is engaging three weavers to work his three other looms. Only cotton lungis are woven now. The yarn is supplied by the mandy merchants in Abdullavaram or Iyankulam. The lungis are woven here and then handed over to the merchant who pays them at the rate of Rs. 1-12-0 per piece of 18 cubits length and 1½ cubits breadth. The merchants in Abdullavaram and Iyankulam get the yarn from Conjeevaram.

To weave a piece of 18 cubits by 1½ cubits, it takes from 2 to 9 days. One who is keen on work can finish a piece in 2 days, but he would require a rest for 3 or 4 days. But one who is steady in his work can weave a piece in 3 or 4 days, without needing a break.

At present 3 persons are weaving for wages on the looms of others, and these are paid at the rate of annas 12 per piece. Till last year they were weaving silk sarees. They were paid Rs. 14 per pair but last year the wage was reduced to Rs. 6 and so they had to discontinue silk saree-weaving. The silk yarn was given out by the merchants in Conjeevaram, for whom the weavers here wove for piece wages.

The weavers are in favour of a co-operative society on the model of the Button Producing Society at Tirupanangadu.

There is a soda-water factory here, and this factory supplies aerated water to the shops in this and the neighbouring villages. This is a very small factory.

There is also a new mill in the village, started only a year ago, for milling rice and decorticating groundnut. Formerly the villagers had to go to Mamandoor. Now people from Dusi, Abdullavaram, Pallavaram, Kanikilluppai, Valathottam, Iyankulam, Namandi, Hariharapakkam, Vagai come to this mill. This was started in competition with that at Mamandoor, and this is now working on a satisfactory basis.

The village has its own carpenter, smith, washerman and barber. There are also native doctors who are consulted by the villagers for their ailments.

Village trade.—The chief commodities bought for agricultural purposes are the chemical manures from Messrs. Parry & Co., and pig manure. Seeds are bought from the neighbouring villages.

Yarn is bought from the merchants at Iyankulam, Abdullavaram and Conjeevaram.

The people buy all articles of food except paddy and some other cereals. They get tamarind from their own trees and also by taking the roadside trees on lease when they are auctioned. Chillies, sugar, gram, dholl, etc., are all bought from Conjeevaram. At times onions, red gram, black gram and sugar are all brought from Conjeevaram in cartloads and sold in the streets. The majority of the population buy these articles from the local shops. There are eight petty shops here. But the shops at Mamandoor have a larger variety of articles on sale and at more reasonable prices.

Vegetables are brought in headloads from the neighbouring villages and sold in the streets.

Last year the yield of about 157 kalams of ragi was all used in the village itself. It forms an important item in the diet of the poorer labourers who form the majority of the population here. About 80 per cent of the groundnut harvested is sold out. About 25 per cent of the paddy produced is sold out and the rest is retained for home consumption. Redgram, karamani, varagu, kambu, castor seeds, gingelly, blackgram are all produced in small quantities and used locally.

Paddy is sold in the mandies at Conjeevaram. Groundnut is taken to Conjeevaram but is also sold to the Vania Chettiers who press the oil and sell it. The cartage for taking paddy from here is Re. 1. The price last season varied from Rs. 25 to Rs. 35 per cartload of 12½ kalams. The price depends upon the supply brought to Conjeevaram on any particular day. About 15 years back the brokers used to come here before the harvest and advance money, and the ryots then took the paddy to the shops where they would be paid the balance. But now the ryots have to take paddy to the mandies at Conjeevaram at their own cost.

In the case of groundnut, the producer either takes the produce to the mandies and firms at Conjeevaram where they sell the produce to these merchants, or private persons with some capital buy the produce from the producer in the village and take the produce to Conjeevaram to sell it at a profit. The price which prevailed in the market last year was 6 to 7 marakkals for a rupee. The produce in either case is taken to Conjeevaram.

Conjeevaram thus serves as the commercial centre. It is about $4\frac{1}{2}$ miles from here.

There is no forced sale of produce as a result of financing by the traders. The kist instalments do force the ryots to sell their produce at whatever price they may get. Generally the ryots incur some loss because of this.

The Madras measure is used in measuring the produce. For measuring oil and vegetables a *thukku* equal to 50 palams is used. Ghee, oil and milk are generally adulterated. Paddy is free from this defect, but at times it is not clean when sufficient care is not taken to remove the chaff from the grains.

There is no co-operative sale of produce, nor has it ever been thought of. The Co-operative Credit Society itself is not working on sound lines, and there is every likelihood of its being liquidated very soon. Even unofficial co-operation in trading is not attempted.

Economic conditions:

Wages.—Labourers are employed for all agricultural operations on daily wages which are too low. For ploughing a labourer is paid 3 to 6 annas. For weeding a man is paid between 3 to 6 annas, while a woman is paid between 2 to 3 annas. For collecting the seedlings a man is paid 4 annas while for transplanting a woman is paid 2 annas. For harvesting a labourer is paid 2 annas. No extra perquisites are given to the labourer in addition to the wages. Generally cultivation is carried on by those cultivating on Varam and they do all the work themselves; or else they get help from neighbours for whom they work when they require help.

There are no padiyals here. But servants are engaged to look after the cattle, and drive the cart, and are paid monthly wages both in kind and in cash. To look after the cattle a boy is given 6 to 12 marakals of paddy, depending upon the capacity of the boy. For driving a cart the boy is paid from 10 to 15 marakkals. He begins on 10 marakkals and gets increments. There is keen competition for jobs.

Savings.—Only about 52 families have made savings. Loans are issued on demand pro-notes, mortgage of lands, on mortgage with possession and on pledge of jewellery. Only 4 families have invested their capital in lands, i.e. by purchasing lands on which they had lent. Excluding the officials only 2 families have invested in Savings Bank. All the 52 families have lent a portion

at least as loans to neighbours. Only 2 families have invested a part of their capital in the banks at Conjeevaram.

Indebtedness:

Causes.—The construction of a dam in Mysore has restricted the supply of water to the Mamandoor Tank and affected the yield of crops so badly that the ryots had to incur debts. Further the price of paddy has fallen from Rs. 85 in 1927 to Rs. 25 per cart-load of $12\frac{1}{2}$ kalams in 1937. The price of land ranged from Rs. 15 to 30 a cent in 1924-25. Now it is Rs. 7 to 12 a cent (1937). The ryots still spend lavishly on marriage and other ceremonies.

Rates of Interest.—Loans on the security of land mortgage carry 12 per cent rate of interest now whereas 15 years back $7\frac{1}{2}$ to 9 per cent was charged. Loans on the pledge of jewellery carry 18 per cent rate now, while about 8 years back only 9 per cent was charged. Even at 18 per cent it is now difficult to borrow on the pledge of jewels. Loans on Demand carry 12 to 18 per cent and about 5 years back these carried $7\frac{1}{2}$ to $10\frac{1}{2}$ per cent interest.

No loan is taken in kind, since to pay interest in kind would amount to a very high percentage, and so only loans in money are taken and repaid.

Only 10 per cent of the debtors can be said to have liberated themselves from debt. 50 per cent of pattadars, especially those owning wet lands, have mortgaged their lands. The small loans, which have been decided by the Panchayat Court to be repaid, are usually repaid in kind in instalments, or in money too, if the debtor can afford to sell some portion of grain. Some borrow from new sources to repay prior debt. There are few who repay voluntarily and promptly.

The amount spent on toddy is about Rs. 2 to 3 per day so far as the people of this village are concerned. The toddy shop caters to the people of 6 other adjacent villages.

Communal income.—There is no communal fund. The fish lease fetches Rs. 3,000 to Rs. 12,000. The lease is auctioned once in 3 years. This amount goes to the Government. The income obtained from the man who is allowed to feed his geese on the lands of the villagers after the harvest cannot be considered to form part of the communal fund. This fund belongs only to those pattadars owning wet lands. Land owners of wet lands are clubbed in ten groups, and one man is held responsible for each group,

so that it may be convenient to get their consent to allow the man to feed his geese on the lands, instead of writing to various pattadars living in different places. This fund is now deposited, by common consent, with one gentleman. From this amount any urgent expenditure, like clearing the channel, for which all the pattadars have to pay, is met, because this would be easier than asking each landlord to contribute his due. Last year the rent obtained was Rs. 50, but since the man sustained a loss, he paid only Rs. 35. The maximum rent that was got was Rs. 400. From this fund a mandapam to the Perumal temple costing nearly Rs. 2,000 was constructed in 1924. Last year Rs. 145 was contributed towards the fund raised from all the villages to clean the channel from Palar to the Tank.

The most important festival is on the Chitra Pournami day. The deity from Varadarajaswamy Koil at Conjeevaram is brought here, and Rs. 100 is spent on this day. The festivals of Mariamman, Draupadiamman, Gangaiamman are conducted with contributions from every non-Brahmin family and paddy from the Brahmin houses. The amount of Rs. 100 to be spent on Chitra Pournami day is collected from all the houses in the village.

Sanitary condition.—Cholera, Tuberculosis, Asthma, Diarrhoea, Dysentery, Small-pox have all made their appearance here. Last year there was only one case of fatal snake-bite. Another noticeable fact is that in 1936, six children were still-born and in 1935 there were four such cases. There are every year cases of diarrhoea, dysentery, tuberculosis and other diseases. Medical assistance is available from the Rural Dispensary at Mamandoor as well as from the local native medicine men. The streets are not kept clean, though they cannot be considered dirty. The manure heaps are stored in the backyards as far away from the house as possible.

But the most loathsome disease that a man is liable to get has taken a strong hold here. Leprosy is spreading, especially in the Agraharam. The affected people are not getting themselves treated in time though there is a small leprosy clinic, recently started in Mamandoor by the District Board. The prolonged close contact with lepers and the washing of their clothes along with those of others by the same washerman might account for the spread of this disease.

Education.—There is one District Board Elementary School situated at the entrance to Dusi proper. There are 4 standards in the School. Next year they are going to introduce the 5th

standard as per orders from the District Board. There are now 52 on the roll. There are 16 girls and 36 boys including one Adi-Dravida boy from Valluvachery in the 3rd standard. The attendance varies from 36 to 42 daily. There are two teachers, each handling two classes. The hours of work are 8-15 to 11' a.m. and 2-30 to 5 p.m. in summer, and from 9 to 12 Noon, and 2 to 4-30 p.m. in the months of September to March.

The school building is a big hall, 45 feet by 25 feet and can accommodate 55 students, which is about the present strength of the school. The teachers get their salaries only once in 3 or 4 months, and their dissatisfaction tells upon the efficiency.

Of those who pass out from this school, several join the higher elementary school at Iyankulam and from there a few proceed to Pachaiyappa's or Anderson High School at Conjeevaram. Last year five students passed out and joined the School at Iyankulam, and year before last 6 students joined at Iyankulam, and the year before only 4 students.

Education is free both in Dusi and at Iyankulam. Only the pupils of the schools at Conjeevaram pay their school fees; some of these get scholarship for continuing their studies. The students daily go there by foot or on bicycles or by the carts which go from here taking goods, etc., to Conjeevaram. A few have carts of their own.

There is one Sanskrit Pandit. This place can boast of about a dozen graduates all employed in different positions, some as clerks, some as teachers; and some are in high positions in Government service. The number of students who are at present studying at Conjeevaram is about 19.

The people of this village have some books of their own, but they are mostly religious books in Sanskrit or Tamil.

Recitations of verses from Ramayana and from Bharatham are given during the Droupadiamman festival, which lasts for 10 days, and Bharatham is enacted in open air for 7 days in the night during the festival. Last week the boys of the Vanniah caste enacted 'Valli.' The Sanskrit verses in Ramayanam are recited and explained elaborately. The Tamil verses in Bharatham are recited and explained. This is done both by Brahmin and Non-Brahmin pandits on appropriate occasions.

'The Hindu' (in English), and *Swadesamitran*, and the *Ananda Vikatan* (in Tamil) are subscribed for and read in this village.

The literacy figure in the Brahmin village is very high; and many of the male folk in the other quarters are able to read Tamil, while the women population are almost cent per cent illiterate.

Village administration.—There is a Panchayat court in this village. The Court has jurisdiction over civil cases involving amounts of not more than Rs. 50 each. The case should be filed within three years from the date of the first or any subsequent transactions. The Court decides the cases after hearing both sides and enables the party to recover the amount.

Of the criminal cases, nearly 75 per cent are compromised and the guilty are fined, the fine going up to Rs. 2. The nuisance cases are dealt with strictly—since any leniency would be an encouragement to further such trouble, and here all the accused are fined, the fine varying from As. 8 to Rs. 2.

Last year there were 15 assault cases, and 1 nuisance case, while the year before last there were 26 assault cases and 1 nuisance case. There were 15 civil cases in 1935, 18 in 1935, and 6 in 1934.

The Revenue Inspector assisted by the Karnam and Village Munsiff play their usual part in the collection of revenue. The village serves as the headquarters of the Police Sub-Inspector.

There was a proposal to bring the villages again under a Union, but the communal trouble seems to come in at every stage, and hence the proposal is still in the air.

Dusi Co-operative Society.—The Society was registered on 14th December 1919 with only ten members. It started its work on 29th February 1920 with 17 members and Rs. 3,000 as its authorised share capital. The area of operations of the Society comprised Mamandoor, Korankanilmuttam and Dusi. But later in 1923 Arasanthangal, Valathotam (Conjeevaram Taluk), Abdulla-varam and Pallavaram (Cheyyar Taluk) were included. The members could be given loans on the security of their property in these areas. The authorised share capital was raised to Rs. 7,000 in 1920 (700 shares of Rs. 10 each).

NUMBER OF MEMBERS FROM 1920 TO 1936.

1920	.. 17	1933-34	.. 63
1929-30	.. 95	1934-35	.. 57
1931-32	.. 85	1935-36	.. 57
1932-33	.. 73		

The borrowing power of the Society was Rs. 10,000 in 1920, Rs. 25,000 in 1923; and Rs. 30,000 in June 1923. This limit is fixed at one-eighth of the full value of the members' landed property plus one-half the value of the houses plus one-fourth the value of the movable property minus their liabilities.

The members' individual maximum borrowing power was fixed at Rs. 500 in 1920. This limit has been in force till now and has not changed, as it has in other societies.

LOANS ISSUED IN EACH YEAR.

	Rs.		Rs.
1921-22	.. 11,588	1925-26	.. 150
1922-23	.. 8,850	1926-27	.. 1,512
1923-24	.. 6,805	1927-28	.. 3,500
1924-25	.. 780	1934-35	.. 897

	Due to the Bank by the	Central Society.	Due from members to the Society.
	Rs.		Rs.
1921-22	16,150		18,388
1922-23	19,560		20,699
1923-24	22,055		22,247
1925-26	16,806		17,035
1929-30	15,551		15,010
1931-32	11,649		11,965
1932-33	8,456		9,136
1933-34	7,731		8,149
1934-35	5,788		5,547
1935-36	5,055		4,897

In 1920, the borrowing rate was $7\frac{1}{2}$ per cent from the Central Bank and other depositors, and $12\frac{1}{2}$ per cent for overdues or default and the lending rate was $9\frac{3}{8}$ per cent.

In 1923, the borrowing rates was raised to $8\frac{1}{4}$ per cent and for default $12\frac{1}{2}$ per cent and the lending rate was $10\frac{15}{16}$ per cent.

In 1925 the borrowing rate was reduced again to $7\frac{1}{2}$ per cent and the lending rate to $9\frac{3}{8}$ per cent. In 1935 the borrowing rate was reduced further to $6\frac{1}{4}$ per cent on short term loans repayable within a year, and $6\frac{1}{2}$ per cent for long term loans. The lending rate also was reduced to $7\frac{1}{2}$ per cent on loans issued and for all the old loans already issued on condition that the interest is paid within every co-operative year. Concession on interest is allowed only if the members pay or clear off the entire interest at the rate of

7½ per cent from the last date the interest was cleared, and the penal interest too was waived in those cases.

In 1936, whether the party cleared the accumulated or overdue interest or not, he was to be charged only 7½ per cent on the outstanding principal from the date of the last clearance of interest, including decrees and overdue loans. The borrowing rate was reduced to 5½ per cent on short term loans repayable within a co-operative year on kist loans and agricultural loans.

The society worked at a profit from 1920 to 1923, then at a loss from 1923 to 1934 with the exception of 1929-30. In 1934-36 there was neither profit nor loss.

In 1920 the society was affiliated to Chetti Thangal Union near Tirupanangadu. About 25 societies were included in the Union. In 1926 the society was affiliated to the Vadagalpakkam Union, which included 17 societies. In 1934 it was affiliated to Abdulla-varam Union. In 1935 it was placed under a Supervisor-Manager, under by-law 62-2 to set right the condition of the Society. Five such societies are now under this Manager.

No loan has been given on the pledge of any finished product in any industry or on crops in the fields.

For 9 loans due the security amount is not sufficient. When the loans were first granted enough care was not taken in getting proper securities. Of the loans due at present, 40 loans are overdue, the amount overdue being Rs. 5,565-6-0. When the society was first brought under the Supervisor—Manager the amount that had to be collected at that date was Rs. 9046. The agent gets 4 per cent of the amount collected as his commission.

The property acquired by the Society, according to the last year's audit report, is not fetching a good return and steps ought to be taken for an immediate disposal of the property. The agent is now trying to collect the overdue loans, and no new loans are advanced. The Society is now in a very bad state.

APPENDICES.

I. POPULATION.

Year.	Houses.	Males.	Females.	Total.	Hindus.	Muslims.
1891	178	509	581	1090	1045	45
1901	240	590	606	1196	1156	40
1911	211	625	641	1266	1234	32
*1916	251	..	..	1266	..	..
1922	270	779	814	1593	1575	36
1932	310	880	830	1710	1640	70
1937	288	646	670	1316	1260	56

*1916.—Details not given. Perhaps no special census was taken.

II. BIRTHS AND DEATHS.

Year.	Births.			Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
1906	40	49	89	40	49	89
1916	27	27	54	25	25	50
1918	33	48	81	20	31	51
1919	27	18	45	25	24	49
1920	35	35	70	..	..	..
1921	31	16	47	16	23	39
1922	32	32	64	26	15	41
1923	37	30	67	18	12	30
1924	32	24	56	17	21	38
1925	26	28	54	18	16	34
1929	32	32	64	..	..	..
1932	42	30	72	18	15	33
1933	26	25	51	18	12	30
1934	23	32	55	28	16	44
1935	35	29	64	18	24	42
1936	33	28	61	31	17	48

III. AREA IRRIGATED BY THE MAMANDOOR HISSA TANK

Year.	Area cultivated with wet crops.		Area cultivated with irrigated dry crops.		Total irrigated area.
	One crop.	Two crops.	One crop.	Two crops.	
	Acs. Cts.	Acs. Cts.	Acs. Cts.	Acs. Cts.	
1916-17	435-10	215-60	2-71	..	653-41
1917-18	437-47	857-4	9-0	..	1303-51
1918-19	420-94	45-57	5-11	54-98	526-57
1919-20	399-2	28-6	12-35	..	439-43
1920-21	435-55	434-95	4-68	0-82	876-30
1921-22	435-88	510-29	15-19	13-34	965-70
1922-23	389-56	2-96	9-72	0-74	402-98
1923-24	428-57	423-89	9-81	6-73	869-
1924-25	370-13	30-80	24-11	17-10	442-14
1925-26	398-54	306-10	6-73	..	711-37
1926-27	396-29	71-97	2-77	..	471-3
1927-28	495-83	17-29	2-90	..	504-62
1928-29	464-21	89-7	0-72	8-35	562-35
1929-30	420-52	77-16	4-59	3-43	505-70
1930-31	385-59	11-30	7-34	..	403-93
1931-32	397-50	396-81	0-29	..	794-60
1932-33	427-40	424-8	8-50	7-20	867-18
1933-34	426-86	491-32	8-4	4-54	930-76
1934-35	415-93	16-47	6-79	..	439-19
1935-36	426-38	0-44	0-74	..	427-56

IV. AREA IRRIGATED BY SITHERI.

Year.	Area cultivated with wet crop.		Area cultivated with irrigated dry crop.		Total irrigated area.
	One crop.	Two crops.	One crop.	Two crops.	
	Acs. Cts.	Acs. Cts.	Acs. Cts.	Acs. Cts.	
1916-17	70-42	11-94	1-53	0-45	84-34
1917-18	65-69	13-22	10-51	0-70	90-12
1918-19	64-52	16-25	15-49	..	93-91
1919-20	78-51	78-51	0-40	..	157-42
1920-21	79-36	24-23	0-71	..	102-80
1921-22	77-95	3-0	0-26	..	81-21
1922-23	75-59	69-30	0-40	0-32	145-61
1923-24	78-57	3-53	1-61	..	83-71
1924-25	57-3	20-81	19-18	..	97-2
1925-26	76-22	48-97	..	..	125-14
1926-27	74-76	0-24	2-73	..	77-7
1927-28	73-78	4-59	..	..	78-37
1928-29	76-75	4-60	1-17	..	82-52
1929-30	77-71	20-73	2-85	2-6	103-35
1930-31	76-32	6-42	1-12	6-42	90-28
1931-32	76-10	0-46	0-97	..	77-53
1932-33	77-78	16-2	0-97	..	94-77
1933-34	74-27	6-44	0-97	0-97	83-65
1934-35	76-93	27-53	1-9	..	105-55
1935-36	78-16	22-86	1-3	0-32	102-37

V. AREA AND ASSESSMENT OF REVENUE ON RYOTWARI HOLDINGS.

Year.	Dry.		Wet.		Total.	
	Extent.	Assess- ment.	Extent.	Assess- ment.	Extent.	Assess- ment.
	Acs. Cts. Rs. A.		Acs. Cts. Rs. A.		Acs. Cts. Rs. A.	
1916-17	208-26	242 13	480-67	4,690 5	688-93	4,933 2
1917-18	208-26	242 13	480-67	4,690 5	688-93	4,933 2
1918-19	208-87	244 1	481-70	4,701 7	690-57	4,945 8
1919-20	208-87	244 1	481-70	4,701 7	690-57	4,945 8
1920-21	209-41	244 7	481-70	4,701 7	691-11	4,945 14
1921-22	209-41	244 7	481-70	4,701 7	691-11	4,945 14
1922-23	223-56	259 7	481-70	4,701 7	705-26	4,960 14
1923-24	223-56	259 7	482-64	4,711 6	706-20	4,970 13
1924-25	223-56	259 7	484-28	4,730 12	707-84	4,990 3
1925-26	228-66	264 15	484-28	4,730 12	712-94	4,995 11
1926-27	230-37	266 12	484-28	4,730 12	714-65	4,997 8
1927-28	230-37	266 12	484-08	4,728 12	714-45	4,995 8
1928-29	230-37	266 12	484-08	4,728 12	714-45	4,995 8
1929-30	230-37	266 12	484-08	4,728 12	714-45	4,995 8
1930-31	230-37	266 12	484-08	4,728 12	714-45	4,995 8
1931-32	231-04	267 7	485-14	4,739 5	716-18	5,006 12
1932-33	231-04	267 7	485-14	4,739 5	716-18	5,006 12
1933-34	231-04	267 7	485-14	4,739 5	716-18	5,006 12
1934-35	231-31	267 15	485-14	4,739 5	716-45	5,007 4
1935-36	231-31	268 1	485-14	4,739 5	716-45	5,007 6

VI. THE CLASSIFICATION AND ASSESSMENT OF GOVERNMENT LAND IN THE VILLAGE.

Description of soil.	Taram.	Single or Double crop.	Rate per acre.	Occupied		Unoccupied		Baling Remission.
				Area.	Asst.	Area.	Asst.	
			Rs. As.	Acs.-cts.	Rs. As.	Acs.-cts.	Rs. As.	Rs. As.
Dry Group I	4	..	1 9	42-41	66 9	1-47	2 5	..
VII. 3	5	..	1 1	165-85	176 4	2-74	2 15	..
VIII. 3								
Total				208-26	242 13	4-21	5 4	..
Wet Class I								
IV. 2	3	2. R. D. ½	13 2	58-93	773 9	..	..	3 10
IV. 3	5	2. R. D. ½	11 4	117-0	1,316 4	0-21	2 6	2 5
IV. 4	7	1	6 9	0-62	4 1	..	..	0 10
		2. R. D. ½	9 14	120-42	1,190 0	0-09	0 14	2 2
IV. 5	10	2. R. D. ½	8 7	22-81	192 9	..	..	..
VII. 2	5	1	7 8	0-91	6 13	..	..	1 6
VII. 3	7	1	6 9	1-91	12 9	..	..	1 12
		2. R. D. ½	9 14	75-60	746 11	0-11	1 1	10 15
VIII. 3	10	2. R. D. ½	8 7	1-80	15 3	..	..	..
Total				400-0	4,257 11	0-41	4 5	22 12
Class III								
VII. 2	8	1	6 4	25-65	160 5	..	..	..
VII. 3	11	1	5 5	21-89	116 6	..	..	0 3
VII. 4	14	1	4 6	26-92	118 0	..	..	..
VIII. 3	14	1	4 6	4-52	19 13	..	..	..
Total				78-98	414 8	..	..	0 3
Total Wet				478-98	4,672 3	0-41	4 5	22 15
Grand Total Dry & Wet				687-24	4,915 0	4-62	9 9	22 15

VII. AREA UNDER DIFFERENT CROPS.

Year.	Paddy. ACRES.	Ragi. ACRES.	Horse- gram. ACS. CTS.	Gingelly. ACS. CTS.	Varagu. ACS. CTS.	Black- gram. ACS. CTS.	Betel. ACS. CTS.	Ground- nut. ACS. CTS.	Cholam. ACS. CTS.	Total. ACS.
1916-17	807	8	..	..	21-43	2-1	4-50	0-34	3-60	869
1917-18	1,435	15	..	9-50	9-72	3-21	2-1	20-13	1-40	1,517
1918-19	624	58	0-8	31-7	1-82	13-13	1-6	14-31	5-78	772
1919-20	677	25	0-41	42-76	6-11	19-97	..	9-49	0-77	800
1920-21	1,062	6	0-49	2-42	1-72	5-18	..	5-61	1-71	1,168
1921-22	1,096	58	..	..	0-34	2-46	..	..	..	1,205
1923-24	1,068	1	4-5	..	..	2-79	..	0-95	1-4	..
1924-25	625	57	1-90	0-13	10-88	0-45	11-57	..	1-35	788
1925-26	976	17	1-90	40-8	16-10	..	3-77	10-13	2-74	1,070
1926-27	670	32	..	56-77	6-96	0-63	..	0-13	0-15	803
1927-28	650	28	..	..	..	..	..	30-15	..	719
1928-29	610	3	..	..	5-40	..	..	..	5-15	715
1929-30	875	4	..	..	1-22	..	1-70	..	..	876
1930-31	803	7	9-78	..	..	..	..	0-13	..	819
1931-32	1,071	2	0-25	0-86	..	0-31	..	0-78	0-50	1,074
1932-33	1,083	..	3-6	9-46	2-76	0-77	..	..	7-46	1,107
1933-34	1,072	57	1-67	0-3	7-69	0-17	..	15-10	..	1,154
1934-35	663	19	1-89	..	39-0	0-54	..	4-44	0-48	703
1935-36	583	8	0-53	..	24-46	0-24	..	53-46	1-26	709
1936-37	1,021	17	1-95	1-45	2-45	0-10	..	42-08	0-13	1,100

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VIII. LIVE-STOCK, CARTS AND PLOUGHS.

	1914-15.	1919-20.	1924-25.	1931-32.	1934-35.	1935-36.
Bulls	.. . 236	222	210	110	235	280
Cows	.. 146	184	164	50	193	222
Young ones	.. 142	202	169	..	142	172
He-buffaloes	.. 86	95	92	70	86	117
She-buffaloes	.. 95	96	82	..	105	122
Young ones	.. ..	..	..	..	33	73
Sheep	.. ..	..	..	50	18	125
Goats	.. ..	..	..	20	39	43
Carts	.. ..	..	..	25	49	70
Ploughs	.. 127	..	177	150	115	185

POPULATION.

VUNAGATLA

(West Godavari Dt.)

By

K. RAMAGOPALA RAO, B.A. (HONS.)

Vunagatla is a ryotwari upland village, four miles from Nidadavolu, an important centre of railway and canal traffic. It is bounded on the east by the metalled road running from Nidadavolu to the Godavary Agency and on the west by an extensive and sandy palmyra tract (called 'garuvu' as distinguished from the 'pulladi' or black soil tract). The village experiences extremes of climate, and for water depends entirely on the annual rains.

Population.—The population has been increasing steadily since the first census, the most notable growth as compared with 1916 being amongst the tappers (Settibalijas and Kalalis).

Census.	Population.	Per cent increase.
1871	1237	..
1881	1567	26·7
1891	2017	28·7
1901	2150	6·6
1911	2519	17·2
1921	2558	1·5
1931	2679	4·7
1936	2959	10·5

N.B.—Epidemics of cholera (1911), small-pox (1915) and influenza (1918) have substantially checked the growth of population between 1911 and 1921

Caste.	1916.			1936.		
	Total.	Adults.	Children.	Total.	Adults.	Children.
Brahmins	38	25	13	40	25	15
Vaisyas	95	55	40	91	53	38
Kammas	445	225	220	435	272	163
Kapus	515	275	240	491	310	181
Carpenters and goldsmiths	57	33	24	63	41	22
Weavers	48	26	22	61	41	20
Barbers	14	10	4	19	10	9
Washermen	250	100	150	116	76	40
Toddy tappers	588	283	305	948	543	405
Shepherds	85	52	33	95	55	40
Swineherds	..	..	..	15	9	6
Potters	6	4	2	4	2	2
Muslims	6	5	1	5	5	0
Oil-mongers	16	11	5	16	10	6
Depressed classes	97	..	..	575	349	226

Note.—The estimated population in 1916 (based on the 1911 census)=2260.

There were 430 houses in 1916, while in 1936 there were 563 houses and 616 families.

BIRTHS

	Males.	Females.	Total.
1911-15.			
1911	33	52	85
1912	55	49	104
1913	49	49	98
1914	48	52	100
1915	41	52	93
1932-36.			
1932	71	47	118
1933	76	66	142
1934	67	57	124
1935	55	52	107
1936	64	70	134

DEATHS

	Cholera.	Small pox.	Fevers.	Respiratory diseases.	Other causes.	Total.
1911-15.						
1911	226	..	42	..	28	296
1912	..	..	48	..	47	95
1913	..	..	62	3	2	67
1914	6	8	62	4	18	98
1915	..	112	41	17	13	183
1932-36.						
1932	..	..	10	26	37	73
1933	..	..	17	21	30	68
1934	..	..	11	21	38	70
1935	..	..	28	17	44	89
1936	..	..	28	7	31	66

The record of deaths is in general accurate, while that of births appears satisfactory since 1921.

Land.—Out of a total area of 1941·60 acres, 1395·38 acres are cultivable; and while 146·22 acres are common waste the figure for private pasturage and waste (variable from year to year) is 453·60 acres for 1935. Trees not bearing edible fruits but useful for fuel and implements are found in about 800 acres.

As compared with the average of 1912-16 (1374·19 acres) the average extent of cultivated area shows a marked increase for the quinquennium 1932-6 (1454·87 acres).

Besides the village tank, 33·99 acres in extent, there are four smaller tanks, one of which alone is used for watering tobacco seedlings. Sufficiency of water in the tank has induced wet paddy cultivation in 15·00 acres of the surrounding area in 1936.

There are two wells used for cultivation while another is in damaged condition. In the village itself, the four public wells provide drinking water in summer, when the village tank runs dry, while there are 23 private wells used for other domestic purposes.

Occupation of Land.—Of the total cropped area, 923·58 acres are cultivated by the pattadars themselves, 300·30 acres are sublet to tenants who have also some patta lands, while only 171·50 acres are sublet and cultivated by landless tenants. (The area sublet to tenants was 226 acres in 1916).

Of the pattadars, 367 cultivate their own land. The non-cultivating pattadars number 68, of whom 46 are residents of the village.

The non-cultivating pattadars are mostly landlords, some of whom carry on money-lending business. Generally, Non-Brahmins cultivate their lands, but communities like the Vysyas and carpenters and goldsmiths follow their hereditary callings.

Some cultivators of the village rent out part of their holdings because of distance. Where the holding is too small, or where the owner is a woman or a minor boy, the whole of it may be thus sublet. The majority of non-cultivating Kapu pattadars of the village are traders of one kind or another, and the rest are labourers, whose holdings are too small to be profitable or sufficient for cultivation by themselves.

259 out of 617 families (that is 42·3%) or 1143 out of 2974 individuals (that is 38·4%) neither own any land nor rent it from others. Of these 235 families (1044 individuals, or, excluding children under fourteen, 631 people) are agricultural labourers, some of whom follow subsidiary occupations like palm-fibre beating in the off-season. In 1916 there were only 350 in this category.

✓ Sizes of Holdings.

The following is an account of the sizes of landed properties according to the area held and the kist paid :—

SIZES OF HOLDINGS

(a) According to area.

	(Jirayiti) Ryotwari.	Inam.	Total.
Pattadars with less than 1 acre.	80	59	139
" 1 acre and below			
3 acres.	90	63	153
" 3 acres and below			
5 acres.	38	23	61
" 5 acres and below			
10 acres.	31	14	45
" 10 acres and below			
15 acres.	18	2	20
" 15 acres and below			
20 acres.	6	0	6
" 20 acres and below			
30 acres.	4	1	5
" 30 acres and below			
40 acres.	..	..	..
" 40 acres and below			
50 acres.	1	..	1
" 50 acres and above.	..	..	..

Note.—If land owned outside the village be also considered, the major change would be 1 pattadar with more than 50 acres.

(b) According to kist

Category	Single Pattas.			Joint Pattas.		
	No.	Acreage.	Kist	No.	No. of holders.	Acreage Kist.
1. Pattas paying Re. 1 and below.	23	8.69	14 13	8	27	3.18 4 12
2. Pattas paying more than Re. 1 and less than Rs. 10 and 10.	142	356.79	493 7	62	152	194.92 253 2
3. Pattas paying more than Rs. 10 and less than Rs. 30 and 30.	23	314.42	393 2	8	19	100.49 141 3
4. Pattas paying more than Rs. 30 and less than Rs. 50 and 50.	..	..	..	..	..	..
5. Pattas paying more than Rs. 50 and less than Rs. 100 and 100.	1	46.31	63 11	..	..	..

Note.—If land held outside the village were also taken into account, we would have 2 single pattas in category (4). Most of the land being cultivated by the pattadars, a similar account of the holdings of cultivating ryots (whether these own patta land or land leased from pattadars) differs but slightly from the above.

Rent.—Money rents are the rule. Only in 2 or 3 per cent of the cases, payment of half the crop as rent is usual, the straw or such other by-products accruing to the one who ploughs and sows the land—be he the pattadar, tenant or third party.

Leases are usually for 3 or 5 years, and though they may generally be renewed, there is no certainty of it. There is therefore no inducement to the tenant to effect any permanent improvement of the land.

'Pulladi' fetches a rent of Rs. 10 per acre generally (though there is a range from Rs. 7 to Rs. 15 or more according to the quality of the soil), and the 'garuvu' (excluding palms) about Rs. 5 per acre.

Land Revenue.—The total kist of the village actually payable every year, excluding local cess, is Rs. 1,481-6-2 while Rs. 2,041-11-0 is the total assessment which would have to be paid if inams were charged at the ryotwari rate. The following tables supply a few more details.

ASSESSMENT PER ACRE ON DIFFERENT CLASSES OF JIRAYITI
(RYOTWARI) LAND, WITH ACREAGE UNDER EACH CLASS.

Class and Description of soil.		Taram.	Rate per acre.	Extent.	Assessment.
			Rs. As.	Acres.	Rs. As.
Best black clay	3—1	8	2 0 (1 12)	71.89	144 1
Best black loam	4—1	9	1 14 (1 10)	423.56	795 0
Best red loam	7—1	8	2 0 (1 10)	22.28	44 10
Best red sand	8—1	12	0 12 (0 10)	507.07	380 7
				1024.80	1,364 2

Note.—The amounts within brackets are the rates of assessment before the Resettlement of 1932.

ASSESSMENT, QUIT RENT AND EXCESS CHARGE ON INAMS

Description.	Extent.	Assessment.	Actually paid by Inamdars.	
			Quit rent.	Excess charge.
	(Acres).	Rs. As. P.	Rs. As. P.	Rs. As. P.
A. Enfranchised.				
1. Personal	232.10	428 12 0	32 6 10	7 5 2
2. Village service	87.15	165 1 0	77 8 0	0 1 0
B. Unenfranchised:				
1. Personal	5.32	10 0 0		
2. Village artisan	46.01	73 12 0		
	370.58	677 9 0	109 14 10	7 6 2

Subsidiary occupations of Agriculturists.—There are 195 people who combine agriculture with other occupations, main or subsidiary:

Occupations.	Kannas.	Kapus.	Shepherds.	Tappers.	Harijans.	
					Malas.	Madigas.
Plying double bullock cart for hire	.. 15	9	3	6	1	..
Milk supply	.. 25	5	..	29	..	..
Trade in Palm-jaggery	.. 4	5	..	3	..	..
Trade in palm-fibre	.. ..	3	..	3	..	1
Hawking some commodity or other	.. ..	2	..	2	..	..
Tapping sweet toddy (for making jaggery).	.. ..	..	..	63	2	2
Coolie work of one kind or another	.. 4	4	..	43	6	19
Money-lending business	.. 15	..	..	..	..	..
Government Service	.. ..	..	5	..	..	2*
Herding goats and sheep	.. 1	..	..	..	..	..
Producing palm-fibre	.. ..	..	..	32	7	16
Making sandals	.. ..	..	..	..	..	4
Trade in hides and skins	.. ..	..	..	..	..	1
Priestly services	.. ..	..	..	..	..	1

* Village Vettiyars

To some of the communities, for example the tappers, agriculture may be only a subsidiary occupation. But any other source of income besides agriculture, whether main or subsidiary, even if seasonal and transitory, is taken as an 'occupation.'

Again, it is usual, especially with labouring classes, to be pursuing whatever occupation offers itself: thus one who has an acre of land, own or rented, may, when his own cultivation work does not engage him, work as a casual labourer for a few days, prepare palm fibre for a few more days, hawk vegetables for some time. In the succeeding year the rotation of occupations may or may not be the same according to circumstances. Thus, in the table, persons following more than one category of occupations recur under each of these heads. (The table is compiled from the occupation census taken in November-December 1936). Though a succession of bad harvests may render tenants unwilling to take land on terms which the pattadars would like to have, there is no scarcity of people willing to rent land.

No advances are given by pattadars for cultivation expenses, which are usually borne by the tenant. The period of tenancy in vogue—3 or 5 years—is too short to induce the tenant to effect any permanent improvement and it does affect cultivation and yield unfavourably, though it may give the pattadar a kind of power over the tenant.

Agriculture.—The area under each of the principal crops varies from year to year; the following table gives the figures for the past decade, with the statistics for 1916 added for purposes of comparison. About 40 per cent of the cultivated area any year is sown with two crops (the figure for 1936 is 527.98 acres or about 37.8 per cent of the total area sown).

AREA IN ACRES UNDER EACH OF THE PRINCIPAL CROPS IN 1916 AND IN THE YEARS 1926-36.

Year.	Paddy.	Cholam.	Ganti. (Kambu)	Other cereals.	Horse gram.	Bengal gram.	Red gram.	Other pulses.	Gingelly.	Tobacco.	Chillies.	Other crops.
1916	166	469	74	8	151	--	210	2	188	13	8	29
1926	292	381	50	21	154	--	--	--	105	1	0.67	2
1927	426	294	57	10	244	40	--	--	135	3	9	4
1928	383	333	55	5	178	36	--	35	233	5	2	10
1929	385	346	52	14	176	9	--	9	232	3	4	3
1930	338	415	30	14	138	25	--	--	244	3	29	7
1931	301	300	29	49	155	175	--	--	277	2	20	30
1932	329	407	52	12	126	21	18	--	212	3	16	34
1933	292	423	36	3	174	74	37	6	239	3	10	29
1934	399	303	19	8	150	25	229	9	256	6	11	18
1935	380	325	40	5	164	85	312	4	217	12	31	34
1936	417	261	17	13	139	50	238	8	324	7	15	23

Subsidiary or mixed crops sown along with some main crop are not included. Thus Green gram mixed with Cholam, the main crop, and Cotton mixed with the main crop, Red gram, are not reckoned.

Note.—The significant fall in the acreage under cholam is thus explained:—

A decrease in its popularity attributable to the fall in price (which was Rs. 72-10-0 in 1926, as low as Rs. 38 in 1934 and even in 1936 only Rs. 48 to 50 per candy) and the greater difficulty of cultivation and comparatively less steady yield—a combination of factors which is specially unattractive to many of the new generation of cultivators, who are said to be not as hardworking as the older ones of the village. To the extent that cholam is the first (and only) crop, its place is being taken by paddy; but the greater usurpation of its domain comes chiefly from red gram (and other pulses like Bengal gram) which, as a second crop is the successful competitor to cholam; and rivals to a smaller extent are new crops like tobacco and chillies.

Moreover, since 1916 there has been a general decline in the acreage under harder food grains (kambu, korra, etc. which are crops cultivated in the sandy tract or 'garuvu'); the decline in the acreage under cholam—which, though not a 'garuvu' crop, is yet a hard food grain—appears but a part of this general trend of decreasing popularity of hard foods, because of declining demand and greater difficulty of cultivation.

About 40 per cent of the cultivated area any year is sown with two crops (The figure for 1936 is 527.98 acres or about 37.8 per cent of the total area sown).

Rohini and Mrigarsira Kartis (May 24th to June 22nd) are the best season for ploughing and sowing paddy, red gram and cotton, gingelly and kambu, while with Bengal gram and coriander, it is Deepavali to Kartikapurnama. Hasta, Swati and Visakha Kartis (September 26th to November 17th) are the best for sowing horsegram. Uttara and Hasta (September 12 to October 8) are the best for cholam and about 2 months between October 15 to December 15 for tobacco.

Paddy is harvested in Uttara and Hasta Kartis (September 12 to October 8), redgram in about a fortnight round January 15, cotton from mid-December to Sankranti, gingelly in Aswani (April 11 to 25), Makha and Pubba (August 16 to September 11) kartis, kambu in Pubba and Uttara kartis (August 30 to September 25) Bengal gram and coriander in about a month from mid-February, horsegram from mid-January to mid-February and cholam in 5 weeks from about January 20.

TIME REQUIRED TO PLOUGH, SOW AND HARVEST AN ACRE

(Compiled from the accounts of 4 cultivators).

Time required to plough an acre (2 'salus' with 1 pair of bullocks).	Time required to sow an acre (with one man).	Time required to reap an acre.
(a) 1½ to 2½ days for black clay soil	(i) Paddy about 1½ hours.	(i) Paddy 15 men in 1 day.
(b) 1½ to 2 days for the sandy palmyra tract.	(ii) Horse-gram about ½ hour.	(ii) Horse-gram about 7 men in 1 day.
	(iii) Cholam about ¾ hour.	(iii) Cholam about 6 men in 1 day (for both cutting the stems and cutting the ears).

'Salu' is ploughing once, breadthwise or lengthwise. But for the obstruction of the palms, it would take less time to plough an acre of the sandy tract. The time required for the processes is affected by the efficiency of the livestock and men; in some cases, as of cholam for instance, a good crop can be reaped in proportionately less time than an average or bad crop.

There are two types of plough used—one for the 'garuvu' and the other for the 'pulladi', the former the lighter, suitable for the sandy soil. The number of acres cultivated per plough in 1936 works out at 7 nearly. Among other usual agricultural implements are the 'gorru' (a wooden comb worked by bullocks to break up lumps in the soil and to comb out the weaker plants not likely to fructify) and the 'tollika' (a wooden handled iron rod with a slightly-bent sharpened end used for weeding).

LIVESTOCK, CARTS AND IMPLEMENTS.

	Non-official estimate.	1914	1919	1924	1929	1934
Bulls and bullocks	.. 800	539	526	447	403	459
Cows	.. 600	412	494	394	519	455
Bulls and heifers under 4 years	.. 650	637	254	508	455	352
He-buffaloes	.. 14	6	53	2	3	54
She-buffaloes	.. 200	184	231	205	194	180
Buffaloes under 4 years	.. 250	208	142	223	89	66
Sheep	.. 61	58	4	78	...	164
Goats	.. 200	225	56	150	167	232
Carts	.. ...	114	110	105	126	105
Ploughs (wooden)	.. ...	243	226	174	199	161
Oil mills	.. ...	3	3	2	3	3
Looms	.. ...	12	12	13	10	10

Note.—Though there is hesitancy, especially among smaller pattadars after 1929, to replace old and used up ploughs, the official figures of the number of ploughs for 1924 and 1934 appear incorrect; either it is a mere guess, or the enquiry was made at a time of the year when many cultivators had not yet replaced their old ploughs. According to personal enquiry there were about 210 ploughs in 1936. It appears that no accurate cattle census was taken before 1924; so the figures before that year are more in the nature of rough estimates.

The following account reveals that the number of plough-oxen is, at best, just sufficient for the needs of the village, if we exclude the area reserved from cultivation as private pasturage and waste. After a 10% reduction (for animals not useful for the plough, either because of old age or their being used for carts) we have 459 (the number of bulls and bullocks in 1934) less 46 or 413 as effective plough-bull strength in the village. Now we make the following assumption, based on averages derived from farm accounts:

That to plough an acre once (lengthwise and breadthwise) in two days, a pair of bullocks are needed,

That each cultivated acre is ploughed thrice,

That 1648 is the effective acreage thus ploughed (of 1330 acres sown in 1936, we deduct 210.21 acres under red gram, the ploughing

and sowing for which is done along with paddy, and add 527.98 acres which is the area twice sown and hence twice cultivated in 1936) and

That about 55 days are available for ploughing and sowing, or about 50 days for ploughing alone.

To plough an acre once it takes 2 days for a pair of bullocks. To plough, therefore, 1,648 acres thrice in the 50 days available, 198 pairs would be required.

In addition to ploughing, 'gorrutoludu' (uprooting of weaker plants and weeds and levelling the soil) is adopted for paddy, kambu, cholam and horse-gram, the total acreage under which is about 820 for 1936 and one 'gorru' (worked by a pair of bullocks) can do about 3 acres in a day and as this process is adopted after the plant has sufficiently grown up but before it begins to fructify, the period available is about 20 days. To do this for 820 acres, 14 pairs of bullocks would be required.

Petty pattadars get their lands ploughed and sown by others; the payment is generally in kind and consists of the paddy or cholam straw or such other by-product of the plot. The money rate is Re. 1 per plough per day.

Of the 105 carts in the village, about 60 ply for hire and have full work in summer as carriers of palmyra jaggery. During the rest of the year only some of the carts have work, either carrying provisions from the weekly shandy at Nidadavolu or the palm fibre of the village to that place for export. At the most, a cart can carry 8 grain bags, 12 to 14 jaggery bags and 3 candies of palm fibre; and the customary charges are 2 as. per grain bag, 1½ as. per jaggery bag, and Re. 1 per cartload of palm fibre.

Only private pastures are available for cattle. Each ryot keeps about 80 to 90 per cent of his *garuvu* holding as *beedu* or waste, besides the grass available along the field bunds of the *pulladi* land. When there is heavy work, cattle are given cooked horse-gram with *chittu* (paddy husk) and *thavudu* (the fine meal); as also ground cotton seed and oilcake (the latter especially for milch-cattle). A special variety of green gram plant, *goddupesara*, cholam straw and horsegram plant (green or dry) are the other kinds of fodder used, especially handy as summer feed. The fodder supply being insufficient, paddy straw is purchased from neighbouring villages for summer. Practically no cattle are now driven to the Agency Tracts for grazing.

Manuring.—About 65 to 70 per cent of the cattle dung is used as manure. The approved order of excellence in manure is (a) *patimannu* or *pentamannu* (cattle dung combined with all other rubbish in the cattleyard), (b) green manure and (c) tank silt.

The quantity of manure applied per acre, as well as the frequency of application, varies with the ryot. Generally, however, 10 to 15 cartloads of *patimannu*, or 50 to 100 loads of tank silt are applied per acre once in 2, 4 or even 5 years. Cultivated strips of *garuvu* holdings are usually manured by the cattle being tied on the plot, though additional manuring is done when considered necessary.

Patimannu, not usually available for purchase, costs Rs. 1 per 3 to 4 cartloads, while the tank silt is 6 pies per cartload (which is the fee to Local Fund Department) or about 10 cartloads per rupee with a hired cart.

All the cattle urine in the case of cattle tied on the fields, goes to manure land; but with cattle kept at home very little can be said to be properly utilised.

Sometimes herds of goats and sheep are hired and penned for manuring; this method costs about Rs. 5 per acre. Green manure, grown locally, is used by large holders; *goddupesara* and *janumu* are the two varieties grown; they are ploughed into the fields and allowed to rot. Chemical manures are not used.

Tobacco and chillies are the two intensive crops grown; tobacco fetches Rs. 80 to 100 per candy and an acre under it normally gives 1½ to 2 candies; while an acre of land under chillies, yielding 16 to 20 maunds, fetches, at the rate of Rs. 2-8 per maund, Rs. 40 to 50.

Pests.—The chief crop pests are due mostly to unfavourable atmospheric conditions like heavy rains and clouds. *Katuka* for cholam (the seed looks pale-violet externally, but when broken gives a kind of jet-black dust); Green-worm for most of the pulses *Bandapurugu* (attacking the stems) and greenworm for tobacco; a putrifying condition called *magudu* for horsegram; *Voosatiri* (grainlessness) for paddy and a similar sterility for chillies; and the rootworm for kambu etc.

All these are generally taken as part of nature; this year, however, a ryot applied some chemical got from Kovvur nearby (where there is an Agricultural Demonstrator) for 'katuku' of

cholam and his crop is alright. But this is so with other cultivators' crops too this year!

Cattle Diseases.—The chief cattle diseases are: (1) foot and mouth disease (2) black quarter (3) anthrax (4) malignant sore ear or horn (5) dysentery (6) *kutra* or constipation (7) 'kanta-naguru' (swelling in the neck) (8) *Vatham* (rheumatic stiffness of joints) and *murividi* (pain in leg). Resort is had, generally with good results, to home remedies involving the use of common materials like gingelly, cocoanut or castor oil, turmeric, naphthaline balls, kanji, etc., and in special cases, of locally available medicinal herbs and barks. Except in checking widespread cattle epidemics, the Veterinary Department is not of any help; about 5 years ago, under such a contingency, a man from the Department is said to have demanded Rs. 2 per head of cattle treated, which scared away many from seeking aid.

Wood.—For buildings, timber is obtained partly from Rajah-mundry and partly from local trees which supply the wood for ploughs also. Iron pieces for other implements are now obtained from the many smithies that have sprung up in Nidadavolu, though about 5 years back people used to get them from Rajahmundry.

Trees on their fields supply the ryots with fuel; the poorer people collect faggots daily from the palmyra tract.

Costs of cultivation.—The costs of cultivation and gross outputs of some important crops are given in the following tables; in each case three sources are chosen so as to represent a large, a medium, and a small holding under the crop.

Size of holdings. ACRES.	Crop and items of cultivation.	Cost.	Yield and value.
(1) 16.00 C. Y. A.	* I. Paddy (dry)—sown in pulladi. Ploughing—4 ploughs—3 'salus'—8 days. Seeds—48 K. Sowing—1 man for 4 days (self) Weeding—5 times Harvesting—14 bags paddy at 2 K. per head per day	.. 7 0 .. 75 0 .. 50 12	Paddy—84 bags Straw—30 cart-loads .. 304 8 .. 150 0
(2) 6.57 C. Y. A.	Ploughing—2 ploughs—4 'salus'—12 days Seeds—31 K. Sowing—1 man in about 1½ days (self) Weeding Reaping—50 men—1 day—at 2 K. per head Harvesting—4 own men + 4 coolies for 2 days (coolie at 2 K. per head per day)	.. 4 8 .. 50 0 .. 14 8 .. 2 5	Paddy—40 bags Straw—15 cart-loads .. 145 0 .. 75 0
(3) 1.50 C. Y. A.	Ploughing—3 ploughs (2 borrowed)—3 'salus'—1 day. Seeds—6 K. Sowing—1 man in about 2 hours (self) Weeding—3 own + 2 coolies—at As. 5 per day—two times Reaping—3 own + 5 coolies at 2 K. per head for one day Harvesting—3 own for ½ day.	.. 0 14 .. 1 0 .. 1 3	Paddy—6½ bags Straw—about 4 cart-loads .. 23 0 .. 20 0

Size of holdings. ACRES.	Crop and items of cultivation.	Cost.	Yield and value.
II. Cholam (sown in pulladi).			
(1)	Ploughing—4 ploughs—6 'salus'—20 days.	..	Cholam—64 bags
17.00	Seeds—8 K.	2 0	Straw—32 cart-loads
(mixed with green gram.)	Sowing—1 man in 5 days (self) 'gorrutoludu'—2 'gorrus'—2 'salus'—3 days.	..	Green gram—1 bag
	Weeding—4 times	.. 30 0	
	Reaping: Stalks—10 men—5 days	.. 12 8	
	Ears—100 men—1½ day	.. 12 8	
	Harvesting—2 bags	.. 12 8	
(2)			
6.00	Ploughing:		
P.Y.A.	i. 1st crop paddy plot (3 acres)—2 ploughs—4 'salus'—5 days.		
1st crop paddy plot	ii. 'Dukki plot'—2 ploughs—6 salus—6 days.	.. 0 9	
3 acres. "Dukki"	Seeds—9 seers.	..	
or plot ploughed and	Sowing—1 man in about ½ day (self).	.. 8 0	
reserved from first	Weeding—2 times—(Rs. 6 + 2)	..	
rains: 3 acres.	Reaping:		
	(i) Stalks—6 men—1½ days—at 1 K per day; Ears—10 men—½ day—at 2 seers.	3 8	
	(ii) Stalks—6 men—1 day at 1 K. per day; Ears—6 men—1 day at 1 K. per day	.. 3 8	
	Harvesting—3 own men in about a day.		
(3)			
1.30	Ploughing—1 plough—2 'salus'—2 days.		Cholam—½ bag
P.Y.A.	Seeds—Cholam, 1 seer—Horse gram, 2 seers	.. 0 7	Horse gram—1 bag
(mixed with horse gram.)	Weeding—3 own men for 4 days.	..	Cholam straw—½ cart-load
	Reaping and harvesting—3 own men in about 2½ days.		
III. Horse gram (sown in 'garuvu')			
(1)	Ploughing—2 ploughs—3 'salus'—6 days.	.. 4 8	8½ bags worth
5.00	Seeds—15 K.	..	
P.Y.A.	Sowing—1 man in about 2 hours (self).		
	'Gorrutoludu' (levelling) 1 'gorru'—2 'salus'—1 day.		
	Reaping—24 men—1 day (excluding 1 own man) at As. 4	.. 6 0	
	Transport and heaping—2 own men—2 days.		
	Harvesting—2 own + 2 coolies for 5 days at about ¾ K. per head	.. 2 6	
(2)	Ploughing—2 ploughs—3 'salus'—6 days.	.. 2 6	4½ bags worth
3.80	Seeds—10 K.	..	
P.Y.A.	Sowing—1 man in 2 hours (self).		
	Reaping—4 own + 6 coolies in 2 days at 1 K. per head	.. 3 10	
	Harvesting—4 own men—about 3 days.		
(3)	Ploughing—1 plough—6 'salus'—9 days.	..	2½ bags worth
1.36	Seeds—3 K.	..	
P.Y.A.	Sowing—1 man in less than an hour (self).	0 13	
	Reaping—10 men—1 day—at 1 K. per head	.. 3 0	
	Harvesting—3 own + 2 coolies for 2 days at 1 K. per head	.. 1 3	

Size of 'holdings. Acres.	Crop and items of cultivation.	Cost.	Yield and value.
IV. Red gram (sown in pulladi) with or without cotton or 'janmu'.			
5-00	Seeds: Red gram—3 seers; 'janmu'— 1/4 seer	.. 0 4	Red gram—15 bags worth .. 93 12
P. Y. A.	Weeding—4 times—at Rs. 5 per time	.. 20 0	'Janmu'—30 K's worth .. 12 0
mixed with 'Janmu.'	Reaping—4 men in 2 1/2 days (at As. 3 1/2)	.. 2 3	Dry Red gram plant .. 8 0
	Harvesting—4 own + 2 coolies in one day	.. 0 7	8 cart-loads
(2)	Seeds: Red gram—2 seers; 'janmu'— 1/4 seer	.. 0 3	Red gram—4 1/2 bags worth .. 28 2
3-00	Weeding—3 times—at Rs. 2 per time	.. 6 0	Dry Red gram—4 carts worth .. 4 0
P. Y. A.	Reaping—4 own + 4 coolies—1 day at As. 4	.. 1 0	'Janmu' failed.
mixed with 'Janmu.'	Harvesting—4 coolies—3 days at 1 K.	.. 3 0	
(3)	Seeds—Red gram—3/4 seer; Cotton—1/4 viss;		Red gram—3 bags .. 18 12
2-00	'janmu'—1 1/2 seer	.. 0 2	Cotton—26 mds.
P. Y. A.	Weeding—once—10 men—2 days at As. 2	.. 2 8	'Janmu'—2 K's.
mixed with Cotton and 'Janmu.'	Reaping—2 own + 4 coolies—1 day at As. 4	.. 1 0	Dry plant—2 cart-loads.
	Harvesting—4 own men—2 half days.		
V. Gingelly (sown both in 'garuvu' and 'pulladi', more in the former)			
(1)	Ploughing—2 ploughs—8 'salus'—20 days.		2 bags worth .. 17 8
5-00	Seeds—2 1/2 K.	.. 0 14	(Crop failed this year; about 6 bags if crop is fair.)
(garuvu)	Sowing—1 man—about 2 1/2 hrs.—self.		
C. Y. A.	Weeding—twice—at Rs. 2 per time	.. 4 0	
(2)	Reaping—20 men—1 1/2 day (at As. 2)	.. 2 8	1 bag worth .. 8 12
3-00	Tying—20 men—1/2 day (at As. 2)	.. 2 8	(As this crop failed; 4 bags if crop is fair.)
(garuvu)	Harvesting—4 own + 10 coolies—1 1/2 day	.. 1 4	
C. Y. A.	Ploughing—3 ploughs—2 'salus'—1 1/2 days.		
	Seeds—9 seers	.. 0 12	
	Sowing—1 man for about 1 1/2 hours—(self).		
	Weeding—once—15 men—1 1/2 day	.. 1 14	
	Reaping—8 men—1 day—at As. 3 1/2	.. 1 14	
	Tying—4 men—1 day—at As. 3 1/2	.. 0 14	
	Harvesting—2 own men—1 1/2 day.		
(3)	Ploughing—2 ploughs—3 'salus'—3 days.		3 bags worth .. 26 4
2-00	Seeds—6 seers	.. 0 8	
(pulladi)	Weeding—3 times at Re. 1 per time	.. 3 0	
C. Y. A.	Reaping—12 men—1/2 day at As. 2	.. 1 8	
	Tying—8 men—1/2 day at As. 2	.. 1 0	
	Harvesting—3 own men—1 day.		

Note.—Ploughing and sowing for Red gram (which is a second crop) is done along with the first crop, paddy.

K. = Kunchams (1 Kuncham = 4 seers; 25 Kunchams = 1 bag).

'Salu' = 1 ploughing, breadthwise or lengthwise.

C. Y. A. = Current Year's Account.

P. Y. A. = Previous Year's Account.

Wherever current year's crop is not yet harvested at the time of the enquiry, previous year's account was taken; moreover, for most 2nd crops—especially Red gram and Cholan—this year's untimely rains proved detrimental, making the yield sub-normal.

TWO ACTUAL FARM BUDGETS.

Area cultivated.	Yield.	Value.	Expenses.	Rs. A.
I. Holding—9.72 acres in 4 plots.				
1.00	3 bags coriander	.. 15 0	Cost of cultivation (including cost of seeds)	.. 30 9
2.00	13 " paddy	.. 47 2	Annual servant (1)	.. 32 0
1.36	2½ " horse gram	.. 18 12	Manuring	.. 5 0
2.00	4 " red gram	.. 25 0	Maintenance of 1 pair of bullocks	.. 10 0
"	20 maunds cotton	.. 30 0	Land revenue and cess	.. 13 2
"	6/25 bag 'janmu'	.. 2 6		
	3 cartloads paddy straw	.. 15 0		
	2 cartloads red gram stalk	.. 2 0		
	Income from palms and soapnuts	.. 20 0		
Total ..		175 4		Total .. 90 11

Area cultivated.	Yield.	Value.	Expenses.	Rs. A.
II. Holding—39 acres in 5 plots.				
3.00	1 bag gingelly	.. 8 12	Cost of cultivation (including cost of seeds)	.. 97 3
3.00	½ bag kambu	.. 5 4	Annual servants (3)	.. 161 0
4.00	10½ bags horse gram	.. 78 4	Manuring (excluding about 4 acres manured by own cattle)	.. 15 0
5.00	40 bags paddy	.. 145 0	Maintenance of 3 pairs of bullocks	.. 50 0
"	15 " red gram	.. 93 12	Land Revenue and cess	.. 51 3
"	1½ " 'janmu'	.. 12 0		
5.00	19½ " cholam	.. 121 14		
"	1¼ " green gram	.. 10 3		
1.00	3¼ " Bengal gram	.. 23 2		
0.20	10 maunds tobacco	.. 40 0		
0.50	10 " chillies	.. 25 0		
0.10	20 " brinjals	.. 7 8		
	12 cartloads paddy straw	.. 60 0		
	9 " cholam straw	.. 22 8		
	8 " red gram stalks	.. 8 0		
	Income from palms	.. 130 0		
	Income from soapnuts	.. 87 8		
Total ..		878 11		Total .. 374 6

Note:—The holder has 2 helpers ; all 3 do manual labour on the holding.

As compared with 1916, there has been a considerable decrease in the cultivation of 'garuvu' crops especially hard food-grains like kambu and korra, both because of a fall in demand and a subterranean spread of palm roots reducing the fertility of the tract; but 'pulladi' cultivation has become more varied and the culture of manure and fodder crops (goddupesara and janmu) by rendering the soil more porous and light made possible an extension of profitable tobacco and chilly cultivation.

There is very little seed selection. The wide adoption of Gelakandi or Bunching Redgram (introduced only in 1935 by a ryot who brought the seeds from a neighbouring village) even before its bonafides were fully tried bespeaks a readiness to adopt new methods, more so if their utility is demonstrated. This new variety, though inferior in taste and selling at Rs. 5 to 10 less per candy, has the advantage of a steady yield because of its greater resistance to pests etc., in view of the fact that it develops pods within 10 days of its flowering, while ordinary red gram takes nearly a month. But ordinary red gram, in the absence of unfavourable conditions, yields better.

The villagers breed their own cattle; the ryot crosses his cows with the sturdier bulls of his herd, but no special methods of breeding are in vogue.

The normal yield of milk per year is about 450 seers per cow and 950 seers per cow-buffalo.

Subdivision of Holdings.

CLASSIFICATION OF HOLDINGS ACCORDING TO ACREAGE

(including joint pattas)

	Jirayiti.	Inam.	Total.
No. with less than 1 acre.	80	59	139
" 1 acre and below 3 acres.	90	63	153
" 3 acres and below 5 acres	38	23	61
" 5 " 10 "	31	14	45
" 10 " 15 "	18	2	20
" 15 " 20 "	6	—	6
" 20 " 30 "	4	1	5
" 30 " 40 "	—	—	—
" 40 " 50 "	1	—	1
	268	162	430

CLASSIFICATION OF JOINT PATTAS

(According to acreage and number of holders under each).

(Interpretation: The figure 2 in the col. '20 and below 30' means that the patta is held by two and the acreage under it is above 20 and below 30.)

i. Jirayiti Pattas—

Less than 1 acre.	1 acre & below 3 acres.	3 acres. & below 5 acres.	5 acres. & below 10 acres.	10 acres. & below 15 acres.	15 acres. & below 20 acres.	20 acres. & below 30 acres.
2, 2, 2,	4, 2, 3,	3, 2, 4,	2, 3, 5,	2, 4, 2,	3	2
2, 3, 8,	2, 4, 2,	4, 3, 2,	2, 2, 2,	2, 2.		
4, 2, 2,	2, 2, 4,	2, 2.	3, 2.			
2, 2, 2,	3, 2, 2,					
2.	2, 2, 2,					
	3, 2, 6,					
	3, 2, 2,					
	2, 2.					
13	23	8	8	5	1	1

ii. Inam Pattas—

2, 2, 2,	5, 2, 2,	2, 2, 2,	2, 3, 3,			
8, 3, 2,	2, 2, 4,	4, 3, 2,	5.			
3, 4, 2,	2, 2, 2,	2, 2.				
4, 2, 3,	2, 9, 7,					
12.	14, 21, 13.					
13	15	8	4	—	—	—
26	38	16	12	5	1	1

The total number of pattas themselves has increased from 200 in 1915 to 220 in 1920 and to 324 in 1936.

Fragmentation of holdings.—It is not so serious as in many a wet village as may be seen from the following table:—

Category.	No. of such holdings.	Extent of largest holding.	Extent of smallest holding.	Extent of largest Plot.	Extent of smallest Plot.	Extent of average Plot.	Extent of average holdings.
		(Acs.)	(Acs.)	(Acs.)	(Acs.)	(Acs.)	(Acs.)
(a) Jirayiti Holdings—							
1 Plot holding	166	11.68	0.09	11.68	0.09	1.59	1.59
2 Plots holding	50	13.86	0.34	9.93	0.05	1.88	3.76
3 „	16	11.30	1.62	5.76	0.05	1.87	5.62
4 „	15	19.33	3.04	15.60	0.05	2.28	9.10
5 „	10	21.61	2.22	12.45	0.28	2.67	13.34
6 „	6	24.24	5.61	15.27	0.39	2.80	17.37
7 „	2	18.76	8.25	8.10	0.08	1.93	13.51
8 „	—	—	—	—	—	—	—
9 „	2	41.31	19.37	15.11	0.27	3.37	30.34
(b) Inam Holdings—							
1 Plot holding	142	7.40	0.05	7.40	0.05	1.83	1.83
2 Plots holding	13	13.60	0.54	12.60	0.10	2.42	4.83
3 „	2	25.67	4.26	11.90	0.07	4.28	12.84

Note.—Consecutive subdivisions of a survey number are taken as one plot for purposes of this table.

The Village Houses.—The area of the village site is 35.32 acres. (It was 33.32 acres in 1916). The different castes occupy fairly separate divisions of the village. 'Rural slum' would be an apt description of the conglomeration of windowless thatched enclosures—single-roomed or double-roomed—that house the depressed classes in the north and north-eastern sides; and it is by no means uncommon for more than one family to be sharing the same hut.

There are 448 houses in caste village and 115 in the Paracheri as against 350 and 125 respectively in 1916. The nature of house-hold accommodation can be gauged from the following data:—

		Number of rooms per house.							Total.
		1	2	3	4	5	6	More than 6.	
Tiled houses	..	6	16	21	21	14	14	8	100*
Thatched houses	..	156	237	45	20	5	—	—	463

No. of one-room dwellings with more than 4 inmates
= 87 or 15.5% of the total number of homesteads.

No. of two-room dwellings with more than 4 inmates
= 160 or 28.4% nearly of the total number of homesteads.

* Including one terraced house.

The village being rather crowded, there is no room for gardens in the case of most of the dwellings. There is great demand for building sites and there are extensions into the fields on the north and south sides. Site-values, per square yard, range from 8 annas to 12 annas towards the end (north and east) to Rs. 2 near the village tank, with Re. 1 to 1-8 in the centre of the village (Rs. 2 to 3 per square yard was the price of house-sites in 1916).

The maximum distance of cultivated lands from the village is about 5½ miles.

Subsidiary Industries.

Weaving.—Of the 14 weavers' families, only in 7 is the craft practised off and on by some one or two members of the family. But compared with the pre-war conditions, there was more weaving especially before the depression, when there used to be a profit of Re. 1 to Re. 1-8 per pair of dhoties (now only as. 4 to 8). Yarn of 20 counts (for dhoties) and 60 (for sarces) is purchased from Nidadavolu and Rajahmundry; and the implements used are of the ordinary country type.

WEAVING COSTS AND RETURNS

(a) Sarees—

Cost of a bundle of 60s. yarn sufficient for 5 sarees, 1·25 yds width—Rs. 8-12.

Preparing warp and weft for 3 sarees (done by the housewife)—2 days.

Weaving 3 sarees—7 days.

Coolie for 3 sarees at 14 As. per saree—Rs. 2-10.

(The men doing saree work are working for a middleman who supplies them yarn; if working on own account, each saree fetches Rs. 2-4 to Rs. 2-8.)

Returns for 7 days' work of the weaver and 2 days' work of his wife—Rs. 2-10 if working for wages or Rs. 2-2 to Rs. 2-14 if working on own account.

(b) Dhoties—

Cost of a bundle of 20s. yarn sufficient for 5 pairs dhoties, 1·25 yds. width—Rs. 4-6.

Keeping in water—3 days.

Applying kanji and drying—1 day.

Preparing warp and weft (done by the housewife)—2 days.

Selling price of 5 pairs of dhoties at Rs. 1-4 to Rs. 1-6 per pair—Rs. 6-4 to 6-14.

Returns for 6 days' work of the weaver and 3 days' work of his wife—Rs. 1-14 to Rs. 2-8.

The number of weavers was 69 in 1891, 17 in 1901, 12 in 1911, and only 3 in 1916 in which year foreign yarn of 10, 20 and 40 counts was used.

Handspinning was abandoned some 30 years ago, and was not revived after 1920.

Carpentry is followed by 5 families (of which one has recently migrated to the village) and is combined with smithy to a greater or lesser extent. For repairing implements, the carpenter is annually paid in kind, usually some 24 seers of grain per plough. For other work (mostly carts, doors and windows for houses, etc.), wood is generally got from Rajahmundry; such work lasts for about 2 months in the year and the payment of wages is in money. The following is an account of the earnings of a hard-working carpenter family (of 3 adult male workers, 1 woman and 3 children):

Income from 15 families for which they work: 8 bags of paddy (Rs. 29) + 2 bags of cholam (Rs. 12-4); Total = Rs. 41-4.

Extra perquisites from the ryots: 40 seers soapnuts (Rs. 2) + 4/5 bag redgram (Rs. 4) + 40 seers gingelly (Rs. 3-8) + 1 cartload paddy straw (Rs. 5) + 1 cartload cholam straw (Rs. 2-8-0). Total = Rs. 17.

Income from work for others=Rs. 150 to Rs. 200.

Total income per year (including Rs. 25 of rent from 2.5 acres) =Rs. 233-4-0 to 283-4-0.

Blacksmiths.—There are 5 families, of whom 2 combine it with carpentry. One smith of the village, together with 2 or 3 workers who come for the season, makes iron pans for boiling palm juice for jaggery. The costs of making pans and the returns therefrom are noted:

Sheet-iron for 125 pans (got from Rajahmundry)	..	Rs. 400
Charcoal	..	10
Payment to 2 workers engaged for a month	..	45
Total expenses	..	455
Sale price of 70 big pans at Rs. 5 each	..	350
Sale price of 55 small pans at Rs. 4 each	..	220
Total returns from pan work (Jan. and Feb.)	..	570
Net returns from pan work	..	115
Income from other work during rest of the year about	..	50
Total income per year	..	165

Palm-fibre making.—'Jammakottu' (or the beating of palm offshoots into fibre) is strictly no craft, since it does not involve any skill; but as the only means of escaping starvation for many a landless labourer (of the tapping and Harijan communities) in the off-seasons, it occupies an important place in the economy of the village. Hence a note on it is appended at the end.

Village Trade.—The villagers purchase commodities required for industrial and agricultural uses mostly from the fairs at Nidadavolu and occasionally from Rajahmundry. Besides the village has a weekly fair and six retail shops providing other commodities for their own consumption.

The following table gives the quantities of village produce sold out of the village and reserved for consumption (in 1935-36). The figures of quantities sold out in 1915-17 are given for comparison.

Commodity.	Sold out in		1935-1936.			
	1915-16.	1916-17.	Quantity Reserved.	Quantity Sold out.	Total Production.	Percentage of total production sold out.
	(bags)	(bags)	(bags)	(bags)	(bags)	
Cholam	.. 50	—	600	250	850	29.4
Red gram	.. 100	50 to 60	240	110	350	31.4
Horse gram	.. 400	200 or 250	100	180	280	73.7
Gingelly	.. 850	220	115	—	115	..
Soapnuts	.. 500	250	200	600	800	75
Cotton	.. not available.	—	—	100	100	100
				candies.	candies.	
Bengal gram	.. 100	25 to 30	60	60	120	50
Milk	..	..	18,000 seers.	15,000 seers.	33,000 seers.	45.5
Ghee	.. 3¾ to 4½	3¾ to 4½	20	7	27	25.9
	candies.	candies.	candies.	candies.	candies.	

Note.—Of gingelly, with the normal total production of 400 bags, about 50% is exported; similarly, with more total production, the export would be larger (local demand remaining the same) in the case of Cholam, Red gram and Horse gram. 1 bag = 166 lbs.

PRICES PER CANDY OF IMPORTANT CROPS IN 1916 AND IN 1929-36.

Commodity.	1916.	1929.	1930.	1931.	1932.	1933.	1934.	1935.	1936.
Paddy	Rs. 44	Rs. ..	Rs. ..	Rs. ..	Rs. ..	Rs. ..	Rs. 27	Rs. 28	Rs. 29
Red gram	.. 67	.. 106	.. 85	.. 80	.. 75	.. 36	.. 42	.. 63	.. 40
Green gram	.. ..	.. 120	.. ..	.. 70	.. 76	.. 39	.. 55	.. 66	.. 50
Bengal gram	.. 66/8	.. 120	.. ..	.. ..	.. ..	.. 50	.. 50	.. 63	.. 60
Horse gram	.. ..	.. 80	.. 80	.. 46	.. 71	.. 40	.. 41	.. 54	.. 60
Cholam	.. 72/10	.. 68	.. 53	.. ..	.. ..	.. 41	.. 38	.. 70	.. 62
Gingelly	.. 102	.. 100	.. 71	.. ..	.. 90	.. 50	.. 82	.. 80	.. 48 to 50
Soapnuts	.. 60	.. 120	.. 67	.. 66	.. 63	.. 66	.. 41	.. 54	.. 40
Cotton	.. ..	.. ..	.. ..	.. ..	.. ..	.. 50	.. 58	.. 42	.. 42
Palmyra jaggery	.. 35 to 42	.. 23/12 to 24/9	.. 25/2	.. 13 to 19	.. 18/8 to 19	.. 16 to 19	.. 30	.. 35	.. 35 to 40
									15 to 22

Note.—When there are two quotations both are given: if more than two, the maximum and minimum are given. The prices are those which the cultivator could obtain.

The nearest market for goods is Nidadavolu (a railway junction 4 miles off) from which some of the commodities are taken to the shandies of this and the neighbouring districts.

Cholam and to some extent soapnuts are purchased by Guntur merchants either directly or by orders to Nidadavolu agents, who in turn deal with the village middlemen. Horsegram, soapnuts, red-gram and Bengal gram are sent by village middlemen to commission shops at the shandies of the East and West Godavari districts (the usual commission rate being about 3 as. per bag). Palm jaggery is sold to the Parry & Co's offices at Nidadavolu by the middlemen of this and neighbouring village Chagallu; while cotton is purchased by local Kapu and Vysia traders to be exported through the Nidadavolu merchants. Milk, butter and ghee are collected by retail traders; milk is taken by train to the coffee hotels of Rajahmundry (15 miles), while Nidadavolu agents export butter and ghee, largely to Madras. Except in the case of palm jaggery (where, in most cases, the tapper's freedom of sale is restricted by advances of provisions, etc., by the jaggery merchant) there is no financing of cultivators by traders and there is no forced sale on that account.

Though poorer ryots sometimes (but not generally) under pressure of debts have to sell grain immediately after harvest to purchase it later at a higher price, not much pressure is felt on account of kist payments.

The weights and measures used are generally false, though each trader has also the correct stamped set; the extent of the fraud varies with the gullibility of the buyer or seller.

Adulteration is found largely in the case of rice; some mix water in kerosene, and almost every provision store-keeper resorts to damping of chillies and tamarind.

Neither in the sale of produce nor in supply of provisions has a co-operative society been ever attempted.

The village is fairly well-situated as regards communications; it is connected by a metal road with Nidadavolu (an important centre of railway and canal traffic) 4 miles up, and with the trunk road at Pangidi some 3 miles down; but the establishment of a post office and the materialisation of the proposed road to Chagallu railway station (a distance of 2 miles) would improve the condition very much.

As compared with Rajahmundry, the nearest large market, there is usually a difference of Rs. 2 to 3 per candy in local prices; but if the manipulation in measuring, etc., is taken into account, the difference will be enhanced by 25 to 30 per cent.

TOTAL PRODUCTION AND INCOME OF THE VILLAGE

The estimates below are mostly based on the actuals for 1936, which proved a bad year for red gram in particular, and to a less extent for cholam, horsegram and gingelly.

Commodity.	Quantity.	Rate	Total value.
A. Crops.—		Rs.	Rs.
Paddy.	2,530 bags.	3 10 0 per bag.	9,168 12
Cholam	850 "	49 0 0 per candy. (8 bags)	5,206 4
Horse gram	280 "	61 0 0 "	2,135 0
Bengal gram	120 "	57 0 0 "	855 0
Green gram	60 "	60 0 0 "	450 0
Red gram	350 "	45 0 0 "	1,971 12
Gingelly	115 "	70 0 0 "	1,006 4
Cotton	100 candies.	30 0 0 "	3,000 0
Tobacco	20 "	80 0 0 "	1,600 0
Chillies	7 "	50 0 0 "	350 0
Other crops			750 0
Paddy straw, cholam straw, etc.			5,250 0
Total value of crop production			31,743 0
Palmyra jaggery	6,000 candies.	19 8 0 per candy.	1,17,000 0
Palm fibre	265 "	20 0 0 "	5,300 0
Soapnuts	100 "	50 8 0 "	5,050 0
Total			1,27,350 0
B. Animal Products.—			
Annual appreciation by cows and she-buffaloes			2,535 0
Milk	33,000 seers.	0 1 6 per seer.	3,093 12
Butter milk	3,43,200 "	0 0 6 per seer.	10,725 0
Ghee	27 candies.	200 0 0 per candy.	5,400 0
Annual appreciation in value of goats and sheep.			500 0
Cattle dung (manure and cakes).			1,811 0
Other products (eggs, honey, etc.).			200 0
Total value of animal products.			24,264 12

C. Income from non-agricultural occupations.—

	Rs.
Carting for hire.	7,520
Carrying toddy.	120
Breeding pigs and weaving baskets.	440
Weaving.	320
Smithy, carpentry and shoe-making	1,060
and hawking	3,500
Doctors, astrologers and priests—services	2,400
Barber, washerman and tailor	2,000
Total non-agricultural income	17,360
Grand total of income of the village.	2,00,717 12

Rates of Wages.—Labourers are employed for the day or for the year. In the former case, the usual rates of wages are 4 as. for a man, 3 to 3½ as. for a woman, and 1½ to 2 as. for a boy. (They were 3 to 4 as., 1½ to 2 as., and 1 to 1¼ as respectively in 1916). Labour in the sowing season (preparing the field, sowing, weeding, etc.), is paid for in money, while that in the harvest (cutting the ears of cholam, etc.) is paid for in kind. For the work of weeding, lasting some 2 or 3 months in the year, women are employed.

In the case of the farm servants paid by the year Rs. 30 to 80, according to age and experience, is the range (Rs. 24 for boys and Rs. 50 for men were the prevailing rates in 1916). Certain customary perquisites at harvest, if the employee is a Harijan, are 'Rasia-dugu' (what is left when the heap is cleared), 'Agadi' (the grain left or given at the end of the winnowing process) and 'Bhutadi' (some 2 seers of grain given from the heap itself). What the labourer gets in this way depends on the bigness of the holding and consequently of the crop; if he is a 'caste' man, the perquisites are generally agreed upon beforehand and vary from a few seers to a bag or more, according to his pay and usefulness.

Generally, ploughing and sowing are done by the ryots with the help of farm servants, and outside labour is employed for other processes. The following account of 5 holdings gives an idea of the days of employment available (a) to the cultivating pattadar or tenant and (b) to the labourer.

(1) 11.00 acres 'pulladi' and 31 acres 'garuvu'; of the latter 5 acres only are cultivated.

(a) Ploughing and sowing (2 ploughs and 2 farm servants) —39 days.

(b) Weeding 24 half-days; reaping, 9½ days; harvesting, 2 days.

(2) 15 acres 'pulladi' and 24 acres 'garuvu', of which 13 acres (pulladi) and 15 acres (garuvu) are cultivated.

(a) Ploughing and sowing (3 ploughs and 3 farm servants) —24 days.

(b) Weeding—46 half-days; reaping—14 days, harvesting—3 days.

(3) 43 acres (pulladi) and 31 acres (garuvu) of which 38 acres (pulladi) and 3 acres (garuvu) are cultivated.

(a) Ploughing and sowing (4 ploughs and 4 farm servants) —54 days.

(b) Weeding—114 half-days; reaping—41 days; harvesting —8 days.

(4) A tenant without any patta land.

2 acres (pulladi) and 8 acres (garuvu), of which 2 acres (pulladi) and 4 acres (garuvu) are cultivated.

(a) Ploughing and sowing (2 ploughs and 3 helpers)—20 days.

(b) Weeding—5 half-days; reaping—6 half-days (plus 6½ days' labour of 4 own people); harvesting—8 days' labour of 4 own people.

(5) 1.5 acres (pulladi) and 4 acres (garuvu), of which 1.50 acres (pulladi) alone are cultivated.

(a) Ploughing and sowing (1 plough and 1 helper)—6 days.

(b) Weeding—2 half-days (plus 9 days' labour of 2 own people); reaping—1 half-day (plus 6 days' labour of 2 own people); harvesting—1 day's labour of 2 own people.

[N.B.—For (b) unless otherwise stated, the unit assumed is a batch of 10 labourers excluding annual servants and own people.]

It is obvious that the number of days of employment for outside labour are proportionately more on the larger holdings.

For most of the labourers depending (either directly or indirectly) on the trade in palm-jaggery, agricultural work can more correctly be said to be a subsidiary source of income; with this

proviso, we may say that almost all agricultural labourers are unemployed from 4 to 5 months in the year.

PRICES OF STAPLE FOODSTUFFS

		1936.	1916.
		Rs. A. P.	Rs. A. P.
Paddy	per bag.	3 10 0	5 8 0
Cholam	"	6 4 0	9 1 0
Gingelly	"	8 12 0	12 8 0
Red gram	"	6 4 0	8 6 0
Ghee	per viss.	1 4 0	1 8 0
Chillies	"	0 5 6	

Cost of living.—The earnings of a family of landless labourer amount to Rs. 65 per year. Assuming a family to consist of 2 adults and 2 children (above 3 and below 15 years), these annual wages enable them to buy:

	Rs. A. P.
630 seers of the cheapest rice (at 12 seers per Rupee or 1¾ seers per day)	.. 52 8 0
16 seers of some other grain costing about	.. 1 0 0
Chilly powder, spiced (served for curry, chutney; etc., for many days in the year)	.. 1 8 0
6 visses tamarind	.. 1 8 0
18 seers of salt	.. 1 2 0
6 seers of gingelly oil	.. 2 4 0
Total	.. 59 14 0

If nearly Rs. 60 is spent on the purchase of food stuffs they have only Rs. 5 to spare for other necessities like clothing. No wonder then that the family is forced to go without even this minimum of fare for many days or to fall into debt.

Only about 9 per cent of the families in the village have some little surplus cash; the richer few are disposed to invest part of it in jewellery and the rest in loans to neighbours, while middle class savers prefer the latter course, until the capital accumulates enough for the purchase of an acre or two of land.

DISTRIBUTION OF DEBTS CASTE-WAR.

Caste.	No. of indebted families.	Per cent. of the total No. of families in the caste.	Total indebtedness.	Debt per indebted family.	Debt per family.
			Rs.	Rs.	Rs.
Brahmins	3	60	8,300	2,766·7	1,660
Vysyas	9	69·2	(a) 31,550 (b) 11,550	(a) 3,505·6 (b) 1,443·8	(a) 2,427 (b) 962·5
Kammas	30	33·7	(i) 40,850 (ii) 10,850	(i) 1,361·7 (ii) 374·1	(i) 459 (ii) 123·3
Kapus	60	56·1	14,700	245	137·4
Shepherds	7	38·9	2,050	292·9	114
Carpenters and goldsmiths	9	60	12,200	1,355·6	813·3
Weavers	4	28·6	420	105	30
Tappers	100	53·5	22,500	225	120·3
Washermen	13	43·3	650	50	21·7
Oilmongers	2	66·7	2,800	1,400	933·3
Depressed classes	70	56·5	4,670	66·7	37·7
Total	307	50·1	A. 1,39,740 B. 89,740	A. 455·1 B. 294·2	A. 228 B. 146·9

Note 1. (a) including one K.V.'s debt, Rs. 20,000 (he filed an I.P.);

(b) excluding the said debt;

(i) including one N.V.R.'s debt of Rs. 30,000 (his property is in liquidation);

(ii) excluding the said debt.

A. Including K.V.'s and N.V.R.'s debts.

B. Excluding the said debts.

2. Amongst Brahmins, the 3 teachers' families, migratory in nature, are not reckoned.

3. Vysyas generally have also credits or monies due from others.

The Causes and Occasions of Indebtedness are more or less the same as in 1916. They are expenses (1) for bare maintenance (2)

for marriages, etc. (3) at emergencies (like sickness of long duration), (4) for agriculture (5) for litigation (6) the accumulation of smaller debts by means of compound interest and (7) the failure of crops. (1) and partly (2) are applicable to the poorer labouring classes.

The current rates of interest vary with the nature of the loan: The common rates are: (1) Promissory notes at Re. 1 to Rs. 1-9-0 per cent per month, (2) Handloans at 3 pies and 6 pies per rupee per month, (3) Mortgages of land or other property at 12 as. to Re. 1 per cent per month and (4) 'paddus' at Re. 1-9-0 per cent per month. Compound interest is charged, if repayment is not made within the stipulated period.

Less common are (5) *jettis*, or debts contracted mostly for agricultural purposes, to be repaid in kind, the grain being valued some 30 to 40 per cent below the market rate. Sometimes, the mortgage of land takes the form called 'Teermanamtanaka' by which the creditor becomes the virtual owner of the property either for a stipulated period (10, 15 or 20 years) or indefinitely till repayment.

Liberation from debt once incurred is more the exception than the rule. If we reckon some 50 families as having some form of petty debt (like handloans, loans on pledges of jewellery, not easily ascertained by enquiry) indebtedness of one kind or another may be said to affect some 357 families out of 613, which is 58.2 per cent. (The estimate for 1916 was 65 to 75 per cent.).

Land Values.

Before 1929, Rs. 600 to 800 and Rs. 200 to 300 were the prices paid for an acre of 'pulladi' and 'garuvu' respectively; while the quotations now are Rs. 250 to 400 for the former and Rs. 150 to 200 for the latter. Except under extreme pressure of debt, transfer of land is not common. None seems to know of the Agricultural Loans Act or the Land Improvement Loans Act.

Co-operative Credit Society.

Until 3 years ago, there was a Co-operative credit society affiliated to the District Co-operative Central Bank at Ellore. There were 400 shares of the society held by 40 members of the village the value of a share being Rs. 10. Each year the members could borrow up to a maximum of Rs. 4,000, provided there were no dues outstanding. In 1934, however, the Society was

liquidated and the reason given by one-time President (who along with 4 other members was responsible for applying for and disbursing loans) is that there is nobody so interested as to take the trouble incidental to its working. Other reasons, given are (1) it was not suited to the needs of the ordinary debtor who requires a longer term and more instalments for repayment; (2) it was limited in scope; it could not in any substantial way reduce the indebtedness of the village and (3) the collection of dues required tact and patience which the Panchayat lacked; moreover, it served, if at all, the needs of a few rich people who could offer better security in land, etc., than the poorer classes whose only security lay sometimes in their hands and feet.

Communal Income.—Few and small have been the sources of communal income so far: Rs. 10 from tanks, Rs. 20 from trees, and Rs. 30 to 40 from the weekly shandy (allotted by public auction and the proceeds going to the Local Funds). This may be further developed if there is a panchayat, which, however, cannot work under the petty party feelings now rife in the village.

The village has no temples. There are half a dozen huts where some pictures are kept. These are the centres where bhajanas are held occasionally and gossip goes on regularly.

The only religious festival at present celebrated is 'Subrahmanya Shasti' with a net expenditure of Rs. 25 to 30 realised by public subscriptions. There are at present two bhajana parties trained by *gurus* to dance to the rhythm of songs, besides the women's bhajana which is mere singing in chorus. The festival of the village Goddess noted in the Survey of 1916 as involving the sacrifice of a large number of sheep and goats has been given up.

Sanitary Condition of the Village.

Taking the last decade, fevers and respiratory diseases have been the most common causes of death; but in the official statistics several deaths are classed under 'other causes.' In at least 30 houses (mostly of the poorest people) one or other of the earning members is found to be a chronic patient of diseases like consumption, usually traceable to under-nutrition.

There being no qualified doctor in the village, quacks have had their way, often with fatal results; in two cases I personally witnessed (one of a girl of 6 and another of 18) death was due to lack of proper and timely medical assistance.

The Kammas as a rule keep their houses very clean. Windows, however, are taboo, either because of false notions of security or because of privacy sought in the very limited accommodation. Again, many parts of the village, especially the Paracheri—with their narrow by-lanes and crowding-in of houses, seem veritable rural slums becoming worse in the rainy season, when all 'streets' turn morasses not easily passable by man or beast. There is no 'purdah.' The taboo against post-puberty marriage exists amongst the 'twice-born' castes (Brahmins and Vysyas) despite the Sarada Act. Marriageable age, with the other castes, depends on circumstances, but infant marriage is much less common.

The village tank supplies good drinking water, but gets dirty towards summer and dries up in that season, when two or three public wells, considered second best, are used. There are 23 private wells for other domestic purposes.

It is a pity that the village tank is used for almost every purpose without distinction—bathing, washing clothes and, not rarely cattle.

Consumption of Foodstuffs.

The following table (compiled from some typical family budgets) gives an idea of the nature and quantity of foodstuffs consumed by (a) well-to-do persons of different castes (b) small landowners and well-to-do tenants (c) small tenants and agricultural labourers and (d) village artisans and menials.

CONSUMPTION OF FOODSTUFFS PER CAPITA PER WEEK.

Caste.	Rice. (seers)	Pulses. (seers)	Vegetables. (palams)	Meat & Fish. (palams)	Jaggery. (palams)	Buttermilk. (seers)	Gingelly oil. (seers)	Salt. (seers)	Chillies. (palams)	Chee. (palams)
(a) Kamma	4.4	0.60	15	—	2	5	0.10	0.08	2.5	0.67
Brahmins	3	1	40	—	3	3.5	0.12	0.13	2.5	3
Vysya	3.3	0.33	22	—	2.1	3	0.10	0.10	2	2.4
Kappu	4.8	0.67	8	2.4	1.3	4	0.10	0.20	2.7	—
(b) Kamma	3.1	0.42	14	—	1.0	2	0.07	0.18	1.8	—
Kappu	5.0	0.38	10	1.0	0.8	0.15	0.06	0.25	1.7	—
Tapper	2.9	0.33	10	2.0	0.9	0.15	0.05	0.13	1.8	—
Mala	5.5	0.11	7	1.0	0.4	0.14	0.04	0.17	3	—
Madiga	5.0	0.33	9	1.2	0.8	0.15	0.04	0.20	2.5	—
(c) Kamma	2.8	0.50	12	—	0.67	1	0.05	0.10	1	—
Kappu	4.0	0.40	8	1.6	1.0	1	0.05	0.20	1.3	—
Tapper	5.0	0.50	10	2.0	0.8	0.5	0.08	0.25	1.25	—
Mala	5.0	0.33	15	1.5	1.0	—	0.06	0.18	1.82	—
Madiga	5.0	0.20	14.5	2.0	0.5	0.33	0.03	0.25	1.82	—
(d) Goldsmith	3.5	0.83	30	—	2.75	3	0.10	0.08	3	—
Carpenter	3.5	0.30	20	—	1.33	3	0.10	0.15	2.7	—
Potter	3.0	0.55	20	2.0	1.1	3	0.10	0.08	2.2	0.4
Barber	4.25	0.50	16	2.0	1.2	0.5	0.08	0.10	1.5	—
Washerman	3.5	0.33	10	2.0	3.0	0.5	0.06	0.25	2	—
Weaver.	3.3	0.48	12	—	0.3	0.5	0.08	0.17	3.3	0.13

D.C.=Depressed classes.

Note. Millets, mainly cholam, though decreasing in use, are usually taken once in the day, for one to one and half months in the year by all classes except the 'twice-born.' The morning meal generally goes with buttermilk or kanji and salt, with or without some preserved chutney. The other two meals, with the upper classes, are more varied with some vegetables soup (pulusu) and curry; but with the poor, they may be mere repetitions (unless conditions of unemployment are very favourable) of the simple breakfast. Subsistence on one meal, for more than half the year, is by no means uncommon.

All the Non-Brahmin caste Hindus and the Harijans prepare a kind of spiced chilly powder; with the labouring classes especially, this serves (with or without a little gingelly oil) for curry, soup or chutney for many days in the year. The richer Kammas and Kappus, the Brahmins and Vysyas, have some additional pickles and preserved chutneys.

The giving up of harder grains like cholam and kambu and the increasing use of milled rice are the most obvious changes in the dietary of the villagers in the last 20 years.

Education.

There are two primary schools run respectively by the District Board and the Labour Department. The accommodation is fairly sufficient for the children attending. Out of 178 boys and 133 girls of school-going age (6 to 12 years for boys and 5 to 10 for girls) in the caste village only 47 boys and 21 girls were attending the school in 1936; while of about 450 depressed class children—boys and girls—of school-going age, only 32 boys and 4 girls were doing so. (In 1916-17, there was only the Board School attended by 48 boys and 6 girls).

The education sought to be imparted in these schools has no bearing on the after-life of the children. Some of the working class parents consider the 3 to 4 years of schooling a veritable waste, while the majority of others view it as the best means of keeping the little ones from mischief at home. Whatever may be the claims on behalf of education the fact is that in 80 to 90 per cent of the cases, an ability to sign one's own name is all that ultimately remains. 168 adults (or 9.3%) are able to sign their name while 93 (or 5.1%) alone can read and write the vernacular; there are two persons who can speak a little English. (30 p.c. of the adults were said to be able to read the vernacular in 1916-17).

Besides the 'Bhajanās' already noted, there are recitations of vernacular poems (usually the Mahabharata and Ramayana); someone specially versed reads them out to the gathering and follows with explanations and anecdotes.

Except the occasional purchase of the 'Andhra Patrika' Weekly by two Brahmin households, no newspaper is read in the village.

Village Administration.

There is no Panchayat and the village administration is run by a Karnam, a Munsiff, a Nayakar and two Vettiyars. Visits of any officer from the Sanitary or Veterinary department are rare in non-epidemic days, and they are quite formal when made. Parading of school children during Health Week is all that is attempted in the way of sanitation and health. A constable from the police station at Nidadavolu (4 miles off) visits the village once or twice a week to get his beat-book signed. Night patrolling by village servants is a sham and police enquiries (made on reports of serious crimes) are largely a farce; there is a feeling that crimes are hushed up.

There were two sensational murders in the last two years; in the first case, the criminal was not traced, and the victim of the second (who was a woman) dragged the perpetrator (her own husband) along with her into the same well.

Petty crimes and civil disputes involving small amounts are tried by the village Munsiff according to his lights. There is much litigation (especially among the Kammas), but many disputes are easily settled by arbitration if resorted to before the flame is fanned by intermediaries. The instance of two related Kamma families, once the financial magnates of the village, now ruined by litigation, can be quoted.

There has been no attempt thus far at rural reconstruction.

Signs of Progress.

A wider cultivation of tobacco and chillies, an increased use of lanterns instead of the old oiled wick, of mill-cloth instead of home-woven stuff, of milled rice instead of hand-pounded rice or harder grains like cholam—may all be quoted as signs of so-called progress. Supposing they are so, they affect only the upper strata while the heart of the community—the labouring class—remains very weak. There is no improvement in literacy, no de-

crease in the influence of the litigation-agent who trades on the villager's ignorance, no betterment of the standard of life of the worker or his enforced idleness from 4 to 6 months of the live-long year. In short, economic stagnation, if not deterioration, is the lot of the majority.

Suggestions for Improvement.

Some suggestions for improvement are offered:—

1. The sinking of wells, especially in the palmyra tract. Supposing a well here costs some Rs. 10,000 and can irrigate only 50 acres, with a water-rate of Rs. 5 per acre, there will be a return of 2 per cent. It is an undertaking for a Corporation or the Government with a larger purse and vision than the ordinary cultivator.

2. The development of bee-culture and honey industry, for which the trees in the palmyra tract seem to be suited. Some honey is even now collected by two or three families though they are not themselves able to sell it.

3. The starting of a co-operative society for the tappers and other working classes; especially to the former it will be a great boon, if it can put an end to the usurious loans advanced by the jaggery merchant; and above all

4. A shortening of the period of primary education with the addition of some course bearing on the economic life of the village, and a scheme of adult education.

NOTE ON THE PALMYRA JAGGERY INDUSTRY

This industry, carried on in summer, dominates the economic life of the village. It provides employment mainly to the tappers and secondarily to the village barbers and washermen, the lime dealers, the owners of the carts who ply them for hire; the makers of iron pans and the Harijans who weave palmyra-baskets besides several petty traders in jaggery and hawkers of commodities for the tappers' families. But socially, it has a tendency to encourage drunkenness. The unearned income from palms widens the gap between the rich and the poor by turning the honest and sympathetic ryots into greedy money-lenders. It has also a tendency to increase idleness and slacken the application of labour and capital to the cultivation of their holdings.

Besides the local tappers, many migrate here from other villages for the season. Renting the palms for Rs. 20 to 30 per 'Balla' or 60 trees (the maximum one man can tap in a day), they stay

in the palmyra tract for a period of 3 months. Each day from 5 to 10 a.m. and 3 to 7 p.m. the tapper climbs the trees, and after cutting the ends of the stalks of fronds suspends beneath lime-coated pots into which flows the juice. The juice is boiled into jaggery in iron pans by the womenfolk at home. But for the coating of lime, the juice would begin to ferment at once; and in many cases when a tapper is fined for the production of illicit liquor, it is due to the insufficiency of lime which makes the juice appear as fermented toddy.

Part of the jaggery is sold to the Agent of Messrs. Parry & Co. in the village who advances money to the tappers so as to be sure of their selling to him, and gets a commission of 3 annas per candy, besides being able to buy at Rs. 2 below the price at Nidadavolu. The remainder is sold to private capitalists and a few retail hawkers. While the latter take it by the *kavidi* for hawking, the former buy the jaggery soon after it is made only to resell it to the agent in the village. They get no commission, but make a profit firstly because of the difference between the price near the tappers' huts and the village, secondly because some of them in lieu of money-advances get the tapper execute a promise to repay in the form of jaggery at a price fixed in advance (which would usually be a few rupees below market price in summer) and thirdly because they invariably use false weights getting thereby an advantage of 3 to 7 maunds per candy, according to the capacity of the individual seller and the hold they have over tappers in view of previous advances.

The total export of jaggery was about 6,000 candies in 1936. The following is an account of the normal expenses of a tapper incidental to his vocation:—

	Rs.	A.
Rent for 60 palm trees	..	25 0
Repairs and depreciation of 'Balla' (tapper's plank)	..	2 8
Lime for lining pots	..	5 0
Iron pan	..	5 0
Dry red gram plant (for fuel)	..	20 0
Hire for cart to and fro	..	1 8
Sandals	..	1 8
Replacing broken pots	..	2 0
Cocanut oil (used in making jaggery)	..	0 8
'Mamuls' to Excise Inspectors	..	5 0
Total	..	68 0

The yield of jaggery varies from 8 to 12 candies; but taking an average of 9 candies the tapper will be able to realise (at

Rs. 18-8-0 per candy) about Rs. 167. Deducting Rs. 68 as expenses and about Rs. 35 as the cost of a 3 months' stay in the tope (of a family of 2 adults and 2 children below 15 years), the tapper may get Rs. 64 of net income at the end of the season. But this is rarely the case. For he incurs losses by (a) the manipulations of the *sahukar* either by false weighing or low pricing of jaggery and (b) by fines at the hands of the Excise Inspector. Though some tappers are guilty of producing illicit liquor, there is no gainsaying that many an innocent man is punished, owing simply to fermentation of juice due to insufficiency of lime; this year there is a widespread tappers' strike to protest against the injustice.

As compared with conditions in 1916, some interesting developments in the palm-jaggery trades are :

Messrs. Parry & Co. have made it a practice to announce by beat of drum near the tappers' huts any periodical change in the price at which they are buying jaggery. This procedure helps to some extent to check manipulation of price by the middleman, though it cannot be said to have put a stop to all swindling; for the *Sahukar* can still say that the lower price he pays is all justified because of transport and other charges incidental to taking the jaggery to the Company's offices at Nidadavolu, as also due to the 'fines' on or scrapping of jaggery, considered not up to the standard, by the company.

The exactions and fines imposed by the Excise Inspectors (besides the usual 'mamuls' they receive) have grown to be oppressive; but the spirit of solidarity in the tapping community—never very weak—has considerably advanced; and these two factors explain the widespread tappers' strike of 1936-37.

The money-rent for a 'balla' of palms (60 in number) has grown from Rs. 15—20 in 1916 to Rs. 20—30, a rent of below Rs. 20 being a very rare thing at present.

Incidentally the closer growth of palms in sandy tracts has reduced its fertility and has been partly responsible for the decline in the cultivation of harder food grains like kambu, korrah; and the rent from palms, providing an unearned income, has reduced the concentration upon his holding of many a hard-working peasant making him less particular about his cultivation. This observation specially applies to the case of Kammas.

But as regards any improvement in the economic status of the average tapper, these 20 years have passed in vain.

NOTE ON THE PRODUCTION OF PALM-FIBRE*

Many of the tappers and depressed classes take to this work, when no other means of livelihood are available. Men, in batches usually, buy the right to the fronds of growing palms from the Pattadar of the land. Early in the morning, the man goes out to cut the fronds and returns at about 10 o'clock with the kavadi. Then the whole family beats them into fibre with wooden thuds, till about 7 or 8 p.m. (or with families of only a few members, even the next morning).

A kavadi of fronds gives about 4 viss of fibre, which after drying is reduced to 3 viss. The loss due to false weights practised by the middlemen is at least 5 palams per viss on the average. The gross receipts (at 2 annas per viss) come to 6 annas of which 50 per cent usually goes as price of fronds leaving the labourer and his family with 3 annas as the remuneration for a hard day's work.

But it is not all people that can take to this work, which lasts for 30 to 40 days; for the supply of fronds is limited. Therefore batches of men migrate to other villagers and return only after the plots they have taken are exhausted. The wholesalers stock the fibre till it accumulates in sufficient quantities, when it is sent to Cocanada through Nidadavolu.

Curiously enough, none engaged in the trade—middlemen or labourers—knows anything about the final destination or utility of the fibre. It appears, however, that besides being used for brushes, etc., the fibre is of utility in the construction of aeroplane bodies.

NOTE ON THE CONDITIONS OF ARTISANS, 1916-1936.

The former survey had little to say of artisans, except something of weavers. But generally speaking, there is little economic improvement in the condition of the artisans as a whole and there is positive deterioration of certain classes like the weavers and blacksmiths.

It may be that one or two individuals of a particular artisan class may be earning a fair income, but this does not in any way connote an improvement in the class as a whole. The fact is that

* Not noticed in the 1916 survey but since has grown up to be an important source of livelihood.

while the increase in the numbers of the artisan classes enhanced the supply side, the more emphatic breakup of the self-sufficient economy of the village (chiefly manifesting itself in the greater amount of outside competition—mill or foreign cloth in the case of weaving, outsiders or non-residents of village entering the market, as in the case of carpenters and smiths) has very greatly checked the expansion on the demand side. The consequence is a great pressure on the artisan, either driving him out completely (as is the case with the village shoe-maker) or making him cling to his caste-calling by sheer inertia or helplessness and forcing him to follow it only as a subsidiary occupation—a kind of last refuge.

1. Weavers:

Year.	Whole time weavers.	Population of weavers.
1869	69	—
1901	17	—
1911	12	—
1916	3	48 (26 adults and 22 children).
1936	1	61 (41 adults and 20 children).

In 1936, out of 14 weavers' families, 7 have abandoned it for some trade or agricultural labour. Of the remaining 7, except with one, it is largely a subsidiary occupation to be resorted to as something better than sheer idleness. But during the last twenty years, more have taken to weaving (whole-time or part-time); as conditions were better before the depression, when there used to be a profit of Re. 1 to 1-8-0 per pair of dhoties sold, while now it is only 4 to 8 or 10 annas at the most.

Earnings.—Assuming that the products of their labour are readily sold, the average daily income of the weaver (aided by his wife) works out

In the Case of Saris

As. 6 if working for a middle-man (who pays him a wage.)

As. 4½ to 6½ if working on own account.

In the case of Dhoties

As. 5 to As. 6-8 (depending on the price at which he is able to dispose of the product.)

N. B. Dhoties are usually done on own account.

Handspinning was abandoned some 30 years ago, and not revived after 1920. According to the previous survey "A little cotton was grown in the village up to 1912, but latterly it was sold for higher prices than the weavers could pay". But now the cotton production of the village is about 100 candies per year, and the price rules at Rs. 35 per candy.

2. Carpenters and Silversmiths:

Year.	No.	
1916	57	(33 adults and 24 children).
1936	63	(41 adults and 22 children).

In 1936 carpentry engaged 5 families of which one has recently (a year back) immigrated to the village, but is planning an emigration shortly. It is usually combined, with a greater or less amount, of smithy. Two hardworking carpenter families have improved their position in the recent past (10 years). The village carpenter has to meet the competition of workers from outside, who are employed especially for house-work. This, the local men say, leads to shoddy and consequently cheap work underbidding solid work. The earnings of one of these families mentioned above are (for 3 adults working),

By customary grain (it is still usual to pay in grain as so much per plough for all the repair and miscellaneous work wanted by the ryot)	..	Rs.	42
Extra perquisites from ryots (in kind)	..	"	17
Income from other work (making carts, house work, repairs, etc.)	..	"	160
		"	219

i.e., about Rs. 220 or Rs. 73 per worker.

3. Gold and Silversmiths.—The gold and silversmiths' families are five in number. But only with two is their caste-calling the chief means of livelihood. The rest have either some subsidiary means (usually 'doctoring') or have completely abandoned it for some trade like sewing or for agriculture. Very recently, an intelligent and industrious goldsmith is experimenting to live by the manufacture of cigar-lights (he was about to try them in a shandy shortly to come off and, according to the response, to decide upon further course). The fact is the gold or silversmiths are too many for the village to be able to depend mainly on their caste calling;

but some of them can, as in the above instance, either by their own initiative or outside example usefully take up new lines akin to their trade.

One man was getting about Rs. 10, and another Rs. 15 per mensem on the average. But actual earnings cannot easily be estimated; for the value of metal (gold or silver) which they, according to popular belief, manage to keep back cannot be known.

4. **Blacksmiths.**—There are 3 families. Of them one makes iron pans for the tappers in summer; but he has to face the competition of two other smithies opened for the season by outsiders (usually financed by a local man). Generally the pans are sold on credit, and the price is collected only when the tapper has already made and sold some jaggery.

Curiously, the two smiths of the village get no customary grain payments as the carpenters do. So most of the usual repair work, even though involving smithy, goes to the carpenters alone.

Anyway, the smiths' families are doing badly. They are indebted and their earnings barely enable them to pull on.

Following are the earnings of a smith's family (a father, son and a paid helper). For the pan work, he engages two workmen for the season. Account is taken only of what is left after deducting their wages and such other expenses (like sheet-iron, coal, etc.).

From 2 months' labour at making pans	..	Rs. 115
From other work during rest of year	..	" 50
Total income per year	..	" 165
Deducting for the annual helper-boy	..	" 30
Net earnings for father and son	..	" 135

5. **Potters:—Population.**—1916—6 (4 adults and 2 children), 1936—4 (2 adults and 2 children). At present there is only one potter family. Inheriting some land and having some inam land also, it has added to its resources by thrift and industry. Now it is fairly well off having Rs. 800 worth of jewellery and some Rs. 500 in the money-lending line.

EARNINGS—(PER YEAR).

From land	..	Rs. 100
From weekly sale of pots at the village shandy	..	" 73
From extra perquisites by ryots	..	" 4
From pottery trade to tappers in summer	..	" 55
Total income (excluding about Rs. 45 in interest on monies lent out)	..	" 232
From pottery business alone	..	" 132

6. **Shoe-makers.**—There is no family which makes a living purely by shoe-making. Some two or three take to it when there is no work available. It is not possible to estimate their earnings by this vocation, because they usually supply one or two pairs of sandals per year to the ryot under whom they work and the payment they receive in grain is not exclusively for sandals alone but also for other services rendered. On the few occasions on which they can sell for cash, the price varies from 6 to 12 annas per pair according to the size and strength of the pair.

TOTAL AND PER CAPITA INCOME OF THE VILLAGE

	Rs.	Rs.
Estimated total production of the village per year (excluding interest on monies lent)	..	2,00,700
Estimated amount of interest on monies invested by residents in the lending business (about Rs. 1,12,400)	..	10,100
Total income	..	2,10,800
Deductions.—		
Land Revenue	..	1,481 6 2
Local Cess	..	229 9 0
Seed	..	462 0 0
		2,173
Net annual income of the village	..	2,08,627

which works out at Rs. 338-11 per family,
 „ 115-13 per adult, and
 „ 70- 9 per head.

WATAKANCHERI

(Cochin State)

By

S. SUBBARAMA AYYAR, M.A.

Preliminary.

The total area of the village, as entered in the revenue records in 1937, is 3,703·51 acres—an increase of nearly 10 acres, due probably to readjustment of village boundaries, since 1917. This area includes Watakancheri (town), the headquarters of the Taluk of Talapilli, the northernmost of the six taluks into which Cochin State is divided for administrative purposes. Among the noteworthy public offices are the Munsiff's Court, the Magistrate's Court, Registration Office, the Police Station, and the Forest Office. The Sanitary Office (Public Health), the Panchayat Office (Local Self-Government) and an Engineer's Office (Public Works) are later additions. The Government High School for boys, the Lower Secondary School for girls and the Industrial School (managed by the Government), the Government Free Dispensary and Hospital, the Government Veterinary Hospital and Dispensary, are among the other public institutions. Though these existed in 1917, they are functioning with greater vigour and increasing popularity in 1937. The position of house-sites occupied by the several castes in the village continues to be almost the same as before, though some extensions have taken place to accommodate the increasing population.

Population.

In the Census of 1931, Watakancheri town registered a population of 5,073 (2,467 males and 2,606 females) and Watakancheri village 2,631, as against 2,000 and 4,000 respectively noted in 1917. The difference is undoubtedly due to redemarcation of "town" limits in the Census; but there is altogether an actual increase of population in the whole area of about 1,700, which can be accounted for by the extension of village limits, immigration from outside (to take advantage of the increased trade and other facilities) and the natural increase. The distribution of population according to religion is as follows:—

<i>Religion.</i>	<i>Sex.</i>	<i>Town.</i>	<i>Village.</i>
Hindus	Males	1,470	969
	Females	1,515	1,084
Muslims	Males	530	61
	Females	608	59
Christians	Males	467	223
	Females	483	235

There is a slight preponderance of females among all the sections. The number of houses in 1931 stood as 996 in the "town" (as against 440 in 1917) and 524 in the village (as against 880 in 1917) of which 850 and 472 respectively were occupied. The average number of inmates per occupied house is 5·8, the "town" houses being somewhat more crowded (5·9) than the village ones (5·5). Taking the town and the village together the number of houses shows an increase of 200, to house an extra population of about 1,700. The increase of houses in the town is both due to redistribution of town limits and increased activity therein of house building.

The following statistics of births and deaths (kept in the village records) may be compared with those published in the original survey for 1910-11 to 1914-15.

BIRTHS AND DEATHS.

Years.	Village.				Town.			
	Births.		Deaths.		Births.		Deaths.	
	Hindus.	Christians.	Total.		Hindus.	Christians.	Total.	
1931-32	38	10	48	30	22	8	30	15
			(8)	(8)			(5)	(5)
1932-33	40	5	45	32	29	2	39	16
			(13)	(15)			(6)	(7)
1933-34	38	10	58	39	37	12	61	42
			(11)	(11)			(10)	(13)
1934-35	54	10	69	33	47	8	66	34
			(12)	(18)			(6)	(8)
1935-36	43	4	49	15	49	6	74	37
			(4)	(5)			(7)	(14)
Total			269	181			270	197

Figures within brackets are those of infants below 3.

Note.—Before comparisons are made or inferences drawn from the above figures it is necessary to add that even officials do not vouch for their accuracy. It is true that Regulation II of 1081 M.E. (a Regulation to make provision for registration of births and deaths in Cochin State) was brought into force in the town of Watakancheri with effect from 1083 M.E. as per Diwan's notification dated 3rd December, 1907. According to clause 8 of this Regulation information re. the birth of a child should be given to the authorities within two weeks and according to clause 10 information re. death is to be given within 4 days. In the case of births and deaths in the Hospital the Medical Officer should give the information. The penalty for either not giving the information or for furnishing false particulars is a fine of Rs. 10 on conviction. In spite of these provisions many in the "town" do not give the necessary information. What is generally done in the village by the village officers is to get the information re. any birth or death, when they go for collection of revenue. The information thus got is often incorrect. We have not heard of any prosecution or conviction for an offence committed by anybody under the Regulation in either Watakancheri village or in Watakancheri town. These remarks apply to the state of village records in 1917, too, so that neither officialdom nor the civic conscience of the people in this respect has undergone any change during the last two decades.

As the figures stand, death rates and birth rates alike seem to have fallen from those of 1917. When the data are admittedly defective, no correct inference can be drawn. As it is, there are, for the quinquennium 1931-32 to 1935-36, 108 births and 76 deaths per year for a population of 7,700, or about 14 and 10 per thousand respectively—a very low figure. The rate of infantile mortality is 21 deaths for 108 births, or 195 per thousand.

Paracheri.

Since the publication of the original survey the economic status and outlook of the Pulayas—and the so-called depressed classes generally—have undergone material alteration. Most of them are still serfs attached to the soil, carrying on in a remarkably efficient manner the several tasks connected with the cultivation of paddy (in which they are engaged). Such of them as keep to this work and status are paid their usual wages in kind, unaffected by the fluctuations in money-wages which have affected every other class of labourers. "Men are paid 2 edangalis of paddy (weighing nearly 4 lbs.) per day; women 1½ edangalis and boys 1 edangali." They work in families for a master and an average family of three (1 male, 1 female and 1 child) can get between them 4½ edangalis of paddy weighing nearly 9 lbs., or nearly half of it in pounded rice. There are the other usual perquisites distributed to them by their masters on certain festive days (such as Onam, Vishu), but for the most part their requirements (other than for food) such as cloth, toddy and tobacco

(which two latter enter largely into their consumption) have to be met out of their earnings in kind. What is left after their expenses would go to their 'priests,' whose services would be requisitioned for all sorts of purposes in the household.

The decided change that has come over the community is their cutting away from the traditional occupation as serfs (with all the limitations, social and economic, of that status) and their taking to other occupations which enable them to earn money wages. A large number are employed in basket weaving and mat weaving (which industry has expanded since 1917), or as day labourers on daily wages, or in fetching fire-wood for sale—in the village. They move about the village roads and lanes with an independence or sense of assertion of their elementary rights of free movement that shocks the feelings of the old and the orthodox, for according to tradition they have no right of entrance into the caste village and are to keep to a distance while approaching the higher castes. From the appearance of their huts, clothing and general demeanour we can assert that their economic and social conditions have improved a lot since 1917, and there can be no doubt that for this the present day change in the social outlook of all classes of people is responsible. Colonies of them have been established on free lands assigned to them by the Government on the outskirts of the village. There they are encouraged to pursue the art of cultivation and domestic industries on their own account.

Land and Occupation of Land—

	1917	1937
	Acres.	Acres.
Area of wet lands ..	653.24	653.94
Area of dry lands ..	937.21	1402.78
Area of common waste ..	18.81	53.60
Pasture other than common waste ..	33.94	83.93
Woods and Forests ..	1912.35	1026.27
Fruit trees and scattered shade trees ..	301.48	299.62
Poramboke roads, canals, water etc. ...	—	182.63

The most noticeable changes are: the reduction of area under woods and forests (of nearly 900 acres) and the increase under dry lands (parambas including house sites of nearly 500 acres) and a slight increase under pasture and common waste. This tendency is certainly due to the increase in numbers of population and the greater demand for land for cultivation. The area of wet lands, on the other hand, has remained quite stationary, while the area

under cultivation of dry crops, especially of arecanut, has increased to a small extent.

As against 5 public tanks in the village in 1917 there are 9 in 1937—an increase of four. These are mostly used for bathing and cleaning purposes, and not for irrigation. Seven public wells have been constructed since 1917 both by the P. W. D. and the Panchayat for providing water for drinking purposes. The mainstay of agriculture, however, is the monsoon. The local water course is bunded in a number of places in summer for storing water and raising some summer crops (vegetables of all kinds, rice and bananas). At an expenditure of nearly Rs. 20,000 a bund has been constructed by the Government in the "town" and bathing ghats have been put up for the use of all castes of people.

There is no change to report on the irrigational facilities and in the types of water lifts used in the village—an account of which was given in the first survey. These consist of water-wheel, a bamboo basket, swinging wooden groove, and the balanced picotah.

Drinking water is obtained from small wells which every well-to-do householder provides for himself in his compound. Among the depressed classes and others who live in the outskirts of caste village or on high and elevated grounds drinking water is scarce; private and public charity can find no better avenue for usefulness than the provision of adequate drinking water to the poor.

Classification of Land.

The following classification of land (given in the Revenue Records) may be compared with the one entered in the first survey (p. 127):

Class.	Wet land single crop.			Wet land double crop.			Dry land single crop.		
	Area.	Assessment.		Area.	Assessment.		Area.	Assessment.	
	Acres.	Rs. As. Ps.		Acres.	Rs. As. Ps.		Acres.	Rs. As. Ps.	
I.	—	—		—	—		77.17	39 2 4	
II.	18.98	66 8 7		333.07	1,661 15 10		12.69	4 3 1	
III.	3.74	11 4 4		60.46	223 7 11		370.10	205 3 11	
IV.	13.37	32 1 6		42.20	128 12 2		503.86	243 7 2	
V.	21.12	41 7 10		15.85	37 9 7		341.97	99 0 4	
VI.	106.94	152 5 9		13.42	23 1 9		96.99	14 12 0	
VII.	23.54	47 1 10		1.26	3 4 0		—	—	
Total	1937	350 13 10		466.26	2,083 3 3		1402.78	605 12 10	
	1917	390 1 6		447.99	1,907 12 2		937.21	445 12 4	

The main changes, as disclosed by these figures, may be briefly summarised. Apart from slight changes in the transfer of land from one class to another, the area under single crop wet land is reduced from 205 acres in 1917 to 188 acres in 1937; while the land under double crop wet land has increased by about 20 acres and the dry land cultivation has increased by nearly 500 acres. The remarkable feature of the change is the increase in dry cultivation. While paddy cultivation in the village has reached perhaps its maximum capacity long ago—every available inch of *nilam* or wet land is used for the purpose—the increased demand for money crops and fruits and vegetables of all kinds has given an opportunity for the cultivating classes to supplement their income from land. The meticulous care with which paddy cultivation is carried on—fairly efficiently according to local standards—leaves no room for further increase in its production; and the fall in the price of paddy (which ruled about 10 as. to 12 as. per para in 1917 as against 6 as. to 8 as. in 1937), has naturally given an impetus to the cultivating classes to supplement their income from fugitive cultivation of all kinds and to raise fruits and roots of all sorts for commercial purposes.

The fall in the price of agricultural products has sent down the sale value of cultivable land. The price of land may broadly be said to have fallen by one-half from what it was in 1917.

Cultivable wet land—	Price per acre	
	1917	1937
	Rs.	Rs.
I class	.. 1,500	750
II „	.. 1,000	500
III „	.. 800	400
IV „	.. 500-600	300
V „	.. 500	250

Even at this lower price, investment in land is now-a-days an exception and not the rule, because money is comparatively scarce among the rural classes at the present time.

Tenures and Holders of Land—

In 1917 there were 173 pattadars (or holders of land) of all kinds. There are 260 in 1937. Classification according to tenure is as follows:—

Tenure.	Class of land.		No. of Pattadars	
		1917	1937	
		1917.	1937.	
Pandaravaka Verumpattam	Nilam	86.73	92.23	109
	Paramba	210.88	980.83	
Pandaravaka Kanam	Nilam	2.19	2.19	4
	Paramba	0.7	0.7	
Puravaka	Nilam	563.61	553.82	54
	Paramba	711.80	706.95	
Inams	Nilam	0.71	0.71	6
	Paramba	14.47	14.45	

Nilam is wet land, *Paramba* is dry land.

1. Some are holders of both Pandaravaka and Puravaka lands.

Verumpattam is tenancy-at-will; *kanam* is a tenure peculiar to Malabar in which the lessee is supposed at one time to have advanced a certain amount to the owner for which deductions are claimed from rent. Inam is rent free land. The peculiarity in Cochin is that the State, through the Royal Family, was the owner at one time of about 40 per cent of cultivable land which it "settled" on private proprietors by Proclamation in 1905. Such lands still bear the names *Verumpattam* and *Kanam*, the only difference being that the former bears a higher rate of revenue than the latter. The rest is *Puravaka janmam*, held by private owners on favourable rates of revenue.

The table above shows that while the extent of puravaka land has remained stationary, Pandaravaka (Sirkar) land held in private hands has increased in extent. This is due partly to progress in dry cultivation, and partly to the demand for house-sites.

The preponderance of Puravaka land, then as now, is the legacy of the feudal heritage of the past according to which the indigenous Brahmins (Nambudiris) and the local chieftains enjoyed complete ownership of all land under their possession subject to the small payment to the king called Rajabhogam (king's share). The stepping in of the State in recent years, and the filtering in of modern ideas on the subject have not been able to materially alter the status of the Puravaka janmi. Waste lands and forest tracts, now made available for cultivation on account of the pressure of population, are treated as Pandaravaka land (sirkar) for which full assessment is due to the State.

The increase in the number of holders (pattadars) from 173 in 1917 to 260 in 1937 is not due to any great increase in fragmentation or subdivision of holdings, but to the increased assignment of Pandaravaka Paramba land to private holders, who rose from 109 in 1917 to 214 in 1937. It is noticeable that the Puravaka janmis did not increase in number materially, while the inamdars and the Pandaravaka kanamdars were almost the same in number, 6 and 3 respectively. This fact gives an insight into the nature of land ownership in Cochin and the rest of Malabar. The property of Puravaka janmis is, as a rule, impartible; and once the lands get into their hands it is almost impossible to dispossess them of their ownership. Few of them cultivate their own lands, but they sublet the land on different kinds of tenures to the cultivating classes. The landowning classes are drawn, as already mentioned, from the Nambudiris who own both Bramhaswom and Devaswom property (literally land reserved for the use of Brahmins and Gods respectively), local chieftains (who still retain their sthanom or title, though their political power is gone for ever), and a few ancient Nayar Taravads. A picture of the state of affairs in this village can be gathered from the following extracts culled from the Land Revenue Records:—

Extent of land.	Paying land revenue.	No.	Owner.	Land revenue paid.
	Above			
Acres.	Rs.			Rs. As.Ps.
834.58	600	1.	Paliyam	617 12 0
	500		—	—
262.14	400	1.	Vadakunathan Devaswom	406 0 0
250.00	300	1.	Nambudiri Brahmin	364 0 4
159.25	200	1.	Kelam (Nayar family)	249 7 3
62.14	100	2.	Panangatukarai Devaswom	213 13 4
35.96		1.	Devaswom	127 6 3
41.41		2.	Brahmaswom	127 2 5
19.33		3.	Ezhuthacan	104 8 4
30.67		4.	Tamil Brahmin	103 12 1
	25	5.		
	20	1.		
	15	5.		
	10	7.		
	5	18.		
Below	5	211.2		

2. These include owners of house-sites.

Out of a total revenue of Rs. 3,040 collected from the village from owners of all kinds (big and small), those who pay Rs. 100 and above are only 9, who contribute between them Rs. 2,313, i.e., about 75 per cent of the total land revenue. And these pattadars or owners (of mostly Puravaka or private janmam lands) belong to families following the law of impartible estate. Paliyam, for instance, is the biggest land-owning janmi in Cochin State, whose lands are scattered throughout. The family itself lives in Chennamangalam (a village near Alwaye). It used to manage its collection work through paid agents, but the task is now (1937) entrusted to the Cochin Government. Besides the punctual collection of their dues, these absentee landlords do little or nothing to improve the land under their ownership or help the cultivating classes.

Kelam is the name of a Nayar Taravad in Watakancheri which used to enjoy some ruling powers in olden times; the male members still add the insignia of *Achan* to their names (i.e., father or protector of the people). But sometime ago dissensions set in among the members of the family and it became heavily indebted. Almost all its land is pledged to Paliyam, and the Taravad is now

scattered, some of the male members engaging themselves in non-agricultural avocations such as teachers, doctors and clerks within and outside the State.

The Nambudiri is a resident of the locality; the *illom* (as the Nambudiri house is called) has control of both Brahmaswom and Devaswom land in the village (i.e., belonging to the *illom* proper and for the use of temples under their charge). It is noteworthy that among the Nambudiris the income from Brahmaswom property may be enjoyed in common by all Nambudiris (as they are usually fed free in whichever *illom* they choose to reside). The individual members of each *illom* can accumulate private property on their own account for their personal use, but as this cannot be passed on by inheritance and as only one male member of an *illom* is allowed to marry in the caste, the property sooner or later lapses to the Brahmaswom.

The original survey contained these observations:—"The Nambudiri Brahmins pursue no occupation but that of living in strict conformity with the duties of a Brahmin. They study the Vedas and live a pious and cleanly life. Western civilization and ideas have not penetrated to them." (p. 129). In the year of Grace 1937, these observations have to be modified. There is a strong and growing protestant party (especially among the younger folk) who want to break away from the traditions of the past. They take to English education, are in favour of marriage in the community for all, and want even partition of *illom* property. Bills to these effects have been brought in the local Legislative Council, but for the time being the Cochin Royal House is the bulwark of Nambudiri orthodoxy. Some of the Nambudiri youth preach radical social reform—inter-dining, inter-marriage between communities, widow remarriage, breaking of purdah for their women and so on. These reforms, if successful, will result in the break-up of Nambudiri theocratic supremacy in Malabar and the partition of their estates into fragments which will destroy the ancient landed aristocracy of Malabar. One member of the local Nambudiri *illom* is a graduate in law of the Madras University, and he is employed as a District Munsiff in one of the British Courts of Law.

Vadakkunathan Devaswom is a Hindu temple in Trichur which has extensive landed properties throughout the State. It is under the management of the Devaswom Department of the State. The collections are used for pooja in the temple, and the balance, if any, is allowed to accumulate and is invested in landed property.

There are six Devaswoms owning land in the village.

Name of Devaswom.	Area in acres.	Kist.		
		Rs.	A.	P.
1. Vadakkunathan	.. 262.14	406	0	0
2. Panangatukara	.. 62.14	213	13	4
3. Pallimanna	.. 35.96	127	6	3
4. Kurichikara	.. 2.53	10	14	10
5. Karumakkai Bagavathi	.. 2.09	7	13	3
6. Guruvayoor	.. 1.88	7	15	0
7. Palakkal	.. 1.22	5	4	3

Thus between the Brahmin and the Gods, and the quondam Nayar ruling chieftains interspersed, the proprietorship of land in the village is vested in a few hands, and the magic of private landed property is denied to the common people.

Live Stock.

The census of live-stock of 1935 may be compared with that of 1917.

Item.	1917	1935
Working oxen	.. 245	171
Working He-buffaloes	.. 361	312
Milch cows, over three years	.. 289	475
She-buffaloes for milk	.. 20	63
Young stock (below 3 years and above one year) Cows	.. 169	125
Young stock (below 3 years and above one year) Buffaloes	.. 7	8
Youngstock below one year:—Cows	.. —	297
Young stock below one year:—Buffaloes	.. —	15
Sheep and goats	.. 583	558
Horses	.. 2	Nil
Donkey and mules	.. 22	Nil

According to official information, 1935 census is more trustworthy than that of 1917 and hence no useful purpose would be served by comparing the figures. The number of animals of all kinds seem to be inadequate to meet the needs of the population. A pair of draught cattle should plough 2.7 acres of nilam on an average. There are about 5 milch cattle (milking as well as dry) for about 77 persons of all ages. The use to which the animals and their products are put has undergone no change during the last thirty years. The breeding and feeding of cattle are still in the same haphazard and happy-go-lucky condition that prevailed in the village thirty years ago, except that a good breeding bull is

kept in the local Government Agricultural Demonstration farm opened in the village a few years ago. The use to which he is put is very limited; the Brahmini Bull still roams at large and is the parent of almost all the calves born in the village. Almost every owner of stock complains that public grazing facilities are very inadequate and milk production with the existing stock and cost is uneconomical. As noted in the previous survey the milk yield of local cows (6 *nalis* on an average per day) and of buffaloes (8 *nalis*) is poor and its consumption is confined to a few of the upper castes.* Coffee and tea-drinking for which milk is an important ingredient is on the increase as compared with its vogue 20 years ago.

The following stock of agricultural implements and carts (1935) may be noted:

Ploughs	253	Waterwheel	4
Carts	7	Tractors	2

Crop Pests.

Insect pests of various kinds attack young plants, but the Agricultural Demonstration Farm, established recently in Watakancheri, is proving helpful to the ryots by suggesting remedial measures on the spot. Spraying of chemicals to combat the Mahali disease of arecanuts is of the greatest value in this connection.

The following are the chief insect pests met with in these parts:—

Paddy.—The worst one is the rice bug. Then there is the stemborer known locally by different names when it attacks the different stages in the growth of paddy.

Arecanuts.—No virulent insect pests. But there is the fungoid disease called Mahali.

Coconut Trees.—Rhinoceros Beetle—not serious.

There are no other important pests worth mentioning on other crops. But there is the general pest of the field mouse which affects a number of crops.

*1 nali is one-seventh of a Madras measure, or nearly half a pint.

Cattle Diseases.

The diseases that attack the animals are of two kinds—infectious and non-infectious. The chief infectious diseases among cattle are anthrax, foot and mouth disease, variola and rabies; ulcers of various kinds, bowel and respiratory troubles, ordinary fevers and skin diseases are among the non-infectious diseases.

Attendance at the hospital has increased much in recent years, indicating that the Veterinary Service is becoming popular among the agriculturists. Many cases are brought from outside the limits of Watakancheri, there being only one hospital within a radius of about 10 miles. There are also touring Inspectors who attend to diseases of cattle in the countryside.

Fuel.

The account given on page 132 of the previous survey stands, except that the price of faggots or firewood gathered by coolies from the neighbouring hills has fallen to nearly half the price noted in 1917. A woman bringing a full headload generally divides it into two and sells it for about 2 annas each. She can earn per day not more than four annas as against six or eight annas in 1917. Similarly the price of a cartload of fuel (as much as a local double bullock cart could carry) has decreased to Re. 1-4-0—Rs. 2 according to quality. Owing to the vigilance of the Forest Department, firewood for domestic use is becoming increasingly difficult to gather from the surrounding hills, and as the demand grows, alternative-sources of supply have to be tapped.

Houses.

Baked tiles of Mangalore pattern have practically displaced straw thatch in the town and their use is becoming widespread throughout the village. They are comparatively 'fire-proof' and add to the appearance of the house. The houses of all classes in the village and in the town have a better finish and more decent appearance than what they had thirty years ago.

Site values of land for building have increased enormously since 1916, practically doubled, and continued to increase, as Watankacheri is a growing town. The value of cultivable land has gone down so that the great disparity between the price of cultivable land and land for building (noticed in the previous survey) is disappearing. Many houses are springing up on the road side (so as to be useful also for trade purposes) and hence the new roads (of which several have been constructed recently,

thanks to the activity of the local Panchayat) have enhanced the prices of the land in proximity to them.

Subsidiary Industries.

The only subsidiary industry to which reference was made in the previous survey is mat-weaving out of kora reeds, locally known as *pullu pai* or grass mats. A few families of Koravas still carry on the work and earn a precarious livelihood by selling the products in the local bazaar or at the houses of purchasers in the evenings, for whatever prices they are able to get. The demand for their products seems to have widened owing to the increase in bus-traffic which radiates from Watakancheri in all directions. Passengers from other places purchase these mats for their domestic use.

There is nothing new to report about the traditional skill or the economic condition of the village handicraftsmen—the Marasari (carpenter), Kallasari (mason), Tattan (goldsmith), Musari (brazier), Kollan (blacksmith) and Tolkollan (leather-worker). They carry on their hereditary occupations unaffected by the changes. As building work, as we noticed, is rather brisk in recent times, good workmen are able to earn good wages. Though for a time, after the period of the Great War, wages of carpenters rose to 12 annas and Re. 1 per day, they have again fallen to 8 annas and 10 annas per day for a good workman.

One important subsidiary industry—mat and basket weaving out of bamboo—practised by the Pariahs and the Kavarais has increased in importance since the time of the last survey. Bamboo is available in plenty in the local forests (at a distance of about 4 to 6 miles) and the products are very much in demand for packing purposes (fresh fruits, vegetables, fish, betel-leaves, etc.) and farming uses, not only in the village but outside as well. Large numbers are despatched to distant places by the railway. The weavers get work mostly during the off-agricultural seasons. The external trade is organized by middlemen, while the local sales are effected by the workmen themselves. A good workman may earn 6 to 8 annas per day.

The local Industrial School, established by Government since the time of the last survey, has not introduced any great changes in the state of arts and crafts in the village. It gives an industrial bias to the instruction offered in the school to the sons of certain artisan or labouring castes.

Village Trade.

The village trade has multiplied several times in volume since 1916. The most important article of sale in the village market is arecanut, which in various forms is extensively used for chewing with betel leaves. Watakancheri is the only important centre in the State for arecanut trade. Centrally situated with regard to the important tracts in Talapilli Taluk where arecanuts are cultivated in abundance, and having a railway station within easy reach of the place, and excellent metalled roads in all directions, Watakancheri affords splendid facilities for large scale trade in arecanuts. Large quantities are exported especially during the picking and curing season (July to December) to many important places in South India, such as Erode, Tiruppur, Salem, Karur, Trichinopoly, Dharapuram, etc. Merchants from these places visit the local shandy held once a week (every Wednesday), make purchases and make their own arrangement to pack and despatch the products to their destination. The local shandy is held in a place known as Ottupara, a suburb of Watakancheri situated on the main trunk road running between Shoranur and Trichur, in the premises owned by a local Muhammadan. He collects a small fee of 3 annas for every *thulam* of arecanuts (weighing 1500 tolas) weighed in his premises for sale. In return he provides all facilities for the traders, including warehouse and finance. As regards the latter, local moneylenders are encouraged to advance sums to the traders at cheap rates of interest, so as to enable them to pay off then and there the small producers and dealers who take their goods themselves to the market for sale.

Until a few years ago, the Muhammadan enjoyed a monopoly of vend in his own shandy at Ottupara as there were no other market places anywhere. This was regarded as a hardship by many so that the Cochin Government, by a special regulation, gave permission to open a new market place, again under private control, two miles to the south of the town on the main trunk road. The latter has succeeded in diverting part of the trade from Ottupara market. No other person, however, can open a market place in the area without State sanction. A co-operative sale society is also functioning in a small way.

Nearly 15,000 bundles of arecanut pieces chopped and cured in a special way for the market (each weighing 2 *thulams*) are being disposed of in the Ottupara market every year and the price of each *thulam* ranges between Rs. 14 to Rs. 15. The total value of annual sales is in the neighbourhood of 5 lakhs of rupees.

The Cochin Economic Survey, which was conducted recently by the State, contains the following particulars regarding this market :—

"The complaint of those that market their wares at Ottupara is that the purchasers or their agents from the Tamil Districts, who would appear to have pocketed the market authorities, are allowed to control the market and arbitrarily fix the market rates for the commodity to suit their own interests. The price thus fixed has often no reference to the expenditure incurred in the production of the article, and may not cover even the actual cost of production, leave alone the question of profits. The producers are poor people, doing business on a small scale with funds borrowed at high rates of interest. They cannot afford to stock their goods indefinitely till the price appreciated. Nor can they afford the cost of double transport of the goods. In the circumstances they have to sell their goods even when the price offered is actually less than the cost involved in the production. And this is what takes place on many a market day at Ottupara.

"Nor is it all. The market dues, brokerage, commission, etc., are heavy items, levied both in cash and kind. These items consume not less than 5 per cent of the value of the goods sold.

"And finally when the transaction is completed and the producer has parted with his goods at considerable loss to himself, he finds he cannot receive ready cash in payment. The market owner gives him a kind of credit slip for the amount due to him. This can be cashed only on the next-market-day in the following week. There are, however, certain agents in the market who are permitted by the market owner to cash such notes (alleged to be employed by the market owner himself) who are ready to cash the credit slips on discount. And because the producer cannot afford to wait even for a single day, he allows the discount also and receives payment from the agents."

Next in order of importance ranks paddy. But paddy is used mainly for home consumption; there is little surplus to export; on the other hand, rice is imported in the village and sold in the local bazaar.

The other articles of trade in the market are vegetables, coconuts, pepper, etc., which are, however, sold on a comparatively small scale, demand being more or less local.

There are now a dozen retail shops dealing in all kinds of things that are in daily need. The number of shops has been on the increase during the last few years. Probably there are more shops than necessary with the result that profits for each cannot be appreciable.

In the previous survey it was noted: "Co-operation in trading as well as in most other affairs is conspicuous by its absence." Even after 30 years of effort by the Co-operative Department, Watakancheri has no co-operative enterprise to its credit. Capi-

talistic trader, money-lender and producer try to serve the public to the best of their capacity.

Village Communications.

A fresh note has to be added in this topic, as there has taken place considerable improvement in village communication since 1917. Both the P.W.D. and the Village Panchayat have vied with each other in providing better facilities for transport. The main trunk road connecting the town with Trichur, Kunnankulam and Shoranur is always kept in good repair, and a part of it passing through the town has been asphalted. Feeder roads connect the town with the suburbs of Enkakad (to the east) and Kumblangad (to the west) and they are fit for cart traffic. There is an Anchal Office and a sub-post office, both handling a lot of correspondence. The Post Office, in addition, receives Savings Deposits of people and distributes money orders received from villagers residing outside.

Watakancheri is the point of start or halt of buses running between Trichur and Shoranur or between it and Kunnankulam. They run according to scheduled time—the State Government regulates the timings—and they are well patronized by the public. Walking even for short distances, on business or pleasure, has practically ceased. The facility is much appreciated by the public. The buses also carry small loads of village produce within a radius of 10 to 15 miles. The opening of the Cochin Harbour and the conversion of the Cochin Railway into broad guage have increased the volume of goods traffic on the line.

Economic Condition.

Wages: Money wages have fallen in 1937 as compared with those of 1917. The fall is to be seen more in the maximum than the minimum wages paid.

Workers.	Minimum.		Maximum.	
	1917.	1937.	1917.	1937.
	Rs. As.	Rs. As.	Rs. As.	Rs. As.
Carpenters ..	0 6	0 5	1 0	0 12
Blacksmiths ..	0 6	0 5	0 12	0 10
Masons ..	0 6	0 5	0 14	0 10
Bricklayers ..	0 7	0 6	0 12	0 12
Sawyers ..	0 10	0 8	1 0	0 12
Coolies:				
Male ..	0 4	0 3	0 10	0 6
Female ..	0 3	0 2	0 6	0 3
Boys ..	0 2	0 1	0 4	0 2

Owing to fall in money wages agricultural labourers are not averse to receive remuneration in kind (paddy). Labour cost of cultivation of paddy (given on page 135 in the original survey) requires alteration as regards money wages which have fallen in consequence of the fall in the price of paddy; and there is also a tendency, owing to prevailing depression, for the traditional quantity of paddy paid as wages in kind to the different classes of workers to be reduced. A reduction in cost by one-third will not be an overestimate; but the price of paddy has fallen by nearly a half.

The annual money crop which has increased in volume since 1917 is the banana. It is raised on all available land suitable for its cultivation; it may stand a hard soil, but requires a lot of watering in summer. Two hundred to five hundred plantains are planted in rows in pits prepared previously for the purpose about the end of October. The plantains are ready for cutting within ten months. Each bunch of about 50 plantains may fetch about 4 to 6 annas at the garden. The consumer's price may be raised by about 2 annas. The normal profits of the cultivator may be put at Rs. 10 to Rs. 15 per 100 bunches of plantains. As the watering is done mostly by the cultivators themselves there is the additional remuneration of wages cost.

Savings and investment: The opportunities and facilities for saving and investment have not undergone material alteration. Some saving is effected by well-to-do families, especially among the upper castes, Nayars and Brahmins, some Christians and a few Muhammadans, but it is doubtful whether any industrial use is made of it. The Brahmin invests it in jewellery, or accumulates it to give dowry for his daughter or educate his son; the Nayar uses it either to beautify his house, or purchase new land, when available; the Christian uses it in trade, or for cultivation expense. Among Muhammadans of the locality, most are day labourers, petty traders or cultivators. I do not think that the flow of funds to agriculture or new industries has shown any striking change in the last twenty years; though trade, retail and wholesale, and petty business of all kinds have benefited to some extent.

As compared with 1917, the volume of private money-lending has distinctly contracted to-day. This is due both to the comparative scarcity of money in the hands of the people and the contraction of credit, real and personal—both consequences of the great Depression. Investment in Post Office Savings Bank, organized banks or in State loans and securities is considered to be safer,

though less remunerative. Some money, as already noted, is also used in financing the arecanut sales in the local market for short periods. There are branches of two joint-stock banks whose Head Offices are in Trichur and Tripunithara. The different classes of loans of these banks are as follows:—

1. *Pledge of Gold.* Loans are issued on the security of gold, by way of “re-pledging,” which means that another Bank or moneylender takes his “secured gold” to the Bank and borrows money for the transactions of the latter. The rate of interest charged for such “re-pledging” is 6 per cent for sums above Rs. 1,000. The rates for ordinary gold loans are as follows:—

Up to Rs. 25	.. 10½ per cent
Above Rs. 25	.. 9 per cent
Above Rs. 1,000	.. 6 per cent

2. *Mortgage of land.* This is sparingly given and the rate of interest charged is 9¾ per cent.

3. *Pledge of documents* (kurikappadais) securities (Government) etc. at 9 per cent.

Note.—Loans on the security of promissory notes are not looked on with favour.

The Banks are prepared to take deposits, current, fixed and savings, at 3, 4½ and 3 per cent respectively. It cannot be said that the rural classes have yet begun to feel any confidence in the modern methods of banking, at least so far as the investment of their savings is concerned.

Kuri is as flourishing as before, but just recently the Depression has upset calculations and defaulters have been many. A considerable amount of litigation arises due to the failure of the subscribers to the *Kuri* to meet their obligations. Persons from all communities and various walks of life are subscribers to the *Kuris* conducted by the local Syrian Catholic Church. One reason for indebtedness has been the necessity to meet the *Kuri* obligations.

Indebtedness.—The condition of rural indebtedness, its causes and features, remain more or less the same as before, except that the real burden of indebtedness has increased due to the Depression, especially among the landowners, on account of the fall in the price of agricultural products, the increasing tendency for un-economic partitions (among the Nayers in particular) and the

difficulty to meet the *kuri* obligations. The credit of those who borrowed, when prices and land values were high, is now practically frozen. Most of the borrowing among the landowners, at any rate, was for purchase of new land; and with the fall in values the debt remained, but the means of payment contracted. The problem assumed so great a proportion that the State Government have thought it necessary to intervene. A Land Mortgage Bank has been started, with State help and under State control; an Inspector of the Bank is posted to Watakancheri but so far no amount has been advanced in this village. A Debt Conciliation Board has been set up by the State with a view to carry out schemes of debt conversion among private persons.

Co-operative Credit.—Co-operative efforts, then as now, are still conspicuous by their absence. A Co-operative Credit Society started in Watakancheri town some years ago came to grief owing to lack of co-operative knowledge, co-operative enthusiasm and lack of proper leadership. The local Government servants have been carrying on, for some time, a credit society for their limited use.

Loans under the Agricultural Loans Act are occasionally disbursed. It is ascertained that Rs. 4,250 has been disbursed during the last 22 years—a little less than Rs. 200 per year.

Litigation is not now so great as it was. Though lawyers have increased to about 30, litigation as a whole has decreased both in number and in the extent of the money-value involved. Litigation concerning criminal cases has decreased to a much larger extent than civil.

Dowry System

Dowry system persists; probably it is on the increase, having spread from the Brahmin community to the Christians, the Muslims and even to some extent the Nayers. Among Nayers, traditionally, girls are married only after puberty; the parties are free to contract and to cancel at their will and pleasure; and the cost is next to nothing. But this freedom and cheapness are bargained away by some of the well-to-do families; and all the paraphernalia of restrictions and cost which hamper the simple event among some other communities are quietly invading the Nayar homes. The Nayar Taravad and the marumakkathayam system are also in peril as the Cochin Nair Regulation has put a premium on partition and individual ownership of property; the right of wife and children to share in the husband's self-earned

property is also recognized. The Nayar, no less than the Nambudiri, is being brought into the vortex of economic struggle on account of the new fangled notions of family life that are held by the younger generation. Joint Family and Joint Estates are plainly on the defensive.

Temples and Festivals.

These run their even course unaffected by outside economic changes. Since 1917, a new Church was opened in Ottupara for the use of the Jacobite Syrian Christians living in the locality. The Catholic Syrians have a big church at Pullanikad, near the Railway Station, where about 180 families of Syrian Christians live. The Muhammadans too maintain a mosque—nearly half-a-mile away from the place of their residence. Religious worship is pretty regular among all classes, as enjoined by their respective religions. The lower castes of Hindus have no access to the temples intended for the worship of the higher Hindu castes, the Brahmin and the Nayar. All, except the Cherumas, Pariahs, etc., can worship from outside the temple precincts; but the Cherumas have no right of access to the caste-village. These worship their gods and goddesses in their traditional way.

Sanitary Condition.

Thanks to the efforts of the recently formed State Department of Public Health and the Local Panchayat, the sanitary condition of the town, in particular, has shown improvement. Roads and lanes are regularly swept and kept clean; lanes have been widened in many places; dustbins have been kept to receive refuse; street lights have been provided; water drains have been constructed in important places to carry storm water. Altogether the town presents a neater and cleaner appearance than what it did thirty years ago. A Sanitary Inspector has been posted here and he has his office in the town; he is also in charge of vaccination. Roads, wells and tanks are under the control of the Panchayat; and they are kept in fairly good condition. The local Muhammadan quarters too at Ottupara are kept in fairly good sanitary condition and the adverse remarks about it occurring in the previous survey have now to be rescinded. Their houses, on the whole, present a better appearance; many of them are tiled and the approaches are kept clean.

There are plenty of snakes, but snake bites are not common.

Medical Facilities.—As regards medical facilities available in the village, the position is now somewhat reversed from what it

obtained in 1916. In the previous report there occur the following remarks:—"In rural parts the (medical) treatment by the apothecaries (in charge of the Government Hospital) is getting discredited, for they take little pains to know the exact nature of the diseases of the poor persons who resort to the Hospital and prescribe proper medicines for the same." This is happily not true now; the doctors in charge of the Government Dispensary at Watakancheri are now very popular and their services are in frequent requisition, especially in the town, in all sorts of illness. The people's faith in their curative powers and in the efficacy of Western medicine generally is on the increase. Even the native physicians (Ayurvedic)—12 are practising in the village—have found it necessary to change their methods to satisfy the needs of the people. These have now opened shops where their standard preparations are sold to the public and medicines retailed to their patients. The physician remains in his dispensary at stated times when patients could consult him; he also visits the patients at their houses for which consultation fee is charged. One of them is an L.I.M., of the School of Indian Medicine, Madras, and he is also proficient in the medical code as handed down from time immemorial in particular families in Malabar.

Faith in incantations and offerings to deities is still prevalent among the lower castes of peoples as means of getting rid of illness rather than by medical attendance and drugs.

Reference was made in the previous survey to pre-puberty marriages obtaining among Brahmins (Tamil immigrants). The form is still kept, but the marriage age is forced up and many a girl gets a chance only somewhat late, some even after puberty, though the fact is commonly kept secret. Public opinion, among Brahmins, now condones this.

Education.

The standard of literacy in Cochin is very high and this village is no exception. Schools—primary and secondary—are sufficiently numerous in the State. In Watakancheri town and village there are six schools of primary standard, besides an industrial school (also for boys and girls of primary standard), two lower secondary schools, one for boys and the other for girls, and one High School (in which both boys and girls are admitted). The last three are situated in the town—one primary school (managed by Government) is situated in Ottupara for Muhammadan boys and girls; the other is at Pullanikat, it being managed by the local Christian church. The rest are in the "town" including the suburbs of

Enkakad. The strength of the local High School (and the girls' elementary school with classes up to third form)—both managed by Government—can be gathered from the following:—

Sirkar High School, Watakancheri.

	1935-36	1917
Boys	520	
Girls	70	
Total	590	527

	Boys.	Girls.
Hindus	411	59
Christians	70	9
Muslims	39	2

Strength of Watakancheri Industrial School (1934-35).

By castes.

	Boys.	Girls.
Brahmins	36	15
Other Hindus	2	1
Ezhavas	1	1
Pulayas	5	..
Muslims	11	1
Christians	1	..
Others	—	—
Total	56	18

By profession of parents.

	Boys.	Girls.
Officials	9	7
Servants	11	1
Landlords	5	2
Artisans	1	0
Merchants	9	3
Coolies	12	2
Others	9	3
Total	56	18

Note.

As already noticed, training in this school—patronised mostly by the servant and cooly class—has not appreciably affected the arts and crafts in the village. The pupils are given courses in cotton spinning and weaving, making of mats, carpentry, etc.; it is not known what use they make of their training in after life.

The strength of the Sirkar Girl's Elementary School is 196 in all the classes together.

The existence of these educational facilities has raised some problems and solved certain others which did not exist in 1917. The greatest problem is the problem of the educated unemployed. In 1917 almost every person qualified for the School Final, got employment in one of the paid services of the State, including those of teachers who were largely in demand owing to the spread of education. Those who were lucky in getting to higher standards of the University, B.As. and B.Ls., did not feel any great difficulty in getting jobs in 1917. But to-day the position is almost desperate. What with the communal G.O. and the special rules of recruitment in Government service—Cochin is a close imitator of British Indian policy in such matters—the Brahmin has been the worst sufferer, as the numbers who qualify are larger and the chances of employment are less for this community than most others; but in the minds of all, uncertainty prevails. Everybody feels that as a means of livelihood the educational policy has failed, and the main outlook of the parent in sending his children to school must be admitted to be this occupational one. Culture apart, a new orientation of educational policy in the State is overdue.

The other matter in which 1937 is different from 1917 is the demand for education by girls. Up to the primary standard girls of well-to-do families attend schools; some reach the Lower Secondary, and a few pass on to the High School stage. Nayar ladies and Christians particularly, have greater freedom in this respect and many among them are graduates and are employed as teachers in the State Schools for Girls.

Though literacy in the village is high, it cannot be said that there is yet a good vernacular literature for the use of literates. Besides the classic poems—dealing with Ramayana, Bharatham, etc., which every Hindu literate householder keeps for study at leisure—there is no book of importance stocked either in a central library or at home. A decent Malayalam prose literature fit to be used by the villagers is yet to grow, and in its absence, the high literacy in which Cochin rightly prides itself merely runs to waste.

Education of the village folk—through Puranic recitations, etc., to which reference was made in the previous survey—has not made any great progress in the village; the position is one of deterioration owing to lack of patronage. The efforts of a few well-wishers and leaders like the poet Vallathol—the founder of Kerala Kalamandalam which is established at Shoranur, eight miles from this village—deserve the support of all who desire the cultural development of the mass mind in the traditional manner.

Village Administration.

The Panchayats, formed in the State in 1913, have amply justified their existence. They are now entirely elected bodies with wide powers of local administration. A State Panchayat Officer guides the activities of the Panchayats (of which there are over 80 in the whole State). Watakancheri has now a Panchayat and it has its own office in the town. The duties of the Panchayat as outlined by the Government notifications include the following:—

(a) The construction, repair, and maintenance of minor irrigation works like 'chiras,' 'kappus,' 'chals,' etc., and the regulation and distribution of water supply to the lands commanded by such works.

(b) Construction and repair of tanks and wells as will supply drinking water to the inhabitants of the area under its jurisdiction.

(c) Preservation of poramboke paths, lands and canals useful for purposes of communication, cattle grazing grounds and village reserves.

(d) Control over vaccination and registration of vital statistics.

(e) Construction and repair of village roads and maintenance of roadside avenues.

(f) Maintenance of sirkar water sheds. (Free distribution of water during hot weather).

(g) Attending to village sanitation like prevention of epidemic diseases, cleaning of roads and drains.

(h) Formation of co-operative societies under regulation IV of 1088 M.E.

(i) Supervision over elementary education.

(j) Improvement of agriculture and prevention of cattle mortality.

(k) Maintenance intact of survey and boundary marks.

The funds necessary for the Panchayats shall be sanctioned by the Dewan in accordance with the regulations in force at the time.

The administrative organisation of the State—judicial (civil and criminal), revenue and police—continue to function as before. As already noted, a Sanitary or Public Health Office and a Public Works Office are later additions, whose activities have ensured better sanitation and health and better means of communication for the villagers. The Devaswom Department manages two of the Hindu temples in the village; though one in the town is kept in good repair, the other which is in the village is not. The village tank used by the caste people for bathing purposes which is also under Devaswom, is not kept in good repair. The necessity for its improvement, which is overdue, has been several times brought to the notice of the Department, but no action has been taken so far, ostensibly on the plea of want of funds but really due to lack of local knowledge and appreciation of local needs which are the bane of all centralized administration.

Police.

The local Police Station is still in charge of a Sub-Inspector, with a posse of Constables under him. Besides detection of crimes (which consist mainly of petty thefts and simple hurts in these parts) the police now have to attend to the regulation of bus-traffic on the roads.

History and Prospects of the Village.

Writing in 1917, I noted:—"I see no signs of economic improvement in the past; nor is there much deterioration worth speaking about." In other words, one was impressed then with the stability of economic life and the lack of striking changes in economic and social conditions. But to-day this view has to be revised. Stability there is still in certain aspects of village life, but changes, and revolutionary ones too, there are in certain directions. Paddy cultivation goes the same yearly round with practically no change in technique or organization. Paramba cultivation, or the growing of money crops, has increased to a certain extent. The State Agricultural Department has attempted to diffuse modern scientific ideas in agriculture by peripatetic lectures, distribution of pamphlets in the vernacular and practical demonstration in the ryots' own lands. But the technique of production cannot be said to have undergone any striking alteration. The rearing and breeding of live-stock is still as backward as ever; and the agricultural implements used now are almost the same as they were in 1917.

Investment in land is not now so popular and as frequent as it was in 1917 on account of agricultural depression and the consequent fall in the prices of agricultural products. Landed investments are still regarded as most secure, but there does not flow now enough money into the hands of agriculturists for purchase of new land. Capital investment for making permanent agricultural improvements is as rare now as it was in 1917. Social prestige attaching itself to a landed proprietor is still there; but, the attitude of the common people towards Government officials, high and small, has changed. These are not now regarded with so much "awe" and "adoration" with which the public, a generation ago, used to view officials of all ranks; fear and respect due to office holders are still there, but as these mix freely with the people and regard themselves as "servants" of the people the attitude of aloofness is gone.

Emigration caused by *Kangani* recruitment is not so frequent now; but a pretty good number of energetic young men belonging to the upper classes leave the village boundaries to earn their livelihood elsewhere. These, however, keep up their connections in the village and return to it, as and when circumstances permit.

"Manual labour is looked upon as derogatory, and a well-to-do high caste man labouring upon his own compound or his own fields or either his sons or relatives to do the same would be looked upon with contempt." These remarks found in the previous survey do not apply with the same force now, though manual labour for hire is mainly recruited from the lower castes of Hindus, the Muhammadans and Christians. The caste organisation is still strong in reserving such tasks as carpentry, smithy, leather-work, metal (bell) work, pottery, masonry, etc., to the hereditary castes of Hindus who have been attending to them from time immemorial.

As a socio-economic organisation the rigours of caste are still operative, but what may conveniently be called "caste-feeling" is undergoing a remarkable change. The younger generation of all castes—especially of those other than the lowest ones—has begun to resent and set at naught the inherited feeling of superiority and inferiority and an advanced section, especially among the highest castes—the Brahmin and the Nayar—has begun to chafe at the old restrictions prohibiting inter-dining and intermarriage except within the fold of a caste. Not that these events *happen* on any considerable scale, but the mental attitude towards these matters is undergoing a radical change. The diffusion of 'education', and the dissemination of Western thought and culture in the minds of the upper classes, the breakdown of the old economic system of village

self-sufficiency through the establishment of modern transport and communication and the increasing use of money-economy are among the chief causes which have tended to displace the social and economic bond based on heredity and status to one of contractual relationships. There is as yet only a beginning, and time alone can determine the exact trend of reaction of the villagers' mind to these modern factors.

A small matter and yet one that is not insignificant. The traditional "tuft" of hair on head—one sanctified by immemorial custom and thought to be of some religious significance by the orthodox Hindus—is being shed with a rapidity by the younger folk of all castes that the older and orthodox folk have not only ceased to bother themselves about it but have begun to look on it with some toleration, if not favour. Another custom—peculiar to Malabar—of women not wearing cloth over the upper part of the body has practically disappeared. Not long ago His Highness the Maharajah of Cochin tried to preserve the custom by refusing admission to certain temples managed by the State to those who broke the custom, but it proved a dead letter. Women of all classes are now clothed in full—some with bodices of tailor cut pattern and others with an upper cloth thrown over the shoulders.

Reference has already been made to the attitude of the so-called "theendal" castes to the "non-theendal" castes. (Theendal castes have to observe distance-pollution while approaching the ones above them). The younger folk of all communities—theendal as well as non-theendal—ignore the custom, the theendal castes even feeling that it is derogatory to their status and self-respect to make way in public roads and lanes while approaching the non-theendal ones. Even the Cherumas—the lowest of the theendal castes—have boldly begun to make free use of the village roads and some of the village lanes hitherto not frequented by them.

The Nayar and the Nambudiri have begun to rebel against the age-long customs of their communities. The Illom and the Taravad are objects of attack; monogamy among these castes and divisions of property among the members, so widely canvassed by an influential section of each community—even legal sanction is sought for them—will undoubtedly draw them into the vortex of economic struggle of a competitive kind.

The future lies in a reorientation of social and economic organisation so as to reap the benefits of individualism made familiar to us through the impact of Western civilisation and yet preserve the solidarity of the village community which we have inherited from the past. This is the problem for all India, and not one peculiar to Malabar or Cochin State.

GURUVAYUR
(Malabar Dt.)

By

P. C. THOMAS M.A.

Guruvayur village is situated in Ponnani taluk in the southern part of the Malabar District. It is equi-distant, 20 miles, from Trichur, Watakancheri and Pattambi, 30 miles southwest of Shoranur and 60 miles west of Palghat—all stations on the South Indian Railway. Motor buses and trucks frequently ply to and from these places—though six years back very few, and 20 years ago scarcely any, motor vehicles were to be seen. Following is the schedule of bus traffic from Guruvayur.

To	No. of Buses a day.	Distance in miles.	Fare.		
			Rs.	A.	P.
Pattambi	.. 8	20	0	8	0
Ponnani	.. 2	30	0	10	0
Trichur	.. 3	20	0	8	0
Shoranur	.. 2	30	0	10	0
Palghat	.. 2	60	1	0	0

The Canolly canal which connects Chowghat with the backwaters runs along a mile west of the village and it provides cheap water transport. The backwaters and the canal connect the village with Ponnani, Trichur and Cochin.

The Revenue Amsom of Guruvayur is 1,364.96 acres in extent and comprises five Desoms—Guruvayur, Mammiyur, Muduvattoor, Palayur and Karakkad. Guruvayur is famous for its temple. Palayur has an ancient Syrian Church, believed to have been founded by the Apostle St. Thomas in 52 A.D.

Just before the Census of 1921 a regrouping of Desoms was made in this part of the Taluq. Palayur which was part of Manathala Amsom was included in Guruvayur and the two Desoms of Perakom and Thamarayur were separated from Guruvayur. The figures of population given below, are, therefore, not strictly comparable.

Population.

Caste	1931	1916
1. Brahmans	725	799
2. Muslims	2,459	2,307
3. Christians	1,223	592
4. Others	3,903	1,422
5. Tiyyas and Depressed classes	548	2,476
Total	8,858	7,596

Year	Males	Females	Total
1916	3,793	3,803	7,596
1931	4,240	4,618	8,858
1936	4,660	5,115	9,775

No special census of population was taken in 1936. But an estimate has been made of the population in 1936 from the figures of births and deaths from 1931 to 1936. No allowance has been made for emigration from or immigration into the village, as there are no figures available.

It is said that about 200 people have emigrated from this village to Ceylon, Rangoon and the Federated Malay States chiefly as labourers on plantations. The recruitment is largely from Muslims and Tiyyas. It is not clear when they left the village.

Occupied Houses.

In 1916 the number of occupied houses was 1,290; in 1921 it was 1441, and in 1931 it rose to 1,556.

Births and Deaths.

During the years 1928-1936 there were 3,080 births and 1,594 deaths registered in the village. There is thus an excess of 1,486 births over deaths.

TABLE SHOWING THE NUMBER OF BIRTHS FOR 1928-1936.

Year.	Still born.	Total live births.		Hindus.		Moslems.		Christians.		Total births including still born.	Deaths.	Excess of births over deaths.
		M.	F.	M.	F.	M.	F.	M.	F.			
1928	18	173	170	108	110	44	41	21	19	361	164	197
1929	11	201	162	90	85	80	54	31	23	374	188	186
1930	13	165	167	84	85	54	57	27	25	345	170	175
1931	11	174	157	90	90	45	47	39	20	342	214	128
1932	13	149	173	70	94	56	57	23	22	335	181	154
1933	15	151	168	79	94	53	51	19	23	334	195	139
1934	8	158	174	78	92	54	49	26	33	340	175	165
1935	13	170	175	91	97	60	49	19	29	358	192	166
1936	9	152	130	75	73	50	35	27	22	291	115	176
Total.	111	1493	1476	765	820	496	440	232	216	3080	1594	1486

TABLE SHOWING DEATH RATE (INCLUDING STILL BORN) ACCORDING TO RELIGION

Year.	Hindus.		Moslems.		Christians.		Still born.	Total.
	M.	F.	M.	F.	M.	F.		
1928	48	45	20	15	11	7	18	164
1929	52	47	27	25	14	12	11	188
1930	50	44	25	13	12	13	13	170
1931	60	56	27	28	16	16	11	214
1932	51	38	32	30	11	6	13	181
1933	52	55	26	26	9	12	15	195
1934	52	49	27	19	10	10	8	175
1935	50	54	24	19	8	14	13	192
1936	38	22	17	15	17	7	9	115
Total.	453	410	225	190	108	97	111	1594

TABLE SHOWING CAUSES OF DEATHS.

Year.	Still born.	Small pox.	Fever.	Dysentery.	Pulmonary disease.	Suicide.	Fatal hurt.	Snake bites.	Other causes.	Total.
1928	18	—	31	32	9	—	—	1	73	164
1929	11	—	37	19	14	—	—	—	107	188
1930	13	—	35	11	15	—	—	—	96	170
1931	11	2	54	21	9	—	2	—	115	214
1932	13	—	50	27	32	—	—	—	59	181
1933	15	—	51	5	22	—	—	—	102	195
1934	8	4	44	14	6	1	1	—	97	175
1935	13	1	80	25	8	1	1	—	63	192
1936	9	2	23	12	7	3	—	—	59	115
Total.	111	9	405	166	122	5	4	1	771	1594

TABLE SHOWING AGES AT WHICH DEATHS OCCURRED DURING 1928-36.

Year.	Still born.	Less than 7 days.	One week to one month.	2-6 months.	7 months to 1 year.	2-5 years.	6-10 years.	11-15 years.	16-20 years.	21-30 years.	31-40 years.	41-50 years.	51-60 years.	61 and above.	Total.
1928	18	8	7	17	6	33	8	2	9	10	12	7	3	24	164
1929	11	11	3	20	7	37	3	6	6	12	19	12	13	28	188
1930	13	10	8	12	6	21	7	3	1	17	13	11	8	40	170
1931	11	13	4	19	8	40	11	4	10	13	14	12	10	45	214
1932	13	14	8	21	7	28	10	9	5	16	7	13	9	21	181
1933	15	8	9	17	13	29	8	1	2	11	12	19	16	35	195
1934	8	9	4	14	7	23	6	5	5	16	13	13	11	41	175
1935	13	16	6	17	18	26	6	5	5	9	10	8	9	44	192
1936	9	5	—	6	3	18	3	2	1	11	9	8	12	28	115
Total.	111	94	49	143	75	255	62	37	44	115	109	103	91	306	1594

In the above table many deaths are returned under 'others.' Further, in many cases, deaths are not reported to the village official. For instance, in the year 1931 there was an outbreak of smallpox and it extended to 1932. I understand that during this period there occurred more deaths than are noted here. In 1931 only 2 deaths due to smallpox are noted and in 1932 none. The people evidently took more care to bury their dead than to report!

'Others' include maternity deaths which, I am told, are not infrequent here. It is not possible to give figures for any long period. Enquiry revealed that there were at least 10 cases in the last three years. This was primarily due to lack of qualified medical aid. Maternity cases are generally attended to by "Vathis" (the barber women folk—a sub-caste among Tiyyas) except in the case of the upper-middle class. Surely, this 'unqualified medical aid' must be responsible for the large number of still births. Of 3,052 births that occurred during 1928-1936 as many as 111 were still born.

Deaths due to lung diseases (including tuberculosis) numbered 122, of which 74 were men and 48 women. This happened in 9 years during which the total number of deaths was 1,594.

Land and Occupation of Land.

The village is a mile and a half from the Arabian Sea and is level country, covered mainly with cocoanut gardens. There is neither hill nor forest. The nearest river flows through Ponnani, the Taluq headquarters, and is 14 miles away. The soil is loose and sandy.

The total area of the village is 1,364.96 acres and is composed of Ryotwari, Government Janmam and Inam lands. The following table gives the area under each system and type of cultivation:—

	Wet.	Dry.	Garden.	Un-assessed.	Total.
	Acres.	Acres.	Acres.	Acres.	Acres.
Ryotwari ..	334.83	16.63	809.70	..	1161.16
Government janmam ..	..	0.04	0.05	4.51	4.60
Inam ..	26.04	..	173.16	..	199.20
Total ..	360.87	16.67	982.91	4.51	1364.96

There is nothing of common waste or pasture at present. The crops depend entirely on rainfall. When rain is timely and suffi-

cient, crops are good, but any failure of seasonal rain reduces the ryot to adversity.

Rainfall.

A study of the rainfall for the last 17 years as registered at the Chowghat Hospital (on the boundary of the village) reveals the wide range in the total rainfall from year to year and in its distribution from season to season. The rainfall has varied from 85 inches in 1934 to 187 inches in 1924. The south-west monsoon which brings copious rain to this typically West Coast region has likewise fluctuated remarkably. It was as low as 65 and 71 inches in 1931 and 1924 resulting in disastrous floods. This village on the West Coast cannot be said to suffer from drought in any year, for in the last 20 years, there has not been any year in which the rainfall was less than 65 inches from the south west monsoon. But this rainy season is succeeded by a long practically dry period in certain years when the winter rains fail or are very poor; and in the absence of irrigation facilities, crops wither and the loss is terrible. It is not so much the lack of total quantity of rainfall, as the uneven distribution of it in the year that is the handicap of a Malabar village in carrying on its cultivation, especially garden cultivation.

STATEMENT OF RAINFALL 1920-36 (Inches).

Year.	Dry season.	South-West Monsoon. April-Sept.	North-East Monsoon. Oct.-Nov.	Total.
1920	0.15	96.96	38.02	135.13
1921	0.32	71.17	18.90	90.39
1922	4.13	101.88	20.14	126.15
1923	6.24	114.79	7.44	128.47
1924	2.36	171.84	13.38	187.58
1925	11.21	95.25	25.36	131.82
1926	1.19	120.42	13.60	135.21
1927	7.80	130.36	12.94	151.10
1928	2.41	132.48	13.72	148.64
1929	0.77	120.52	23.40	144.69
1930	7.65	96.60	24.31	128.56
1931	2.58	154.83	16.14	173.55
1932	2.17	121.22	27.16	150.55
1933	0.82	135.14	19.41	156.37
1934	1.04	65.04	17.72	85.18
1935	1.04	79.21	20.40	100.65
1936	4.12	110.09	10.33	124.54

No canals irrigate the land. There is a small, narrow channel 4 to 5 ft. wide, running across the village, almost along the middle. But it is too shallow to be of any use in the dry season when water is most required. It dries up by January. The gardens are watered from wells and tanks of which there are 186. But this form of irrigation is scarcely available for wet lands. As the village is at a low level near the sea shore digging of tanks or wells is not costly. The cost of digging a well is between Rs. 5 and 10 and of a tank, say 30 feet square, not more than Rs. 30. The village wet land is 360.87 acres in extent and tank irrigation at present reaches only a small fraction of this—not more than 30 acres.

Holdings.

Of the 556 pattadars who hold the 1,160 acres, 106 or 19 per cent hold below quarter of an acre each, 231 or 42 per cent below $\frac{1}{2}$ an acre each and 383 or 68 per cent below one acre each. The following table shows the sizes of holdings and the corresponding kists.

Size of holdings.	Number.	Extent in acres.	Kist. Rs. A.
Below $\frac{1}{4}$ acre	106	13.19	69 11
Between $\frac{1}{4}$ and $\frac{1}{2}$	125	44.68	259 13
Between $\frac{1}{2}$ and 1	152	100.49	708 9
Between 1 and 2	69	95.73	575 6
Between 2 and 5	62	192.78	1120 9
Between 5 and 10	24	169.73	881 6
Between 10 and 20	11	145.82	813 15
Above 20 acres	7	397.99	2202 1
Total ..	556	1160.41	6631 6

Tenures.

There are three main kinds of tenure as in the rest of Malabar. At the bottom is "verumpattam" or simple lease, and at the top is "saswatham" or perpetual tenure. In between is "kanam" tenure, by far the most prevalent type in the village as well as in the whole of Malabar. The Malabar Tenancy Act, 1930 which conferred the right of occupancy on Kanamdar and cultivating

verumpattamdar has improved the status and interests of the tenant in the land he occupies.

Among the 18 holders of Pattas having each more than 10 acres are four temples and one church. Four others are Kovilakams including those of the Zamorin of Calicut and the Raja of Punna-thur. The former has his permanent residence at Calicut and the latter at Kottapady, 2 miles north of the village. Among the rest are two Muslims holding 117 and 14 acres and a Tiyya holding 20 acres. The remaining six are Nairs, of whom one is a woman.

All the lands belonging to the church, temple and the Kovi-lakams are let on lease chiefly on Kanam tenure. The Muslim holding 14 acres and the Tiyya holding 20 acres themselves cultivate most of their lands, letting the rest on verumpattam. The other Muslim has let out most of his lands—more than 80 per cent on verumpattam. Of the six Nair Janmies one is a lawyer and the other 5 are swastham Janmies (living on rents); they have let out their entire land, mostly on Kanam tenure.

The small Pattadars generally cultivate their lands themselves. There are 238 Pattadars holding wet lands. Of these 227 hold below 5 acres each. The total extent of land thus held is 170·56 acres. The remaining 11 Pattadars together hold 165·27 acres and almost the whole of this area is let out to tenants numbering about 100.

About 150 pattadars cultivate their lands and about 150 to 200 cultivate lands held on lease. The number of workers who neither own nor rent land may be estimated at 600. Of these 350 to 450 are agricultural labourers. Most of them do not even own plots to live on and so live on others' land.

After the passing of the Malabar Tenancy Act, 1930, the occupying tenants have secured their rights to hold the lands in their possession. There is naturally scarcity of land for agricultural labourers who desire to become tenants.

Agriculture.

The coconut is the most important crop of the village. The entire garden land of 982·91 acres is under this crop. Paddy is the only wet crop occupying 360·87 acres. Of this 240 acres are double crop land and 120 acres single crop. In the official record there is no third crop land. But as a matter of fact a third crop is raised on about 5 acres on the banks of tanks and the small channel that runs through the village.

COST OF CULTIVATION OF PADDY ON AN ACRE OF DOUBLE CROP LAND.

	Rs.	A.
<i>A. First Crop.</i>		
Repairs of Bunds, etc.—The work is done by two men at 4 as. each and Kanji at midday	..	0 9
Ploughing and levelling.—3 ploughings by 5 ploughs	..	2 8
Cost of seed.—10 paras at 7 as. per para	..	4 6
Spade cultivation after sowing.—3 men at 4 as. each and midday meal	..	0 14
Manuring (mixture of cattle dung and ash 4:1).—5 paras costing Rs. 2 and 4 as. transport charges	..	2 4
Manuring.—2nd dose (same quality as in the 1st)	..	2 4
Weeding.—Depending on the 1st rains of the S. W. monsoons. About 10 to 15 women for one or two days. 20 at 1 anna 6 pies	..	1 14
Reaping and threshing.—Generally entrusted to some head-cooly and the rate is 1/7 of the total paddy made ready. 11½ paras at 6 as.	..	4 5
Watching.—5 as. and two rolls of paddy (5+4=9 as.)	..	0 9
Total expenses	..	19 9
<i>B. Second Crop.</i>		
Cost of seed.—(7½ paras)	..	3 12
Rent for raised plot.—(for 1½ months)	..	0 6
Cost of spade-digging.—1 man for 1½ days	..	0 6
Ploughing.—(6 rows; 12 ploughs)	..	6 0
Raising bunds, etc.—Since the work is after the S. W. monsoon the work is heavier than for 1st crop. 4 men at 4 as. each plus 2 as. midday meal	..	1 2
Transplantation.—(a) Plucking (3 women at 2 as. each and Kanji = 7 as.); (b) Transporting (2 men at 4 as. each and Kanji = 9 as.); (c) Re-planting (10 women at the rate of 2 as. each and midday meal = 1-9-0)	..	2 9
Manuring.—100 paras of mixture of cattle dung and ash	..	4 0
Weeding.—The work is not as heavy as for the 1st crop. Half the labour suffices	..	1 4
Reaping and threshing.—Same as under 1st crop	..	4 5
Watching.—Same as under first crop	..	0 9
Total	..	24 5
Cost of cultivation of both crops	..	43 14

PROCEEDS OF CULTIVATION.

	Rs.	A.
<i>A. First Crop.</i>		
Price of 80 paras of paddy (at 6 as. per para)	..	30 0
Price of 10 head-loads of straw at 4 as. a bundle	..	2 8
Total	..	32 8
<i>B. Second Crop.</i>		
Price of 80 paras of paddy at 6 as. 3 p. per para (during this season paddy sells a little higher than previously)	..	31 4
Price of 10 head loads of straw at the rate of 4 as. a bundle	..	2 8
Total	..	33 12
Value of yield from both crops	..	66 4
Deduct expenses	..	43 14
Net income	..	22 6
Kist on land (including enhancement)	..	3 14

The statement relates to a cultivator owning the land. In the case of lands belonging to others the cultivator has to pay a prefixed proportion—usually half the gross yield of the first crop as *pattam*.

In such a case :—

	Rs.	A.	P.
Net proceeds	..	18	7 5
Pattam 40 paras of paddy	..	15	0 0
Balance	..	3	7 5

Generally hired labour is engaged only for such operations as ploughing, transplanting, harvesting and watching. The other items of work are generally done by the agriculturist and his family, and therefore wages under those heads are really the income of the farmer and his family.

Methods and implements of cultivation.

Cultivation, whether of paddy or coconut, is carried on in the time-old fashion. Ordinary country wooden ploughs are used; manuring is inadequate; chemical manures are not used. Only on seed selection—in the sense of reserving the best type grown

on one's own soil for seed—is some care bestowed. But in several cases even this is not possible as seed is borrowed.

Within the last five years six villagers purchased iron ploughs supplied by the Agricultural Department and some of them expressed their disappointment in not being able to use the ploughs, which cost them Rs. 6-8-0 each. One farmer experimented with it, but found that the share did not cut deep enough and a local blacksmith tried to tilt its position, when it snapped asunder. But it must be said that the soil, being loose and sandy, does not require such heavy ploughs nor are the cattle over here able to pull such heavy ploughs.

Other agricultural implements are:—(1) Levelling board—used for breaking the soil after ploughing; (2) A short knife-shaped iron instrument used to sow seed; (3) Spade; (4) Sickle, and (5) Axe.

Manures.

About 80 per cent of the cow dung obtained in the village goes as manure to the fields and gardens. But even according to the ryots' opinion, land is not adequately manured.

When nearly 200,000 paras ought to be applied for all classes of lands put together, only about 100,000 paras of manure is actually applied. Thus the manure needs of the village are only half met and of this about 25 per cent is bought outside the village.

As no chemical manure is used this deficiency is depressing and is mainly responsible for the considerable fall in yield observed in recent years. A great boon that can be conferred on the agriculturist is to enable him to purchase manure cheaply and in large quantities. This ought to be an important item in any programme of agricultural uplift. Any co-operative effort among the villagers to open manure depots will be a wholesome measure.

It cannot, however, be said that the best possible economy is made of the available sources of manure. About 15 per cent of the cow dung available is used for washing and coating floors and walls of houses. About 4 to 5 per cent is burned as fuel.

Cattle urine along with litter is used as manure for coconut. Green manure is occasionally used—only for bananas, vegetables and other garden cultivation. As there is no forest in the vicinity it is not obtained abundantly. Nor is it grown as such in the village.

COSTS AND PROCEEDS OF CULTIVATION OF COCONUT ON AN ACRE OF GARDEN LAND.

	Rs.	A.
Enclosures and Fencing; Repairs.—(a) Boundaries (only repairs). Two coolies at 4 as. each and midday meal = 10 as. (b) Fencing—Bamboo, Re. 1-4; Wages, Re. 1-4. = Rs. 2-8 ..	3	2
Spade-digging.—2 coolies at 4 as. and midday meal ..	0	10
Ploughing.—The ground is usually ploughed 4 times a year ..	2	0
Manuring.—About 100 paras of cattle dung and ash. This, however, is not considered adequate. Sometimes fish (small species of Sardine) and silt are also applied, Rs. 4 + Re. 1 ..	5	0
Cost of plucking coconuts.—12 as. per hundred trees, generally paid in kind ..	0	9
Total costs ..	11	5

Proceeds.

On an acre of land of this variety there are on the average 70 trees. Due to inadequate manuring and shortage in rainfall a fall in yield is experienced. Previously nuts were plucked 12 times a year. Now it is done only 10 times.

	Rs.	A.
Thus: Nuts $70 \times 5 \times 10 = 3,500$ nuts at the rate of Rs. 32 per thousand ..	112	0
Leaves.—About 560 leaves per annum at the rate of 100 a Rupee ..	5	8
Total yield ..	117	8
Deduct costs ..	11	5
Net proceeds ..	106	3
Kist ..	9	6

COSTS AND PROCEEDS OF CULTIVATION OF COCONUT ON AN ACRE OF INFERIOR LAND.

	Rs.	A.
Cost of raising boundaries and fencing ..	3	0
Spade cultivation.—2 coolies at 4 as. each and midday meal ..	0	9
Ploughing.—A round or two ..	1	0
Manuring.—Very little manure is applied—25 paras ..	1	0
Total costs ..	5	9

Income.

60 trees per acre are the maximum on such lands. The yield is poor and the number of times the crop is gathered is also fewer—8 per annum.

	Rs.	A.
(a) Total yield, 1,200 nuts, at the rate of Rs. 32 per 1,000 ..	38	6
(b) Leaves (at the rate of 4 leaves per tree per annum) 240 ..	2	5
Total income ..	40	11
Deducting costs ..	5	9
Net income ..	35	2
Kist ..	3	13

It is on such lands that the revenue remains a heavy burden. As there is very little surplus above costs, the ryots' cultivating capacity is reduced considerably. Poor cultivation and reduced yield form a sort of vicious circle out of which the ryot has not extricated himself. Tax remissions do not go a long way. Means of enabling the ryot to improve the quality of culture will be more important than such remissions, which at best are only palliatives. And such cultivators, if it so happens that they find no other work or own no other land, lead an existence the misery of which is not easy to realise and which even the poorest industrial labourer will not envy.

Irrigation.

Water is not sold for irrigation. Dearth of water is felt during the dry season when rains fail. Wells are used in that season for irrigation. The common types of water lifts are of small capacity and are worked by man-power. The most prevalent types are noted below:

The common type is what is locally called "Thulam." It consists of two vertical parallel posts, to the horizontal joint of which is attached a pole, at the one end of which hangs a weight (a coconut palm leaf bag filled with sand) and at the other end a bucket, usually made of wood. The lift is worked by immersing the bucket in the well, by a man standing on a plank and himself upturning the bucket as he raises it from the well. This type is used in irrigating gardens as well as paddy fields.

The second device is even simpler. It consists of a bucket made of bamboo stem and is worked by two men holding two each

of the four strings attached to the four corners. The bucket is upturned by pulling up the hind ropes. The bucket costs in the village 4 annas, and holds about 3 paras of water and is always worked in shifts.

A third arrangement consists of a tripod to the angle of which is tied a rope and an oar is fastened on to it. The oar is immersed in water and water is pushed forward by pulling back the arm of the oar. This is used when the quantity of water available is small.

Agricultural Calendar.

Month.	Week.	Wet lands.	Garden lands.
PADDY.			
April.	3rd week.	Sowing seed.—One week's time. One man per day per acre.	
	3rd and 4th.	Preparing the soil after sowing.—Ploughing or spading—3 men and one plough an acre in a day (one round—usually 5 to 6 rounds are needed).	
May.	4th and 1st week.	Manuring—two weeks.	
	2nd, 3rd and 4th week.	No cultivation work—but repairing hedges, felling coconuts and other similar work.	
June.	1st week.	Manuring—2nd dose.	
			Ploughing and sometimes spading with 3 men a day per acre. Usually two rounds are ploughed during this season at one plough, one acre, one round in one day.
July.	2nd.	No work.	
	3rd and 4th.	Weeding.	
	1st.	No work.	
	2nd.	Sometimes water has to be pumped out if excessive.	
	3rd.	No work.	
	4th.	Sowing 2nd crop.—One man one acre per day.	

Month.	Week.	Wet lands.	Garden lands.
August.	1st, 2nd, and 3rd.	No regular work.	
September.	4th and 1st.	Harvesting.—Time for harvesting about ten to fifteen days. Ten women reap an acre in a day and another ten thresh the corn.	
	2nd.	Repairing bunds and ploughing for the 2nd Crop.—The work is done immediately the fields are clear after the first harvest. Time over 2 weeks.	Banana.—Planting.
	3rd and 4th.	Transplantation.—Usually extends to 2 weeks at 2 men and 12 women a day on one acre.	
October.	1st and 2nd.	No regular work.	
	3rd.	Weeding at 8 to 10 women a day on one acre.	
	4th.	Manuring.	
November.	1st.	No work.	Tapioca cultivation.
	2nd.	"	
	3rd and 4th.	"	The gardens are ploughed a second time in the year.
December.	1st and 2nd.	No regular work.	
	3rd.	"	Vegetables planting.
	4th.	Harvesting.—About 10 days. Ploughing or spading.	
January.	1st.	No work. Vegetables planted in a few acres in the fields close to the tanks.	
	2nd.		
	3rd.		
	4th.		
February.	1st and 2nd.	No regular work.	
	3rd.		Rhizome cultivation.
	4th.		
March.	1st.	No regular work.	
	2nd.	Ploughing of the fields again, except those areas where vegetables are grown.	
	3rd.	Ploughing of the few acres under vegetables immediately before sowing.	
	4th.	No regular work.	
April.	1st and 2nd.	Constructing boundaries and small bunds inside the fields.	

Livestock.

	1936	1916
Oxen ..	458	922
Cows ..	116	220
Male buffaloes ..	312	503
Cow buffaloes ..	137	221
Young stock ..	525	1,103
Sheep and Goats ..	585	1,305
Horses ..	3	7
Pigs ..	155	20
Total	2,291	4,301

There are no special facilities for cattle farming in the village. There is no pasture land, private or public. During monsoon months, however, grass grows thick on the bunds of paddy fields and in gardens; but it is scarcely adequate even in that season. To supplement it straw is put by in heaps for the lean days. But this could be done only by paddy cultivators and by those who could afford to buy it at the time of harvests. About 100 families have stacked straw.

It is not, therefore, surprising that only 30 per cent of the cultivators keep cattle at all and of these only a few keep more than 2 or 3. One farmer keeps 2 milch cows, 2 male buffaloes and 2 working oxen. Due to the difficulty of getting fodder many owners dispose of dry cows. There is a weekly fair close by, half a mile from the village, where every Wednesday from 8 a.m. to 5 p.m. one can buy or exchange cattle. But the choice is not wide, the herd gathered being of the same kind from neighbouring places such as Chemmannuy, Arthat and Pavaratty. Degenerate and emaciated, many of these animals bear glaring marks of malnutrition.

There were 20 cows which were dry and looked after by poor women for a small wage. 8 annas and two cloths are the wages per cow. Stud bulls are kept in the temples in Guruvayur and one in Mammiyur. These are of the local type, but better fed. One man in a neighbouring village maintains stud bulls and that is his occupation. As this is a novel feature in these parts I have collected some data. He owns two bulls, one male buffalo and two male pigs. The price and age of each are noted in the table below :—

Kind.	Age.	Price. Rs.	Date of Purchase.
He buffalo	8 years	22/	1934
Pig No. I	5 "	12/	1934
Pig No. II	4 "	8/	1936
Bull No. I	14 "	18/	1934
Bull No. II	4 "	9/	1936

He gets on an average 5 to 6 cases a month for the buffalo, 6 to 8 for the bulls and 5 to 8 for the pigs. But these slightly rise during the monsoon months, which may be regarded as the pairing season when the cattle are better fed. The hire for the bull per case is 8 annas; for the buffalo 10 annas and for the pig 6 as.

Cost of maintaining breeding animals per day.(a) *For two pigs.*

	Rs.	A.	P.
Coconut oil cake (1¼ thulam)	..	0	1 8
Bran (6 measures)	..	0	0 9
		0	2 5

(b) *Buffalo*

	Rs.	A.	P.
Gram (½ measure)	..	0	1 0
Grass (one big bundle)	..	0	1 6
		0	2 6

(c) *For two Bulls.*

	Rs.	A.	P.
Bran (3 measures)	..	0	0 5
Grass	..	0	2 0
Gram (½ measure)	..	0	1 0
		0	3 5

The village had a larger number of cattle 20 years back. The fall in number is due to dwindling resources of the ryot, who generally takes his ox or buffalo to the market before taking his child's ear-ring or bracelet to a bank.

There are 155 pigs in the village. Till recently pig-raising was a good means of subsidiary (in some cases main) income to many villagers. A pig costs from Rs. 10 to 15. The pig is a highly prolific species and it foals twice a year bringing forth each time from 12 to 15 young ones. Only 8 or 10 survive, the rest die young. About the 4th month they sell at Rs. 2 to 5 each. But of late, the trade has gone down much, and the cost of raising is getting higher. The pig is omnivorous but it is specially given coconut poonac and paddy bran. With the fall in oil-pressing industry poonac sells high. With the increase in imported rice, in place of local hand-pounded rice, bran is scarce and costly.

Prices of Livestock.

Actual prices paid for different kinds of cattle, with the age and date of purchase, are given below.

Cattle.	Purchase price.	Date of purchase.	Age when purchased.	Yield of milk.	Cattle.	Purchase price.	Date of purchase.	Age when purchased.	Cattle.	Purchase price.	Date of purchase.	Age when purchased.	Yield of milk.
Cow	Rs. 25	1934	9	Meas. 1½	Ox	Rs. 100	1926	8	Cow	Rs. 19	1936	12	¾
"	35	1934	8	1½	"	80	1935	10	buffalo	25	..	10	1¼
"	16	1933	9	¾	"	75	..	9	"	45	1935	10	1½
"	40	1930	8	1¾	"	80	1936	12	"	53	1933	8	2
"	50	1930	6	2	"	80	..	11	"	23	1935	11	¾
"	18	1932	6	¾	"	60	1936	10	"	27	..	10	1½
"	20	1931	5	1	"	65	..	..	"	33	..	12	1¾
"	15	1936	8	1	"	35	1932	6	"	35	..	11	1½
"	20	1930	6	¾	"	40	1935	10	"	40	..	12	1½
Heifer	3	1936	2		"	45	1935	10	"				
"	2-8	1935	1		"	80	1936	12	Male				
Calif					"	80	1936	11	buffalo	52	1935	11	
(Bull)	3	1935	2		"	33	1934	9	"	52	..	12	
Cow & calf	26	1936	10	1	"	75	1928	13	"	60	1936	13	
Cow	16	1936	6	¾	"				"	60	1936	13	
"	60	1936	11	2½	"				"	63	1935	12	
"	18	1934	11	1	"				"	65	1934	11	
					"				"	27	1936	14	
					"				"	27	1936	15	
					"				"	23	1935	11	
					"				"	23	1935	11	
					"				"	28	..	12	
					"				"	30	..	12	

Cattle Disease.

Though lack of fodder accounts for the feebleness of cattle, complaints of cattle diseases are rare. Hoof-disease and swelling on the neck are the only diseases one comes across. The nearest Veterinary Hospital is at Kunnankulam, Cochin State, at a distance of six miles. But such aid is seldom sought. The farmers themselves have a formula for treatment. For the former disease a hot mixture of the juices of ginger-root and wild onion is applied on the affected spot. There is a "native" doctor at a distance of 4 miles from the village who treats the latter complaint with some decoctions and other preparations.

Village Streets and Houses.

The area of the village is 1,364.96 acres. Different castes do not occupy separate parts of the village. The homesteads of different castes are intermingled. Though this is typical of a Malabar village, Guruvayur, on account of the existence within it of a very ancient temple, presents certain variations. Immediately surrounding the temple are the houses of Brahmins and other caste Hindus. The former show a tendency to segregate and to live in street houses. The backward classes are not seen in this part nor can these classes come close to the temple. But as one goes further from the temple the distinction vanishes.

The majority of houses in the village are small thatched ones and of these almost all are built of earthen bricks. Stones are used in the construction of a few two-storeyed houses.

No. of tiled houses	..	385
No. of thatched houses	..	1,126
No. of two-storeyed houses	..	45

An average Vettuva but (Vettuvass are numerically the largest amongst the depressed classes in the village) is a small almost square room 12' $\times$ 10', open on one side, where there is a narrow verandah 10' $\times$ 2'. The walls are made of earthen bricks. These houses do not have any windows. Sometimes there is a door, in which case the fourth side is also walled up, leaving space for the door. The floor and the walls are coated with cow dung. The beams and rafters are of bamboo. Inside the hut are found one or two mats, a small knife, a narrow tube for keeping tobacco, a small screw-pine bag for paddy and a few earthen cooking vessels. Cooking is done in the open. The average cost of constructing a house is Rs. 5 or 6. Invariably the house is constructed by the occupier himself.

The house of an average labourer consists of two rooms side by side and a narrow verandah in front. The four sides are enclosed and on one side is a door 5' $\times$ 2'. Usually there are two windows, each 1' 6" $\times$ 1'. The floor and walls are coated with cow-dung. The beams are of coconut wood and rafters are of bamboo. The house measures 20' $\times$ 15' $\times$ 10'. Sometimes there is an attached room on one side and it forms the kitchen. A small wooden cot, a stool, and a wooden box for keeping clothes and documents if any and savings are all the furniture. Household utensils consist of a mortar and a pestle, one or two knives and a few earthen pots. The houses are generally built by the occupants with the assistance of a relative or friend. Average cost of construction of a house is Rs. 20.

An average middle class house has 3 rooms, each 10' $\times$ 8' with a verandah in front, 30' $\times$ 5'. Sometimes the verandah is enclosed to make the house more commodious. On the rear side is an additional room with slant roofing and it forms the kitchen. Where there is a bath room it is a small enclosure at one corner of the house, enclosed by coconut leaves but with no roof. The doors and windows are of small dimensions and it cannot be said that the rooms are adequately ventilated. The majority of these houses also are constructed with earthen bricks. The few that are of stone are tiled and the rest are thatched. Rent is between Rs. 3 and Rs. 4. The cost of building such a house is about Rs. 150 if the walls are of brick and roofing is thatched. If stone-walled and tiled, the cost would be Rs. 350. Stones are not available in the village, but only at a distance of about 2 miles.

The following are the types of furniture and utensils found in a house of this type :—

Tables	2	<i>Household utensils.</i>
Chairs	3	Earthen pots.
Stools	2	Plates.
Cots	2	Copper and bronze vessels.
Easy chair	1	Mortar and pestle.
Rack	1	

Such houses often have cattle sheds attached to them. The shed is a small oblong raised plot of ground with thatched roofing supported by six pillars the central ones being higher than those at the flanks. The shed is open on all sides and on one side is a small walled in space for fodder.

The well-to-do houses are all pretty large ones. A typical one consists of five rooms each $15' \times 10'$, with narrow verandahs all round and a broad verandah in front. In this category are included the 45 two-storeyed houses of the village. They are certainly more spacious and have greater number of rooms than the others. The cost of construction of such a house ranges from Rs. 1,500 to Rs. 2,000.

The new buildings are constructed with some elegance and are well furnished. But the old ones are massive old fashioned structures. The Guruvayur Devasom manages a choultry. It consists of 12 rooms with necessary out-houses, garages etc. The rooms are spacious and are provided with extra kitchen apartments and each room is generally occupied by a family.

The houses are situated in separate homesteads often in separate compounds. Cultivated lands are not generally very far from the quarters of the farmers. The maximum distance would be three quarters of a mile. Along the two important bazaar streets of the village, buildings are put up for business purposes. And in this part of the village there is an unsatisfied demand for building sites. Consequently high rents prevail. A shop-site, 20' square fetches a rent of Rs. 10 to 12 in this part of the village. It is not easy to give any uniform rates of site values as they differ widely with the situation. The following table gives the prices of an acre of land in different categories.

Near the streets.				Outskirts of the village.			
Garden.		Wet.		Garden.		Wet.	
	S.C.	D.C.		S.C.	D.C.		
Janmam	Rs. 100	Rs. 200		Rs. 500	Rs. 70	Rs. 150	
Kanam	Rs. 800—1,000	Rs. 80	Rs. 150	Rs. 400	Rs. 50	Rs. 120	

S.C. = Single crop; D.C. = Double crop.

Census of Production

The commodities are valued at the prices which ruled in the village at the time of investigation.

Crop.	Area in acres or No. of trees.	Output.	Value.
Coconut	982 Acres. 70,000 trees.	2,800,000 nuts.	Rs. 89,000
Paddy	360.87 Acres.	40,250 paras.	Rs. 15,094
Plantain		2,600 Bunches.	Rs. 325
Banana		1,000 Bunches.	Rs. 250
Jackfruit	160 trees.	1,600 Fruits.	Rs. 100
Mango	200 trees	40,000	Rs. 50
Cashewnut	300 trees	30 bags of nut.	Rs. 25
Arecanut	2 acres	10 bags of nut.	Rs. 320
Vegetables			Rs. 250
Kachil root		Thulams 100 at 5 as a T	Rs. 30
Elephant yam		Thulams 200 at 8 as a T	Rs. 100
Tapioca		Thulams 300 at 4 as a T	Rs. 75
Arhm		Thulams 150 at 2 as a T	Rs. 18
Cherukizhangu		Thulams 100 at 3 as a T	Rs. 18
Koorka		Thulams 50 at 2 as a T	Rs. 6
Pepper		Kandies 2	Rs. 225
			Rs. 1,05,886

Yield from Livestock.	Milk.	Value.
Cow	per day 60 measures (Mad.)	Rs. 15
Buffalo	„ 100 measures	Rs. 25
Goat	„ 50 measures	Rs. 15
Ghee	5 to 8 measures per month.	Rs. 15—25

Large quantities of milk, buttermilk and ghee are bought from outside. Because of the existence of the temple, consumption of these goods is quite high. About 3 times the production of the village is bought from outside.

Poultry.

Poultry farming is not practised as an industry. Domestic fowl are sometimes reared, but in no case does it amount to an occupation.

	Price.
Chicken (2-3 months old)	.. 2 to 3 annas each
Hen	.. 5 to 6 „ „
Cock	.. 8 to 10 „ „
Hen's eggs	.. 3 „ per doz.
Duck's eggs	.. 3 to 4 „ „

VILLAGE CONSUMPTION

The village is not self-sufficient as regards paddy. The total consumption of the village, the yield from the lands and the quantity brought in by the traders may be estimated as follows:—

Paddy.—Total yield of the villages: 40,250 paras per annum.

The total needs of the village are estimated at 1,44,000 paras per annum. Of these 1,03,750 paras are brought in by the traders as paddy and rice, of which paddy is about 27,000 paras and rice

the remainder. There is an increasing tendency for rice to displace paddy in the village market. And the output of the village is growing more and more insufficient for the growing population of the village.

Coconut.—The village output of coconuts is estimated at 28,00,000. (page 319). Village consumption accounts for 15 per cent of this i.e. 4,20,000. The balance of 23,80,000 could at the present rate of Rs. 32 per thousand be valued at Rs. 76,160. About 50 per cent of this goes as unhusked coconuts.

Vegetables.—The chief vegetables used in the village are:—Bitter gourd, brinjals, bendais, drumsticks, snake gourd, “Vel-larika,” “Kumblanga,” “Mathanga,” papai, plantain; “Chenathandu.”

All these varieties are grown in the village. Output of vegetables and plantains is estimated at Rs. 250 and Rs. 325 respectively.

The following table shows village output and village consumption and the relation between the two in the case of the important crops grown in the village.

I Crops.	II Village consumption.	III Village output.	IV Percentage of III : II.
Paddy	1,44,000 paras	40,250 paras	28 p.c.
Plantains	25,000 „	2,600 „	10 „
Bananas	10,000 „	1,000 bunches	10 „
Jackfruits	Rs. 300	Rs. 100	33 „
Mangoes	Rs. 200	Rs. 50	25 „
Cashewnut	Rs. 250		10 „
Vegetables	Rs. 1,000	Rs. 250	25 „
Root crops	Rs. 500	Rs. 250	50 „

Prices of Produce in Guruvayur

Year.	Paddy (per para).			Coconut- unhusked (per 1000).		Coconut- husked (per 1000).		Coconut husks (per 1000).	
	Rs.	A.	P.	Rs.	A.	Rs.	A.	Rs.	A.
1918	0	10	7	..	..	..	..	..	..
1919	0	13	4	..	..	..	..	..	..
1920	0	14	0	..	..	..	..	..	..
1921	0	11	9	..	..	..	..	..	..
1922	0	12	0	41	2	35	10	..	..
1923	0	10	0	50	12	43	15	8	5
1924	0	10	8	52	5	43	4	10	4
1925	0	11	3	52	9	44	3	8	11
1926	0	11	10	44	2	39	12	6	0
1927	0	10	8	47	12	43	9	5	7
1928	0	12	0	52	8	46	15	6	8
1929	0	11	0	40	14	36	5	5	11
1930	0	10	0	35	0	31	7	5	0
1931	0	9	5	31	0	27	5	4	9
1932	0	5	10	34	9	30	11	4	7
1933	0	5	4	26	2	23	9	4	0
1934	0	5	0	20	5	17	7	3	2
1935	0	6	0	20	7	17	5	3	6
1936	0	5	4	32	1	28	15	4	11

1 para = 8½ Madras measures or 20 lbs.

The price noted against each year is the average for 12 months.

SUBSIDIARY INDUSTRIES

Oilpressing

The mechanism is the ordinary country *chakku* drawn by oxen or by man power. A decade or so back the industry was in a flourishing condition. Since oil mills were started in Cochin and Ernakulam oil pressing industry in these places as a whole has suffered. Guruvayur is no exception.

A few years back trade was largely in oil, it is now replaced by trade in coconuts. At present more than 75 per cent goes out as coconuts (raw) and only the remainder is pressed locally. On account of depression in business many presses have been closed down or sold out. Now there are 30 presses lying idle in the village, and of the 35 still working many have not sufficient work for the families to depend on it entirely. Rates of wages for pressing are given below:

Gingelly Oil.

2 as. for every rupee worth pressed and ½ share of the oil cake. One thulam oil cake sells for Re. 1-4.

Coconut Oil.

Entire oil cake. One thulam sells at 14 as. to Re. 1. To obtain one thulam oil cake 4 thulams of copra (i.e., 400 nuts) have to be pressed.

Due to shortage of work oil-pressing is fast becoming a subsidiary industry. Of the 35 persons engaged in it only for 5 is the industry the main occupation. The other 30 carry on agriculture as their main occupation. Oil-pressing is carried on only for 50 to 70 days in the year.

Weaving.—Weaving was a prosperous industry of the village. Villagers speak of 20 to 25 families for whom weaving was either the main occupation or sparetime work. At present there are 5 families of weavers. Due to competition of mill goods, weaving has considerably declined. There are 3 shops in Guruvayur where mill piece-goods are sold and many hawk them in the streets. Till about five years back there was a weaving establishment in the village which employed about 20 looms. Decline in weaving industry is chiefly reflected in the closing down of this establishment in 1931. The proprietor of the establishment who organised and worked it thereupon left the place and has, I am told, taken to some other occupation in Cochin.

Of the workmen he employed, five are pursuing the occupation independently and on a small scale. The chief cause that led to the closing down of the concern was inability to meet the competition of mill goods and the mis-calculation he made, I think, was the running of an essentially domestic industry on capitalistic lines, without the equipment or opportunity for economies of large scale production which the capitalist has. He employed, I gather, about 30 to 35 workers and they were all necessarily full time. But the looms and other equipment were of the ordinary country type, made of wood and hand-driven and suited only for purposes of cottage industry, and for sparetime work. This went on well so long as shopping facilities were not developed. But as piece-goods shops came to be established in the village he must have found himself losing ground.

The same is the difficulty confronting another weaving concern in the village, which employs five men, of whom two are apprentices. There are five looms modelled on those of South Travancore, where the proprietor had training for some time. Here the following kinds of cloth are usually made.

Kind.	Measurement.	Price.
Dhotie	.. 2 × 1½ yds.	8 as.
Shawl	.. 2½ × 1½ "	8 to 10 as.
Shirting	.. 1 yd.	3 to 8 as.
Bathing towel	.. 1½ × ¾ yds.	2 to 4 as.

These articles are disposed of locally through the shopmen or by hawking. Till two years back there was a small piece-goods shop where all sorts of textile goods were sold. But it had also to be closed down as it proved a losing concern.

No spinning is done in the village. In 1932, a Harijan Hostel was started in the village and the inmates practised hand-spinning. The Hostel was started by the local Congressmen in 1932. Apart from allowance from the central organization the chief source of the maintenance of the Hostel was public subscription.

But with the lapse of time interest flagged and subscriptions fell. Consequently there was a lull in the activities of the Hostel. And with it spinning has stopped.

Bell Metal Work.

Five families of different castes are engaged in this industry.

The industry suffers from outside competition. There is a pretty large shop (*vide* Village Trade) dealing in bell-metal wares. The stock is got from Palghat where it is produced on a large scale and at lower costs by the use of permanent metal moulds. The workers in Guruvayur use earthen moulds which are shaped then and there for every piece of work. Another competition is that of hawkers of second hand goods who advance small loans on security of brass vessels and auction them if they are not redeemed. There is a steady flow of such vessels into the village. Thus, the village workers have a very hard time and the five families pursuing this trade find it difficult to make both ends meet from the income derived from the business.

Much of the work is done to order, occasionally for the market. The metal sells at 6 to 8 as. per lb. and the finished goods at 10 to 12 as. per lb. When working to order they charge 6 as. a lb. on certain vessels and 4 as. on certain other vessels.

Industry.	No. of families engaged.	No. of Individuals.	Annual estimated net income.	Approximate No. of days employed during the year.
Rs.				
Bell Metal	.. 5	27	F. No. 1. 50	50
			F. No. 2. 35	40
			F. No. 3. 40	50
			F. No. 4. 60	70
			F. No. 5. 20	35
Weaving	.. 5	37	F. No. I. 80	150
			F. No. II. 60	70
			F. No. III. 75	100
			F. No. IV. 70	80
			F. No. V. 25	30

The Village Artisans

Class of Artisan.	No. of families.	No. of individuals.
Blacksmith ..	6	35
Carpenter ..	12	73
Goldsmith— Theendathattan (unapproachables) ..	4	17
Pandithattan (Immigrants from Pandya or Tamil Nad) ..	5	23
Mason ..	14	77
Sawyer ..	2	11

Village Trade.

Trade in the village is mainly centred round the temple site. Two streets that lead to the temple are lined on either side by shops—stores, stationery and piecegoods shops, bell-metal and tobacco shops, timber and firewood depots and tea-shops.

Village money-lenders do business at the temple end of the streets, and most of them have their quarters immediately to the rear of the business sites. Hotels run by 'Embrathiris,' Elayaths and other Caste-Hindus are also situated in the region. Vegetables and dairy products are sold in the open square on either side of the temple and are also hawked along the street.

In the last 20 years there has been a great growth in the trade of the village. A time was, not long ago, when the villagers had to go to Trichur or Palghat for most of their needs, if they could not wait for the next Ekadasi festival in November in the Guruvayur Temple. Judged from the number of people gathering and the business transacted it is the most important festival. In this connection a fair is held for over a week, some of the traders staying for a month or more.

The village market is availed of not only by the people of this village. About 75 per cent of the goods sold are to the people of neighbouring villages.

Kind of shop.	How long in existence.	Total value of goods in stock.	Approximate daily sale.	Proportion of credit sale. (per cent.)	Income-tax paid (per annum).	Panchayat Union cess paid (per annum).	Percentage sold outside the village.
Store No. I	50	Rs. 3,000	75-100	75	Rs. 20	Rs. 1-4	75
No. II	20	1,009	50-60	50	..	1-2	75
No. III	15	1,000	50-60	70	..	..	75
No. IV	12	1,000	50-60	70	..	..	75
Bell-metal	10	3,000	20-25	20	20	1-4	80
Piecegoods No. I	40	1,000	20-50	33½	..	..	75
No. II	20	1,000	20-50	33½	..	..	75
No. III	5	100	5-15	50	..	..	50
No. IV	3	150	5-20	50	..	..	75
No. V	2	1,000	10-40	24	..	..	75
Paddy	20	300	15-20	..	..	..	50
Tobacco	1	500	25-30	..	..	..	75
Stationery No. I	10	1,000	15-30	5	..	..	75
No. II	2	800	10-15	10	..	..	50
Vaidyasala (indigenous medicine) No. I	6	200	4-10	10	..	..	50
No. II	5	25	2-5	10	..	..	50
No. III	3	25	2-5	15	..	..	30
No. IV	2	25	2-5	10	..	..	25
Timber	15	200	5-10	Nil	..	..	50
Small stores (20 in number)	..	300	20-25	..	..	..	30
Fish market	..	5	5	..	..	..	10
Mutton and beef (4 ..)	..	20	weekly 20	..	..	..	25

There are about 50 tea shops. Most of them have not stock worth more than Rs. 2 to 3 each. 3 or 4 may be spoken of as comparatively decent.

There are 8 small shops dealing in betel, tobacco, beedi and (some of them) cigarettes. Each has a stock worth Rs. 2 to 5 and sells for about 8 to 12 annas a day. About half the number of the dealers belong to the village. Of the outsiders many are from Kunnumkulam, a small town 6 miles north in Cochin.

There are 3 toddy shops. Each sells for Rs. 20 to 25 a day. Toddy sells at 1 anna 2 pias a bottle (24 oz.). There are about 40 individuals engaged in the trade of tapping coconut trees. There is one arrack shop. Sales come to about Rs. 3 to 5 per day. Arrack costs Rs. 1/8 a bottle.

The village is not self-sufficient as regards paddy. The total consumption of the village, the yield from the land and the quantity brought in by the traders were estimated in the section on Village Production and Consumption. The paddy shop gets its supplies by local purchases, but mostly from places outside, such as Pattambi (20 miles), Thrithala (15 miles) and Alathur. The most important item in the stores is rice. Burmah rice from Trichur and Cochin supplies the deficit. Transport from Cochin is cheap being along the canals and backwaters. Rice from Trichur is conveyed in bullock carts also.

The timber dealer mentioned above sells fire-wood as well. For the latter purpose odd trees here and there are bought from the Public Works Department and from the villagers. The trunks are sold as timber and the remaining portions as fire-wood. Fire-wood sells at Rs. 7 per 100 Thulams (One Thulam equals 30 lbs.).

Customary rates of wages.

(a) **Artisan Classes.**—The Blacksmiths make such articles as table knives (price from 2 to 5 as. each), penknives (2 as.), axe (12 as.), sickle (0-1-6), spade (12 to 15 as.), hinges, door locks (1-4-0), box handles (6 as.), plough blades, saw, hammer, scissors, betel vessels, etc. They receive piece wages. The six families in the village earn on an average Rs. 6 to 10 a month. No family has any subsidiary occupation. Two families live on their own plots of ground. One gets an income from property of Rs. 60 and another of Rs. 80. Three families have debts of Rs. 20, 35 and 40 respectively. The debts are incurred for the purchase of tools and in one case for performing funeral rites.

The wages of other classes of workers are as follows:—

Workers.	Wages in 1936.	Wages about 1932.	Wages about 1925
Carpenter ..	8 as.	7 as.	10 to 12 as.
Master carpenter ..	Re. 1-4	Re. 1	Re. 1-8
Boy carpenter ..	4 as.	3 as.	5 to 6 as.
Mason ..	7 as.	6 as.	8 to 10 as.
Boy Mason ..	4 as.	3 as.	5 to 6 as.
Male coolie ..	4 as. & mid-day meal.	3 as. & mid-day meal	6 as. & mid-day meal
Female coolie ..	3 as. & mid-day meal	2 as. & mid-day meal	5 as. & mid-day meal
Cheruma women (In weeding & other works) ..	0-1-2 & mid-day kanji	0-1-0 & mid-day kanji	0-2-0 & mid-day kanji
Cutting stones ..	Re. 1-8	per 100.	
Shaping stones ..	Rs. 2	per 100.	
Plucking coconuts ..	As. 12	per 100 trees.	
Ploughing ..	As. 8	per day.	

Sometimes carpenters and masons are given mid-day meal by the employer, in which case wages are reduced by one anna per meal.

Goldsmiths make such ornaments in gold as necklaces, bracelets, rings, etc., and in silver such as Chilambu and waistband. Wages range from Rs. 2 to Rs. 2-8-0 for sovereign weight of gold and As. 8 to 12 for Rupee weight of silver, i.e., 1 tola.

Unemployment.—An agricultural worker does not get work for more than 100 days in the year.

Educated unemployed.

Graduates (Hons.)	..	1
Graduates (Pass)	..	3
Intermediates	..	4
Matriculates	..	10
Below Matriculation	..	20
		—
		38
		—

Moneylending.

Since the establishment of joint-stock banks in the village, the village money-lenders are not charging very high rates of interest. From 24 and 20 per cent they have gone down to 18 and 12 per cent.

Small temporary loans	..	15 to 18 per cent
Mortgage loans	..	12 per cent

In villages, the financial position of the debtor is clearly known to the lender. Sometimes repayments of loans are not accepted and when the money is otherwise spent the borrower is caught. The reckoning of compound interest on capital at short intervals—half yearly and yearly—is another source of distress.

Paddy loans.

Mostly for seeds. Interest is "*pathinu randu*" i.e., 2 for every 10 or 20 p.c. for 4 months, i.e., 60 per cent per annum.

Total debts incurred.

From the co-operative credit society	..	Rs. 7,900
From the joint stock banks	..	Rs. 20,800
From the village money lenders	..	Rs. 50,000
		—
Total	..	Rs. 78,700
		—

The Village Co-operative Credit Society

The Co-operative Credit Society was started with a membership of 31. During its existence of 17 years the society made 767 loans amounting to Rs. 38,263-8-0.

Starting with 31 members, the society has now a membership of 392. Only the local residents are allowed to become members. It must be observed that a membership of 392 is very low in a village of 1,200 families.

Health and Sanitation.

The sanitary administration of the village is in the hands of the village panchayat.

The thick green foliage of coconut groves surrounding the white-washed houses and the extensive verdure of paddy fields continue to give a lovely appearance to the place. The people are generally clean and their dress is neat and white. The village is usually free from epidemics. Cholera and plague are unknown. 1931, however, was within recent memory an year of smallpox. But it did not take a heavy toll. During the years 1928 to 1936 nine deaths occurred due to smallpox. The region is not malarial though stray cases of malaria of persons returned from work in other places were noted. The common diseases of the place are fever, dysentery, and pulmonary diseases including tuberculosis. During the 9 years ending with 1936 as many as 405 persons died of fever, 166 of dysentery and 122 of pulmonary diseases. During the same period 94 died within 7 days of birth, 49 between 1 week and 1 month, 143 between 2 months and 6 months, 75 between 7 months and 1 year, 255 between 2 and 5 years. Out of a total number of deaths of 1594 that took place in the village during the period specified above, 727 or 46 per cent were of those below 5 years of age.

The village cannot be described as snake-infested. During the above period only 2 fatal cases were reported. There is a District Board Hospital close to the village. But the Ayurvedic Physicians are the main source of medical assistance. They run dispensaries. There are also 2 private Allopathic and 1 Homeopathic Practitioners.

In one part of the village water is said to be filarial and cases of Elephantiasis are common. 50 cases were reckoned. Good drinking water is available in a large area of the village. Wells are not deep—10 to 20 feet. People bathe in tanks. But the tanks are not always kept tidy. Some neglected tanks are a nuisance and are breeding places of mosquitoes.

The more prosperous of the villagers are very clean and hygienic in their habits. But among the lower strata of society

insanitary habits abound. They are worst amongst the Vettuvass, the most numerous of the depressed classes of the village, whose lives are miserable and squalid beyond description. Adult males among the Vettuvass are addicted to drink. One or two bottles of toddy on working days and a little more on holidays are the usual quantity consumed. The Parayass take more or less similar food as the Vettuvass. They eat carrion. Considering the wide use of meat and fish among them, it may be said that their diet is in some respects better than that of most upper classes, who take only vegetarian food. Next in order come the carpenters and the bell-metal workers. The blacksmiths and the leather workers are not very different from the depressed classes in this respect.

The agricultural labourers and small tenants form the next class. Their lot is the worst in this respect.

Higher up in the social scale are the small landowners and the well-to-do tenants. Most of these, more than 90 per cent, cultivate their own plots and some little garden cultivation is carried on by many. This enriches the diet and gives variety to it. On an average this class consumes 1/16 measure of milk per head per day.

Education

There are ten schools in the village; one high school, two higher elementary schools and seven elementary schools. Of these 3 are District Board Schools and 5 managed by private agencies. The high school was started in 1918, the higher elementary schools were started in 1912 and 1920. The elementary schools have been here since 1907. One of the elementary schools is a Sanskrit school.

In all the schools together 2,579 pupils were studying in 1936—37: 1444 boys and 1135 girls. Of these 1547 (i.e., 60 per cent.) belong to the village. The number of children of school going age is 2218. Of these 1547 i.e., 79 per cent attended school. There are on the whole 71 teachers of whom 44 are men and 27 are women.

There are 4 Sanskrit Siromanis, 1 Hindi Pandit and 4 Arabic Munshis. Ten boys and three girls have gone out of the village for higher education.

PART II

ANALYSIS AND OBSERVATIONS

ANALYSIS AND OBSERVATIONS

We shall now take up some of the important problems confronting our villages, sum up the situation and trace the trends of economic progress or retrogression during the course of the twenty years, from 1916-17 to 1936-37. As will have been clear from the village surveys, we have tried to collect, in the course of our resurvey, more detailed information on some aspects of village life. While such information will enable us to assess the economic situation in 1936-37 with a certain amount of accuracy—albeit the samples are too meagre—a detailed comparison with the economic situation in 1916-17 is not possible, as similar information on certain aspects of economic life was not collected for the earlier year. Whether for assessing the situation in any one year or for instituting comparisons between two periods, a much larger number of villages ought to have been surveyed and on some points more intensively than was possible even in 1936-37.

In spite of the meagreness of the samples, the data collected are not altogether unsuitable for drawing generalisations in regard to certain economic tendencies, because the villages were selected at random and with no preconceived bias. It is also significant that the economic changes disclosed in the different villages show a striking similarity, indicating thereby that certain general tendencies have been operating all over the country. Therefore we are justified in drawing certain broad conclusions from the surveys, both in regard to the economic situation in 1936-37 and in regard to the trends of change in the twenty years. We will confine ourselves to a few important topics, namely, population, holdings, tenancy, agricultural labour, costs and profits of cultivation, land revenue, trade and transport, rural industries, income and standard of living, education, health and local administration.

POPULATION

The population in the villages resurveyed has in all but one village Vadamalaipuram, increased since the first survey was made (in the case of Eurvellipet since 1921, as no special census had been taken in 1916). But the increases have not been uniform or continuous throughout. The rate of increase has, taking the whole period, varied from village to village, e.g., from 2 per cent in Pala-

kurichi to 30 per cent in Vunagatla. The increase has in most cases been due to the natural cause of excess of births over deaths, to the diminishing severity of epidemics, except for influenza in 1918, and in a few cases to immigration of settlers from outside. Two villages—Gangaikondan and Eruvellipet—had a decrease in population in the boom period after the War, when there was an increase in the demand for labour of all sorts (particularly of unskilled labour) in the neighbouring towns, with their growing trade or industry, and in the distant plantations within the country or overseas. The surplus labour not wanted on land moved out to such centres in the twenties, but came back to the villages after the depression set in. Many of the unskilled labourers did not settle down in towns and even now have migratory habits and move out for harvest and other agricultural operations over wide areas. There has thus been, taking the whole period of 20 years, an absolute increase in total population in seven villages, though it is negligible in some, and quite large in others. (Eruvellipet has had the smallest increase, Guruvayur and Watakancheri have had the largest).

A permanent fall in the strength of certain sections of the population has occurred in some villages though the total population has increased. The Brahmins have continued to leave their homes in the countryside for the sake of higher education, and for better means of livelihood than what they could secure on their subdivided holdings at home. But some of them retain possession of their land. This has been the case in Gangaikondan where there were 50 Brahmin families in 1916, while, in 1934 there were only 40, and even more in Dusi, where the *agraharam* presents a deserted appearance as there were 65 Brahmin families in 1916-17, but only 42 in 1937. Artisans like carpenters, smiths and masons have found greater scope for their skill in towns, where they continued to stay in spite of the depression—perhaps because the building trade has not been so badly hit as others. The *padiyals*, the indigenous type of indentured labourers on land, particularly in Tanjore and South Arcot villages, have been reluctant to return to their old masters and fields in spite of the growing sympathy professed by political parties of all shades and by the Government. Their economic emancipation they seek in emigration, in spite of all the difficulties arising from differences in race and political status in their new homes.

A striking tendency in recent times has been the growth in the number of families. The rate of increase of the families has

been greater than that of the general population of the villages concerned. In Palakurichi population increased by only 18, but families increased by 31. In Dusi for an increase of population by 50, we have an increase of 46 families. Even in the villages where, on the whole or for a period of years, certain sections of the population declined, the number of families did not show an equal tendency to decline. In Vadamalaipuram population decreased by 33, but families increased. The average size of a family has definitely shrunk, e.g. from 4.9 to 4.02 in Vadamalaipuram, and from 4.8 to 4.18 in Palakurichi. In Dusi the size of family has gone down from 6 to 4.5 in 20 years. It is in the Tamil villages, more than in Telugu and Malabar villages, that this tendency is so marked. This is mainly due to the breakdown of the joint-family system, which may be partly ascribed to the influence of western education and culture and partly to the growing pressure of economic circumstances. It is only in one case, viz., Vadamalaipuram, that the investigator puts down the smaller size of families to the progressive fall in the birth-rate, which he attributes to marriage at a later age and comparatively higher standard of living among the caste Hindus.

The following table shows the growing density of population in relation to cultivated area.

Village	Population		Cultivated area		Cultivated area per head	
	1916	1936	1916	1936	1916	1936
			(acres)	(acres)	(acres)	(acres)
Vadamalaipuram ..	701	668	2050	1070	2.9	1.6
Gangaikondan ..	3495	3731	7182	7345	2.1	2.0
Palakurichi ..	851	869	1043	965	1.2	1.1
Eruvellipet ..	1150	1110	656	720	0.6	0.6
Dusi ..	1266	1316	869	1100	0.7	0.8
Vunagatla ..	2260	2959	1374	1454	0.6	0.5
Watakancheri* ..	4000	2631	1590	2056	0.4	0.8
Guruvayur ..	7596	9775	1504	1360	0.2	0.1

*Decrease in population is only nominal. The limits of Watakancheri town have been extended.

In a country so largely agricultural and already so thickly settled as South India, it is natural to expect holdings to become more and more uneconomic with an increase in population and without other avenues of employment. The system of equal inheritance of land among all the sons of a family has its evils here as in other countries where land is scarce for the population; and they are aggravated by the practice of dividing each of the scattered plots of land—the fragments—of which a holding is ordinarily composed. Alienation of bits of land for the redemption of debts adds its quota to the confusion. The forces tending to the concentration of property have been very much outweighed by those leading to its diffusion.

There has been in all the villages resurveyed a definite increase in the number of holdings, if the growth in the number of pattas is an indication. Every holder, whatever the size of his holding, is given one patta, if his lands are all in one revenue village. In the case of Vadamalaipuram, however, the holdings of its ryots lying outside Kizhathiruthangal revenue village are also included (as in 1916), and this has involved the issuing of more than one patta for a number of holders. Several villages have still the survival of joint pattas, according to which a number of ryots jointly hold a piece or more of land on which they are jointly liable to pay an assessment to Government. Cultivation is not always carried on in common by the pattadars themselves. When such a land is leased out, the rent is divided according to shares held. There is often a dispute as to which plot should be cultivated by any one shareholder; failure to agree on this point among co-sharers is said to have resulted in 70 acres of land fit for cultivation in Palakurichi lying uncultivated.

The average size of a holding has, wherever figures are available for comparison, gone down in the last twenty years. Vadamalaipuram has registered the greatest fall—from nearly 22 acres a holding in 1916 to 9.75 acres in 1936. The population fell slightly, as we noticed above, but the area under cultivation also fell and the break-up of joint family system accounted for more holdings. In Gangaikondan and Watakancheri there has been an increase in the area under dry cultivation, by about 200 and 450 acres respectively. Medium-sized holdings have multiplied in the former; in the latter, while the bigger holdings have continued in the possession of jenmis whose estates are practically impartible, the additional dry lands carved out of the woodland have been

distributed among a large number of petty holders paying Rs. 5 and less of land revenue to the Government.

Data as regards the size and composition of holdings were not provided in all cases in the original surveys. Comparisons with the past are not therefore possible in every case, but the present situation is quite bad in almost all the villages. In Eruvellipet, the one village where the density of population in proportion to cultivated area has not increased, as was noted above, the position as regards distribution of holdings does not seem to be better. Nearly half the cultivated land of the village in 1916 was concentrated in the hands of one pattadar, who had 400 acres. This estate continues, but with 50 acres less. The next large pattadar has only 25 acres. Ten pattadars have 10 to 15 acres each. All the other 170 pattadars are quite small holders; most of them have less than 1 acre each and they have to eke out their livelihood by working as casual labourers or taking small bits of land on lease from bigger holders. The situation is worse in the dry village of Vunagatla, where water is scarce and the soil is not fertile. The average holding is 3.25 acres. One-third of the holdings are below 1 acre, and 50 per cent of the holdings are below 5 acres each. The average holding of a cultivator in Guruvayur is 2.1 acres, which is not bad in an intensively cultivated tract of coconuts. But 68 per cent of the holdings are below 1 acre and 42 per cent are below half an acre each. Eighteen holdings are more than 10 acres each, but four of them are owned by temples and one by a church. In Palakurichi, a wet-land village, only 6 cases of sub-division have been noted since 1924 (the year of resettlement). Of 215 pattadars only 24 have more than 10 acres each, and the average holding is 4.8 acres. In Vadamalaipuram, there has been a remarkable increase in the number of holdings under 10 acres—from 38 in 1916 to 121 in 1936—with the result that the average size of a holding has gone down to less than half of what it was, i.e., 9.7 acres as against 21.8 acres. Most of the sub-divisions are said to have taken place between 1926 and 1932—especially after 1929, when the move to enforce unlimited liability was made by the liquidator of the local co-operative society.

On the question of fragmentation of holdings, specific data were not available with regard to most of the villages in 1916-7, when the subject had just begun to attract attention in the country. Dr. Slater, himself an authority on the Enclosure movement in England, was specially interested in the question, but he did not get enough detailed answers. He was struck by the inconvenience and loss resulting from fragmentation, by the waste of land

and of water and by the lack of opportunity for improvement in the scattered holdings in the Presidency which he could observe in his own visits. He saw that it was impossible to get a plough into some of the paddy plots; wells were out of the question on dry-land fragments. But he thought that the evil was not perhaps so marked as in the United Provinces. "The inconveniences do not seem to be considered a matter of much importance. It is in fact largely a question of waste of time, and waste of time does not matter much unless it is at the critical period of the agricultural year." He was nonetheless oppressed by the lack of data; for, he concluded: "with regard to this question also (as of the size of holdings), the only definite conclusion I have come to is that more information is required."

More information has been secured on this question in four out of the eight villages which have been resurveyed. The results of close investigation of a number of holdings of different sizes are revealed in the respective studies. There is room to think that the position has worsened in the last 20 years. The average size of a plot is smaller in wet lands usually growing paddy, than in dry lands growing a variety of crops. It is almost always less than one acre in the former, while it is about 2 acres in the latter. Vunagatla is an exceptional village in that three-fourths of the holdings are not at all fragmented, while 63 holdings have only 2 plots each. Most of the other 50 holdings have between 2 and 5 plots each. Vadamalaipuram is at the other extreme. 170 ryots have 1027 separate plots scattered in different places in 5 revenue divisions; each holding has an average of 6 plots—a real difficulty for cultivating pattadars, as most of the ryots are in that village. Seventy-five per cent of the plots are of less than 2 acres each, which is too small for dry cultivation and rules out the possibility of well-sinking. In Palakurichi 80 per cent of the plots are below 2 acres each; the average plot is 1.68 acres. Fragmentation is the rule in other villages too, illustrations of which are provided in the statements in some of the resurveys and in the maps appended.

The system of *Parivarthanai*, or voluntary exchange of lands to secure contiguous plots, has become a mere memory. There has been no case of *parivarthanai* in recent years at Palakurichi, where the system had been in vogue. Even in olden days the richer landholder would not part with any plot to oblige a poor neighbour, while the latter was sometimes obliged to sell away his bits to the former. In Vadamalaipuram there has been only a

single instance of a ryot purchasing an adjacent plot, which was "due to the very low price at which it could be had."

There has been no attempt to make up for the evils of fragmentation of lands of owners or 'right-holders' by any consolidation of cultivation on the part of lease holders. While at the time of the first survey many pattadars, especially in dry areas, cultivated their holdings themselves or with the help of paid farm servants, latterly the tendency has been to rent out the different fragments on fixed leases, either in kind or in cash, but not all pieces to the same tenants. The latter have not tried to secure, or have not succeeded in securing, adjacent plots of land from different holders, which might serve as a corrective of fragmentation in ownership.

TENANCY

A striking change in the resurveyed villages is the wider spread of cultivation by tenants. [There has been a growing demand for tenants not only on account of the increase in the number of absentee landlords but also on account of the inability or indolence of a larger number of resident ryots to cultivate their own land. Small holders have increased in number on account of sub-division of land by inheritance or by the sale of pieces to discharge debts.] Many of them are not fully occupied on their own petty holdings and are glad to take on lease fragments of others' holdings, not necessarily adjoining theirs. Some of them are ready to let out their tiny holdings to their kinsmen or others so as to be free to take up full-time work elsewhere. The landless proletariat have also swelled in numbers. Some of them are eager to take on lease small plots of land to supplement their wages of daily casual labour, as the system of farm service on monthly or seasonal fixed payments is fast waning and is giving place to tenancy. The preference of landowners is for tenants with small holdings of their own, as they may be expected to better meet the expenses of cultivation or at any rate offer better security in case of default in rent payment. The terms of lease are more favourable to them than to mere labourers, against whom the terms cannot be easily enforced.

Broadly classified, there are two important types of tenancy in the Tamil districts: *varam* and *kuthagai* roughly corresponding respectively to share-tenancy or 'metayage' and fixed or 'standing rent' in cash or produce, of western countries. Under each of these are some variations in accordance with the nature of the

land, irrigation facilities, the contribution of seed, manure, and plough-team by landlord or tenant and the kind of crops raised.

Before going into the details of these systems, it is worthwhile stressing the recent tendency in almost every village re-surveyed for owners to cultivate less and less either with their own hands or with the help of paid farm servants, and for more lands to be let on lease either on the system of share-tenancy or on fixed rents. The lease of paddy lands on the system of *varam* or share-tenancy was a common practice in the earlier period, especially where such lands were owned by Brahmins, Vysias and some of the sub-castes of Vellalas. The lease of dry lands was not so common, especially if they were owned by other classes than the above. Even the richer landowners of Vadamalaipuram did not consider it *infra dig* to cultivate their own lands aided by farm labourers. In 1916-17, it was "no uncommon sight to see even the richest landowner shouldering a plough and walking to his field in the early morning followed by his workmen, or the owner of the land driving the bullocks round and round on the threshing ground whilst his paid workmen attended to other business." There was in fact not a single case of lease reported at the time, though there were 18 holdings of over 25 acres each. There were about 50 permanent farm servants and 100 casual labourers in the village. Bigger holdings have now been split up; there are only 12 holdings of over 25 acres each. The scope for leasing out on account of mere size should be less; but in fact the habit of leasing, which began in 1919, is steadily growing. Thirteen per cent of the land is cultivated by tenants. There are 14 landless tenants and 85 landless labourers. A larger number with small holdings of their own should take up lands on lease in order to make both ends meet.

In Gangaikondan, where the wet lands were largely owned by Brahmins, only 300 out of 1,030 acres were at the time of the first survey cultivated by the landowners employing farm servants. The rest were all managed by cultivating tenants. The tendency to lease out wet lands was even then considered worthy of note compared with conditions in 1907. Of dry lands, however, 60 per cent (i.e. 2,400 acres) were cultivated by owners themselves, largely non-Brahmins. It was computed that, on the whole, there were about 600 cultivating landowners, 325 non-cultivating owners, 50 tenants who owned no lands, and 100 agricultural labourers. In the succeeding 20 years there has been an undoubted increase of tenancy. It has been locally estimated that 50 per cent of the

agriculturists are tenants exclusively and 10 per cent are owners of petty holdings and tenants combined. Many of this class do not hesitate to work as casual labourers in spare time.

In Palakurichi, where there are only 5 Brahmin families out of a total of 208 families, tenancy is not so much in vogue as in Gangaikondan or Dusi, another Brahmin village. Twenty years back 127 pattadars out of a total of 132 were found to cultivate their holdings; the others were either priests or widows, or absentee landlords. The lands of the village are now distributed among 215 pattadars. Six of them have left for the Straits Settlements and 90 do not reside in the village, though most of them are in the neighbouring villages. Of the 119 resident pattadars, 22 have leased out their lands on fixed rents (*kuthagai*); 106 out of a total of 962 acres are thus leased out to 10 tenants. The extent of *varam* tenure has not been specifically ascertained, but it is said to be nearly universal in paddy lands owned by communities higher in the social scale. The depressed classes form the bulk of the actual tillers of the soil; though some among the Padayachis, Vellalars and Kammass do turn their hand to the plough.

Eruvellipet has about 150 pattadars; but one of them owns 354 acres, which is half the total cultivated area. He cultivates half of his large holding with hired labour or semi-servile *padiyals*; the rest is let out in parcels. Of the total 700 acres in the village, 302 are cultivated by the owners themselves, 250 are leased on fixed rents (*kuthagai*) and 140 acres are let out to share-tenants (*varam*). Sixty-five per cent of the pattadars cultivate their holdings; 35 per cent have leased out their lands. Most of these do not live in the village. Some of them have acquired lands by lending money and foreclosing later. Only one is a professional gentleman living far away from the village. Lands are taken on share-tenancy by many of the landless people of whom there are 200 in the village. But preference is given in the case of fixed rent (*kuthagai*) to owners of land, however small their holdings.

Dusi was an entirely Brahmin landlord village in 1917, though the lands were all cultivated by non-Brahmin tenants. Three-fourths of the lands were on *varam* and one-fourth on *kuthagai*, according to the first survey; so that no pattadar apparently cultivated his land. A few were absentee landlords, but there were also some resident in the village but too indolent to supervise the cultivation of their lands by *varam* tenants and hence their preference for *kuthagai*. The Brahmin families have declined from 66 to 42 in 1936-37; the Vaishnavite section is half of what it was. The

pattadars have increased in number to 326, of whom a third live outside the village following other professions. In this village at any rate it is a matter for satisfaction that some of the land has passed into the hands of people who could cultivate the lands themselves. For now 191 acres are so cultivated while 173 acres are on the varam tenure and 333 are leased out on fixed rent. There are said to be 167 cultivating pattadars and 136 tenants cultivating on either system. Varam or share-tenancy has declined, which means that owners of land are either unwilling or unable to supervise the cultivation of their lands.

✓ Vunagatla is a Telugu village with dry lands, only 15 per cent of which was cultivated by tenants in 1916, while 20 years later nearly 30 per cent has been leased out. Preference is shown to tenants with holdings of their own. It is not only Brahmins that do not cultivate the land; Vysias, artisans and such of the Kapus as do money-lending and trading also lease out their lands. These non-cultivating pattadars, however, form only 15 per cent of pattadars and number 68 in all; 22 of them do not reside in the village. There are, at the other end, 260 families in the village not owning any land. Most of them depend for their living on agricultural labour.]

In Watakancheri (Cochin State) pattadars have increased in number from 173 in 1917 to 260 in 1937. The area of wet land remains the same (653 acres) but dry land has increased from 937 to 1,402 acres due to reclamation of the land under wood and forests permitted by the Sirkar. But 217 of the pattadars holding directly under the Sirkar occupy in all only 1,076 acres, of which 92 acres are wet and the rest dry. Most of the other pattadars are janmis holding among them seven-eighths of the wet land and half the dry land of the village. Nine of these janmis pay 75 per cent of the land revenue, which indicates the concentration of property in land. Such estates are, as a rule, impartible; at any rate they have passed intact from 1917 to 1937. More than a thousand acres of these estates are sublet to kanamdars—tenants with a lease of 12 years, but practically renewable afterwards—and the rest to verumpattadars (tenants-at-will).

Guruvayur (Malabar District) has 1,161 acres of ryotwari land and 200 acres of inam land. Kanam is the most prevalent form of tenure, and this has been made more secure by the Malabar Tenancy Act of 1930. The kanamdar cannot be easily ejected or his rent raised arbitrarily. There are 566 landholders, of whom only 18 hold more than 10 acres each. 150 cultivate their holdings

and the rest lease them out in part or whole, often for the reason that the holding is much too small to engage a family fully and working for wages in the neighbourhood is more remunerative. There are besides about 400 agricultural labourers who are landless.

We may now proceed to consider briefly the incidence of varam and kuthagai, i.e. share-tenancy and fixed or standing rents, the two most important systems of lease so far as the Tamil villages are concerned. In the case of grains, particularly paddy, the varam is generally 50 per cent of the gross yield of grain after some minor deductions for village menials and artisans on the threshing floor. The tenant under this system supplies not only the labour and the plough team for cultivation but puts in seed and manure. The landlord is expected to supervise cultivation, but the tenant now-a-days does not court it. Some advance of cash for the purchase of cattle is given by the landlord free of interest. If seed is lent, it is recovered after harvest with an addition not so much by way of interest as to make up for loss in dryage of fresh grain. Where the landlord supplies seed and manure free, the tenant is obliged to pay in the case of superior wet land as much as 70 to 80 per cent of the yield of grain and 25 to 50 per cent of the straw too. Reference is made in one resurvey to what is called *pare* or nominal varam, where the tenant contributes nothing by way of seed or manure or even labour other than that of guiding water from channels and watching the crop—for which he gets only 5 per cent of the yield of grain. Varam in such a case involves no investment or considerable risk for him and is really a method of deferred wage payment in kind. It is not quite correct to call it tenancy.

The system of kuthagai is a pucca lease in which the rent is fixed either in kind or in cash. The rent is in the case of grains generally in kind, being so many kalams or kotas per acre whatever the actual yield, while in the case of garden lands, where miscellaneous crops are grown as a kind of mixed farming, or of lands growing commercial crops easily marketable like cotton or groundnut, the rent is fixed in terms of cash, as so many rupees per acre, whatever might be the actual yield or the price of produce. The range of rents is naturally wide, particularly in the case of commercial crops.

Taking paddy, the ubiquitous crop, we find that the rent per acre is as small as 350 Madras measures in Eruvellipet, 550 Madras measures in Palakurichi, 784 Madras measures in Gangaikondan and as high as 1,200 Madras measures in Dusi. This is largely due to the varying fertility of land. On lands growing millets, cash rents

vary from Rs. 10 in Vadamalaipuram to Rs. 25 in Gangaikondan. As for commercial crops, an acre of land fit for groundnuts fetches Rs. 30 to 35 in Vadamalaipuram and Rs. 50 in Eruvellipet for a land with a good supply of water.

These terms of fixed rents are not, however, always strictly enforced. If crops fail, for instance, due to adverse seasons there are few who insist on the payment of the stipulated rents. The varam or share-rent habit is so ingrained in the country that the landlord is willing to take 50 or any other usual percentage of gross yield in place of the fixed rent. In fact the demand for tenants is so much greater than before in certain villages that even in the varam system the tenants have been emboldened to pitch higher their claim for a share of the produce—e.g. from one-third to one-half (sev-varam). The tendency to displace varam or share rent by kuthagai or fixed rent still persists due to the growing tendency for divorce between land owning and cultivation. In a period of rising prices the tenants were tempted to take up lands on fixed lease in kind or cash as they expected rising prices and profits. There is less enthusiasm for such a lease when prices fall, but costs of cultivation do not fall so much. Tenants want either to go back to varam or beat down the fixed rents. Landlords in their anxiety are anxious to compromise at any reasonable figure and lower rents are fixed. There is no doubt that varam or share-tenancy is on the decline, while kuthagai (fixed lease) is on the increase. Cultivation by the landowner himself with hired servants is getting to be even more rare, especially on wet lands.

To those who believe in the ideal that the cultivator alone should own the land as 'the magic of property turns sand into gold', the above tendencies may give cause for anxiety. Land is leased out not only temporarily, when the pattadar happens to be a minor, a widow or is for a short while absent from the village, but almost always by certain classes of pattadars even when they stay on in the village. Formerly almost all of them let out their lands on varam or share-tenancy and some of them would supervise the cultivation of the land from day to day and advance some, if not all, items of working capital. Though they could not be said to have taken as predominant a part in management of the land as the landowners in the metayage system prevalent in some European countries, they certainly took considerable risks, and advanced one or more forms of capital according to the needs of particular tenants. They indeed justified in some measure the ownership of land vested in their hands; for without them it is doubtful if cultivation could have been carried even so far.

This kind of share-tenancy or metayage (analogous to our varam) has on theoretical grounds been condemned by Western writers. "While the loss by a bad season is lessened, the tenant has to share the gain of a good season. The incentive to exertion being thus reduced, the tendency is to diminish output." Marshall stated that the tenant undertaking to pay half the share of produce "will only apply so much capital and labour as will give him returns more than twice enough to repay himself." Land would therefore not be intensively cultivated by the tenant and any surplus labour and capital he had would be diverted to other areas or purposes. An able, experienced and well-to-do tenant would certainly prefer the fixed rental system on a long lease or virtually long lease. While all this is true of not only the modern British and American farmers but also of some energetic and enterprising farmers in India who take on lease lands for raising valuable commercial crops—where varam has, in fact, been ruled out—it is very doubtful whether many of our tenants on the fixed rent system are really carrying on cultivation better than share or varam tenants. They are most of them impecunious; and the anxious pattadars who are obliged to advance capital also begin to control cultivation or submit to the division of the produce as in the varam principle. For, as Marshall himself has said: "the advantages of metayage are considerable when the holdings are very small, the tenants poor and the landlords not averse to taking much trouble about small things." Our regret is that while our holdings are small and getting smaller and our tenants are at least as poor and ignorant as metayers of Europe, our pattadars, small as well as big, are averse to taking trouble.

AGRICULTURAL LABOUR

The existence of a large landless proletariat, with no security of tenure as tenants or as farm labourers on others' lands, was not a big problem in the past in South India. With the increase in their number, the complications introduced by absentee landlordism and the spread of ideas of social and economic emancipation, the problem assumed grave aspects. The number of landless labourers and their proportion to the total population are definitely on the increase in three villages, more or less stationary in two others, while comparable figures are not available for the rest.

The demand for labour has increased, but not as much as the supply. The increasing sub-division of holdings, which we noticed, gives less scope for the employment of labourers. The farm-family

becomes more or less self-sufficient in respect of labour except in the weeding and harvesting seasons. Bigger landholders show a preference for tenants with petty holdings of their own and cultivate at best a portion of their lands with farm servants. Petty holders of land, on the other hand, obliged to eke out a supplementary income to what they get on their own holdings, compete with the landless proletariat in the labour market.

The latter, however, have an advantage. Where there are opportunities to migrate for a season to the neighbouring or even distant tea plantations and to the paddy and groundnut harvests, they are not so squeamish as the petty holders of land in moving out. Even the latter are disposed to migrate when they have some relations to look after their scraps of land; but they return for the major operations on land. Such a seasonal migration has been specially noted in Eruvellipet, where half the landless families, about 30, go as far as Salem and Chengam (80 and 60 miles off) for ground-nut picking and to Chidambaram (40 miles off) for harvesting paddy. They invariably return home for Pongal and the Tamil New Year, and are in time for local harvests and other work on land. Similarly the labourers of Gangaikondan, about 200 in all, used to go out in the seasons to the tea plantations on the Ghats—50 miles off—and return home in time for harvest and festivals. But this migration is said to have declined since 1931. Some find work on the railway's and public works in the neighbourhood. Such seasonal migration is seldom injurious to rural economy; for the necessary amount of labour is available at all critical times, when the villages get full.

It is not all classes of labourers that go out. Those that are the first to go are the Harijans. Shepherds and others whose traditional services are less in demand are the next to follow. The problem of unemployment or under-employment over a considerable part of the year is well-nigh insoluble for a large section of the working classes. At the most, the wet lands can provide work for casual labourers for 10 weeks in the year, while on dry lands they may be wanted for only 3 to 4 weeks. A good well makes a deal of difference; but few of our villages are noted for well irrigation. The only village where unemployment is not said to be serious is Vadamalaipuram. Indeed we are told that there is a dearth of labour in the village during weeding and other busy seasons, on account of which even bigger holders are obliged to work in the fields with their women and children. In Palakurichi, on the

other hand, the small pattadar 'leads a miserable life' as the demand for labour is small on account of a large number of Pannayals or Padials. Regularity of employment is not easy to plan or achieve in agriculture; hence the need to dovetail agriculture with some rural industries. Or there must be enough surplus saved out of the wages received on working days for the families to live on in leaner days. In practically no village is such a surplus saved by labourers.

The wages of agricultural labour are in most cases as low as they were in 1916; in a few cases they are even lower, while in one they are slightly higher. The range of wages for a full working day of 8 to 10 hours is from 3 to 6 annas for men, 2 to 4 annas for women, and 1½ to 2 annas for boys. Wages are usually lower in dry than in wet land areas. Payment of wages in kind is still the rule for harvesting, especially of grains. Cash wages are paid generally for transplanting, weeding and occasional operations. Contract wages or piece wages are stipulated for when channels or trenches have to be dug in sugarcane and plantain fields. A fall in wages from Rs. 18 to Rs. 12 per acre for digging trenches is reported in Eruvellipet.

Farm servants are paid by the year in kind, and are engaged for indefinite periods. Cultivation by owners with the aid of farm servants, which was in vogue in 1916-17, has been slowly giving way to lease of lands on share or fixed rents. But where the old pannial system continues, the traditional grain rates of wages per acre or according to quantity harvested are paid in some villages, while cash wages ranging from Rs. 50 to 80 per year are paid in others. Permanent farm servants receive in addition to such yearly wages their midday meals and perquisites in kind on festive occasions. Sometimes even daily labourers get a midday gruel at Eruvellipet from the employers, in addition to the small cash wage which seldom exceeds 4 annas per man and 2 annas per woman.

On the question of efficiency of agricultural labour, Dr. Slater observed after some comparisons with the British agricultural worker in respect of ploughing and reaping operations, that the South Indian labourer was 'extraordinarily unproductive' as he took a week to do what a British labourer turned out in a day! He, however, hastened to point out that such a comparison was not quite fair to the Indian worker as "he would doubtless be more expeditious over ploughing and reaping if it were necessary." Comparisons on such a complex question as efficiency, especially in agricultural work and between workers so differently situated as the British

and Indian, are profitless. Not only conditions of soil, but animal power used and incentives to work in the shape of wages and other benefits offered have to be taken into account even where measureable factors can be isolated, as Dr. Harold H. Mann pointed out in a paper read at the Indian Economic Conference held in December 1918. Dr. Slater participated in the discussion and admitted: "This question of the relative efficiency of Indian labour is a very difficult one. The more one enquired, the more puzzled one became." The measurement of labour efficiency is an eminently fit subject for study by the staff of the Agricultural Department and not one which young students of economics could tackle.

THE PADIYAL SYSTEM.

This system survives with some modifications in the villages where it was found in 1916. The padiyal is a sort of serf on the land bound to toil on it from the time he borrows an amount from the landlord and is tied to it until he discharges the loan. When the land changes hands, the padiyal is transferred with the land as a chattel and the landlord thinks he can get him back if he runs away. The first loan is usually for his own marriage, and though it is less than Rs. 100 in most cases and it bears no interest, it is not easily repayable from out of his meagre income. He is given a plot of land to live on where he erects his hut, another plot of about 25 cents to cultivate a crop or two for himself, a quantity of grain varying with his work and the harvest, but generally enough to feed his family, some 'extras' (2 to 3 annas) twice a week for drinking, and cash and perquisites on festive occasions amounting to Rs. 10 per year. There is really little left to save and pay off the original loan, though it would be wrong to say that the serf suffers from want of food. Himself and his wife can go out occasionally to earn something by casual labour; but the scope is not great in the neighbourhood. In Eruvellipet they have even been permitted to migrate in the off-season, and 15 padiyals are said to have earned and saved enough to discharge their loans and emancipate themselves. The translated copy of a padiyal indenture, still in vogue in Eruvellipet, is published on page 181. The paltry sum involved, the onerous terms and the penalties—now illegal—submitted to may be noted.

In Watakancheri, some of the lower classes are reported to be cutting away from the traditional serfdom and getting employed in basket and mat making and collecting and selling fuel. In the Tanjore deltaic villages, the rigour has been con-

siderably relaxed, thanks to the temptation to emigrate on the one hand, which it is not easy for the landlord to prevent, and to the policy pursued by the Government in the last 20 years of acquiring and settling them on house-sites of their own. "The landlord finds it increasingly difficult to extract work from a padiyal."

But when all is said, unemployment and under-employment have grown so serious that serfdom is not so much feared as the lack of any certain means of livelihood. No wonder, the Chakkilies of Vadamalaipuram are said to prefer serfdom to the freedom of the casual labourer. There is indeed profound truth in the statement of Toynbee, though made with reference to the Industrial Revolution of England: "The movement from slavery to freedom is also a movement from security to insecurity of maintenance."

CROPS AND METHODS OF CULTIVATION.

No great change has been noted in the system of cropping or in the methods of cultivation in the villages resurveyed. Paddy continues to be the largest single crop in six out of the eight villages and is the most dominant crop in four of them. It is only in two villages that it is a subordinate crop. Almost the entire wet land, irrigated by channels from river or tank, may be said to be covered by paddy though here and there a few acres of plantain, sugarcane or betel, grown in rotation with paddy, break the monotony. Paddy is not everywhere grown on irrigated land; it is found as a purely rain-fed crop on the west coast, and in the Arcot villages of Dusi and Eruvellipet it is grown as a dry crop (*puzhithikal* paddy), though it is sometimes supplemented by irrigation from tank at a later stage. The yield, however, of such paddy is lower than that of the fully irrigated crop.

Generally paddy is grown year after year on the same wet land, though varieties of paddy sown vary with the nature of the season. Gangaikondan and Eruvellipet claim more than a dozen varieties each, a short account of which is given in the respective surveys. From these selection is made so as to suit not only particular seasons but particular soils (including alkaline), and in some cases to cater to the tastes of landlord-consumers. Some varieties are noted for appearance, some for yield and some for nutrition. Rarely are these good qualities found in combination among local varieties. The dominant consideration for selection is the nature of the season. Quick yielders have sometimes to be preferred to slow-maturing and better yielding varieties. Failure of rainfall and the conse-

quent poor water supply in tank or river channels account for violent fluctuations in the area under paddy in some villages, notably in Dusi. In Watakancheri paddy area has gone down, because of fifty per cent fall in prices in the last ten years, while fruits, roots and vegetables are preferred as they fetch a good price in the neighbouring town. On the other hand, the area under paddy is increasing steadily in three villages because of the greater demand for paddy in preference to harder dry grains like cholam, kambu and varagu, which have almost everywhere registered a decline.

Vadamalaipuram, Eruvellipet and Vunagatla have each of them less than half the area under these millets than what they had at the time of the first survey. Palakurichi and the two west coast villages have no dry grains at all. Dusi has a paltry 5 acres as against 60 in the past. Gangaikondan is the only village which continues to have a large area under these grains, nearly a thousand acres, though this is less than what it was in 1916-17. There is no doubt that the shrinkage of area is due to the diminishing demand for these cereals, though in the last ten years dietetic reformers have been declaiming against rice and extolling the millets for their superior nutritive qualities. To popularise these crops, the taste for them has to be created among the educated classes and recreated among the cultivating classes themselves. The demonstration of improved varieties and better methods of cultivation has to be done by the Department of Agriculture.

Oil-seeds occupy the next largest place in these villages; only two villages have no oil-seeds at all. Coconut is the most important crop, covering more than two-thirds of the area in Guruvayur where it is found all in topes, while elsewhere it is scattered. Coconut is prized as a vegetable much more than as an oil-seed in the Tamil villages, where it is grown in backyards of houses. Gingelly is grown in two villages, Gangaikondan and Vunagatla, to a larger extent than before. Groundnut is grown in the Arcot villages, in Dusi to a much larger extent than before, while in Eruvellipet it has dwindled to half. Gingelly and groundnut are often grown as mixed crops with some dry grains or pulses; the area and yield are therefore not easy to determine.

Pulses are grown in any considerable quantity only in Gangaikondan and Vunagatla, in each of which the area has increased by about 60 acres. Pulses are much in demand in all the villages, but the other villages do not grow them, thus showing that they do not aim at self-sufficiency. Even more striking is the absence of sugarcane cultivation in all but one village, Eruvellipet, where it

covers only 25 acres. It has been time and again demonstrated to be a very profitable crop; but it is also the most expensive crop to grow and harvest and process. Besides, the supply of water for the full period of growth, 10 to 12 months, is not assured in most cases. Hence the small area, in spite of the propaganda done in recent years and the proximity of sugar factory to one of the villages.

Cotton is cultivated only in Vadamalaipuram and Gangaikondan which have the black cotton soil. The former has 460 acres as against 800 in 1916, while in the latter the area is practically undiminished, 944 acres. The area expanded during the boom period after the last war. The rage was for Cambodia cotton at the time of the last survey and for a few years afterwards; it is said to have displaced vegetables to some extent in Vadamalaipuram. It has since given way in both villages to karunganni, the best indigenous cotton of the Tinnevely tract. In Gangaikondan, according to our investigator, "the cultivation of this crop by petty landholders or petty tenants is entirely unknown." Most of the crop is raised by two big landholders of the village and the rest is raised by ryots from neighbouring villages, who happen to possess land in Gangaikondan.

Under the stimulus of the last war senna had been sown on 400 acres in Vadamalaipuram and 200 acres in Gangaikondan. It shrank to an insignificant acreage in both villages after the abnormal period. Indigo which had been thrown out of cultivation by the import of synthetic (coal tar) dyes was revived during the last war on account of the stoppage of such dyes manufactured in Germany. Eruvellipet gained by it, but had to abandon it soon after the war.

A variety of leafy and root vegetables, plantains and common fruit trees like the mango and the jack are grown in plenty on the west coast, where the rainfall is heavy and drainage is easy and the competition of field crops is confined to the lowlands. More and more vegetables are said to be grown in Watakancheri, where an easy market is found in the neighbouring towns. 'Garden cultivation' is, on the other hand, an expensive affair in the Tamil villages which are not endowed with plentiful rainfall and drainage facilities. It is found in patches here and there, where wells have been sunk. The area under wells has gone down to a third of what it was in Vadamalaipuram. In Gangaikondan only 30 to 40 acres are irrigated by wells. No new well is said to have been sunk in the last 20 years. Dusi, Eruvellipet and Vunagatla have only 2 or 3 wells each used for irrigation. The others are for domestic use. Palakurichi has no such well. The cost of lifting water from wells

is high in all villages, where there is an alternative source of irrigation or the rainfall is heavy. Hence it is that on lands irrigated by wells in these villages, the tendency is to grow the more valuable crops like tobacco and chillies in preference to common vegetables for which the villagers are not prepared to pay well. The decline in area under vegetables, where this has been estimated, is deplorable.

The reorganised Department of Agriculture in the Province has been advocating a number of improvements in agriculture for over 30 years now. In the villages under survey, few of them have been taken up and pursued in earnest. Except for G. E. B. 24 paddy in Eruvellipet and Dusi there has been little demand for the paddy strains evolved by the Department. Seed of the best type as observed by the naked eye is said to be carefully collected and preserved by ryots, though this cannot be said of the impecunious ones who borrow any seed at usurious rates in the sowing season. Ryots complain of delay in the supply of seeds for which they place orders—perhaps too late—with the nearest Agricultural Demonstrator. There is not so much prejudice against new varieties as such. In Vunagatla, where ryots are not particularly enterprising, one ryot introduced a 'bunching' red gram which has been taken up by several, because of its steadier yield and greater resistance to pests. Cambodia cotton had been taken up in two villages with zest at the time of the first survey as it gave a good yield and fetched higher prices. It has been completely given up now in favour of karunganni, the indigenous Tinnevely cotton, which has been greatly improved by the Agricultural Department. Karunganni is the better crop for dry cultivation on black cotton soil. Cambodia could not thrive in a region not noted for wells, nor for drainage facilities. It was more subject to pests, and prices also went down by 40 per cent. As for sugarcane, Messrs. Parry & Co., have introduced three varieties of canes in Eruvellipet, where cultivators agree, in return for advance of cash and of chemical manures, to sell their canes to the company which manufactures the famous 'N' sugar at Nellikuppam.

As for better methods of cultivation advocated by the Department, the single transplantation of paddy, instead of bunch planting, may be taken as typical. It was tried seriously but given up in Eruvellipet on the ground that it involved more labour, more supervision and risk of greater loss if there was an insufficiency of water or manure. The ryots were aware of the increased yield if the crop succeeded; but the higher cost and the risk involved have

dissuaded them. It is a pity that this should have happened in a tract which, the Department holds, is the best for adoption of single transplantation on account of the nature of the soil and superior drainage facilities. The additional cost is but a trifle. But the crop seems to suffer when rains fail; and so it is that the Department is said to advise now not so much single transplantation as 'economic' transplantation, in bunches of three or four seedlings.

Sowing seeds in regular lines by means of simple seed drills as is in vogue in the Ceded Districts has long been advocated for dry crops, particularly for cotton and cholam, as it admits easy stirring up of the soil by bullock hoes. Only two seed drills (Gorukalapai or line-kalapai) have been found in one village and not one of the other villages has introduced this simple device in spite of the large area under dry crops in some of them.

Iron ploughs have been tried only in two villages, but they have been given up in one of them; they are found in the neighbourhood of two other villages, which have not found it worthwhile to copy them. The objections cited are various: the initial cost (3 to 4 times that of the wooden plough), the poor pulling capacity of local cattle, the inability of local blacksmiths to repair them. These are not all insuperable difficulties and the case for the use of improved implements in the drier areas like Vadamalapuram and Vunagatla seems to us to be quite strong in view of the need to speed up preparatory cultivation.

Vadamalapuram had as many as five oil engines for lifting water, but four of them have been disposed of since 1931. Local opinion held that they would be profitable only when sugarcane or plantain was cultivated but it was difficult to find enough manure for these crops in the locality—not a very convincing argument, as though manures could not be got from outside. Eruvellipet had an oil engine till ten years back for lifting water and crushing sugarcane, but this was sold away. The comparative costs of lifting water by oil engines and by bullock power have been worked out for Vadamalapuram (page 15). Though acre for acre the daily working cost is more or less the same, the very high initial cost and interest and depreciation charges of the oil engine do not make it worth while for the average cultivator to go in for its installation. For him the new electric power, where available, would be a better business proposition.

A great deal of attention is paid to manuring in almost all the villages. Ryots put themselves to considerable trouble in trans-

porting tank silt to their lands from the neighbourhood, unless the Public Works authorities interpose difficulties. Cattle dung is conserved and used as manure in all villages and it is not converted into fuel to any considerable extent except in Dusi where 5 per cent of it is made into *vatties* and sold in the neighbouring town of Conjeevaram. On the other hand, the street sweepings of this big town are purchased in auction and utilised by the ryots on their lands. The high value of farm yard manure is attested by many a Tamil proverb. Only cattle urine is not properly conserved, on which instruction is necessary. The penning of cattle, sheep and goats is a common method of manuring. Green manures—the leaves of common trees and the well-known shrubs of *avaram* and *kolinji*—are used in most of the villages, especially where forests are nearby, but no green manure plant—*kolinji* or *dhaincha* or *sunhemp*—is raised by ryots in any of our villages, which is surprising. Groundnut oil cake is used in some of the villages with great benefit. Bones have everywhere been wasted. Chemical manures, sulphate of ammonia in particular, have been tried in all but two villages, but only half of them continue to use them. The objections to their use are stated to be: (1) they give immediate results and stimulate the crops, but fail to show such results in subsequent years unless large quantities are used; (2) they tell on the native fertility of the soil; (3) they are costly and when purchased from big agents of manufacturers or importers, payments have to be made on a definite date, which it is difficult to do, while merchants who supply oil-cakes are more lenient. Hence the preference for oil-cakes. The truth of some of these statements, especially the ultimate effect on soils, needs to be investigated by experts.

Pests are a common curse of all crops and are taken as part of nature. The ryots have always felt powerless to deal with them, and simply invoked the aid of the gods. The Agricultural Department has been consulted occasionally, but not with markedly satisfactory results. The ryots of Pallakurichi were asked to try other varieties of paddy, but they failed to do so. A ryot at Vunagatla with the aid of the Agricultural Demonstrator was able to combat a cholam pest successfully. But the investigator reports that the crop of other ryots who did not seek such help was allright too that year! The ryots of Eruvellipet received instructions from Messrs. Parry & Co., on methods of dealing with sugar-cane pests, but found them too expensive to carry out. The solitary instance of success reported is from Watakancheri where against the mahali pest on arecanut spraying as directed by the State Agricultural Department was "of the greatest value."

We have faithfully summed up the position as ascertained by our investigators. It may be that the Agricultural Department staff have not been duly consulted and their instructions given a fair trial. An occasional consultation with no serious intent to follow can do little good to the ryot and is unfair to the adviser. The Department is undoubtedly understaffed for the area to be covered. No Demonstrator can keep in touch with or even visit all the 50 or more villages in his jurisdiction and offer effective advice. A common objection to the departmental advice is that it is expensive to follow, especially in a period of depression when the inducement to invest money is too feeble. In other countries, however, low prices have more often acted as a spur to the adoption of devices to lower the cost of production, which is the aim of many improvements. Our ryots are too ill-organised, and ill-controlled to get adequate and timely supply of credit facilities and the holdings are too fragmented for any substantial improvements to be carried out. But it is not easy to understand why simple remedies for pests, the supply of approved seeds and inexpensive implements and cultivation of green manure crops should not have become more popular.

THE CATTLE PROBLEM

The condition of the cattle—draught or milch—has not visibly improved in the last twenty years. According to the figures available the working animals—oxen and male buffaloes—have increased in number in five villages and gone down in the Vadamalaipuram and the two west coast villages. The official quinquennial census of livestock taken by the karnam—rather by his servants—was generally of a perfunctory kind; it is particularly illustrated in the case of Gangaikondan. Some of our investigators have themselves taken the census of livestock and found that everywhere the tendency was to prefer milch cattle, particularly the she-buffalo, and not so much the draught ones. Not all the oxen and he-buffaloes were fit for work; ten to twenty per cent were unfit but were still kept on out of sentiment. There was, even if all were fit, a marked inadequacy of cattle for the work to be turned out in half the number of villages—particularly in Vadamalaipuram and Gangaikondan where on the average a pair of animals had to tackle 22.5 acres and 20 acres respectively. In Palakurichi and Watakancheri a pair had to manage 8 acres, which was about double their capacity. In the other four villages the number of animals might be said to be just sufficient and in no case could there be said to be a surplus of working animals, judged by local standards of the requirements of cultivation.

Bullocks were used on wet as well as dry lands in all the villages, while the slow moving he-buffaloes were seldom used on dry land where it was necessary to speed up ploughing, but were preferred on wet land in four of the villages—notably in Eruvellipet, where, according to our investigator, the Padiyal's merciless beating could be borne only by the proverbially patient buffaloes! They were, besides, cheaper, costing only Rs. 10 to 25 per head and were not so fastidious as oxen as regards feed. The price of a pair of bullocks generally ranges from Rs. 40 to Rs. 100, though some of the dregs of the cattle market are purchased, especially by cultivating tenants, at incredibly lower prices and disposed of after the cultivation season is over. On the other hand, there are a few well-to-do villagers who are prepared to pay Rs. 200 per pair for draught cattle and even more for cart cattle. Only these animals belong to fine breeds like Alambadi; the rest are non-descript cattle indifferently bred and carelessly reared. None of the villages has taken up breeding and rearing of cattle as a main industry; it is at best a side line. Some of the villagers no doubt breed their own animals; making use of the Brahmani or temple bulls that roam about. Only in two villages is there any attempt to make use of the stud-bull kept for service, one by a private owner and the other maintained in the local agricultural farm by the State. The tendency after the depression has been to buy and sell cattle more frequently, as it is not worthwhile to maintain them in the off-season, while in the working period owners are prepared to spend 2 to 4 annas per head on feed. Only Gangaikondan has plenty of pasture land and another village has got some decent grazing land. In the rest the cattle have to fend for themselves by nibbling the scanty grass growing on porambokes or common wastes, and on the stubbles of harvested lands of all pattadars. Villagers are as a rule indifferent to the evil effects of communal grazing on breeding and on health. Some of the dry land cultivators grow fodder crops, mostly fodder-cholam, and stock them as well as the stalks of other cereals for use throughout the year. In essentially wet land villages, where paddy straw is the only fodder available, the plight of animals is very hard, especially of the non-working or non-milking animals. We wonder why cultivators with such scanty resources should still keep on so many animals and do not dispose of all unwanted cattle. Their manure is by no means an adequate compensation.

MILCH CATTLE

Cows and she-buffaloes have increased in number in all but two villages—Vadamalaipuram and Gangaikondan. Not all the cows

are kept for milk in the villages; nor is any cow given light work on land as in some of the smaller peasant farms in Europe. The main business of most of them is to breed future draught stock. Such surplus of milk as may be left after suckling the calves is a welcome by-product in these hard days. But no special care is taken to improve the milk-yielding capacity of cows. When they are in milk, they are stall-fed; they get rice straw or cholam stalk, rice bran, husk of pulses, cotton seed, oil-cake, etc., all of which cost from 3 to 6 as. per day. This feed indeed depends on the yield of milk and is reduced very much after the lactation period which runs from six to eight months at the most. The yield of milk in such circumstances is very low, ranging from half a Madras measure (2 lbs.) to $1\frac{1}{4}$ Madras measures (5 lbs.) The price of milk in the villages is from 4 to 5 annas a measure; which is certainly too high for the countryside, but is kept up by the demand for milk in tea and coffee hotels, which have come into greater vogue in the last twenty years. And yet there is no attempt to go in for better breeds of cows, richer in milk. The present animals are priced Rs. 25 to Rs. 50 per head. It is a vicious circle that has to be broken; a better breed costing Rs. 100 or thereabouts and yielding 3 to 4 measures of milk will be a better business proposition. The demand for milk is growing. Special fodder crops will have to be raised and surplus preserved in silos. Enclosed pastures must replace common grazing as in all advanced agricultural countries. The time is come for some of the agriculturists to turn their attention from cereal growing to the dairy industry, limiting, however the number of animals to the fodder that can be grown or secured in the locality.

The she-buffalo is a complication in this country. It is a distinctly better dairy animal than the cow; it yields a larger quantity of milk per day, $1\frac{1}{2}$ to $2\frac{1}{2}$ measures in our villages, yields it for a longer time—the average lactation being eight months. Its milk sells for a better price in or near towns where there are coffee hotels as it stands dilution better than cow's milk, though it is not in much demand as milk among householders in the village. It is all turned into buttermilk and ghee, the former mostly for consumption at home, the latter for sale at the nearest shandy. A buffalo in milk may be purchased for anything between Rs. 25 to Rs. 50 in the countryside. Its maintenance does not cost more than that of the cow. Hence the universal preference for the she-buffalo as a dairy animal. The trouble about the buffalo is that the he-calves that are brought forth are little wanted and fetch a poor price. There is no prospect of evolving a dual purpose breed of buffaloes.

CATTLE DISEASES.

Cattle which graze in common and are ill-fed are more susceptible to diseases, the most fearful of which are anthrax, foot-and-mouth disease and rinderpest. These have taken a heavy toll in our villages. In all of them except Pallakurichi, the villagers have learnt to seek the help of the nearest veterinary doctors and veterinary hospitals. The doctors often go out on inspection and inoculate animals against infectious diseases. The villagers are convinced that there can be no other check so efficacious against epidemics. But for minor ailments, they are content to consult local physicians who treat animals with herbs, garlic, lime, camphor and vegetable oils. These practitioners are dwindling in number, but faith still continues in some of the common old-world antidotes. We wish some research workers studied the value of such simple remedies so as to reduce the cost of treating animals and the loss resulting from neglect of diseases.

COSTS AND PROFITS OF CULTIVATION

Attempts have been made in four of the villages resurveyed to study the costs of cultivation of some crops in greater detail than in the first survey. Accuracy, however, cannot be claimed for the figures of cost, as they are mostly based on estimates. No systematic record has been kept of all items of cost even by the few agriculturists who keep any accounts. Generally, estimates of outlay and of yield,—approximate cash outgoings and returns—are all that are usually recorded. Contributions of one's own and of family labour and the help rendered by and to neighbours are seldom recorded, and even if recorded are not easy to assess in terms of cash. The cost of bullock labour, which should include not only the cost of maintenance of the animal but the interest on the purchase price or the amount spent on breeding and rearing, not to speak of depreciation, is not easy to calculate. The cost of seeds raised and of farm-yard manure cannot be reckoned merely in terms of their market value. Cash wages are not paid for all kinds of labour. Apart from wages in kind, midday meals are provided for some labourers; on the other hand, domestic services are often rendered by workers in the house of the master. Unless due allowance were made for all such items one could not speak with certainty of the real costs of cultivation of an acre of land or a unit of any crop. Another complication is the raising of mixed crops on land at one and the same time; at the other end is the reaping of joint products from a single crop. A study of re-

lative agricultural efficiency is neither easy nor fair to make from the stray samples of farm accounts furnished by our investigators. None of them stayed for a whole agricultural year in any one village; nor could they be expected to keep a meticulous record of every item of capital and labour applied to land day after day, as is expected of recorders or observers in a scientific study of farm costs.

Some observations, however, can be offered from the fragmentary data our investigators have been able to collect. Comparisons with the past are made wherever possible.

Paddy is the one crop that is grown in almost all the villages. But it is grown on different soils and under different conditions. It is often rotated with some other crop, but it is also repeated. It is generally raised as a wet or completely irrigated crop; but on the west coast it depends on rainfall. In the Arcot villages it is started as a dry crop (*puzhuthikal*) but is later on irrigated from tanks. Labour is partly hired and partly contributed by the family. Seed and farm-yard manure are often produced and preserved on the farm itself but sometimes they are purchased. Evaluation of such items is difficult or it becomes unreal, and is, therefore, in some cases not attempted at all. No wonder that in such a variety of circumstances the costs of cultivation show a wide range from Rs. 2 to Rs. 40 per acre. The net income would vary from Rs. 3 to Rs. 28 per acre, if account were taken only of cash outgoings, and not of the labour, seed and manure supplied by the farmer. The net profit from an acre of double crop wet land, after payment of kist, was estimated at Rs. 29-8-0 in Gangaikondan in the first survey.* In the present survey it works out at only Rs. 13-8-0 per acre, judged by the accounts of a farm of 10 acres of wet land growing paddy, ragi and gingelly. In Vunagatla, the net income (value of yield minus expenses) per acre in a farm which could grow paddy, cholam and gingelly was Rs. 42 in the last survey. In the present survey, the net income (allowing for seed, manure and harvesting charges but not for ploughing) is estimated to vary from Rs. 20 to Rs. 28 per acre.

Cholam is next to paddy the most important cereal crop in the villages surveyed. It is cultivated both as a dry and as an irrigated crop. It is raised sometimes as mere fodder for cattle, when it is sown thick. The cost of raising such 'cholanathu' in Vadamalai-

* Dr. Slater thought that it should be Rs. 55-8-0. *Some South Indian Villages*, p. 63 note.

puram varies from Rs. 5 to Rs. 13 per acre and the net income ranges from Rs. 9 to Rs. 26. In Gangaikondan the expenses of cultivation of choolam per acre have been estimated at Rs. 33 per acre and gross income at Rs. 40, leaving a net income of Rs. 7, out of which Re. 1 has to be paid as kist. The investigator in the previous survey estimated the net yield at Rs. 10 to 20 on red sandy soil and Rs. 50 to 70 on black loam or karisal. This wide difference is due not merely to fall in prices but to the inclusion of charges for watering and watching in the present survey, while they were not included in the last. In Vunagatla the cost per acre (excluding ploughing) is estimated at Rs. 4 and the gross income at Rs. 17. The net income in all such cases includes not only rent for the use of land but wages for part of the work done. Profits of enterprise are quite small and may be zero or a minus quantity.

Garden land cultivation, by which is meant the cultivation of valuable crops like chillies irrigated by water lifted from wells, is confined to a few villages and costs of cultivation comparable with the past are cited in only one case. In Gangaikondan garden cultivation was estimated to yield a return of Rs. 150 to 200 in the last survey; no crop in particular was mentioned. According to the resurvey, a small piece of land measuring only 56 cents and growing chillies gave a return of Rs. 120, out of which expenses amounting to Rs. 89 and kist dues Rs. 3-8-0 had to be met, which therefore left a profit of Rs. 27-8-0 for the 56 cents, or about Rs. 50 per acre. The rent that such land could fetch was Rs. 37-8-0 per acre at the time of the first survey, and now it is only Rs. 28. Apart from the wide fluctuations in prices in such garden crops, the risk of pests is more serious. More than ordinary skill and enterprise are required for such cultivation. The tenant may incur serious losses one year and get high profits another year.

Coconut is raised as a plantation crop only on the west coast, while it is found scattered in backyards of houses in the other districts where it is valued more as a vegetable than an oil-seed. Of coconut in Guruvayur, we get an account not of the cost of raising a plantation but of the annual expenses of maintenance per acre and of the yield per acre of nuts on two classes of land. In the better class of land Rs. 106 is the net income per acre, out of which a kist of Rs. 9-6-0 has to be paid, while in the inferior land the net income is Rs. 35, out of which Rs. 3-13-0 has to be paid as kist.

Sugarcane is the costliest of all crops to raise. It costs Rs. 225 per acre in Eruvellipet where conditions are more favourable than elsewhere for marketing as well as for cultivation. The return

is said to vary from Rs. 350 to Rs. 700 according to the available soil, water and manure on the one hand, and the prices of sugar and jaggery on the other hand. But such a splendid return has not brought more than 25 acres under cane cultivation at any time. It is beyond the means of most ryots here and elsewhere, even if conditions of soil, water supply and prices are favourable.

Groundnut, on the other hand, is a far easier crop to grow. It thrives even on poorer soil, requires much less water and disposal of produce is not so difficult. It is a favourite crop in the Arcot villages, where the yield varies from 20 to 50 kalams, worth Re. 1-6-0 a kalam on an average. The rent of good groundnut land where another crop also could be grown was Rs. 60 per acre some years back at Eruvellipet. In Vadamalaipuram groundnut is grown on land under well irrigation. Expenses have been estimated at Rs. 31 per acre and sale proceeds at Rs. 50, leaving a net income of Rs. 19, out of which Rs. 1-12-0 has to be paid as kist.

Cotton is cultivated only in two of our villages, but we get some idea of costs only in one, Vadamalaipuram. The cost of cultivation per acre varies from Rs. 11 to Rs. 20. The yield per acre is about 1 podhi (250 lbs.) worth Rs. 30. The net income, on an average, is Rs. 12 per acre. But it is as high Rs. 25, when the crop receives some irrigation from wells.

Redgram is a purely dry crop and is cheapest to raise in Vunagatla. If account is not taken of ploughing the cost is Rs. 1-14-0 to Rs. 4-9-0 per acre, while the yield is valued at Rs. 9 to Rs. 23. Gingelly is also a cheap crop to raise, costing Rs. 1-11-0 to Rs. 3 (exclusive of ploughing) per acre and the yield in normal years fetches Rs. 8 to Rs. 10.

A more realistic study of farm costs and profits would be to take into account the expenses of cultivation of all the crops raised in farms, inclusive of general overhead charges and distribute the charges and profits not only among the well cultivated acres but also among the lands used as pasture or lying fallow, according to the system of rotation or due to failure of rains. This would be a better test of the success of a farm enterprise, which is a complex business, than the analysis of costs of cultivation of every acre of crop or of a unit of crop in any particular year—which is as unreal as it is difficult to estimate. Such an idea of total farm costs and profits can be had in the case of three villages.

In Vadamalaipuram on a thirteen acre holding growing cotton, a millet and a fodder crop, the net profit per acre, after kist was

paid off, was as low as Rs. 8½, particularly because 40 per cent of the holding remained uncultivated in one year. In another holding of 10 acres, where also cotton, a millet and a fodder crop were grown, but all land was cultivated, the net profit was Rs. 13 per acre. In a third holding of 6 acres, where cotton, groundnut, two millets and a fodder crop were grown, the profit was higher per acre—Rs. 22⅓.

Actual budgets of two farms have been studied in Vunagatla. Each of them contained a number of palm and soapnut trees in bearing. One is a holding of nearly 10 acres lying in 4 plots. In this holding the crops raised were paddy, cotton, redgram, horsegram, coriander and a little janmu. The expenses of cultivation amounted to Rs. 77 and the yield from all the cultivated fields was Rs. 155, while the palm and soapnut trees fetched Rs. 20. The net income from the farm was thus Rs. 98; a kist of Rs. 13 had to be paid, leaving therefore a net profit of Rs. 85 for the whole farm of 10 acres.

In the other holding of 30 acres, the crops raised were paddy, cholam, redgram, horsegram, green gram, janmu, kambu, gingelly and a little of chillies (50 cents). The costs of cultivation amounted to Rs. 323. The value of the yield of all produce cultivated was Rs. 661; palm and soapnuts fetched Rs. 217. The net income from the entire farm was thus Rs. 555. Kist of Rs. 51 had to be paid, which left a net profit of Rs. 504 for a holding of 30 acres. The noteworthy feature is the income contributed by the palm and soapnut trees amounting to more than 25 per cent of the gross income and 40 per cent of the net income.

A very interesting case of large-scale capitalistic farming, if it may be so called, has been described in the Gangaikondan survey, though the farm in question is situated just outside the village. It might be deemed a big estate (or pannai) in our country, for it consists of 100 acres of cultivated land and 150 acres of pasture land. Sixty of the former are wet and 40 dry. The whole estate was purchased for Rs. 75,000 in the boom period after the last war. Buildings and permanent equipment cost Rs. 6,000. The annual expenses were estimated at Rs. 2,380. Kist and cess amounted to Rs. 565. Against the annual outgoings of Rs. 2,945, the total income was only Rs. 3,310 which therefore left a net profit of Rs. 364 on a capital investment of Rs. 81,000 on the farm, i.e., a return of a little less than half per cent.

INCIDENCE OF LAND REVENUE

The incidence of land revenue has been a favourite theme with economists as well as politicians in India. It was generally felt to be a heavy burden at the time of the original survey, though prices of produce were quite high. Dr. Slater, however, examined a number of cases in ten village surveys and came to the conclusion that on the whole the burden was much lighter than alleged, not only in relation to the gross yield, of which at least a fifth used to be exacted by the State in India in olden days, but to the net income which is a modern and sounder economic test. Leaving aside the exceptional case of senna, the proportion of the kist to gross income ranged from 2 per cent in the cultivation of cholam to 10 per cent in that of paddy. Of the net income, kist formed as low as 2.8 per cent in cholam cultivation, while it absorbed at the most 16 per cent in the cultivation of paddy. On an average kist was 6 per cent of gross income (generally excluding straw) and 14 per cent of net income.

Dr. Slater elaborated the theory of State Landlordism, in which he fully believed, and asserted that the pattadar was let off lightly, as the Government could have 'on behalf of the community' collected more even on the basis of their moderate claim to half of the net assets, which they had conceded in a weak moment. To talk at the present day of the 'economic rent' due to the State, of the 'tenant right' of the pattadar and of the appropriation of 'unearned increment' by petty peasants cultivating their all too tiny holdings would be to rake up a futile controversy, which has been given the quietus by no less a body than the Indian Taxation Committee, which accepted the claim of the pattadar to the unfettered right of ownership of the land he holds, subject to the payment of the tax levied on it.

Coming back from uncertain theory to hard facts, let us note the land revenue that every village has had to pay twenty years after the first survey was made. Prices tumbled down to levels undreamt of, while the area under cultivation remained more or less steady except in two or three cases. Vadamalaipuram ryots cultivate 400 acres less of dry land and garden land, and pay Rs. 400 less of land revenue. There has been no change in the rate of land revenue as there has been no resettlement in the intervening 20 years. But the incidence is bound to be heavier because of the fall in prices. Gangaikondan has taken up 207 acres more of dry land and pays Rs. 107 more. Here too there was no resettlement in the interval. Yet the burden is heavier because of lower prices

of all produce. Dusi pays Rs. 290 less, but 37 acres of wet land remained uncultivated in 1937 on account of the failure of the tank, and only 10 acres more of dry land have been taken up anew for cultivation. The rate of land revenue has been raised by 17 per cent on the better type of wet lands. [Vunagatla has no wet land but the dry area cultivated has gone down by nearly 100 acres. The original survey does not give us an idea of the total land revenue paid; but at present all classes of land comprising 1,400 acres pay about Rs. 2,000. The rate has been raised by 20 to 70 per cent.] Guruvayur has 191 acres more of garden land where cocoanuts are planted, but two-thirds of this addition has been effected by conversion of dry land. The assessment of garden land is higher in Malabar than of similar land in the eastern districts; hence Rs. 220 more of land revenue has to be paid.

Watakancheri in the Cochin State has the same extent of wet land which is assessed at almost the same rate as before, but 465 acres more of dry land, on which the assessment is very light—about 8 annas per acre—and on that account pays an additional revenue of only Rs. 296. Even here the incidence of land revenue is bound to be heavier now than in 1917 on account of the lower prices of produce. Eruvellipet has 15 acres more of wet land but 40 acres less of dry land, and pays an additional revenue of Rs. 555. The greatest increase, however, is in Palakurichi which has 24 acres more of wet land but 15 acres less of dry land. Thanks to the Resettlement of 1924 and the reclassification of land or irrigation facilities in 1935, it has to pay Rs. 1,991 more of land revenue. The rates have been raised by more than 50 per cent on most classes of land. There was some justification for the rise in the Resettlement of 1924 as the prices of produce had risen to enormous heights in the previous 7 or 8 years. In view of the fall in prices since 1931 the rates which were raised in 1935, merely because of more assured irrigation facilities on completion of the Mettur dam, have been felt to be burdensome.

It is a commentary on the system of our land taxation that the rates of land revenue should have been raised in some villages, and not lowered in any village, in spite of the great fall in the prices of almost every kind of produce since 1930. The Settlement is periodical and could not be changed before the expiry of 30 years. In the 60 years following 1870, resettlement once in 30 years meant invariably an enhancement of rates due to the continuous rise in prices. There were no doubt protests at every enhancement, but they were not seriously taken into account by the Government on

the score that, if anything, the resettlement was over-lenient to the landholder as it left him much more than he was entitled to under the principle of the State taking half the net assets. Whatever the justification of this theory and its practical application in times of rising prices and in the case of large landholders, it is bound to be felt as a heavy burden by the poorer peasants in times of falling prices.

Fall in prices of produce. Paddy is an important crop in 6 out of our 8 villages. It is, in fact, the standard crop whose price is supposed to be the basic factor in the determination of land revenue, so far as wet land is concerned, in the periodic resettlement. Any rise or fall in its price is bound to affect favourably or adversely the tax-paying landholders. For paddy is raised not only for one's own consumption but for sale in part or whole. The extent of fall in its price is brought out below:

Village.	Unit of measure.	Price in 1916-17.		Price in 1936-37.	
		Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
Gangaikondan	Kotta (112 M.M.)	10-0-0		5-8-0 to 7-0-0	
Palakurichi	Kalam (24 M.M.)	2-8-0		1-2-0 to 2-0-0	
Eruvellipet	Kalam (36 M.M.)	4-8-0		1-12-0 to 1-7-0	
Dusi	Kalam (40 M.M.)	3-8-0 to 5-0-0		2-0-0 to 2-12-0	
Watakancheri	Para (8½ M.M.)	0-10-0 to 0-12-0		0-6-0 to 0-8-0	
Guruvayur	Para (8½ M.M.)	0-10-7		0-5-4	

It is thus clear that the fall in price is about fifty per cent in almost all the villages.

Cholam is the standard crop in dry land, just as paddy is in wet land. But it is grown only in 3 of our villages. It is raised more for domestic and local consumption than for sale to distant consumers. Hence the disparity in prices in different villages. There was no fall in its price in Vadamalaipuram; indeed there was a slight rise (6 per cent) recorded, while in Vunagatla the fall was 33 per cent and in Gangaikondan (1935) it was as much as 45 to 55 per cent. Ragi is another cereal grown under dry conditions, though it is in some places lightly irrigated too. The fall in price in this crop is 12 per cent in Vadamalaipuram and 55 per cent in Gangaikondan (1935). Groundnut is at present a very important commercial crop in 3 of our villages, but it was raised only on 20 acres in one village in 1916-17. The prices in that year were not given, but we have other evidence of the fall in price in

recent years. Price per candy of groundnut kernels went up to Rs. 65 in 1923; it declined steadily to Rs. 35 in 1930, Rs. 21 in 1934, which was the lowest, and recovered to Rs. 35 in 1936. Coconut which is the most important crop in Guruvayur sold at Rs. 50 per thousand in 1917 while in 1935 the price came down to Rs. 20/7 per thousand in the lowest depth of depression, while in 1936 it rose to Rs. 32, which is less than two-thirds of the price in 1917. Palmyra jaggery which is the chief source of income to the ryots at Vunagatla sold at Rs. 35 to 42 per candy in 1916-17, while in 1936-37 it tumbled down to Rs. 15 to 22. In fact in almost all cases the prices of 1936-37 were less than 50 per cent of those ruling 20 years previously and yet in no case has the land revenue been lowered, while it has been raised in all but three villages.

Percentage of Gross and Net Income. We have worked out the percentage of land revenue to gross income and to net income in our villages in respect of the more important crops in recent years—1935 to 1937—from the data available in the resurveys. Variations are due to the difference in prices between different varieties of the same commodity and to the different yields on different lands in the same village.

Crop and Village.	Percentage of land revenue to gross income.	Percentage of land revenue to net income.
Paddy.		
Gangaikondan ..	11	32
Palakurichi ..	14 to 20	20 to 25
Eruvellipet ..	11 to 14	22 to 24
Dusi ..	13 to 26	8 to 16
Watakancheri ..	5 to 7½	8 to 10
Guruvayur ..	6	18
Cholam.		
Vadamalaipuram ..	10	20
Gangaikondan ..	2½	14
Vunagatla ..	5	9
Groundnut.		
Vadamalaipuram ..	3½	9
Eruvellipet ..	3	3½

It may be noted that the incidence of land revenue on paddy lands has risen much higher in four of the villages, both in relation to gross income and to net income. The real burden of a land tax can be understood only in relation to net income. While

at the time of the first survey the highest percentage of land revenue to net income was only 16, now five out of six villages growing paddy pay 16 per cent and above—the rate going as high as 32 per cent in one case. The village which is the most lightly taxed in proportion to net as well as gross income is Watakancheri, in Cochin State. Cholam land, which was very lightly taxed in 1916-17 (2·8 per cent) has now to pay 9 to 20 per cent of net income. It may be that in favourable years, these dry lands bear a second crop which is not taxed. But as against this it is notorious that such dry lands often suffer for want of adequate rains even for one crop.

Some may contend that the incidence of land revenue, though higher than in 1917 is even in these days of low prices not quite heavy as it does not exceed the "half net assets." The villages surveyed are by no means typical of the tract where the land revenue rates are high, e.g. Rs. 20 and more per acre of wet land. None of them has a first class system of river irrigation, while cultivation under wells is practically confined to two villages. The highest rate of land revenue is Rs. 13-2 per acre for wet land and the average Rs. 6. Dry rates, with the exception of Watakancheri, range from 13 annas to Rs. 3, the average being Re. 1-2. These rates do not appear excessive by themselves, but the real incidence can be determined only with reference to net income, which cannot be accurately calculated without a study of the precise costs of cultivation—the impediments to which have been already pointed out. We may provisionally accept the standard set up by the Indian Taxation Committee, and with the available data on costs of cultivation state that in all cases where the land revenue exceeds 25 per cent of net income the incidence is heavy. It is so in the case of some paddy lands in our villages, while the rate is not so heavy in the case of cholam and other dry crop lands. But the rains often fail and assessment has to be paid in bad as well as good years, unless the drought is complete, when remission is granted.

In favourable years, the land revenue is no burden in dry-land areas, particularly in garden lands with wells which are permanently assessed at dry rates unlike in the Punjab, where exemption from enhancement of rates is given only for a period of 30 to 40 years to encourage well-digging, and not for ever. Cotton, groundnut, coconut, chillies and sugarcane—all these in our villages paid only about 10 per cent of the net income even where prices were so low as in 1936-37. A more modern and rational

method of assessment should take into account the real net income of not only paddy and cholam, but of a few more valuable food or commercial crops which have established themselves in our system of agriculture. There is no excuse for retaining demonstrable inequalities in taxing land on the strength of an outworn law. Garden and commercial crops should pay more, if they yield a larger net income, than paddy and other cereals. The rates should vary, within certain limits, with the variations in prices of crops. The Madras land revenue system, as it is, is highly inelastic; in the downward swing of the trade cycle, when the agricultural income falls heavily, as it did in 1930-34, its inelasticity bears heavily on the ryots.

A word on the collection of land revenue. The instalments fixed for collection usually begin in February and extend to May. Paddy, the most important crop, and several other crops too are harvested in January and February. They have to be sold hurriedly in a glutted market by the poorer cultivators in order to pay off the first, and often the second, instalment. The more substantial and solvent ryots alone keep on the produce for some months, when prices invariably rise—especially of paddy. Cholam and groundnut cannot be kept so long and are therefore disposed of earlier. With the Government, certainty of collection of taxes seems to weigh more than the convenience or welfare of the ryot. It is true that impecunious ryots are the prey to temptations and of creditors who might knock off the crops. The only means of ensuring certainty of collection to the Government and of greater income to the ryot is the organisation of co-operative credit and marketing societies, which should work in co-ordination.

RURAL INDEBTEDNESS AND CO-OPERATIVE CREDIT

It was the consensus of opinion of investigators in 1916 that the agriculturist—whether landlord, tenant or labourer—was normally indebted. Some with pardonable exaggeration talked of the 'universal' indebtedness of the villages, as though none was free from debt. But the villages did have 10 to 25 per cent of the population free from debt, and some of these had saved enough to lend to their neighbours. In fact most of the loans were from local lenders, who were substantial and prudent ryots. In a very few cases moneylender-cum-merchants in the neighbouring town had advanced sums with a view to get at the produce. There were indeed no alien moneylenders like the Marwaris, separated from the borrowers by race, creed, or caste and tongue.

Usury is a relative term. According to the present standards, the then rates of interest might be termed usurious, especially for small amounts below Rs. 50—where, however, the cost of collection and the risk involved were greater. Rates of interest ranged from 24 to 48 per cent for 'hand-loans,' 12 to 24 per cent for loans on pro-notes and 12 per cent and below on mortgage of land or pledge of jewels. Often debts were inherited, the original loans having been incurred generally for marriage or purchase of land. The poor who lived from hand to mouth borrowed for bare maintenance at high rates and repaid from out of their earnings as labourers or tenants or petty holders. Loans for cultivation were resorted to by small holders at less exorbitant rates and repaid at the next harvest. Seeds were borrowed at much higher rates, often amounting to 60 per cent per annum in kind. Failure of crops, more common in dry tracts, meant the prolongation of the loans. Tenants, except in Malabar, borrowed for cultivation expenses from their own landlords, usually without interest, and repaid in full or in part at harvest; generally they had a running account. Loans for improvement of land were very rare. But purchase of more land was the most common cause of bigger debts; land hunger was so great that many went on buying more land out of borrowed money without clearing off the older loans, especially in wet land and garden land tracts. Few of these were able to redeem their debts. Litigation was cited as a cause of debt only in two of the villages. In Vunagatla 7 or 8 families were said to have ruined themselves by litigation and left the village for good to live in the Agency tracts. Brahmins as a class suffered most from having to pay heavy price for bridegrooms; even in 1916-17 many a crushing loan began in this way and could not be repaid without other sources of income.

In the original survey the estimate of total indebtedness was attempted only in two villages. It was put down, very roughly, as a lakh of rupees in one and a little over a lakh in the other. In the resurveys, closer attention has been devoted to the study of indebtedness. It is everywhere asserted that indebtedness increased in the intervening 20 years. The extreme example is Dusi where only 10 per cent of the land holders were said to be indebted in 1916-17, while in 1936-37 50 per cent had mortgaged their holdings. The total debt of a village, according to our investigators, ranges from Rs. 78,000 in Guruvayur, which is the least, to about Rs. 3 lakhs in Palakurichi. Wet land villages with higher land values have, as may be expected, gone in for more

debt than dry land villages. The debt per family is lowest, i.e. about Rs. 35 in Guruvayur, due partly to the non-agricultural population and to the prevailing system of land-tenure, kanam or verumpatam. In the dry village of Vunagatla, it is about Rs. 150 per family. It is 8 and 10 times higher in the wet villages of Eruvellipet and Palakurichi. Vadamalaipuram, more dry than wet, shows a debt of Rs. 900 per family, which is partly the legacy of a much applauded co-operative credit society.

The undeniable increase of debt in the twenty years has been variously accounted for. The most important cause of debt was the intensification of the old craving for land. Prices of produce went on rising not only during the war but in the post-war period upto 1924-25. Land values rose in consequence and even more than the rise in prices warranted. The decline afterwards was steady up to 1929; the hope of rise was still there and accounted for the continued purchase of land without repayment of old debts. The market value of land went down perceptibly only after 1929. There was then a crash in agricultural prices, the bottom was reached in 1932 and the recovery has been very slow and far from steady. Land which had been rising in value since the beginning of the century offered the best security for investors. In fact many of these went on saving and lending until the accumulated amount would enable them to purchase land. The standard of living of all classes of landholders apparently jumped up—'apparently' because the criteria are not in all cases sound. Many built new houses, at a cost more than justified by the higher income, which was realised only for a few years. They spent more money on marriages, cultivated new habits in dress and drink (coffee and tea). Women-folk wanted more jewels and sarees. While ryots went on borrowing recklessly without the fear of a fall in prices, the lenders did not insist on early repayment of principal and prompt payment of interest. They were content to have the bonds, or promotes renewed with addition of interest at intervals of 2 or 3 years. With the collapse in prices of produce after the depression, while taxes and costs of production remained the same, there was need for more credit. But credit contracted; repayments were insisted on, often in vain; foreclosure grew more common, though some lenders fought shy of it and were willing to remit part of the dues. The debtors could not repay except by selling lands at low prices, which they were reluctant to do unless forced. We give below an idea of the fall in land values.

LAND VALUES PER ACRE.

		1916-17.		1936-37.	
		Dry.	Wet.	Dry.	Wet.
		Rs.	Rs.	Rs.	Rs.
Vadamalaipuram	..	100	600	45-60	400-500
Gangaikondan	..	180-200	1000-1400	125	750
Palakurichi	..	150	1000		270-500 (230)
Eruvellipet	..	*	640		*
Dusi	..	*	1500-2500		700-1200
		Red Sandy Soil.	Black Soil.	Red Sandy Soil.	Black Soil.
Vungatla	..	150	350	150-200	250-400
Watakancheri	..		500-1500		250-750
Guruvayur	..			Garden Land 400-1000	Wet Land 70-200

*Values not stated.

Brahmins as a class have become worse borrowers on account of marriages and costlier Western education. It is only in Gangaikondan that 80 per cent of moneylenders are Brahmins. Elsewhere lenders are mostly non-Brahmin Hindus and in a few cases Marwaris. In Eruvellipet borrowers resort to the Marwaris in Villupuram, 8 miles away.

The woes of all moneylenders have also increased though not as much as those of borrowers. It is becoming increasingly difficult to recover dues. Investors who are not professional moneylenders are resorting to more liquid, if perhaps less secure and surely less paying, investments in banks and *kuris* in the neighbouring towns. Post office savings banks facilities are availed of only by a few.

The most striking change that has occurred in the last twenty years, particularly in the last ten years, is the reduction in the rates of interest all round. They have gone down to undreamt of levels, even in rural parts. Credit is not so easy to get now as formerly; but where it is available, it can be had at low rates. 7½ to 10 per cent on secure loans (mortgage of land), 9 to 12 per cent on pro-notes and 12 to 24 per cent on 'hand-loans' may be said to be the most common rates prevailing in the last 7 or 8 years. The more impecunious have certainly

had to borrow at higher rates than the above; but the better-off, those who had land to mortgage or jewel to pledge, could borrow at lower rates not dreamt of a decade back. The only exception seems to be Dusi where moneylending rates have gone up after the depression to levels even higher than in 1916-17, though they had gone down to $7\frac{1}{2}$ to $10\frac{1}{2}$ per cent between 1923 and 1932.]

RATES OF INTEREST ON LOANS.

	1916-17.	1936-37.
Vadamalaipuram	48 p.c. on small loans. 15 to 24 p.c. on big loans.	8 to 25 p.c.
Gangaikondan	12 p.c. and below on loans above Rs. 50. Not very high on smaller loans.	6 to 12 p.c. on loans above Rs. 100. Higher rates on loans below 100.
Palakurichi	— —	9 p.c. on secured loans. 12 p.c. on unsecured loans.
Eruvellipet	24 to 36 p.c.	By money-lenders. 12 p.c. on mortgage loans. 18 p.c. on pronotes and jewels. By Banks 6 p.c. on pledge of produce. $4\frac{1}{2}$ p.c. on gold jewels.
Dusi	5 p.c. on jewel loans. 12 p.c. on pronotes.	18 p.c. on jewel loans. 12-18 p.c. on pronotes. 12 p.c. on mortgage of land.
Vunagatla	18 to 24 p.c. on pronotes 18 to 100 p.c. on loans for cultivation.	12 to $18\frac{3}{4}$ p.c. on pronotes. 9 to 12 p.c. on mortgages. $18\frac{3}{4}$ — $37\frac{1}{2}$ p.c. on hand-loans.
Watakancheri		6— $10\frac{1}{2}$ p.c. on gold loans. $9\frac{3}{4}$ p.c. on mortgage of lands.
Guruvayur	30 to 42 p.c. on Rs. 50 and smaller loans. 60 p.c. on loan of seeds.	15—18 p.c. on small temporary loans. 12 p.c. on mortgage loans.

Joint-stock banks have sprung up at Watakancheri and Guruvayur, which are really small towns. Banks in the former lend at 6 to $10\frac{1}{2}$ per cent, varying inversely with sums borrowed, while they pay 4 or $4\frac{1}{2}$ per cent on fixed deposits and 3 per cent on savings deposits. 26 per cent of the loans at Guruvayur are from the banks. The ryots at Eruvellipet are able to borrow from

a bank at Villupuram which is 8 miles away at 6 per cent on produce stored in godown (for which they charge some rent) and at $4\frac{1}{2}$ per cent on gold jewels pledged—an incredibly low rate for villages.

Government takavi loans for improvement of land have not been heard of in most of the villages. A loan of only Rs. 300 was given in Gangaikondan to the karnam. In Watakancheri in the Cochin State for 22 years only Rs. 5,000 had been granted as loans under the Agriculturists' Loans Act. By a recent amendment of the Loans Act, the Government of Madras have been granting loans for the clearance of prior debts after having them scaled down by Debt Conciliation Boards. This facility has not been availed of by our villages. It was tried only in Eruvellipet. Strict scrutiny of titles, of land values and of repaying capacity, on the one hand, and unwillingness of creditors to submit to scaling down of the dues by methods of conciliation, on the other, have stood in the way of their popularity. The Madras Agriculturists' Relief Act enabling compulsory scaling down of debts was passed only in 1938.

Co-operative Credit. Only two of our villages had co-operative credit societies organised before 1916. The society at Vadamalaipuram was registered in 1909, unfortunately with 13 members to start with. It was carefully tended and was marked out early as an exemplar to the rest of the Presidency. Its praise was for long sung by officials and non-officials who visited the village. It had apparently a prosperous career till 1922, though the rot had set in earlier, and it had the privilege of being selected as one of the 20 societies for the distribution of a Rural Development Grant. Difficulties in recovery of loans began in 1914 and increased steadily year by year. But members also increased in number from 54 to 79 and the borrowing capacity of the Society was raised from Rs. 20,000 to Rs. 45,000 in the course of two years—thanks to the reckless generosity of the Banking Union at Srivilliputtur. Loans were granted in haste to Panchayatdars and their relations; but enough efforts were not made to recover the dues in time, partly because the Panchayatdars were among the worst defaulters. Incidentally, and significantly enough, the loans due to the Nadar moneylenders of Sivakasi were cleared. In the midst of such defaults, the Society had a building erected for itself at a cost of nearly Rs. 7,000 without proper authorisation and without an urgent need for the same. Too late the Banking Union woke up and sued some members independently for

dues, which was turned down by the court as illegal. The Registrar of Co-operative Societies had the Society liquidated in 1932 as the last resort, on the appeal of the Union. But not more than 20 per cent of the dues could be recovered by attachment and sale of assets of members—a commentary on the working of unlimited liability and the co-operative spirit of members. It is contended that more could have been collected with gentle pressure exerted over a longer time. The long history of this society does not prove it would have been easy. Anyway, co-operation has become a painful memory in a village much advertised by early co-operators.

Gangaikondan had a society started in 1912 but its operations were confined to a few, as it could not borrow more than Rs. 5,000 from the financing bank at Madras (M.C.U.B.). No individual could get a loan of more than Rs. 375. The limits were far too small for a big wet village. Funds were soon exhausted; for a long period in the year no applications could be entertained. Default in repayment had already commenced in 1916. The society is now said to be controlled by a few Brahmin moneylenders who borrow at cheap rates and relend at usurious rates to the poor. Another society has been started for the benefit mainly of Pallars in Gangaikondan in 1925. Only Rs. 1,600 has been lent in all, which is 16 per cent of the total debts of Pallars. It is said that they do not default and yet they do not get adequate or timely loans.

Neither Palakurichi nor Eruvellipet seems to have felt the urge for a co-operative organisation, though the experiment could have been tried for the reason that each had a dominant community. But unfortunately factions within the community have reared their head in the former village and in another sphere. In the latter civil litigation is said to be a very common feature, driving many into debt.

A society was organised in Dusi in 1919 which later on extended its operations to surrounding villages, and its borrowing capacity was raised from Rs. 10,000 to Rs. 25,000. But no individual could borrow more than Rs. 500. The society worked at a profit for only 4 years and then began the decline. Due care was not exercised in assessing the securities nor in the recovery of loans. It worked at a loss for 12 years and was placed under a Supervisor-Manager who was to set it right, which in official parlance means collection of overdues, disposal of unprofitable assets, etc.

[Vunagatla had a co-operative society with 40 members and the maximum borrowing capacity of Rs. 4,000. It was liquidated

in 1934 as it had done little business, and no one could be found in the village interested enough to work it with tact and patience. And yet this is a village with some of the worst abuses of money-lending. J

A co-operative credit society started in Watakancheri some years ago is reported to have come to grief due to lack of co-operative knowledge and leadership. The Government servants in the town, however, have been carrying on a credit society catering to their limited needs.

A society was started in Guruvayur in 1920 with 31 members; membership has increased to 392 which is just a third of the number of families in the villages. It has granted in all 767 loans so far, amounting to Rs. 38,263. At the time of the resurvey, it was found that the loans due to the society, Rs. 7,900, formed but 9 per cent of the total debts incurred by the villagers, while 64 per cent of the loans was due to money-lenders and 27 per cent to joint-stock banks.

We thus see that the record of co-operative credit societies in the villages under survey is one of which no one can be proud. The oldest and the most famous society at Vadamalaipuram has had to be liquidated as there was no other alternative. The old society at Gangaikondan is said to be exploited by the local money-lenders. Societies started at Vunagutla and Watakancheri have had to be wound up after a brief inglorious career. The society at Dusi had to be placed under the control of a supervisor-manager due to mismanagement by the Panchayat. The society at Guruvayur is carrying on in a feeble way meeting only a fraction of the needs of cultivators. If this record epitomised the position of co-operative credit societies in the Presidency, the prospect for co-operation would indeed be dismal. We trust these societies are not typical.

TRANSPORT AND TRADE

Marketing is a subject which has been only recently receiving due attention in India, thanks to the report of the Royal Commission on Agriculture who, finding little definite data, recommended more investigation before development. Our investigators were asked to collect more data on certain aspects of village trade, the results of which are presented in the resurveys. All of them tend to show that since the first survey was made in 1916-7, the physical facilities for marketing have considerably improved in almost all the villages. Every one of them has a larger number of retail

shops. They are all better connected with centres of wholesale trade by railway or by road. The advent of motor bus service in the last 15 years has made it possible for producers to keep in touch with markets, and for traders and hawkers to visit the villages more frequently. But the benefits of these facilities have been neutralised by the effects of the economic depression and of the greater sub-division and fragmentation of holdings. Nor has the financial mechanism of marketing been improved in the interests of producers.

Almost all our villages are well situated; they are on trunk roads or within easy reach of them. Four of them had railway stations close by even at the time of the first survey. Two others have been brought near to railways by the construction of two chord lines by the South Indian Railway. Vadamalaipuram has gained by the opening of the Tenkasi-Virudunagar line; the distance to the nearest railway has been reduced from 11 to 2½ miles. Eruvellipet, which was 8 miles away from any railway, has been brought within two miles of a new railway station by the construction of the Trichy-Villupuram chord line. The distance to the railway station is within 2½ miles in the case of six villages at present. Only two, Dusi and Palakurichi, are six miles off from their respective railway stations. The trunk roads and even more the feeder roads connecting the villages with any railway or trunk road in the neighbourhood were some of them in a very bad condition in 1916-17. They have been greatly improved since then. For instance, Dr. G. Slater who had himself been to Eruvellipet complained that the road from Villupuram railway station to the village (8 miles off) was "very bad, in places almost impassable, and when it reaches the South Pennar river it presents a hiatus of a mile of sandy track and the same phenomenon recurs where the road crosses the Malattur river at the other end of the village." The main road has been improved beyond recognition and has become motorable. The construction of a causeway across the Pennar and a bridge over the Malattur has diverted the motor traffic on to this road from the one that runs through Pondicherry saving passengers from detention by Customs Officers at the French frontiers.

The road from Vadamalaipuram to Sivakasi has been metalled and buses ply every half an hour. Watakancheri and Guruvayur have splendid roads to trade centres, while at the time of the first survey roads from Guruvayur were said to be very unsatisfactory and not repaired for years. Now the roads are so good and the bus service is so convenient that trade has multiplied many times in these two villages.

It is not as though there are no complaints in any village as regards roads. Vunagatla, for instance, wants the road to the nearest railway station to be improved. At present we find all villages fairly well served by buses plying on trunk roads in or nearby; but there is yet no motor lorry or truck to carry goods except from Guruvayur. But often the buses themselves undertake to carry small loads like betels, vegetables and flowers, which are perishable and bulk for bulk more valuable than staple crops.

Every one of our villages has a shandy or weekly fair either within its borders or close by with which it is connected by a good road permitting easy bullock cart traffic. Pack bullocks have gone out of use though head-loads still continue to be carried, specially for small quantities of choice vegetables, ghee, etc. A lot of local and retail sale is carried on in all the shandies; but not all of them are very important from the point of view of wholesale trade. The most outstanding instance of wholesale business in a shandy is at Watakancheri which is the biggest market for arecanuts in the Cochin State, a detailed account of which is given in the resurvey. Shandies are not so important for the purchase or sale of commercial crops as of grains and other foodstuffs. In fact the shandy is a social as well as a trade centre where villagers come from different directions to meet and talk as much as to buy or sell.

None of our villages can be said to be self-sufficient in respect of even foodstuffs, not to speak of clothes, kerosine oil, matches, hardware etc. Rice is the staple food of the better-off ryots and of all in some communities. Even the poor show a preference for rice when it is cheap. But three of our villages do not grow enough paddy to meet the local demand and have to get it from outside—two from neighbouring markets and the other from Burma via Cochin. The other five villages grow more than enough and sell the surplus. Millets are raised more for local consumption, though in three villages they are important articles of sale. Pulses have to be purchased in most of our villages from outside. Gingelly oil is likewise an article of purchase in five of the villages. Only two grow enough gingelly seeds, part of which they sell out. Three villages produce more than enough cocoanuts for local consumption but only one village, Guruvayur, produces cocoanuts as the main crop, most of which is sold outside.

Most of the villages, practically all outside the west coast, have a dearth of vegetables though it is largely due to the neglect of opportunities. The little quantity consumed is to a small extent grown in backyards of houses but mostly purchased in shandies.

once a week. Such vegetables could rarely be fresh. Tamarind and chillies which enter largely into the South Indian diet are locally produced only in three or four villages, the former mostly on the roadside trees. Salt in every village has to be got from outside. Jaggery is another article of purchase from outside in all villages. Only one village, Eruvellipet, produces sugarcane but disposes it off to Parry & Co., for manufacture as sugar. Vunagatla produces plenty of palm jaggery, most of which is sold away to agents of Parry & Co., for refining. The villages, except those on the west coast, get almost all the spices from outside. Even these two villages do not grow all the spices required.

The number of retail shops has increased in almost every village and in some of them to a reckless extent considering the population. Guruvayur which is a big village, rather a small town and a pilgrim centre, has more than 50 shops, excluding the tea shops; but 75 per cent of the goods are sold to people outside the village proper. Cloth shops are found only in the bigger villages. Purchases are often made on credit by the poorer folk who resort to these shops, when they do not have cash to go to the shandy once a week. Urgent purchases are also made by paying cash. With most of the customers, the shop-keepers have running accounts. Though in such circumstances a heavy charge is made on each article by the shop-keeper, the total profit is nothing considerable as transactions are meagre for each shop-keeper. Richer folk purchase their requirements partly in shandies and partly in the bigger shops in neighbouring towns, to which access is now easier on account of the motor-bus.

During the seasons following and sometimes preceding harvests, hawkers or cartmen traders take out produce for sale in the villages. Sales are for cash or on the basis of barter, often to the detriment of the villagers. Except in the case of cloth, hawkers seldom sell on credit. These hawkers of cloth—known as six months creditors—exact a heavy toll when they get their payment after harvest.

The purchase of agricultural requirements is not much of a problem as most of the villages use local seeds, manures and implements. The seeds for sowing are generally preserved by the ryots themselves, except in the case of cotton which ryots in Vadamalaipuram and Gangaikondan get from Sattur and Koilpatti. Eruvellipet buys superior strains of paddy from the Palur Government farm and superior sugarcane strains are supplied by Parry & Co. Dusi and Eruvellipet alone go

in for chemical manures, which are supplied by Parry & Co. Iron ploughs and other modern implements are deemed unnecessary. There is therefore little effective demand for a co-operative society for the supply of agricultural requirements. There was indeed at Vadamalaipuram a Purchase and Sale Society, started in 1913, which had purchased for members fodder, cotton seed, leather for buckets and a harrow for the use of members. This society was however liquidated in 1923, as it came to be used as a further source of borrowing and not for joint purchase or sale.

Among the crops produced above the requirements of local consumption, paddy is the most important in four villages. Palakurichi had the greatest surplus; after reserving 8000 kalams (of 24 Madras measures each) it disposed of 12,000 kalams in 1937 at Rs. 1-5-0 per kalam, while in 1917 only 8000 kalams were said to have been sold out at Rs. 2-8-0 per kalam. 75 per cent of the crop was sold to one big dealer in the village, the rest being taken out for sale. Dusi is the next most important village for paddy and it sold 25 per cent of its crop to the mandis at Conjeevaram, the biggest grain market in the Chingleput district. Formerly *tharagars* or brokers used to go to the village, but now paddy has to be sent to Conjeevaram itself. Gangaikondan is another great seller of paddy; 3000 kotas worth Rs. 20,000 in 1935 were taken to the Kytar shandy, though it could not be said to be a real surplus. There was a lot of unsatisfied demand in the village; but the purchasing power of workers was so low that they had to be content with cheaper, though really more nutritious millets. Eruvellipet sold about 3,500 kalams of paddy for Rs. 7,000 in 1937 reserving 1,800 kalams for local use. A much higher proportion of ragi and cumbu was retained for local consumption, which is again a measure of the purchasing power of local people.

Cotton is the most important commercial crop in two of our villages—Gangaikondan and Vadamalaipuram; it is grown to a smaller extent in Vunagatla. Gangaikondan had nearly the same acreage under cotton in 1934 as in 1917 when it sold 200 candies, partly in the village to dealers and partly at Tuticorin. In the later survey it was stated that there were only two big cotton growers, and no idea was given of the quantity and method of sale. In Vadamalaipuram the cotton area has shrunk to half of what it was in 1917, when 200 candies were said to have been sold at Rs. 180 per candy at Sattur and Virudunagar to merchants or agents of mill-owners. Now the cotton is mostly sold to a local moneylending

merchant, who sends it all to the above centres. Advances are made by him for cultivation and other expenses before harvest, but it is reported that he does not on that account coerce the producers to sell it at less than the current market price. Groundnut has grown into greater prominence as a commercial crop since 1916-17. But only three of our villages—Eruvellipet, Dusi and Vunagatla—grow the crop and the area in each is small. The produce is sold to the nearest town mandi merchants or other agents who go to the village in search of produce. Sometimes brokers in towns to which the produce is taken waylay the sellers and take them to the coffee hotels, etc., and tempt them to part with their produce at a price favourable to the buyers. Mandimen generally buy on commission; but sometimes outright and undertake to supply to the branches or agencies of foreign firms exporting the crop. Dusi used to sell 80 per cent of the groundnut grown to dealers who used to go to the village; but now produce has to be taken to Conjeevaram, as the demand has gone down.

Cocoanut is the most important commercial crop in Guruvayur where nearly a thousand acres are devoted to it. Nearly 3 million nuts are produced every year, of which 75 to 85 per cent are sold out. In 1937, Rs. 76,000 was realised at the rate of Rs. 32 per thousand nuts, while in 1916-17 the price was Rs. 50. It had indeed gone down as low as Rs. 20 in 1934. It was stated in the first survey that some cocoanuts were sent to the weekly fair for sale and some were sold to local shop keepers and the copra and coir were sent to Cochin. No exact figures were given of the items sold. Now 50 per cent of the nuts sold are unhusked, but we get no idea of copra and coir sent out. It must be less because of the nuts going unhusked. Anyway coir-making is not mentioned as an important subsidiary industry. Oil-pressing is said to have been a flourishing industry ten years back, but now 30 out of 65 presses are reported to be lying idle and the others are not working full time.

Arecanut is chewed along with betel, and the Malabar coast supplies most of the nuts wanted in the Tamil districts. Watakancheri, situated in the midst of a large producing area and having splendid means of communication, is the most important centre for arecanut trade in the Cochin State. A description of this market is given in the resurvey to which we invite the attention of readers. 15,000 bundles (of 2 thulams or 75 lbs. each) are sent from July to December to important centres of consumption in Tamil districts. Merchants from these centres visit the shandy at Watakan-

cheri, which is held in a suburb every Wednesday. It is strange that such an important shandy has long been held in a premises owned by a private individual who charges a fee of 3 annas for every thulam (37½ lbs.). He provides warehousing facilities for traders who go to the shandy to buy, and arranges finance for them with local moneylenders, to enable them to pay off the small producers who take the goods themselves for sale to the shandy. The complaints of the latter were that the sale price fixed by buyers in collusion with the proprietor of the shandy was below the cost of production. But they had no warehousing facilities or financial aid by way of loans on produce pledged, and had therefore to dispose of the products at any price. Further they are paid the sale proceeds only after a week. Meanwhile credit slips are given to them by the shandy proprietor. These slips may be discounted and cash received before the due date from some financiers who were recognised by the shandy owner. This the producers are obliged to resort to as they have no staying power.

The Cochin Government has now permitted another market to be opened at Watakancheri, but again under an individual unfortunately. Whether such competition is the real solution of the problem remains to be seen. Co-operative sale by the producers themselves is theoretically a better solution. "A co-operative sale society has been started, but it had not yet begun to function in 1937-38". Nothing more has been heard of this society.

WEIGHTS AND MEASURES.

Dr. Slater complained bitterly of "the unimaginable chaos of Indian weights and measures." He blamed the Government which "itself muddled up all its statistical statements by wandering about between seers and pounds, tons and maunds." He wanted it to work out its own arithmetic in true seers and Sirkar measures and impose the same on the railways and facilitate their adoption by all. If the seer was everywhere accepted as equal to one kilogramme (2·2lbs.), Dr. Slater observed, the metric system could easily follow.

It is unfortunate that the progress since made in the standardisation of weights and measures is negligible. The Madras measure, with a capacity of 180 cubic inches, has become into vogue in many Tamil villages, but not elsewhere. Likewise the viss (3·08lbs.) is better understood there at present. But in no village have the old local weights and measures, of considerable variety, been given up. Whatever the justification for them in

the past, their survival when trade has passed all local bounds causes a great deal of harm, to petty producers in particular, and should be discouraged by Government.

That the opportunities for exploitation continued in 1936-37 might be seen from the variety of weights and measures authorised and unauthorised in use in the different villages. It is remarkable that, of the eight villages resurveyed, in no two villages resurveyed even in neighbouring districts does a local weight or measure mean the same thing. Thus, a *kota* in Vadamalaipuram (Ramnad District) is 96 Madras measures, while in Gangaikondan (Tinnevely District) a *kota* is 112 Madras measures. A *kalam* is 24 Madras measures in Palakurichi (Tanjore District), 36 Madras measures in Eruvellipet (South Arcot District) and 40 Madras measures in Dusi (North Arcot District). A *para* varies from 20 to 22½ lbs. in Guruvayur (Malabar District) and Watakancheri (Cochin). A *thulam* weighs 30 lbs. in Guruvayur and 37½ lbs. in Watakancheri, while it weighs only 20 lbs. in Vadamalaipuram. The adoption and enforcement of a uniform system of weights and measures would help not only the producers and consumers, but also the honest traders a great deal.

RURAL INDUSTRIES

Agriculture is not the only pursuit followed by all the villagers. There are a number of simple industries carried on in the village, some of them vitally connected with and needed for agriculture, but others independent of it though catering to important personal or domestic needs of agriculturists. To the first category belongs the work of the village artisans—the carpenter, the blacksmith and the leather worker. To the second category belongs the work of the barber, the washerman, and the potter. It is not that the former class of workers do not or cannot engage themselves on their own account in other work; but their first and the foremost duty as village artisans is to make and repair agricultural implements, for which they are paid usually in kind at the harvest, at the rate of a certain number of measures of paddy based on the size of the holdings. The payment is called *swadanthram* in the Tamil villages. A three acre holder in Gangaikondan pays 18 Madras measures of paddy for the carpenter and 8 measures for the blacksmith for the repairing of agricultural implements throughout the year. In Palakurichi, the carpenter and blacksmith get each 12 measures of paddy per *veli* (6½ acres) of land they serve. In Vunagatla, the carpenter gets 24 seers of grain per plough for the

year. In Eruvellipet the village artisans have what are known as service inam lands but they also collect *swadanthrams* at the harvest for work done in the year for particular individuals. The carpenter and blacksmith get each 20 *kalam*s of paddy from the landholders, in addition to cash payments received for other kinds of work. Raw materials are supplied by the agriculturists. Besides the regular claims at every harvest, the artisans are given some cash or articles as presents on occasions of marriage and festival in the households of landholders whom they serve.

The making and repairing of carts is not such a paying proposition as it was in 1916-17. In Palakurichi a group of four carpenters who combined to make carts for sale broke up in 1920. There is only one now doing the work.

Comparative figures are not available for all the villages, but where they are we find a tendency on the part of artisans to seek their fortunes in towns. The carpenters were not so hard hit as the blacksmiths, leather workers, potters, washermen and barbers. But even some of them migrated to towns where building work was more brisk in the post-war boom period and the fashion for furniture was slowly gaining ground. The demand for those who stayed in the village increased as more houses were built in the village itself. The daily wages paid for such work increased in all the villages—the most common increase being 8 to 12 annas with a midday meal or a small allowance for the same.

Blacksmiths were worse off everywhere including Vunagatla where there is a demand for making and repairing jaggery pans for boiling sweet toddy juice, but outside smiths come in to compete in the season. The blacksmith in every village is ordinarily needed for making and sharpening the ploughshare, hammering out the spade and the crowbar and to get the draught cattle shod—for all of which they are paid in kind. But they are free to take up any iron work in connection with housebuilding, for which they are paid in cash. The blacksmiths of Guruvayur have suffered much in the last 20 years because of the competition of machine-made goods. The nails, bars, locks and knives which they used to make are not wanted. The blacksmiths are bound to fare better if iron ploughs and other implements become more popular with the agriculturists as the fitting and repairing of them, if not the making, will have to be done by them. Nothing has been done by the Department of Agriculture or Industries or any other organisation to improve the village workshop so as to increase the efficiency of the blacksmith and reduce his working costs.

The leather workers, Chakilies as they are called in the Tamil villages, are not so much needed in agriculture except in the garden land areas where they are frequently requisitioned for making and repairing the leather tube used in lift irrigation from wells. In all the villages they are the suppliers of sandals to the villagers, for which they are generally paid in cash. The demand in the village for their hereditary calling, making and mending of leather goods and implements, is not keeping pace with the natural increase in numbers of this class. A good many have to get themselves employed in tending cattle (as in Gangaikondan) or to work as farm servants more or less indentured (as in Vadamalaipuram) or to get out of the village altogether. Their women folk work as casual labourers in weeding, transplanting, harvesting and cleaning of produce, just like the women of the Paraya class.

The potters have lost ground in all the villages on account of the increasing use of more durable metal-ware by all but the very poor. Brass and copper and even more aluminium and enamel utensils, almost all of them made outside the villages, have been displacing earthenware. Nor has the village potter improved his designs and the glazing of pottery. Vunagatla has kept the single potter family busy by its demand for pots for the tapping of palms which is the biggest industry in the village.

The gold and silver smiths constitute the aristocracy of artisans. The cleverer ones among them used to earn at least a rupee per day, not to speak of particles of gold they keep back according to popular belief. Some of them had made their small pile in the boom period when the women-folk of the better-off families indulged in jewellery. Some of the smiths purchased land and some became moneylenders. And that is how they could pull on in the years of depression, when their patrons had diminished earnings and the price of gold shot up to levels at which even the richer ones were chary of buying gold and making jewels. On the other hand, the distress forced many ryots to sell or pledge jewels for sheer maintenance. But every village has at least one goldsmith to make the sacred *thali* for the marriages in the village.

Oil-crushing has been done on a small scale in village chekkus driven by bullocks by a hereditary class of people. It has not been so badly hit in the Tamil villages, where gingelly oil is the chief cooking oil demanded, though in the case of groundnut oil large-scale production in mills is adversely affecting the village oil producers. It is in Malabar villages that the greatest injury has been inflicted by the big and medium-sized power driven oil

mills which have been established in Cochin State and Malabar District, as these draw away most of the coconuts from the villages as grist. For instance, in Guruvayur, 75 per cent of the coconuts are now sent out; 30 bullock-driven chekkus are lying idle in the village. About 30 people belonging to the Syrian Christian community have been thrown out of work. Incidentally the coir industry has been affected too, depriving the low caste women of an old occupation.

Barbers and washermen have, like goldsmiths, little to do with any agricultural operations, but they are catering to more important needs of the local population. Barbers not only shave and cut hair for men and boys—the tuft is going out of fashion in the village too—but they have a smattering knowledge of indigenous medicine which is availed of by the sick in the village. The barber women have been the midwives of the village for a long time and even to-day public health reformers wish to have them trained on modern lines. The barbers were in the past paid for their work at the harvest time, but now they are mainly paid in cash for service rendered then and there. Rs. 100 to 120 is the annual income estimated per barber family, apart from free food often doled out in the houses of patrons.

Every village has its washermen, 2 or 4 usually, though in Vunagatla as many as 76 adult persons were found of this community, and in 1916 there were a hundred of them. There is not only more washing done in a Telugu village, but washermen are assigned other duties also. In no village do we find the washermen suffering for want of food. Apart from the payments made in paddy at harvest time, they also get doles of cooked food from the houses of their patrons.

HAND SPINNING AND WEAVING.

Hand spinning and weaving were for long the most important of rural industries and many a village aimed at self-sufficiency in respect of clothing until the close of the nineteenth century. By 1900, however, hand spinning had succumbed to machine spinning, while hand-weaving was holding its own. When the first survey was made in 1916-7, weaving too had begun to feel the effects of the competition of mill-made goods, foreign and Indian. Hand-spinning was a mere memory in most of the villages.

Hand-spinning has from 1920 received the special support of the very influential Congress Party. For such extensive and intensive propaganda in favour of the revival of this domestic

industry there is perhaps no parallel in any country. This ancient industry has, however, responded little to all the stimulus given. In none of the villages under resurvey has hand-spinning been given a serious trial. In the first survey in Gangaikondan, hand-spinning was said to have been practised before 1900 by all women in the caste village who used to sit up early in the morning in parties of five or six to spin. But according to the then investigator it had already "disappeared without any prospect of revival." Women of any class do not seem to have taken it up with any fervour even in the palmy days of the Charka movement after 1920. Our investigator found no charka (spinning wheel) plying in 1934. In Vunagatla, hand-spinning had been in vogue among the lower caste women till 1906. It has not been revived after 1920. Vadamalaipuram was reported to have lost its domestic spinning industry with the advent of spinning mills in Sattur and Virudupatti (now Virudunagar) even before 1911. The Charka movement has not influenced the hard-working individuals in this dry village though they seem to be otherwise very much like the people of Tiruppur, which has been the hub of *khaddar* industry in S. India. There was a temporary spurt in spinning activity in the Harijan Hostel started by Congressmen at Guruvayur in 1932 and financed by public subscription. "But with the lapse of time" our investigator reports, "interest flagged and subscriptions fell." Spinning stopped with a lull in the activities of the hostel.

The revival of hand-spinning has been advocated as the simplest of all the cottage industries which any individual could take up in his or her spare time, of which there is plenty in the village. The demand for coarse cloth being greater than for finer cloth in rural tracts, all varieties of handspun yarn were expected to find a market among the village weavers themselves. There is no doubt that there is an imperative need for an industry which can be practised by all in the village and that hand-spinning satisfies this test. But a generation had grown up before 1920, which had no contact with the spinning wheel, and it was not easy to revive an industry which as a paying proposition was very unattractive, though there was a scarcity of jobs. Likewise the weavers too had grown up all along dependent on finer mill yarn and it would not have been easy to win over the weavers who were none too willing to use handspun yarn.

Handloom weaving was not a flourishing rural industry even at the time of the first survey. It was indeed reported to be definitely decadent in half the number of villages, while in the other half there was practically no weaving done. To the latter category

belonged and still belong Vadamalaipuram, Palakurichi, Eruvellipet and Watakancheri. Dusi had no weaving in 1916-7, and it got its supplies of cloth from the neighbouring village of Mamandur, a well-known weaving centre. From 1925 onwards some looms have been set up in Dusi itself; there are now 10 looms and 7 weavers, one master-weaver having 4 looms. But all these do not weave the cloth needed by the local people. They make *lungis* of cotton yarn supplied by Conjeevaram merchants, all for export.

There has been a steady decline in the number of actual weavers and their economic condition in the other three villages: Gangaikondan, Vunagatla and Guruvayur. Gangaikondan had in 1916 twenty old fashioned looms with 30 persons engaged exclusively in weaving blankets, towels and cloths for women of the lower class out of yarn of 30 counts and below. Wages for weavers ranged from 4 to 6 annas a day. Women helped the men in weaving, but went out to work in the fields in the busy season. The industry was not prosperous though the condition of the weavers was said to be better than what it was ten years earlier. Some of the weaver folk have since left the village for towns in search of casual labour and a few have gone out as factory hands in cotton mills in the district. But there is an improvement in the looms now found in the village. The primitive pit looms have been partly displaced. The daily outturn per worker has nearly doubled. But the income per worker has not appreciably increased on account of the difficulty of disposing of the woven goods. At least a week per month is wasted in going round the weekly fairs to sell them, and the prices fetched are lower than what the merchants are able to secure. The latter, however, are seldom fair in their dealings with weavers.

Vunagatla provides a typical instance of the steady deterioration of the weaving craft in the villages. There were said to be 69 weaver families in 1891; but there were only 17 in 1901, 12 in 1911 and just 3 in 1916, when the first survey was made. The investigator stated that only 25 per cent of the village folk cared to use the rough cloths woven in the local looms, while ten years earlier 95 per cent of the villagers were using them. Two weaver families had gone out to Rajamundry as factory coolies; and even the local weavers often went out to work in the fields, doing weaving only part-time. A weaver who had five sons was said to be sending out four of them to work at the fields and retain only one of them to help him at the loom. The looms were primitive, and foreign yarn below 40 counts was supplied by Nidadavole merchants. It was not easy to make headway against mill goods.

In 1936-37, there were 14 families belonging to the weaving caste but only one of them was a full-time weaver. In six families there were weavers who practised weaving off and on. There was apparently a revival of the industry for a period before the depression and finer cloth was woven than in 1916-17, which left a profit of Re. 1 to Rs. 1-8-0 per pair of dhoties, while now it is only 4 to 8 annas. The average daily income of the weaver assisted by his wife works out at 5 to 6 annas—not an attractive wage for skilled labour.

In Guruvayur there were in 1916 seven families of weavers long established in the place, but were already suffering for want of work on the looms and were eking out a living by taking on lease bits of land. The looms were primitive, the cloths turned out were small pieces, woven of lower counts of yarn obtained from Bombay or Cochin. There were in 1936-7 only five families of weavers; they suffered even more from the competition of mill goods, which were stocked and sold in three shops and hawked about by many in the streets. A weaving establishment had been set up some years back with 20 looms of the old type by an individual without sufficient working capital. He employed 30 to 35 workers all full time; but he was not able to cope with the growing competition of mill goods and so had to close down in 1931. Five of the workers employed by him are carrying on weaving independently on a small scale. Another concern has been recently set up employing 5 men, but with improved looms modelled on those of South Travancore, where the proprietor had his training. It makes dhoties, towels, bedsheets and shirting and sells them at prices quite cheap but not cheap enough to withstand the competition of mill-made goods.

The making of mats out of kora grass is an industry practised by a few korava families in Watakancheri. The demand has increased on account of bus traffic and the greater contact outsiders now have with the village and its products. But the producers are still an exploited class and do not reap the benefit of higher prices, as they have no capital or organisation of their own and they look to the middlemen for everything. Basket-making is also a by-occupation pursued by the Koravas and Pariahs in the off-season when they have no work on land. The demand has increased with the greater production and trade in fruits, vegetables, arecanuts, etc. There is plenty of bamboo, the raw material for baskets, available in the neighbouring forests. Producers are able to sell away the baskets locally, while those demanded outside the village are sold by traders. Basket-making is one of

the few cottage industries still left unassailed by machinery, for the technique of basketry cannot be adapted to machine production.

PALMYRA JAGGERY.

The palmyra jaggery industry dominates the economic life of one of our villages—Vunagatla. It yields four times as much income as all the other crops put together. Tappers are the most numerous class in the village; more are attracted from outside during the season. Trees are rented at the rate of Rs. 20 to 30 per *balla*, or 60 trees, which is the maximum a man can tap in a day working for four hours in the morning and four hours in the evening. The rent ranged from Rs. 15 to 20 in 1916-17. The costs of manufacture of 9 candies (4,500 lbs.) of jaggery, which a tapper can produce in the season including the rent to the tree owners and 'mamuls' amount to Rs. 68; the sale value was Rs. 167 in 1936-37. But the tapper has to live with his family for three months in the village. He has often to pay fines to the Excise Department for the alleged production of fermented toddy, which is more often the result of insufficient liming than of deliberate deception. Merchants do not use correct weights in buying jaggery. The tappers who receive advances are obliged to sell the jaggery at a distinctly lower price. Messrs. Parry & Co., who are the biggest buyers and have their branch office at Nidadavolu announce their current price by beat of drum near the tappers' quarters. This is a great improvement since 1916-17. But the local buyers make their deductions on the ground of lower quality and of transport and other incidental charges even in the case of tappers who are not 'tied' by advances. The fines imposed by the Excise Inspectors, fairly or unfairly we cannot say, provoked a tappers' strike in 1936-37.

A subsidiary industry which has grown up in Vunagatla since 1916-17 is the production of palm fibre which is said to be used in the manufacture of brushes, (and in the construction of aeroplane bodies?). This engages the tappers and their families, and some depressed classes, when other means of livelihood are not available. The fronds are cut from the Palmyra trees by men, and the whole family beats them into fibre. Not more than 3 annas could be earned in this way for a hard day's work. And this work can last only for 30 or 40 days in the year when fronds are available.

PRODUCTION AND INCOME

Estimates of income, especially of rural India, cannot be of any great value, as production here is primarily for consumption and only a small fraction of it goes into the market (except in the narrow strips where certain commercial crops are raised). Conditions of life in India are very unlike those in countries where agriculture is commercialised, where most of the product is for sale. The total production under the major crops is being estimated in British India, although very imperfectly; but it is not possible to take stock of all the subsidiary crops—fruits, berries, vegetables and animal products. Yet these form a large part of the consumption of the rural population. There are also various free goods available in villages—firewood, certain vegetables, etc.—goods which in urban areas will have to be paid for. It would be difficult to take stock of all this in income estimates and therefore such estimates must be used with caution.

Most of our investigators carried out a census of production and income in the villages surveyed. They made a summation of the total production in the village under the different crops, by a house-to-house enquiry. They also estimated incomes from livestock, trades and industries, and the earnings of artisans and labourers. Most villagers do not keep accounts; therefore in order to make a fairly correct estimate of income the investigator must stay in the village and keep accounts himself for at least one full agricultural year. Our investigators did stay in the village for several months at a stretch and especially during the harvest time, and thus they were able to estimate the production under the main crops fairly correctly. But incomes under other heads accrue at other periods, or all the year round. Hence the difficulty in computing the incomes of weavers and other handicraftsmen, carpenters and other artisans, and manual labourers. The position is even more difficult in the case of livestock. The yield of milk from most of the cows and she-buffaloes is meagre; only a part of the milk is sold, and that too more often as curd or ghee. Much of the cattle manure is used up as fuel, a little is conserved as manure for use on one's own fields. The only way of assessing the income of draught animals used in ploughing or lifting water for one's own fields is to find out what it would cost to engage similar animals on hire. Allowance has to be made for appreciation, or more often depreciation, of livestock by finding out their cost price and their probable selling price.

In these circumstances, we cannot claim any great degree of accuracy for our estimates of income. The figures given below are rough approximations and nothing more. It is not possible to make comparisons with the state of things in 1916-7 as no such estimates of income were made then.

We give in the two tables below figures for five villages only, four in the Tamil area and one in the Telugu. The two villages on the west coast are really small towns, and therefore their incomes have not been estimated. In the first table below, the total annual income and income *per capita* and *per family* are given; in the second are shown percentages of income accruing from agriculture, livestock and other sources (trades, arts and crafts, professions and labour).

Table I.
TOTAL INCOME OF THE VILLAGES

Village.	Population.	Total income.	Per capita income	Income per family.
		Rs.	Rs. A. P.	Rs. A. P.
Vadamalaipuram ..	668	48,970	73-5-0	295-0-0
Palakurichi ..	869	44,675	51-6-0	214-13-0
Dusi ..	1,316	71,393	54-4-0	242-13-0
Eruvellipet ..	1,100	43,845	39-14-0	144-11-0
Vunagatla ..	2,959	2,00,717	67-15-0	325-5-0

Table II.
INCOME FROM VARIOUS SOURCES.

	Per capita income.	Agricultural income.	Livestock.	Industries and trade.	Total.
	Rs. A. P.	per cent	per cent	per cent	
Vadamalaipuram ..	73-5-0	77.0	18.3	4.7	100
Palakurichi ..	51-6-0	63.3	29.1	7.6	100
Dusi ..	54-4-0	55.9	19.6	24.5	100
Eruvellipet ..	39-14-0	59.6	20.5	19.9	100
Vunagatla ..	67-15-0	15.8	12.1	72.1*	100

*Largely income from palmyra jaggery.

Thus, the *per capita* income of a villager in the five villages enquired into ranges from Rs. 39-14-0 in Eruvellipet to Rs. 73-5-0 in Vadamalaipuram. Vunagatla comes next to Vadamalaipuram (Rs. 67-15-0), while in Palakurichi and Dusi the *per capita* income is lower : Rs. 51-6-0 and Rs. 54-4-0 respectively. It is perhaps worthy of note that the *per capita* income is relatively high in the dry-land villages of Vadamalaipuram and Vunagatla, while it is rather low in the wet-land villages of Eruvellipet and Palakurichi growing paddy as their chief crop. There is also greater homogeneity in status among the inhabitants of the former, while the disparity in status, economic and social, among the classes is greater in the wet-land villages.

The proportion of agricultural income to total income is as high as 77% in Vadamalaipuram, and 63·3% in Palakurichi, but it is low in Vunagatla (15·8%). In Vunagatla, the chief source of income is palmyra jaggery, which comes to 63·3 per cent of the total. This is rather unusual, but there are several such villages, and account must be taken of this in estimates of rural income.

In most villages, however, agriculture occupies a predominant place. This is not altogether a matter for satisfaction. Agriculture cannot accommodate in comfort such large numbers as now depend upon it. There may be scope for intensification of cultivation in a few lines, though it does not always mean work for the labourer on land. The other workers seem to thrive even less on the whole; their suffering would indeed be greater but for the exodus of many of their class to towns.

A classification of families in income groups has been attempted in Vadamalaipuram and Palakurichi—the former under dry, cultivation, the latter wet. Of 166 families in the former, 13 families had earnings of Rs. 1,000 to 2,000, while 105 families (i.e. 63%) had less than Rs. 250 per year as their annual income which is below the subsistence level for an average family. In Palakurichi out of 208 families, 18 families had incomes of Rs. 1,000 to 2,000 and 73 families from Rs. 250 to 1,000, while as many as 117 families (i.e. 56%) had to be content with incomes ranging from Rs. 25 to Rs. 250 per year. This is really a desperate state of affairs; but it is, we are afraid, fairly typical of villages in South India.

Analysing incomes caste-war, Brahmins, Naidus and Konars in Vadamalaipuram get on an average Rs. 500 per annum, while those of the labouring classes, Maravar and Pallar, only Rs. 168 and Rs. 96 respectively. Carpenters and barbers have average incomes of Rs. 127 and Rs. 175 respectively.

STANDARD OF LIVING

In the circumstances of India, family budgets, accurately drawn up, are likely to give a far better indication of economic condition than estimates of income. In order to gauge the welfare of a people, we must know how much each type of family actually gets in the form of food and clothing and amenities. Estimates of total or *per capita* income can only give us an imperfect picture, because they cannot tell us how the income is actually distributed. Our investigators were, therefore, specially instructed to collect family budgets with care and an elaborate form was given to them for this purpose. Ninety-eight budgets were collected in Vunagatla and about 50 in Vadamalaipuram. In the other villages, a smaller number of budgets was collected. The following tables are based on them. The family budgets of the various classes have to be studied separately in order to ascertain the condition of each class. Therefore the budgets have been classified under various categories as follows:—

I. *Agriculturists*:—(a) rent receivers, (b) cultivating landholders, (c) tenants, (d) labourers.

II. *Non-Agriculturists*:—(a) Artisans (carpenters, etc.), (b) manual labourers, (c) traders, (d) professional classes (teachers, village officers).

The figures of expenditure given under each category are averages of the expenditure of the various families whose budgets have been taken.

The items of expenditure taken are food, tobacco and soft drinks, alcoholic beverages, fuel and lighting, clothing and footwear, household necessities (pots and vessels, bedding, etc). Item 2 includes betelnut and coffee. Not many people purchase fuel; the bulk of the expenditure under the item 'fuel and lighting' is really the value of the kerosene used. House rents do not come into the budgets, because landholders have generally their own houses, and the labourers live in little huts of their own or in those put up by landlords.

ANALYSIS OF FAMILY BUDGETS

1. VADAMALAIPURAM

Items	Agriculturists						Non-agriculturists												Average for all occupations.					
	Rent receivers		Cultivating landholders.		Tenants & Labourers.		Artisans.		Menials.		Traders.		Profession.											
	Rs.	As.	%	Rs.	As.	%	Rs.	As.	%	Rs.	As.	%	Rs.	As.	%	Rs.	As.	%						
Food	639	15	59.1	302	0	63.6	125	15	78.8	152	0	68	144	4	74.0	182	10	62.5	245	0	60.1	268	4	63.5
Tobacco, Soft drinks	64	14	6.4	30	13	6.3	6	15	4.0	17	2	8	15	9	8.0	29	11	10	42	15	10.2	28	11	6.4
Alcoholic drinks	—	—	—	—	—	—	1	11	1.0	—	—	—	4	0	2.0	—	—	—	—	—	—	0	11	0.2
Fuel and lighting	36	2	3.2	11	0	3.1	3	2	2.0	8	2	3.5	6	6	3.0	10	0	3.0	17	7	4.1	12	1	3.2
Clothing & Footwear	131	2	11.9	38	0	7.4	11	8	7.1	31	12	14	15	3	8.0	31	6	10.5	52	13	13.3	41	4	9.7
Household utensils	10	0	1.0	4	9	1.0	1	1	1.0	1	4	0.5	1	9	1.0	2	14	1	5	4	1.0	4	0	1.0
Other items	201	6	18.4	88	11	18.6	9	13	6.1	12	8	6	7	12	4.0	36	14	13	45	13	11.3	67	9	16.0
Total	1083	7	100.0	475	1	100.0	160	1	100.0	222	12	100	194	11	100.0	293	7	100	409	4	100.0	422	8	100.0

2. PALAKURICHI

Items	Agriculturists						Non-Agriculturists						Average for all occupations.			
	Rent receivers		Cultivating landholders.		Tenants & Labourers.		Artisans.		Menials.		Traders.			Profession.		
	Rs. As.	%	Rs. As.	%	Rs. As.	%	Rs. As.	%	Rs. As.	%	Rs. As.	%	Rs. As.	%		
Food	180 0	51.7	252 12	33.9	58 4	75.0	102 12	48	67 14	62.0	104 14	45	121 11	31.7	120 8	40.9
Tobacco, Soft drinks	20 0	5.7	35 8	4.8	1 4	1.0	9 12	4	3 0	3.0	15 4	6	18 5	4.8	13 5	4.6
Alcoholic drinks	—	—	—	—	8 7	11.0	5 0	2	11 0	11.0	—	—	—	—	4 9	1.5
Fuel and lighting	8 0	2.3	27 6	3.7	0 1	0	7 0	3	—	—	12 0	5	10 9	2.7	8 13	3.0
Clothing & Footwear	55 0	15.7	66 4	8.9	4 6	6.0	22 8	10	13 0	12.0	35 0	15	80 0	20.8	34 3	11.6
Household utensils	5 0	1.4	9 0	1.2	—	—	4 8	2	—	—	3 0	1	7 0	1.8	3 11	1.3
Other items	80 0	23.2	355 2	47.5	5 7	7.0	67 8	31	13 0	12.0	65 0	28	146 11	38.2	109 9	37.1
Total	348 0	100	746 0	100	77 13	100	219 0	100	107 14	100	235 2	100	384 4	100	294 10	100

3. ERUVELIPET

Items	Agriculturists				Non-agriculturists			
	Rent receivers		Cultivating landholders.		Tenants.		Labourers.	
	Rs. As.	%	Rs. As.	%	Rs. As.	%	Rs. As.	%
Food	214 1	65.2	159 9	67.8	115 6	69.9	96 1	69.7
Tobacco, Soft drinks	8 0	2.4	7 13	3.3	7 12	4.7	9 3	6.7
Alcoholic drinks	—	—	—	—	—	—	—	—
Fuel and lighting	10 0	3.0	9 13	4.2	4 6	2.6	3 13	2.7
Clothing & Footwear	42 7	12.9	27 1	11.5	18 1	10.9	14 6	10.4
Household utensils	6 9	2.0	5 5	2.3	2 12	1.7	1 6	1.0
Other items	47 0	14.5	25 12	10.9	16 9	10.2	12 14	9.5
Total	328 1	100	235 5	100	164 14	100	137 11	100

4. VUNAGATLA

Items	Agriculturists				Non-agriculturists				Average for all occupations.			
	Cultivating landholders.		Tenants.		Labourers.		Artisans.		Menials.		Traders.	
	Rs. As.	%	Rs. As.	%	Rs. As.	%	Rs. As.	%	Rs. As.	%	Rs. As.	%
Food	114 0	63	118 8	76	87 12	78	129 12	72	129 12	77	143 4	66
Tobacco, Soft drinks	—	—	—	—	—	—	—	—	—	—	—	—
Alcoholic drinks	—	—	—	—	—	—	—	—	—	—	—	—
Fuel and lighting	4 8	3	2 4	2	2 4	2	8 4	4	3 12	2	8 4	4
Clothing & Footwear	28 8	16	14 4	9	12 0	11	18 0	10	19 8	12	28 8	13
Household utensils	—	—	—	—	—	—	—	—	—	—	—	—
Other items	33 0	18	20 4	13	11 4	9	25 8	14	16 8	9	38 4	17
Total	180 0	100	155 4	100	113 4	100	181 8	100	169 8	100	218 4	100

5. GURUVAYUR

Items	Agriculturists						Non-agriculturists						Average for all occupations.								
	Cultivating landholders.			Tenants.			Labourers.			Menials.				Traders			Profession.				
	Rs.	As.	%	Rs.	As.	%	Rs.	As.	%	Rs.	As.	%		Rs.	As.	%		Rs.	As.	%	
Food	165	6	63.2	176	1	51.2	93	10	56	75	0	55	194	4	70	167	4	55.1	129	2	57.3
Tobacco, Soft drinks	17	2	6.6	11	11	3.4	24	6	14	15	15	12	24	12	9	35	3	11.6	24	2	10.7
Alcoholic drinks	4	0	1.5	—	—	—	13	2	8	8	14	7	—	—	—	1	3	0.4	6	13	3.0
Fuel and lighting	17	13	6.8	5	11	1.7	10	8	6	5	1	4	7	10	3	21	8	7.1	13	3	5.8
Clothing & Footwear	17	13	6.8	45	4	13.1	10	3	6	6	1	4	11	12	4	57	7	18.9	24	6	10.8
Household utensils	3	15	1.5	5	0	1.5	2	0	1	1	8	1	3	4	1	3	14	1.3	2	14	1.3
Other items	35	1	13.6	100	0	29.1	14	5	9	23	5	17	35	12	13	17	2	5.6	24	13	11.1
Total	261	2	100	343	11	100	168	2	100	135	12	100	277	6	100	303	9	100	225	5	100

ANALYSIS AND OBSERVATIONS

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Food.—One striking thing about these budgets is the large proportion spent on food by all classes, especially the labourers. Engel's law is in operation here as elsewhere. As the income rises, the proportion spent on food falls; while the landholders spend from 55 to 65 per cent on food, the day-labourers spend from 70 to 80 per cent. In fact the economic condition of the various classes can be gauged from the proportion of income spent on food by each of them. The working classes have such small incomes that practically all they get have to be spent on the bare necessities. They have little left to spare even for clothing. In other words, their standard of living is extremely low. The quantity of the different foodstuffs taken by the various classes in the villages is shown in the following table in respect of four villages.

CONSUMPTION OF FOODSTUFFS IN OUNCES.

Food-stuffs.	Vadamalaipuram.			Eruvelipet			Dusi			Vunagalla					
	Large Landholders Income Rs. 1000—3500	Small Landholders Rs. 130—350	Agricultural Labourers Rs. 75—190	Village Artisans & Menials Rs. 100—175	Well-to-do persons Rs. 220—480	Small landowners Rs. 112—220	Tenants & Labourers Rs. 48—180	Artisans. Rs. 120—260	Well-to-do persons Income Rs. 550.	Small landholders Rs. 180—255	Tenants & Labourers Rs. 60—114.	Well-to-do persons Rs. 1000—3000	Small landholders & well-to-do Tenants Rs. 150—250	Small Tenants & Agricultural labourers.	Village Artisans & Menials.
Rice	17.71	3.18	—	10.60	17.08	13.25	12.47	15.23	26.57	17.00	15.16	18.27	20.15	20.62	16.40
Kagi	—	27.55	54.42	26.50	6.41	8.02	13.00	8.25	2.72	5.52	4.27	—	—	—	2.53
Dhall	6.81	3.10	2.33	3.10	1.48	1.26	0.39	0.86	1.03	0.77	0.52	5.02	0.55	1.96	0.63
Chillies	—	—	—	—	—	—	—	—	—	—	—	—	0.24	0.38	—
Oil	2.74	1.37	0.27	0.70	0.90	0.56	0.26	0.59	1.40	0.32	0.40	0.60	0.24	0.24	0.003
Ghee	0.32	—	—	—	0.20	0.04	0.03	0.04	0.43	0.43	—	0.52	—	—	—
Milk	12.28	—	—	—	6.40	—	—	—	1.19	0.92	—	0.05	—	—	—
Butter-milk	7.77	1.94	—	1.00	—	0.37	0.09	0.55	—	—	0.10	25.09	3.30	1.79	11.56
Mutton	2.86	1.43	1.43	1.43	0.11	0.13	0.12	0.27	—	0.17	0.16	0.01	0.01	0.02	0.02
Salt	3.20	2.40	2.40	1.60	2.08	1.52	1.36	1.84	1.52	2.24	2.24	4.82	7.00	7.00	5.21
Sugar	3.57	0.36	—	0.70	—	—	—	—	—	—	—	—	—	—	—
Jaggery	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Fish	—	—	—	—	0.45	0.26	0.09	0.06	0.17	0.15	0.10	0.01	0.02	0.03	0.02
Total	4.27	1.34	—	—	3.00	1.28	1.50	2.15	2.30	2.38	1.64	0.76	0.35	0.44	0.58
Vegetables	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Grand Total	61.53	42.67	60.85	45.63	38.11	26.69	29.31	29.84	37.33	29.90	24.59	55.23	33.24	32.48	37.393

There is also considerable difference in the quality of food consumed by the different classes of people. Large landowners and persons of 'higher' castes generally live on rice, and consume also dhall, sugar, milk and milk products. On the other hand, labourers and some of the poorer artisans cannot afford much rice and therefore they live mostly on ragi or other dry grains, and are unable to purchase sugar, milk and milk products. It is also clear from the family budgets that the food of the labouring classes is inadequate as well as ill-balanced. Few people spend on recreation. It is also noteworthy that the expenditure on alcoholic drinks increases as the economic status goes down. In the villages surveyed, only labourers and artisans spend anything on this item. Evidently the revenue from liquor excises comes mostly from them.

There have been marked changes in the food habits during the last twenty years. In 1916, only Brahmins and a few of the upper class non-Brahmins took a predominantly rice diet. But by 1936, a larger percentage of people had taken to rice as their staple food, partly because of its greater convenience to the housewife and partly because it signified a rise in the social scale.* In Vadamalaipuram, three-fourths of the people have taken to rice diet. A similar change has happened in the other villages also. In some, however, all classes except Brahmins still generally take one ragi meal a day. Even as regards rice diet, there are some changes. The rice formerly taken was hand-pounded, but to-day most of the rice used is milled and polished. Among Brahmins, who have always been rice-eaters, a shift from the consumption of parboiled rice to raw rice is noticeable. The labouring classes, who live chiefly on ragi and other millets, go in for rice whenever they can afford.

A striking feature of the village diet to-day is the rapid growth in the use of coffee. Formerly, most people breakfasted on cold rice (i.e. rice cooked the previous night and kept over), served with curd and pickle. Coffee has now taken its place—coffee with the accompaniment of *idlis* or *dosais*. Formerly no lunch was taken between the midday meal and supper; now a lunch with coffee and *palaharams* is common among the well-to-do. Thus the coffee habit has made a sweeping invasion of the countryside. To-day, coffee-hotels are found in the bigger villages, and are frequented by most classes of people.

*In Salem, when prohibition was introduced and more money came into the hands of the housewife, she began to purchase more rice (See *The Economic Results of Prohibition in Salem District* (University of Madras), p. 24).

Only the upper classes formerly took two hot meals, but latterly this habit has been spreading among others also. Of course, the nature of the meals varies with the economic position of the family. The well-to-do have various curries (side-dishes) with both their meals, but others take a plain meal at midday and have their full-course dinner in the evening. Among the working classes, even this is only possible when they are in employment. When they are out of employment, the labourers can hardly afford one square meal a day. In Vunagatla "subsistence on one meal, for more than half the year, is by no means uncommon," says our investigator.

On the west coast, rice is the staple diet of all classes, mostly parboiled rice, milled and polished. The habit of taking cold rice has weakened there also, but the substitute is generally tea and not coffee. Formerly, the midday meal of the average Malayali was *kanji* with a rough curry made of plantain, tapioca or jack. In the country parts, this habit still persists among the working classes, but the well-to-do have a solid meal, with the accompaniment of various curries.

In all parts of the country, milk, curd and ghee are the luxury of the few rich, and the Brahmins who, however poor they may be, use a little of these protective foods (ghee and butter-milk). Meat and fish are taboo not only to the Brahmins but also to certain other castes who claim to be orthodox. But even those who have no objection to taking meat cannot afford it except once a week or on festive days—when it is common for groups of families to share a slaughtered goat or sheep.

One would imagine that vegetables would enter freely into the diet of villagers. The fact is that except for some greens and plantains, there is less of vegetable consumption in these villages than in most of our towns, to which the choice vegetables are sent from villages far and near. The vegetables usually consumed in the villages are plantains, brinjals, yam, podal, pumpkins, bendi, beans etc. Only a few well-to-do families take potatoes. It is the labouring classes that consume vegetables least. In Vadamalai-puram, only in the diet of landholders do vegetables enter prominently. In Malabar, all classes eat more vegetables, and generally those are grown in their own kitchen garden.

We cannot claim to have obtained sufficient data regarding the adequacy of food. We have analysed the food items in the family budgets gathered in the various villages, applying the formula given in McCarrison's book on Food, and here are the results:

ANALYSIS OF DIETS OF THE VARIOUS CLASSES.

Villages	Quantity (oz.)	Proteins (gramms)	Fat (gramms)	Carbo- hydrates (gramms)	Calories
ERUVELIPET.					
Class 1	38.11	68.17	43.56	648.29	3263
2	26.69	56.88	23.62	563.72	2704
3	29.31	64.14	17.42	642.36	2990
4	29.84	61.36	26.75	613.00	2935
Average for all classes	30.98	62.64	27.84	616.84	2973
VUNAGATLA.					
Class 1	55.23	87.11	26.87	594.87	2964
2	33.24	49.633	11.58	557.20	2535
3	32.48	51.022	11.573	573.29	2611
4	32.563	56.085	17.044	486.82	2330
Average for all classes	38.38	60.96	16.77	553.05	2610
VADAMALAI- PURAM.					
Class 1	61.35	95.20	198.37	708.46	5019
2	42.67	76.18	50.77	879.77	4592
3	60.85	165.06	73.36	1306.35	6566
4	45.63	111.65	74.55	973.92	4991
Average for all classes	52.62	112.02	99.26	967.1	5292
DUSI.					
Class 1	38.23	64.31	56.42	788.09	3926
2	29.92	55.36	27.38	593.46	2843
3	24.59	43.73	17.23	508.46	2374
Average for all classes	30.91	54.47	33.34	630.00	3048

According to McCarrison, a well-balanced diet in India must contain 95 grammes of protein, 87.7 grammes of fats, and 435.8 of carbohydrates. The amount required is 57 ounces and the calorie content 2,899. This is indeed the requirement of North India. No doubt, the quantities needed may be less in the tropical South; but even making allowance for this, the existing diet in our villages is altogether inadequate in respect of proteins and fats. Carbohydrates are generally in excess of requirements, except perhaps in Vunagatla, but proteins are not even half the quantity needed and fats are even more meagre. The figures for Vadamalaipuram look incredibly high. According to Dr. Aykroyd, taking the

physiological value of the foodstuffs available in Madras Presidency (1933-34), for every consumption unit, there is a daily average supply of 51.7 grammes of protein, 45.9 grammes of fats, and 472.8 grammes of carbohydrates, with a total calorie value of 2,510. If, therefore, the whole supply of foodstuffs is properly distributed, the requirements of all will be met fairly well. But owing to the inequality of incomes, between various classes, some people are able to obtain more than their due and the many who live a strenuous life are unable to obtain even the bare minimum.

It may be said generally of all villages that malnutrition is the malady among the comparatively richer classes while want of nutritious, especially protective, foods, is the trouble with the great majority of the people. The former can be set right by education, but it will take time. The latter is a more fundamental defect, in fact the most acute problem in our villages.

HOUSING.

Considerable improvement has taken place in the condition of houses of caste Hindus in all the villages. Wherever we have comparable figures, we note a striking increase in the number of tiled houses, which have been built with more windows than before. Terraced houses too have multiplied, in two villages in particular—Vadamalaipuram and Guruvayur. The craze for better houses in the boom period was indeed the primary cause of heavy debt in the former. In all the villages—except in Agraharams where some houses seem to be deserted and cannot be occupied by other than Brahmins—the number of houses has increased, with the growth in the demand for housing accommodation brought about by natural increase in families and the slow break up of the joint family system. In fact houses have not increased as fast as families in some villages, so that a number of houses shelter more than one family at present. There is plenty of building site available, but there is a natural hesitation on the part of many to undertake the formation of new streets and the construction of new houses. Most of the building materials are available locally or in the neighbourhood, the only important item coming from afar being timber. The cost of construction of houses varies generally from Rs. 350 for a tiled house with brick work and 2 or 3 rooms, to Rs. 2,000 for a terraced house with 5 rooms. The houses are in every village—except Watakancheri where every house, however humble, has a compound of its own—built side to side in compact rows facing streets. Almost every house has a kitchen garden in the backyard.

The housing conditions of the Depressed classes remain much the same as they were in 1916-17. The Paracheris, as they are called in Tamil villages, are detached from the rest of the village where caste people live. Almost all the houses in the Cheris are thatched huts, made of bamboos, sticks and palm-leaves and with earthen floor. Except in the Tanjore village, where landlords build houses on their own land for their padiyals, the houses are mostly owned by the dwellers. The common hut costs anything from Rs. 5 to 20 to construct according to dimensions; the owner-dweller puts in his own labour. The huts are often too small for the number of inmates; but if kept in proper repair are quite able to protect them from the extremes of heat and rain. In summer many of these people live in the open and sleep in the open. There is, of course, little of privacy in huts occupied by larger families. The huts are kept quite tidy, specially in the west coast villages. On the otherhand, they are said to constitute a veritable 'rural slum' in the Telugu village of Vunagatla. Sanitation seems a luxury when many are not able to secure sufficient food for themselves and their families.

LITERACY AND EDUCATION.

In the midst of so many signs of stagnation and deterioration, it is pleasing to record an advance in literacy among the adult population of our villages and in the provision of education for the young ones in them—though either may fall far short of the standard aimed at in progressive countries. Literacy is a vague term; but if it means the capacity to read and write simple vernacular, there is enough evidence of improvement not only among men but also among women. For instance, in Vadamalaipuram there were 47 males and 8 females literate in 1916-17, while twenty years after there were 146 males and 54 females literate among a population 20 per cent smaller. While at the time of the first survey there were only 7.5 per cent of caste folk and 3.5 per cent of Depressed classes literate, the corresponding percentages for 1936-7 were 35 and 12. In Gangaikondan literacy has spread from Brahmins to the other caste Hindus, excepting shepherds and Maravars, and even the Depressed classes show a slightly higher percentage of literacy. But the women of other classes have not yet taken so kindly to reading and writing as the Brahmin women have done, though it is only light literature—novels and humorous weekly journals—that the latter now like to read. In Palakurichi 98 per cent of the adults in the caste village were said to be literate in 1916. 98 per cent must be a misprint. It is too good to be

true of any centre in India, and especially of a village where the proud land-owning Nayudus in 1916 thought too much of agriculture and too little of education. In 1936-7 the investigator found 40 per cent of the Nayudus and 20 to 25 per cent of other caste Hindus literate, a good record compared with other Tamil villages. In Dusi, literacy was largely confined to Brahmins; it has since extended to other classes also, though the women are still illiterate. Vunagatla in 1916-7 was said to have 30 per cent of adults literate—which must be a misprint or rough estimate; we find in 1936-7 that 9.3 per cent of adults could sign their names and only 5 per cent could read and write Telugu.

Watakancheri being in Cochin State, which has a higher percentage of literate population than any Province or State in India, could boast of 75 per cent of adults being able to read and write Malayalam even in 1916. What it is now has not been stated, but it should be higher considering the progress made in the education of the young in the last two decades. Mr. Subbarama Aiyar, however, thinks that all this high literacy in Cochin runs to waste in the absence of a decent prose literature in Malayalam fit to be used by the villagers. The last quarter of a century has indeed been productive of many works of art and fiction and of books dealing with political and social problems in Malayalam. But there is little literature in Malayalam or in Tamil dealing in a simple, chaste and attractive style with modern economic, or even agricultural, problems that our villagers could read with profit.

In all the villages, particularly in villages with a large number of Brahmins, the books that were read or listened to were the old epics and Puranic stories. Brahmin Bhagavathers and Pandits, Brahmin and Non-Brahmin, either resident in the village or touring, used to expound, with or without the accompaniment of music, stories from the old epics or Puranas to the great delight and solace of the pious folk. In villages where secular education has spread farthest these expositions and recitals do not get the hearing they used to get formerly. The staging of plays, of the old type, by local young men or the professional roving troupes is more popular. But even this is likely to give place to the touring cinema. The circulation of a vernacular daily newspaper and a weekly journal or two—both of them read or listened to with avidity by the better-off villagers—has become a normal feature since the first survey was made. They have done much to shape the political views of villagers, but they do not deal adequately with the social or economic issues facing the countryside.

Literacy has not led to dissemination of the knowledge of improved methods of agriculture or handicrafts among the villagers. The spoken word may be impressive, but it is impossible for any Development department to reach more than a limited number except by the printed word. Nor can it be claimed that in any of the villages the horizon of the cultivator has been widened or that he is enabled to watch over his own interests in buying and selling commodities. Good reading matter must be provided for those who have received elementary education so as to enable them to keep in constant touch with knowledge. Adult education, female education in particular, can prevent such wastage and promote the speedy adoption of agricultural, sanitary and other improvements in the village.

There has been some increase in the number of English educated residents in the villages, particularly in the two west coast villages and in Dusi and Gangaikondan. They do not seem to have contributed in any noticeable degree to the intellectual or the material development of the villages. Theirs seems to be an enforced rather than a willing residence. There are a number of natives of the villages who have benefited by higher education, but few have gone back to the village and settled therein and attempted any work of rural reconstruction, in spite of all the talk on it for the last two decades.

Primary education of boys and girls has taken a leap forward in all the villages surveyed. In 1916-17 every village had some sort of a school but not in every one was it on a secure basis. Only in Watakancheri the Government (Cochin State) maintained a school for boys and another for girls. In Gangaikondan, Dusi and Guruvayur, the Local (Taluk) Boards maintained primary schools, generally up to the 4th standard. In Vadamalaipuram, an elementary school, where education was free, was conducted by the local co-operative society from out of its common good fund. Besides this the members gave away the dividends for the upkeep of the school. The school had a museum and a garden for cultivation by boys. Instruction was imparted in co-operation too, and a stationery store was run as though for demonstration. In the other villages the schools were of an informal character and classes were held on pials and at hours suited to the convenience of children and their parents who would permit them to go. Morning hours—7 to 10 and evening hours—2 to 5 were common; but in the pial school at Palakurichi the evening classes commenced at 5 and ended at 7. Richer parents who were not satisfied with the instruction imparted

in such informal schools used to send their children to the schools in neighbouring towns, e.g., from Palakurichi to Negapatam.

Only Watakancheri and Guruvayur had more than one school each. In fact they were already small towns, and a number of pupils came from the neighbourhood for study. Watakancheri had 3 schools, two run by the State, and one by the Catholic Church for children. In Guruvayur there were 7 schools; one was a secondary school managed by the Taluq Board, one was a Government school for girls and the rest were elementary schools, one of which was for Mahammadans. There were even in 1916-7 as many as 680 boys and 185 girls.

In the course of twenty years, the number of schools in Guruvayur increased to ten and the strength of pupils to 1,464 boys and 1135 girls—though 40 per cent of them came from outside. There were 44 men teachers and 27 women teachers. All this looks too big for a village, but several of our small towns, except for the number of people and a thin veneer of urban civilisation, have many of the characteristics of villages. In Watakancheri in addition to the Sirkar High School for boys and two lower secondary schools, one for boys and the other for girls, there were six primary schools in 1937. The strength of pupils had increased from 527 in 1916-7 to 597 in the High School. A new development was the Sirkar Industrial School where the children of artisans and of working classes, about 75 in number, were taught some simple crafts—spinning, weaving, mat-making, and carpentry—with what results it was too early to judge.

Every other village resurveyed has at least one Board Elementary School where no fees are charged for instruction. In a big village like Gangaikondan in addition to the Board School which has 70 pupils and three men teachers and one lady teacher, there is the old elementary school run by the Catholic Mission, with 20 Christian and 36 other children. There is also a pial school with 30 pupils. In Palakurichi, though there is not enough strength for two schools, a private school was started as a rival to the Board school whose headmaster became unpopular. The teacher of the other school is more accommodating and is considered more efficient. This has led to the fall in the strength of the Board school from 70 in 1925 to 27 in 1936-7. Vunagatla has, in addition to the Board school which caters to all, a school run by the Labour Department for the benefit of the Depressed classes.

There is clear evidence of increase in the number of children attending schools in all villages except Eruvellipet and Dusi. In the

latter, the slight fall might be due to the number of students going to Conjeevaram. A higher proportion of village boys and girls must be now attending schools, though we do not have figures of the proportion of children attending schools to the total strength of children of school-going age. A recent development is the tendency of girls to attend schools, even of the mixed type, where there is no provision for special instruction for them. They stay on in the school for a much longer period than they used to. In 1916-7 they were expected to discontinue studies at the age of 10 or 12, while now they carry on till 15 or 16, even as the age of their marriage has been postponed to beyond 14. However, the education of girls, beyond the primary stage is yet largely confined to the Brahmin, the Nayar, the Christian and the richer Non-Brahmin communities.

There are more teachers now than in 1916-7 in all the villages. The one-teacher school is becoming rare except in pial schools. Teachers of pial schools are neither well nor regularly paid, but they are generally more keen on pleasing parents and adjusting the hours of work to suit their convenience. Many Board school teachers have to handle two classes, and therefore can do justice to neither. They are better paid than private teachers and have greater security; but some of them complain of delayed payments of salaries. They are not as a rule so inclined to please the parents or adjust their hours of work to suit the agricultural seasons. They are not to blame entirely, as the hours and progress of work have been fixed by higher authorities and there is a lot of red-tape in school administration.

The most important reason given for poor attendance in schools is that boys have to go out to work in the fields, tend cattle or carry meals to the father working in the fields. Some of them do odd jobs and earn a little, a welcome supplement to parents' wages. The parents of Vadamalaipuram who had attached great importance to education now feel obliged to detain children for 50 to 60 days in a year so as to save at least Rs. 7-8-0 a year, which they would have to spend by engaging other labour in their stead. In Eruvellipet all the boys in a family are not sent to school. One or two are kept back for work on land or to tend cattle. While boys of tender age must be spared from all work on land or elsewhere, we see no reason why in the case of boys of over 12 years of age, some rearrangement of hours of work and seasons of work could not be made. Classes in the higher standards might be closed in the particularly busy season in agriculture and even on other days could be held at hours, when there would be no demand for their work on land, and they would not be tired of too much work in the course of the day.

The text-books are of such a type that they cannot evoke any enthusiasm. They have little living touch with the realities of the countryside. No wonder the attendance is poor, the boys are listless and teachers have sometimes to go about seeking their pupils. There is, however, no doubt that on the whole parents are more anxious now than 20 years ago to give the rudiments of education to their children. Even the Depressed class parents are anxious to send their children to schools, the Board schools which have thrown open their doors to such children. But they are afraid to send them to such schools as are located in, or at the entrance to, the quarters of the higher castes.

There are no doubt parents, as in Vunagatla, who consider all education imparted for three or four years in schools as "a veritable waste" or as "the best means of keeping the young ones from mischief." This is too cynical an attitude to take, but it is perhaps justified if it is really true that 80 per cent of the villagers who had had a schooling could no more than sign their names. Even if this be an overstatement, it draws our attention to the imperative need to prevent by all possible means the relapse into illiteracy of a large number who have had some instruction in primary schools.

HEALTH AND LOCAL ADMINISTRATION

No enquiry into rural economy will be complete without a survey of the conditions of health and sanitation, of social life and of the administrative machinery for carrying out civic duties and settling disputes and punishing crime. All these exert considerable influence on the welfare and efficiency of the individuals in the village. The villages resurveyed are, on the whole, more healthy and kept in a better sanitary condition than the common run of villages in the Province. Malaria which saps the vitality of the sufferer in deltaic villages is conspicuously absent in our villages. Tuberculosis was not heard of very much in the past, but at present in Vunagatla and Guruvayur poor households are said to be afflicted with this fell disease, due primarily to the lack of nutrition. Fever, dysentery and rheumatism have been everywhere the common complaints in the rainy and winter seasons, but they are not of such a persistent type as to disable any large number of workers. Indeed some of our villages are reputed to be healthy; but the villagers are not. That is to say, every case of ill-health can be traced to the ignorance or poverty or want of ordinary care of the people and not to the climate, water-supply and drainage facilities of the village itself. Cholera and small-pox take a heavy toll once in 3 or 4 years

in all the villages except Watakancheri, where the houses are isolated and the people, except the Muslims and Depressed classes, are scrupulously clean and bathe at least once a day. Even here the same tank is used for washing and bathing and by some for drinking-water, while the well-to-do use well water.

The houses of the Brahmmins, the landowning Vellalas, Kammas and Nayudus are in general fairly clean in every village but the habitations of others, the Depressed classes in particular, are rather dirty, and in some villages they are veritable rural slums. It is here that epidemics generally start and spread to other quarters. Arrangements for conservancy are still poor in all the villages, the neighbouring fields and river bed or tank bed being generally used for answering calls of nature. It is this habit as well as that of the washermen washing the clothes of all the people in the river or tank that accounts for the virulence of epidemics, once they begin. Protected water-supply still remains the ideal of the health reformer; the village folk themselves are not many of them aware of its importance.

The west coast villages have dispensaries and facilities for treatment by Allopathic doctors to whom the people resort more freely now than in 1916-7, when more faith was placed in Ayurvedic medicine and in charms and incantations. Not that the latter have quitted the field; but their power is waning. The Ayurvedic doctors too are adopting the paraphernalia and the modes of the modern Allopaths, who command greater private practice at present. Vadamalaipuram and Gangaikondan residents appreciate modern medical relief but it is not available to them at their doors. There was a time when, apart from the existence of efficient native medicine men, every old man and woman in the village had some knowledge of the value of herbs which could be had for the asking or at a nominal price. The present generation had neither faith in nor any knowledge of herbs or of indigenous system of medicine. The gap has not been filled by an adequate supply of drugs or doctors in five of the villages under survey, which badly require some form of State-aided rural medical relief. Quack doctors hold the field, often with fatal results, in Vunagatla and Eruvellipet. The barber midwife must be replaced or trained in safer handling of maternity cases.

Villages in South India might have been small self-governing republics once upon a time. But in 1916-17 none of our villages had any kind of effective statutory organisation with power to collect taxes from all and spend them on civic amenities such as roads, lighting, sanitation, medical aid and education or to settle disputes, civil and criminal. There were some unofficial communal organisations among certain sections of the people, but they had lost their strength among the higher castes as the ultimate sanction of excommunication had ceased to be operative with them. In villages where one community like the Reddi or Nayudu was dominant as in Eruvellipet, Palakurichi or Vadamalaipuram, the Panchayat or Council of Elders of the community, often including the Village Munsiff, settled disputes, managed temples and conducted festivals. The subordinate communities acquiesced and people consented to pay the levies like the *mahimai* on articles bought and sold or to contribute their mite for the conduct of festivals. Collections were also made from all families on occasions of marriage or funerals among the members of the community. The right to fish in tanks, to vend in local shandy and to feed geese on harvested fields, all these were saleable rights and the proceeds accrued to the community and were spent away mostly on temples and festivals and to a smaller extent on clearing channels of silt. An ingenious method by which the ryots of Eruvellipet secured a decent amount of communal income was narrated by Dr. Slater. The tamarind and mango trees on the roadside for two miles near the village were allowed to be taken on lease by one representative—the others refraining from bidding at the public auction. The lease was knocked off for a small sum but the trees were re-leased in lots to a number of villagers at competitive rates, the total amounting to ten times the original lease. The margin between the two leases was as much as Rs. 200, which was appropriated to the common good fund. Dr. Slater was struck by the spirit of solidarity in the village in spite of social and economic cleavages and cited the existence of this fund as the best evidence of the harmony that prevailed.

In villages where there was no one dominant community, or the courts were too near, litigation was the chief means of settling disputes. The power of the old Panchayat, if any, in which were represented different sections of the people waned with the rise into power of village officers who were entrusted with the collection of revenue and the keeping of peace. The system of village watch and ward, paid from out of levies on acreage basis, was over-shadowed by the police outpost wherever there was one. In Dusi people were in 1916-17 said to go to courts even for "imaginary offences."

In Vunagatla the investigator alleged that criminal cases had been hushed up or let off for want of evidence, with grave consequences to the safety of others in the village. There were about 45 civil suits every year due to disputes over land or undischarged debts. Some Vysia families had ruined themselves and left the village for good. In Watakancheri and Guruvayur there was no tradition of village Panchayat. Provision had been made in 1913 for judicial Panchayat in the Cochin State, but none was set up in Watakancheri. In Guruvayur there was a judicial Panchayat functioning from 1913 and deciding a large number of minor cases. The president was a Government nominee and the other members were village munsiffs of the five villages under the jurisdiction of the court. But the proximity of courts and the influence of lawyers round about in Guruvayur as well as in Watakancheri were irresistible for men of means, while the poor were dragged in on account of the peculiar difficulties of land tenure and the law of inheritance among Nayars.

Panchayat courts have been set up in the last 20 years in three of our villages. The best of them was at Vadamalaipuram, a peaceful village where criminal complaints were few and they were disposed of locally as they rose. Civil suits were mostly on pro-notes and cases involving a sum of Rs. 50 were decided expeditiously. The only prolonged and vexatious suits before civil courts were the aftermath of the liquidation of the local co-operative credit society. The Panchayat court at Palakurichi was not a success. Though the elders in the Nayudu community wielded great power in 1916-7 and brought about harmony, party cliques have since developed among them giving rise to three factions in this small village. There were a dozen litigants in the place and one had been ruined by a prolonged suit. It is this faction which stood in the way of the formation of a Panchayat for sanitary administration, etc. In Eruvellipet though there was no regular Panchayat, disputes were amicably settled except in civil cases involving large amounts.

In Dusi where there is little other evidence of village solidarity, it is pleasing to note that 75 per cent of the criminal cases were compromised, and only about 15 civil cases were filed in a year in superior courts. In Vunagatla too, it is said that at present petty crimes and civil disputes are tried by the village munsiff, and disputes among Kammas are settled by arbitration. In Watakancheri, we are told, resort to courts is much less than it was at the time of the first survey, though the lawyers have increased from 25 to 30 in the adjacent town. Such evidence of decrease in litigation is cer-

tainly gratifying but it is difficult to say how much of it is due to the conquest of the litigious spirit and how much is due to the shortage of hard cash in a period of depression.

In 1916-17, it was only in Dusi that there was some statutory body, a 'Union,' comprising 7 or 8 villages in its jurisdiction, with statutory provision for measures of sanitation and with power to impose a small tax on householders. In the other villages, the Thotties or sweepers working under the village munsiff were expected to keep the roads clean. This was done only on the occasion of the visit of a sanitary inspector, or the higher revenue officials. Even in the west coast villages where personal cleanliness was of a high order except among the lowest classes, public sanitation was left to take care of itself. Not even the roads were swept, nor the tanks repaired nor street lights put up. In Guruvayur there was a Panchayat for settlement of disputes but not for any other functions like sanitation, water supply, etc. In the Cochin State, the organisation of 'Administrative' and 'Judicial' Panchayats had just been provided for in 1913 with functions relating to sanitation and settlement of disputes respectively. But in Watakancheri no panchayat of either type had been organised in 1916-7.

It was in 1920 that the Madras Village Panchayats Act was passed, by which Panchayats could be organised in all the bigger villages providing for sanitation, communications, water supply, drainage, lighting, education, libraries, etc. Franchise was extended to all males of over 25 years of age. No specific resources were placed at the disposal of the Panchayats, but power to raise taxes suited to each locality was given. Grants were offered for the construction of works of utility, for the establishment and maintenance of schools, libraries, etc., if one-half of the cost were found by the villages in the shape of cash or labour. Later Local Boards Acts favoured the formation of Union Panchayats in smaller villages and assured to Panchayats one-third of the land cess (1½ annas in the rupee of land revenue) collected in the area under their jurisdiction, the other two-thirds to go to the District Boards.

Vadamalaipuram had a Panchayat constituted in 1924. There are 8 members including the President, all of whom are elected once in three years, but on account of the harmony that prevails there is no serious contest. In addition to looking after the roads, drainage and sanitation, the Panchayat undertook the management of temples and the yearly festivals and of the school and the library. The Panchayat did its work so well that the first Registrar-Gen-

ral of Panchayats considered it "as one of the best in the Presidency, and the Panchayat and the villagers deserve to be congratulated not only on what has already been done, but also on their readiness to do more." The District Educational Officer observed that the school run by the Panchayat was "a model one and was an ornament to the village." Streets were lighted, two new streets were formed, wells and drains were constructed, compulsory education was introduced and a library was built up and many other improvements were effected. Mr. T. G. Rutherford, Registrar-General of Panchayats in 1930, was so much struck by its progress that he remarked "it bids fair to become the model village of South India." But thanks to the continued depression and the liquidation of the co-operative society, it is not now the 'pleasant place' that it was. The Panchayat, however, still continues to perform most of its functions from out of the proceeds of a few taxes and rates, the most important of which is the 'mahimai' on goods going out and coming into the village, varying from 2 annas to Re. 1 per cart-load according to the value of the goods.

The old Union at Dusi languished for want of financial support. The streets were not kept clean nor other services rendered. The proposal to revive and strengthen it or form a new Panchayat has not borne fruit, it is said, on account of communal troubles. The Panchayat at Gangaikondan is not giving adequate return for the contribution of people in the form of land cess. Only the Brahmin and Vellala streets receive any attention from the menials. There is neither a good road nor street lighting. Frequent fires breaking out in Rajampacheri could not be suppressed by any one. Palakurichi could not have a Panchayat of its own, as its population was less than 1,000. The villagers, torn by three factions, could not reach an agreement as to which neighbouring village could be chosen for the purpose of constituting a Panchayat. The fear of the domination of the educated men in a neighbouring village ruled out the possibility of amalgamation and so the village goes on without any civic amenities. In Vunagatla, no Panchayat, it is said, can succeed with the petty factions among communities.

It is in Watakancheri that we find marked improvement in the last twenty years as a result of the organisation of a Panchayat. Sanitation has improved. Roads and lanes are regularly swept. Drains have been constructed. The village looks more tidy and even the Mahammadan quarters has considerably improved. Much of this improvement is perhaps due to the fact

that the neighbouring Watakancheri town is an important administrative, commercial and educational centre and is the headquarters of the Sanitary Inspector working under the State Department of Public Health. Guruvayur does not show so much progress but conditions have improved since 1916-17. It is a big pilgrim centre and attracts more people by the motor bus and the temple authorities are interested in keeping the approaches to the temple clean.

Even in villages where the statutory Panchayat has not been constituted the relics of communal income from the leasing of trees on 'samudayam' lands, of the right to fish in tanks, of the right to feed geese on fields, and ad hoc contributions on occasions of festivals, marriage and funerals have not been given up—though the right cannot be exercised by any coercive processes. The most important item of expenditure in every village is that on festivals in temples which even the depression has not generally reduced. There are only two villages where it is not a local burden—in Vunagatla where there are no temples and in Watakancheri where the State Devoswam Department attends to every item of expenditure on temples.

Except in the case of Vadamalaipuram for some years, Panchayats have not shown any willingness to raise new taxes or revive the old levies. Profession tax was levied for a time and then dropped. Contributions in the shape of produce or of labour in lieu of money rates have not been revived in any of our villages. Protected water supply and proper conservancy arrangements are yet to come in most of them. Street lighting was done for a few years and then given up. Adult education has not been attempted anywhere. It may be that our villagers are not as a body hostile to any form of improvement. But they are not actively enthusiastic over any scheme of rural welfare.

SUMMARY AND SUGGESTIONS

We may now sum up the main changes that have occurred in the twenty years between 1916-7 and 1936-7 and indicate the lines of action that may be taken to arrest decline and to accelerate progress.

RURAL CONGESTION

The central problem we have to face is the growing rural congestion in relation to the resources available. The population has increased in all villages but one, though by no means at an abnormal rate. The desertion of villages by a few families of educated men and of skilled artisans for a better living in towns might create a wrong impression of rural depopulation. Some of the small holders as well as the landless labourers move out to distant plantations or to the nearer rural tracts for the harvest of tea, paddy or groundnut in particular seasons. Neither the permanent exodus of the former set of people nor the seasonal migration of the latter affects local agriculture adversely. Whatever else our villages may lack in, there is no dearth of labour in most of them for the necessary agricultural operations. 'Back to the land' is bound to be a barren cry so far as the educated are concerned; for agriculture as now pursued has no alluring prospects. Few of them have enough land or working capital and fewer still have the aptitude and training to carry on agriculture on improved lines. Nor do the old village industries offer scope for the employment of more than a very limited number.

Holdings have increased in number and gone down in size in all the villages. A small addition has been made to the total area under dry cultivation only in two villages; backward communities have been given land in one, and in the other we find a slight increase in the number of medium-sized holdings. The distribution of holdings, small as most of them are, is uneven. There are no big estates at all except in two of the villages, and these too are parcelled and leased out to small tenants and not cultivated on a large scale. Petty holdings have multiplied in five villages, particularly holdings below five acres. Three villages have a higher percentage of holdings below one acre than in 1916-7. Most of the holdings are uneconomic in every sense of the term. Not only are they small in size, but they are cut up into fragments resulting

in great inconvenience to the holders. Instances have been given of fragmentation in five villages, and they are not exceptional. No attempt has been made anywhere to consolidate holdings by private exchange or organised effort. Nor is consolidation likely to be of much avail when the size of most of the holdings is far too small. A more rational, though difficult, line of experiment would be to organise co-operative or joint farming on a scale which would permit the use of improved implements and methods. The existing holders of fragments should be induced to merge their plots in the enterprise tentatively, and if success is assured permanently, in return for proportionate shares in the enterprise. They can work on the co-operative farms as wage earners.*

Any rational system of farming is bound to show up the redundancy of workers on land, unless very intensive crops like sugarcane, plantains, vegetables and other garden crops are grown. The markets for these crops and the facilities for their cultivation are limited in some of our villages. The scope for the extension of the total area under cultivation appears to be even more limited in all but two of our villages. It is not easy to get precise scientific data on the nature of cultivable wastes in or near any village. If reclamation were at all easy by individual efforts, the pressure of population would have accomplished it. An urgent task that the State alone can take up is the investigation of organised and up-to-date means of utilising the cultivable area in the Province for the relief of the surplus people on land willing to move out.

LAND TENURE

A striking change in rural economy is the rapid growth of tenancy. There is more of absentee landlordism than before. Many resident ryots too are less inclined to cultivate their holdings either by themselves or with paid farm servants. Lease of land on *varam* or share tenancy has spread from the higher caste holders to others. *Kuthagai* or fixed rent system, formerly confined to commercial crops, is coming into vogue in cereal crops too. But when crops fail for want of rains, it is not uncommon for parties to revert to the *varam* system. Cash rents became popular in the boom period after the last war; but with the decline in prices, rents in kind are considered safer, even where rents are fixed and do not vary with

*Such an experiment in co-operative farming has been made in Nadia Dt., in Bengal. A detailed account of it is given in *Co-operative Farming* by S. K. Dey, I.C.S., the organizer of the scheme and Collector of Nadia.

the yield. But cash rents are still the rule in the commercial crops, and tenancy is at its best in the cultivation of some of the most valuable crops for outside markets. These tenants are exceptional and are few in number and can, generally, take care of themselves.

The vast majority of cultivating tenants require some security and fairer rents. It is only in the west coast villages that tenure has been made more secure for the tenant who invests capital and undertakes risks, and to a smaller extent for the actual tiller of the soil. For the villages in the eastern districts there has been no thought of legislation to secure the rights of the growing number of tenant-cultivators. Fair rents, however, would be very difficult to prescribe and enforce where we have a multitude of small holders who, on the one hand, are hardly distinguishable in status from labourers and, on the other, contribute a share of seeds, manure and even plough team. Metayage or share tenancy is difficult to control by legislation; and other forms of tenancy still revolve on the basis of share rents in the case of cereal crops, where alone tenancy is continuous and the tenants would appreciate security and fixation of rents. Rent legislation may be easier to enforce where landlords are absentees, but their local agents may play the devil by engaging metayers. A Rents Tribunal may, however, be tried as an experiment.

AGRICULTURAL LABOUR

Another disturbing feature is the growth of the landless proletariat. The condition of labourers, entirely landless or with small scraps of land, has not improved materially in twenty years. Permanent farm servants, paid fixed wages in kind or cash at an annual rate or for the season, are now to be found only with a few big holders who choose to manage the cultivation of their *pannais* or estates. The type of semi-servile, indentured labourers—known as *padiyals* in some Tamil villages—tied to the land until they discharge an initial loan, is tending to disappear with the removal of penalties enforceable in a court of law and with the greater opportunities for emigration which they are ready to avail themselves of. Free labourers find that the demand for their labour in intermittent and the wages they get on the days on which they are engaged, except at harvest time, are too low for the maintenance of their families. Their independence is thus of little material value; it is an insufficient compensation for the loss of sheltered existence. Cash wages rose slightly in the boom period but fell in some cases below

the older limits after the depression set in. Any State regulation of wages in agriculture is out of the question as long as the supply of labour exceeds the demand enormously and there is not the least semblance of an organisation among the wage-workers, and the small-holders are only too willing to work as labourers and supplement their meagre income from land. The efficiency of agricultural labour is bound to be low, as long as labour can be had for such a low wage that just suffices to keep starvation at bay. Unless the demand for labour is stimulated by an intensification or diversification of agriculture, the only alternative is to move out to industrial areas or plantations within the country or to emigrate to countries overseas which still have some room for our labour.

CROPS AND THEIR IMPROVEMENT

There has been no great change in the system of cropping, though a few new crops have been tried and a few old ones given up. Paddy is still the favourite crop in lands irrigated by river or tank; but it is also raised as a rainfed crop in three villages. The area under paddy was brought down only in one village as a reaction to the fall in prices, but in three others the area has gone up as a result of the preference villagers show for rice when it is cheap to the neglect of the harder but more nutritious millets. Pulses are now grown only in two of our villages, though they are an essential article of diet of all vegetarians. There is a deplorable decline in the area under vegetables except in two villages. There are vegetables which could be grown for use if not for profit, and in the backyard if not in the field. The cocoanut had already fallen from its pedestal at the time of the first survey; it suffered greater reverses in the depression and was just raising its head again at the time of the second survey. But it is grown as a commercial crop only in one village; in the rest it is grown more for use as a vegetable than as an oil-seed for the market. A bitter lesson has been learnt, and landholders and tenants will be more careful in raising tree crops on a large scale. Groundnut was gaining ground in three villages but it was also hard hit in the depression, and is now a comparatively neglected crop. Cambodia cotton was the rage in two villages in 1916-7; but, perhaps because of the greater liability to pests and its requirements of irrigated water, it has given way to the older indigenous Karunganni cotton. The readiness to react to higher prices by extending the area of cultivation was noted in respect of senna, indigo, Cambodia cotton, tobacco and sugarcane during the last war and in the boom period after the war.

Provided the costs of cultivation were within their means, ryots have shown no great prejudice against the introduction of new varieties of crops or trying new manures and even new machines. Among the crops tried were GEB. 24 paddy, the bunching redgram, Cambodia cotton and Parry & Co.'s sugarcane. Chemical manures were for sometime freely used in the villages with an assured supply of irrigation but given up by some as being injurious to the soil. When plants were attacked by pests, departmental advice was not sought in time nor followed up in practice throughout except in one village. Single transplantation of paddy was tried but given up as risky. Drill sowing was taken up by one village only and not copied by others. Even the iron ploughs were tried only in two villages and were not wanted in the rest. Ryots of one village were enterprising enough to purchase and run oil engines for a time; they had to give them up after a few years as being too costly for the crops raised.

The impression that we get of all these trials is that most of them were haphazard and were taken up and given up without adequate consideration. The case for power lifts, tractor ploughs and chemical manures, in the circumstances in which most of our ryots are placed, may have to be carefully studied before adoption. But there is little excuse for the very slow spread of better seeds, evolved by the Department of Agriculture, for the failure to grow green manure plants or utilise the indigenous concentrates, and for the neglect of precautions and cures recommended by the Department for pests of crops. These steps would involve only a little additional cost but bring in markedly increased returns. Few of our ryots in the villages resurveyed have the prodigious energy, the perpetual vigilance and the patient skill of the Chinese farmer who, placed in a similar situation, wrings from the soil the utmost that could be got without the use of any modern methods. If in China the latter are now vigorously advocated, it is all the more necessary that our ryots, who cannot in the tropical climate toil like the Chinese, should be enabled to benefit by the less expensive improvements suggested by the Department of Agriculture. An occasional visit of officers is not enough. Ocular demonstration by individuals or associations interested in rural welfare, and settled in the area, can alone bring about the wider adoption of better methods of agriculture among men who have not had the advantage of a good education. "Only those can teach who share in some measure the life of those who are taught."

THE CATTLE PROBLEM

The most neglected branch of agriculture is animal husbandry. The working cattle are generally weak and inefficient. Good pairs are rare. Though the total number of cattle are not in excess of the requirements, some of them are sick and old and useless, but are kept on out of sentiment. The tendency in the last twenty years has been to buy and sell draught cattle more frequently according to the requirements of work and the resources in fodder. This is a sensible course no doubt, but the inability to tide over seasonal fodder scarcity results in heavy depreciation. Only one village has an adequate extent of pasture land, but there are no enclosures. In the others the cattle fend for themselves. Fodder cholam is grown only in two villages; paddy or ragi straw serves as fodder in the rest. More than a small number of animals cannot be maintained on such by-products. Either more fodder should be grown, if possible as a second crop, or the number of animals should be limited to the existing fodder supply. On many of the tiny fragments cultivation could be better done by the spade than by the plough, and like the Chinese small holder our smaller ryots could dispense with cattle.

There is little systematic breeding or rearing of cattle in the villages resurveyed. Approved stud bulls are kept in only two of them. In the rest the Brahmani bulls, now indifferently chosen, serve the cows. The whole system of breeding and rearing needs an overhaul. But this will not serve any purpose without a determination on the part of everyone to keep only good animals and provide private pasture or grow enough fodder.

The number of milch cattle has increased, but there is little improvement in the milk yield, especially of cows. The demand for milk is slowly increasing not only in the neighbouring urban areas but also in the villages themselves where coffee and tea have come into vogue. It would be a good business proposition to develop the dairy industry not only as a side line with a single cow or buffalo, but as a main business with a small herd of better breeds of cows and buffaloes kept on enclosed pastures. For, communal grazing results in degenerate breeding. Dairying can be tried in villages with plenty of dry land where the competition of cereal growing for human consumption is not serious. There is a growing, ill-satisfied, demand for milk and milk products not only in towns but among the well-to-do in rural areas. Transport will be a problem if delivery has to be made beyond five miles.

Sick animals are treated, if at all, by native medicine men for all ordinary ailments. Aid is increasingly sought of the

modern veterinary surgeon in cases of epidemics like rinderpest and anthrax; and the animals are successfully inoculated against such diseases. Research on indigenous herbs for minor ailments of cattle is long overdue.

COSTS AND PROFITS OF CULTIVATION

An attempt has been made in the resurveys to study the costs of cultivation and profits of the major crops. The limitations of such a study in India have been pointed out already. There is such a wide range of costs, yields and profits that it is hard to generalise usefully. Differences are due not only to the variations in fertility of the soil and the skill of the cultivator but also to the diverse conditions of credit and marketing. If a generalisation may be attempted from materials which are incomplete, particularly those relating to the earlier survey, the money income of the farmer has gone down by 30 to 50 per cent in two decades. This is largely due to the fall in prices of produce, while costs of cultivation have shown little tendency to decline. The return on capital invested in the boom period is ridiculously low. Even at the present sale value of land many a farm could be proved to be working on a minus balance. Agricultural land still attracts investors merely because of the lack of alternative investments so safe and concrete and durable as land. The trouble is that almost every one invests his all in buying land and spares little for working it. Nor is human energy poured forth on the soil as in China. Land is so well worked up by the Chinese farmer that soil is said to be manufactured. It is rarely that any of our farmers is so assiduous. Again, the high yield of Japan is attributed to the abundant use of fertilisers, which are, as it were, the raw materials even more than seeds for the final product of the field. But manures are an inconspicuous item of expenditure in our villages. Our farms are indeed overmanned but under-capitalised.

LAND REVENUE

The incidence of land revenue is a hackneyed topic in the study of the rural economy of India. Dr. Slater devoted considerable space to its discussion, and concluded that the burden of taxation was light as it constituted only 3 to 16 per cent of the net income from land and that it was bound to become lighter with the rise in prices, of which there was the best prospect when the first survey was made. Whether we accept or not the theory of State landlordism and its corollary of high rent principle in assessment, there can be little doubt that with rates fixed once in 30 years the incidence was lighter with the phenomenal rise in prices till 1927,

after which the tables were turned. The prices slumped heavily and the poor producers were obliged to pay the same unalterable rate. In fact in three of our villages, rates were revised on the basis of the prices of previous 20 years. Costs of cultivation remained more or less the same, but prices fell by 50 to 60 per cent in all major crops. The proportion of land revenue to net income was found to be 32 per cent in paddy and 20 per cent in cholam in 1936-7, when prices had already recovered to some extent. The bottom was touched in 1933, when the incidence was higher and remissions were not given. The Government itself had to admit the reasonableness of the claim for remissions which were subsequently granted.

We believe the time has come for a reconsideration of the whole basis of taxation of wet and dry and garden lands. Paddy is not the only crop, nor in some tracts the most important crop, grown on wet land. Cholam does not hold the dominant place in dry cultivation which it did in the past. Other valuable crops, most of them for the market, are grown on wet and dry lands. Paddy and cholam need not be considered the standard for wet and dry crops any longer. A more appropriate rate should be fixed for commercial crops, based on the average profits derived from them, not in the remote past but in the immediate present. An inquisitorial enquiry into each one's fields is out of the question. A standard outturn in different circumstances should be ascertained and the tax should be linked with the ruling prices. The system of assessment as it stands is untenable as it takes no account of the fall in prices and remissions are granted as a matter of grace. We would prefer something like the Lyallpur system in the Punjab where standard rates are fixed, and remissions are given automatically when prices fall below the prices which were taken into account in fixing the standard rates. This is more or less the 'Olungu' system which prevailed in two districts of the Presidency of Madras in the middle of the last century.

✓ RURAL DEBT AND CO-OPERATIVE CREDIT

Even at the time of the first survey, seventy-five per cent of the ryots were indebted; they had borrowed mostly from local lenders, who were many of them ryots. There were practically no alien, professional, moneylenders. But the rates of interest varied from 12 to 48 per cent—in inverse proportion to the amount of the loan and the security behind it. Debts increased in the boom period after the war, with the increase in prices of produce and in land

values. More land was purchased or better houses were built with borrowed money, or they necessitated borrowing later on. Marriages consumed more funds. The style of living of ryots improved imperceptibly but not substantially. There was little development of credit for any permanent improvement of land, or the sinking of wells. Tenants and labourers continued to borrow; for their earnings seldom kept pace with the increase in prices. The apparent prosperity of the twenties was really, but not unnaturally, the period of rising debts.

With the depression and collapse of prices, credit became frozen. Debtors could not repay and creditors wished to foreclose—some eagerly, some reluctantly. Land values declined not only to the level of the pre-boom period before 1920 but even further in almost all the villages as may be seen from the figures furnished (p. 36). Moneylenders could not recover their dues, and all but the petty professional usurers have been taught a severe lesson. With the development of banking and co-operative credit all round in the country, rates of interest have gone down by more than 50 per cent in every village. But it has become harder to borrow money without mortgage of land or pledge of jewel. Lenders prefer to invest in banks at much lower rates of interest.

Government takavi loans have not been availed of, except in one or two cases. Ryots in our villages have not so much as heard of any such help. The karnam in one village was the sole beneficiary of this form of State aid.

A co-operative credit society was hailed as the harbinger of rural reconstruction in one village at the time of the first survey. A few years later it attained a provincial fame. Apart from the blow that depression dealt to all, its affairs were so mismanaged that it had to be liquidated in 1932. An early society in another village had a more modest career, but it is said to be managed by and in the interests of moneylenders. Credit societies have been tried in four other villages after the first survey was made, but in three of them they have had to be wound up for want of steady workers in the cause. There are only three societies working in the villages resurveyed and they at present provide an infinitesimal part of the credit needed by villagers. It is difficult to apportion the blame for failure, especially in a period of depression. Local leadership and loyal following are hard to get in a rural economy so ill-balanced as ours. The indifference of members and selfishness of Panchayatdars have gone on almost unnoticed, as there was little check or supervision by the authorities, official and non-official.

Central banks have relied too much on the unlimited form of liability and realised too late the hollowness of its claims in practical working. A change to limited liability with guarantee or mortgage, a wider area of operations, and linking with supply and sale may be the best means of rehabilitation, as the recent Committee on Co-operation in Madras recommend.

COMMUNICATIONS AND MARKETING

Communications have improved considerably in the interval between the first and the second surveys. Villages have been better linked up with railways and trunk roads. Feeder roads permit bullock carts, which have replaced pack bullocks. The motor bus has brought the villagers in closer contact with the towns nearby. Ignorance and isolation are breaking down. Agriculturists, at least the solvent ones, get into touch with urban markets. Hawkers and dealers visit the villages more frequently.

One result of improvement of communications is that our villages are less self-sufficient than before. Not only is there a deficiency in cereals and pulses and oil-seeds in some of them; but even for the vegetables that they consume they look to the shandies and trade centres for supply. No village now produces more than a fraction of the cloth it requires, or anything of the hardware that it needs. Sugar, salt, kerosine and matches have, of course, to be got from a distance. More retail shops are found in every village; in some of them there are tea and coffee shops too. But except in two or three big villages, the transactions are meagre and profits per trader negligible.

The co-operative supply of agricultural requirements has even less chance of success without the creation of an effective demand for them by the cultivators. A supply society was tried for a while in one village but had to be wound up as it degenerated into a disguised form of credit society.

Arrangements for the marketing of produce are hardly satisfactory. Paddy and other cereals are taken to shandies or trade centres in bullock carts by producers or their agents and disposed of on terms dictated by merchants there. Commercial crops like cotton and groundnut which commanded good prices in the past are now sold out to a few monopolists in the village or to *mandi* men in trade centres. Cocoanuts are sold to a much larger extent in an unhusked condition in the Malabar village, which has affected the coir industry. The handicaps to poor producers in the marketing of arecanuts have been pointed out in the Cochin village;

but nothing more has been done for them than the licensing of another private market in the place. Little or no effort has been made in any of the villages to organise the marketing of agricultural produce in the interests, and by the agency, of agriculturists themselves. This is the hardest of co-operative lines of activity and is perhaps not attempted because of the failure of co-operative credit. But marketing has a greater chance of success if linked with credit.

VILLAGE INDUSTRIES

Village industries have not escaped the effects of rural congestion and of the decline in purchasing power of agriculturists especially after the depression. The village carpenter, blacksmith and leather-worker who make and repair agricultural implements have all been hard hit but in different degrees. There would not be enough work in the village for all the additional artisan population by natural increase, even if there were no changes at all in the implements used. For, unless there is a positive extension of the area under cultivation the demand for implements will continue to be the same. On the other hand, indigenous wares have been discarded and replaced by foreign manufactured articles. The blacksmith finds less work for himself, for he no longer makes the knife, hook, spade, axe and crowbar which he used to make in the past. He assembles and repairs parts but seldom makes any implement. The leather-worker finds much of his job gone after the advent of iron buckets in place of leather in water lifts. He has turned out to be an agricultural labourer most of the time. The carpenter is the least hit, but he is by no means prosperous. Wooden ploughs, harrows, etc., are still plying; he makes and repairs them. He has found too more work in rural house-building, but the more enterprising have left for towns. With the wider use of iron ploughs and other implements the blacksmith may get more work at least in assembling and repairing them. Everything should be done to improve his workshop equipment and reduce his costs, as the Rural Industries Bureau is doing in Britain. There is little scope for the larger employment of potters, leather-workers, the washermen and barbers in the villages, all of whom have been carrying on their struggle for existence in an environment which is disheartening, to say the least.

One of the most pressing problems in our villages is the finding of a suitable and profitable by-occupation for agriculturists who have ample leisure. As a general rule single crop cultivators have five months of leisure and double crop cultivators have little or no

work on land for three months in the year at a stretch. Double crop area has gone down in some villages, and increased in none. The industry recommended should be on a small scale, involving little capital and skill and one that could be plied at home or nearby and taken up or dropped according to the leisure available from work on land. Hand spinning is an industry that would satisfy the above conditions. But it had ceased to be practised in any of our villages even at the time of the first survey. They have been impervious to the countrywide propaganda done on behalf of the revival of the *charka* by the Congress party. The major defect of the unimproved *charka* is that it adds little to the income of the family even after a full day's labour. It will be a boon to the poor only if its mechanism is improved so as to yield a larger and more even outturn of yarn.

Weaving is hardly fit to be prescribed as a by-occupation; for apart from the greater skill and capital that it requires, the struggle that the existing hereditary weavers have to face should deter others from adding to the competition. Handloom weaving was not a flourishing industry in any village at the time of the first survey. It had indeed deteriorated rapidly. Only four of our villages have handlooms; only two of them have introduced fly-shuttles. It is not only improvement in the type of looms, but reduction of costs in motive power and co-ordination in buying raw materials and selling finished products that would enable handloom industry to make headway. A mere aggregation of even fly-shuttle looms, as is attempted in one of the villages, cannot ensure prosperity without cheaper power and better marketing.

With the development of hydro or thermal electric power there are great prospects for an increase in the number of seasonal factories in the countryside, for instance, rice and oil milling, cotton ginning, groundnut decorticating and sugarcane crushing. These could employ in the off-season in agriculture a number of labourers. Indeed if such processing factories were established by co-operative organisations in the interests of producers and by their own direction, as is done in all advanced agricultural countries, it would be a splendid means of dovetailing labour on land with labour in factories. We cannot, however, look to this development for the employment of any large number now unemployed or under-employed. The hope of relief for these perhaps lies, as the Royal Commission on Agriculture said, in the intensification and diversification of agriculture. This is a fit subject for investigation by an expert agricultural body.

LITERACY AND EDUCATION

It is gratifying to record an improvement, though slight, in literacy in the villages. Not only the Brahmins but other caste Hindus have a larger percentage of adult members who could read and write in their mother tongue. But it is only among Brahmins and Nayars and Christians that a larger percentage of women are literate. The other communities, including the Depressed classes, aspire for more education but there is no active programme of adult mass education planned by any organisation. Few schemes of rural reconstruction and economic development have any chance of wide acceptance and following without adult education and literacy. There is yet a dearth of good books in the vernacular dealing in an attractive and simple style with modern industrial or agricultural or health problems, that the villager could read with delight and profit. Every possible encouragement should be extended to the publication of such literature in the vernaculars of the Province.*

The education of the young has spread to all classes. The primary schools have been placed on a more secure basis than they were in 1916-17. Education is practically free in every village, though it has not yet been made compulsory. Attendance of boys has improved, but it is not yet satisfactory. Boys are wanted on the fields by their parents, in the busy season in particular. It would be too much to insist on poor parents releasing the children from every kind of work so as to enable them to attend the school on all days and at regular hours. It would be better to fix school hours so as not to interfere with the light work that children might be able to do to help their parents. Hours of work too should be reduced and the syllabus lightened. The school might be entirely closed in the very busy agricultural seasons in the locality, instead of following the rigid uniform plan dictated by a distant authority. Books and lessons must be made more attractive and take into account the environment of the countryside. A rural bias can be imparted not only through class lessons but by practical training in school gardens, by exhibition of products of rural crafts and industries and by excursions to well-kept farms in the neighbourhood. Detailed training in agriculture or handicrafts at school at such a tender age may be a wrong educational policy; but barren

*Prizes for the encouragement of publication of works on modern subjects in Dravidian languages have been awarded by the University of Madras since 1936-37.

book learning, so long in vogue, is about the worst way of imparting knowledge to the young. No wonder we hear of the relapse into illiteracy of many who had been to school in our villages.

HEALTH AND LOCAL ADMINISTRATION

The villages resurveyed are on the whole healthy and not afflicted by endemic diseases like malaria, hookworm, etc. Tuberculosis, a disease of the undernourished, is reported only in two villages. Fever, rheumatism and stomach disorders follow the rains but are not persistent. Some of the ills could be ended by a protected water supply and better conservancy arrangements. The villagers are not conscious of the effects of the existing system, rather want of system. Periodical outbreaks of cholera and small-pox have taught few lessons in sanitation and hygiene. Personal cleanliness has always been of a high order among the higher caste Hindus everywhere, and among all but the poor Muslims and Pulayas in the west coast villages. But public sanitation was of a low order in almost all the villages in 1916-7. Only one village had anything like a local body to attend to sanitation.

Since the passing of the Madras Village Panchayats Act in 1920, with powers of taxation and administration of civic affairs, some improvements have been effected in sanitation and medical relief (Allopathic) in three of the villages. One of the Panchayats attained a provincial reputation and it was marked out as 'the model village of South India.' Powers of taxation, education, etc. were better utilised there than elsewhere. The depression, and even more the liquidation of the local co-operative society, which had a longer career and an equally high reputation, cast a gloom on every aspect of village life. The Panchayat still continues to perform its functions fairly efficiently within the means at its disposal. Other villages have not shown any willingness to raise new taxes or contribute in kind or labour for the improvement of public health or any civic amenities. There are a few old sources of communal income, like the sale of fishing rights in ponds, which are still tapped and the proceeds utilised for the celebration of temple festivals, to which the well-to-do also contribute their mite.

It was a pleasing feature of the last decade that in all but two villages a number of minor civil and criminal cases have been decided by statutory judicial, or old caste, Panchayats and litigation has gone down considerably. We cannot, however, be sure that the litigious spirit has been suppressed once for all. Men of goodwill must see to it that it does not raise its head with the recovery of prices and better incomes.

CONCLUSION

Thus the picture presented by the resurvey of eight villages is not quite bright. Deterioration or stagnation in some vital points overshadows the definite improvements that have been made in some aspects of rural life in the last two decades.

The area under cultivation has not extended with the increase in population though there is no indication that the food supply has not kept pace with the growth in numbers. The scope for the extension of cultivation in most of the villages is restricted. Holdings have become more subdivided and fragmented than ever and no attempt at consolidation has been made or contemplated. Land has not been improved except in one village. Few wells have been sunk or fruit trees planted. Cultivation of existing land has not been intensified by application of more labour or capital in the shape of better seeds, manures or implements. Improved methods have been tried off and on without any lasting effects on habits of cultivation or results in better yield or quality. The draught and milch cattle are yet in a low state of efficiency. Methods of breeding and rearing and fodder supply remain much the same as before.

There is more of absentee landlordism. Even resident landlords are less inclined to cultivate their holdings themselves. There is a rapid growth in the number of tenants-at-will and casual labourers. Competition among them is too keen to render it possible to fix and enforce fair rents or minimum wages.

Debts multiplied in the boom period in the twenties and became frozen after the depression. Co-operative credit has been tried in all but two villages, but it has failed miserably in most of them. Rehabilitation will not be easy without a change in the outlook of members and change in the constitution and control of societies.

Villages have become less self-sufficient in respect of some food-stuffs, even of vegetables. There is preference for consumption of rice, milled and polished, at the expense of millets. Coffee and tea have become very popular. Mill cloth is competing with the coarse hand-woven goods of the village. Other village industries too have had to capitulate; the hereditary workers have turned to the overcrowded land or joined the ranks of factory hands in towns. Barring the case of industries like basket-making, which has not been invaded by machinery, it would be difficult to develop rural

industries without the supply of cheap power and, even more, better organisation of buying and selling.

Sanitation has received some attention but water supply and conservancy arrangements are backward. Except in one village there is little disposition for people to tax themselves or contribute in kind or labour for the construction of works of public welfare.

As against this formidable count of wants and failures we have a number of improvements to record. The villages are better linked with the railways and trunk roads. Even feeder roads have improved. The motor bus has broken the isolation between town and country. The physical facilities for trade have developed, though they could not be well utilised by ryots for want of financial resources.

There is greater appreciation of the value of literacy even by the backward communities, resulting in a positive spread of education. More are able to read vernacular literature and the lighter journals. But a good popular series of books on the social and physical sciences and agriculture have yet to be written.

The prejudice against modern agricultural improvements is breaking down. More trials are bound to follow continuous propaganda and local demonstration. Credit facilities have no doubt contracted, but the rates of interest have fallen and continue to remain at levels never expected. Professional money-lending is on its defence, and genuine investors even in rural parts prefer to deposit in banks, joint-stock or co-operative, in the neighbouring town. Even joint stock banks have extended their loans to agriculturists in the vicinity at low rates of interest.

The beginnings of local self-government have not been disappointing. The Panchayat in one village has done remarkably well both in respect of taxation and provision of services. Judicial panchayats have been quite successful in four of them and helped to reduce litigation. More medical aid is available in the villages or in the neighbourhood, though much yet remains to be done.

The development of hydro-electric power and the expansion of cotton and garden cultivation and of textile industry have brought prosperity to the villages in the adjacent districts, but they have had little repercussions on the prosperity of our villages. We hope the extension of such development is only a question of time.

The Government and the leaders of the people have in the last two decades shown greater interest in schemes of rural welfare, though nothing very tangible has yet been achieved. The most remarkable change in the last two decades is in the attitude of higher castes and richer ryots towards the depressed communities, though here again social emancipation does not lead straight to economic gain. We trust that a concentrated effort will be made on rural reconstruction in the widest sense of the term.

In concluding, we hope that the same villages will be resurveyed after an interval of ten or twenty years. Such periodical surveys of the same villages will give us definite indications of the trends of progress in the country and will supply valuable data for the economist and the historian. In spite of the critical days we are passing through, we trust that by the time the next survey is undertaken the conditions of the villages surveyed by us, as also of the rest of the country, will have substantially improved.

**MAPS ILLUSTRATING FRAGMENTATION
OF HOLDINGS**

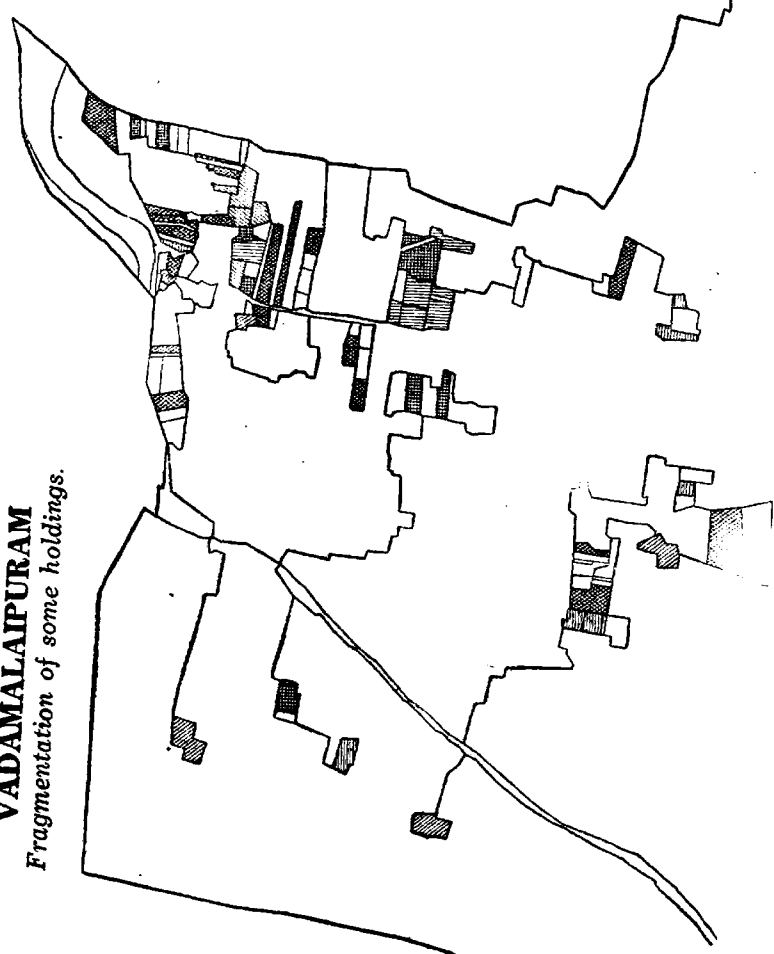
PALAKKURICHI

Fragmentation of some holdings.



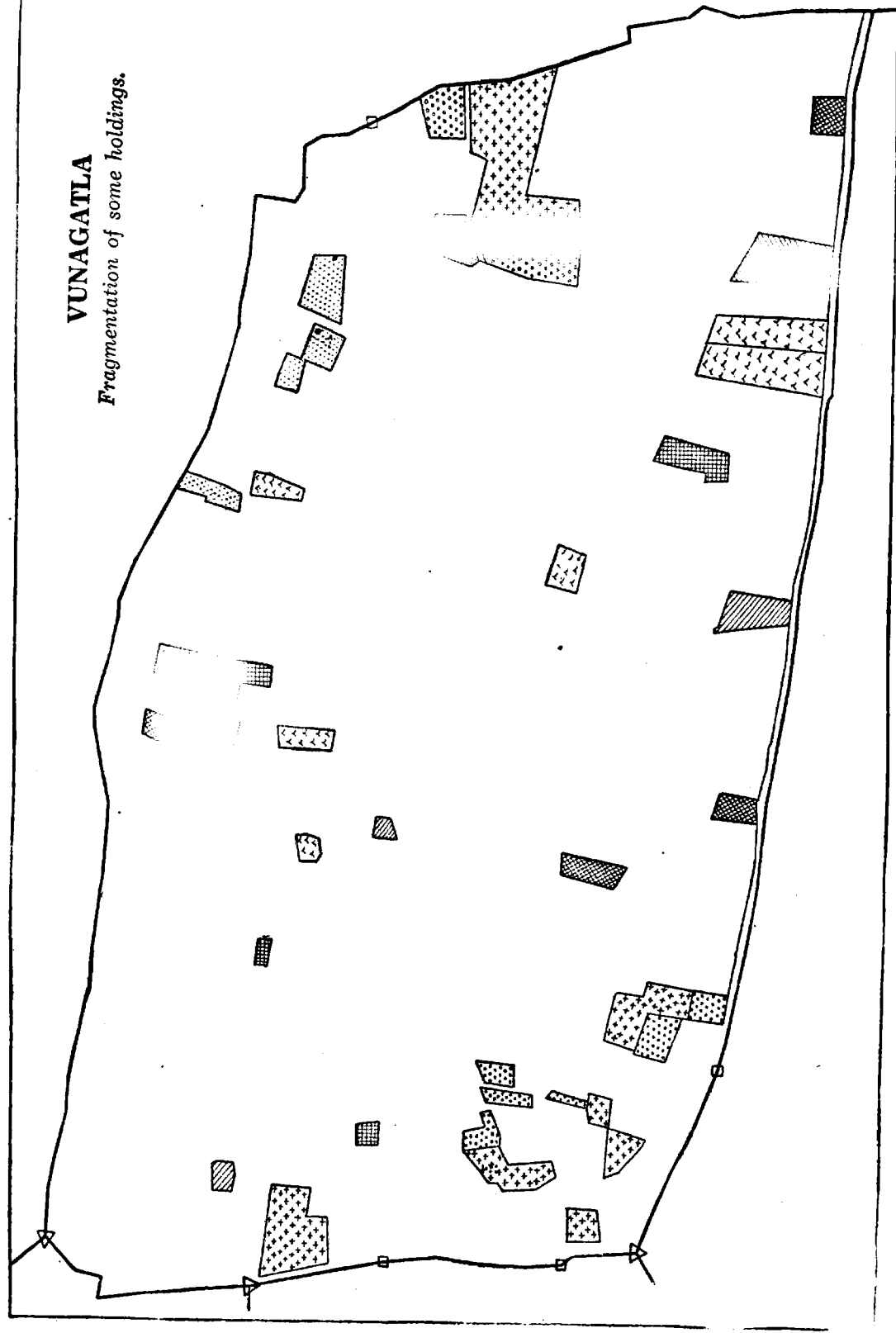
VADAMALAIPURAM

Fragmentation of some holdings.



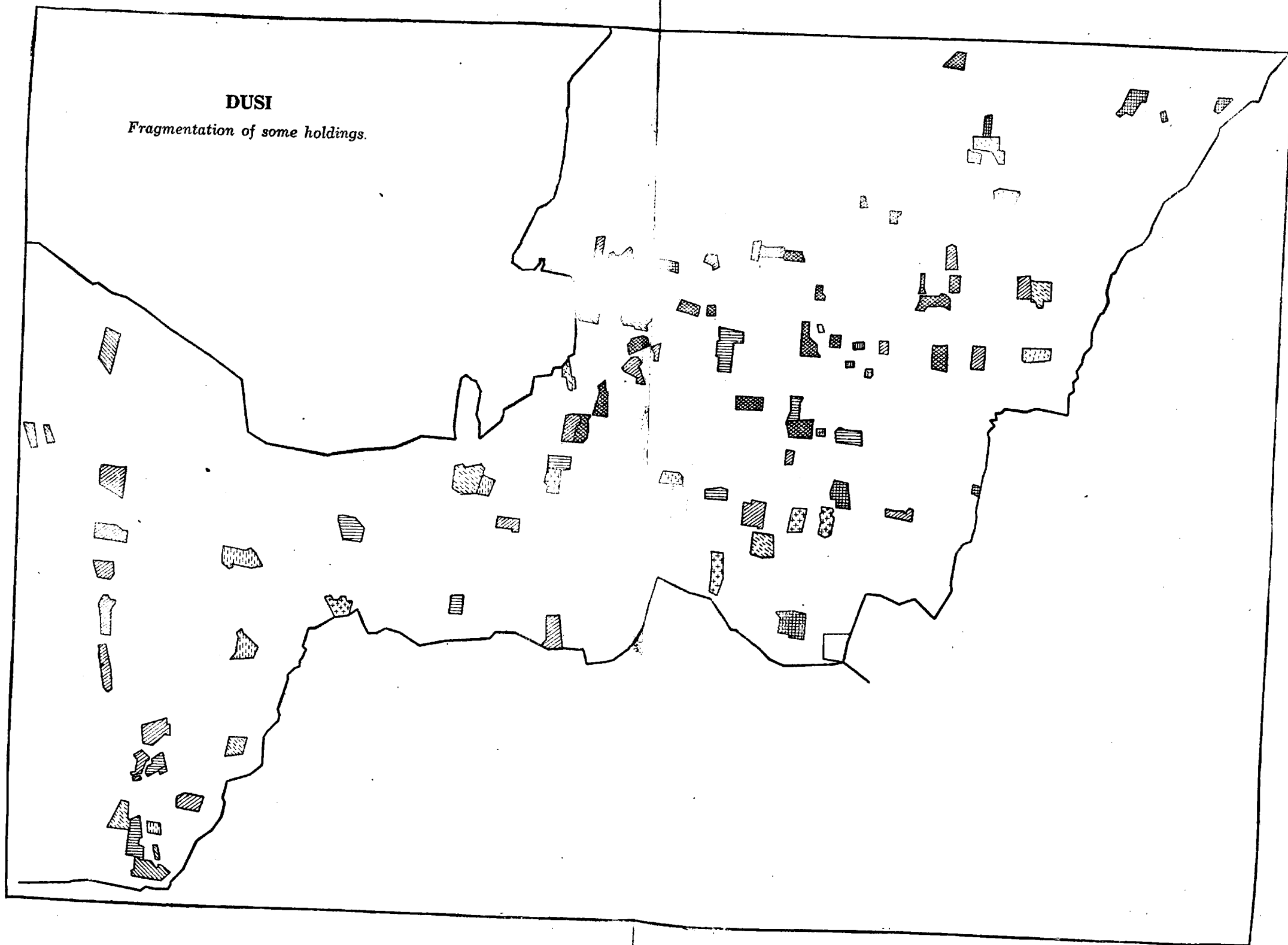
VUNAGATLA

Fragmentation of some holdings.



DUSI

Fragmentation of some holdings.



GLOSSARY

ABISHEGAM	: Anointing or bathing the image of a deity.
ACHAN	: Father or protector of the people; an insignia added to the names of certain Nayar chieftains.
ADAIPPAN	: Name of cattle disease applied to anthrax and haemorrhagic septicaemia.
ADI	: Tamil month, mid-July to mid-August.
ADI-DRAVIDAS	: A recent name for untouchables, formerly known as Panchamas.
AGATHI	: <i>Sesbania grandiflora</i> , a plant grown as standard for the betel vine.
AGRAHARAM	: Brahmin quarters in a village or town, literally donation of land or village or village site for Brahmins.
AIPASI	: Tamil month, mid-October to mid-November.
AMMAN	: Goddess.
AMSOM	: Government Revenue Division in Malabar.
ANCHAL	: State postal service in Cochin.
ANGAVASTRAM	: Upper cloth of males thrown over the shoulder.
ANI	: Tamil month, mid-June to mid-July.
ANICUT	: Weir across a river or water channel to regulate the flow of water.
ANNAPUCHI	: An insect pest affecting the paddy crop.
ARCHAKA	: Temple priest.
ARIKIRAVI	: A coarse variety of red rice—in Tinnevely district.
ARUVAL	: A small sickle.
ASARI	: An appellation applied to the artisans—carpenter, blacksmith and goldsmith.
ATTUKIDAI	: Penning the sheep in the fields for manure.
AVANI	: Tamil month, mid-August to mid-September.
AVARAI	: <i>Dolichos lablab</i> , Climbing bean.
AVARAM	: <i>Cassia auriculata</i> , a plant the bark of which is used for tanning hides and leaves are used as manure.
AVASARA SAMBA	: Quickly maturing variety of paddy.
AYACUT	: Area of land watered by a given source of irrigation.
AYYAR	: Honorific title of Tamil Brahmin of the Smartha sect.
AYYANGAR	: Honorific title of Tamil Brahmin of the Vaishnavite sect.
BALLA	: A unit of sixty palmyra trees, the maximum a tapper could climb in a day.
BANDAPURUGU	: Green worm attacking the stem of red gram plant.
BEEDI	: Indigenous cigarette.
BEEDU	: Wasteland.
BENDAI, VENDAI	: A vegetable, lady's fingers.
BERIZ	: Total land revenue assessed in an area.
BHAJANA	: A group of worshippers singing in chorus.

BHARAM	: Weight equal to one candy or 500 lbs.
BHARATAM	: A famous Hindu epic.
BIKSHA	: Alms, offerings.
BRAHMINI BULL	: Dedicated breeding bull.
BRAHMOTSAVAM	: Chief festival in a temple.
BRAMHASWOM	: Property of Nambudri Brahmins.
BRATTIES	: <i>Vratties</i> , cattle dung made into fuel.
CAWNI	: Extent of land equal to 1.32 acres.
CHAKKILIYAR	: Leather worker of Tamil districts.
CHEKKU, CHAKKU	: Country oil pressing machine driven by bullocks.
CHAL	: Minor irrigation channel.
CHARKHA	: Spinning wheel.
CHENATHANDU	: The stem of the Elephant yam, used as a vegetable.
CHERI	: Usually Paracheri, the quarters of Depressed Classes.
CHERUKIZHANGU	: A root crop used as vegetable in Malabar.
CHERUMAS	: Agricultural serfs in Malabar.
CHETTIYAR	: Honorific title adopted usually by trading castes.
CHILAMBU	: A silver anklet.
CHIRA	: A lake (Malayalam).
CHITRAI	: Tamil month, mid-April to mid-May.
CHITTU	: Paddy bran.
CHOLAM	: <i>Sorghum vulgare</i> , great millet.
CHOLANATHU	: <i>Sorghum</i> grown as a fodder crop.
CHOWKIES	: A place for collecting customs duties.
CHUNAM	: Lime.
CHUTNEY	: A hot condiment of chillies etc.
CHOLAS	: Ancient rulers in Tamil country.
COOLY	: Casual labourer.
COPRA	: Dried cocoanut kernel.
CURRY	: Vegetable, boiled or fried.
DASIRI	: A wandering tribe of religious mendicants.
DEEPAVALI	: An important Hindu festival occurring once a year in October or November.
DESOM	: A hamlet in the West Coast.
DEVASWOM	: Land reserved for Gods, the property of temples.
DHOBY	: Washerman.
DHOTY	: Cloth worn by men round the waist.
DORUVU	: Well fed by channel.
DOSAI	: A pan-cake made of rice and blackgram.
DUKKU	: Plot ploughed and reserved after first rains.
EDANGALI	: Measure of capacity in Cochin, equal to 2/3 Madras measure.
EDAYARS	: Cowherds and shepherds of the Tamil districts.
EKADASI	: 11th day of the lunar fortnight.

ELAYATH	: A community of priests in Malabar for performing obsequies.
EMBRATHRI	: A South Canara Brahmin officiating as priest in Malabar temples.
ERI	: Tank or lake.
EZHUVA	: Thiya in certain parts of Malabar.
EZUTHACHAN	: A community in Malabar providing village teachers.
FASLI	: The harvest year serving as a basis for the assessment and collection of land revenue.
GANGAIAMMAN	: Village goddess worshipped with bloody sacrifices to ward off epidemics and famines.
GANTI	: Spiked millet.
GARBAGRAHA	: Sanctum sanctorum in a temple.
GARUVU	: Sandy palmyra tract in Telugu village.
GELA KANDI	: Bunching red gram.
GODDUPESARA	: A variety of green gram used as fodder.
GORRU	: A seed-drill, also a wooden comb worked by bullocks to break up lumps in the soil and comb out the weaker plants.
GORRUTOLUDU	: Uprooting weeds and levelling the soil.
GRAMANI	: Toddy tapper and seller.
GURUS	: Priests or teachers.
IDLI	: A preparation made of the dough of rice and blackgram on steam.
ILLOM	: A Nambudiri house.
ILLUPPAI	: <i>Bassia longifolia</i> , a large tree yielding oil-seeds.
INAM	: Revenue or rent free land assigned to individuals or institutions for services rendered.
JANMI	: Land owner of Malabar and Cochin who usually leases out lands.
JANUMU	: Sunn hemp, a crop for green manure, fodder and fibre.
JETTIS	: Debts to be repaid in kind, the grain being valued some 30 to 40 per cent below the market rate.
JIRAYATI	: Ryotwari (in Telugu village).
KACHAL PADUVASI	: Dryage allowance.
KAIKOLARS	: An important class of weavers in Tamil districts.
KALAIKOTHU	: A hand hoe.
KALAM	: A measure of grain varying from 24 to 40 Madras measures.
KALAMANDALAM	: School of arts.
KALANALI	: Threshing floor presents.

KALAVASAM	: Annual remuneration in kind for farm servants, usually 60 Madras measures of paddy.
KALLASARI	: Stone mason in Malabar.
KAMALAI, KAVAI	: Water-lift worked by a pair of bullocks.
KAMBARAIKATTI	: A small sickle for reaping kambu.
KAMBU	: Spiked millet, <i>penisetum typhoideum</i> .
KAMMA,	
KAMMAVAR	: An agricultural caste reputed for industry and intelligence in cultivation.
KAMMALAR	: An artisan caste working on gold or silver, iron or other metals.
KANAKKUPILLAI	: Accountant.
KANAM	: A tenure peculiar to Malabar in which a sum of money is supposed to have been advanced by the holder of the land to the owner who offers a concession in rent, a favourable tenure lasting for at least 12 years.
KANDY, CANDY	: Weight equal to 500 lbs.
KANGANI	: Recruiting agent of labour for plantations.
KANJI	: Gruel, thin porridge made of rice usually.
KANJIPADI	: Gruel allowance.
KANMAI	: Tank.
KAPAS	: Unginned cotton.
KAPUS	: Cowherds in Telugu village.
KAR	: Crop grown in the rainy season.
KARAMANI	: <i>Vigna Catang</i> , Cow gram.
KARISAL	: Black loamy soil.
KARNAM	: Village Accountant.
KARTHIKAI	: Tamil month, mid-November to mid-December.
KARTHIKA PUR-	: Full moon day in the Telugu month of Kartika, Nov-
NAMA	: ember-December.
KARTE	: Constellation in which the Sun happens to be, and the corresponding agricultural season.
KARUNGALI	: Ebony tree.
KARUNGANNI	: A fine variety of indigenous cotton mostly grown in Tinnevely district.
KARUVELAN	: <i>Acacia arabica</i> , a wild tree which is cut and made use of for agricultural implements.
KATTUKUTHAGAI	: Fixed lease.
KATUKA	: A kind of smut attacking cholam (jonna).
KAVAI	: Watch.
KAVARAI	: A Telugu speaking sect of cultivators.
KAVIDI	: A pole carried on the shoulder with loads hung at both ends.
KEPPAI	: Ragi, a millet as important as cholam.
KICHILI SAMBA	: A fine variety of rice.
KIST	: Land Revenue payable in instalments.
KISTBANDI	: List prescribing the dates of payment of land revenue.
KODAI	: Summer.

KODIKAL	: Betel garden.
KODUKKAPALLI	: <i>Pithacolibium dulce</i> —a hedge plant, also grown for fuel.
KOIL	: Temple.
KOLAI	: A kind of green manure.
KOLINGI	: Wild indigo used as green manure.
KOLLAN	: Blacksmith.
KOMARI	: Foot-and mouth-disease.
KOMUTTI	: Vysia chiefly engaged in trade and money-lending.
KONAR	: Honorific title of <i>Edayar</i> or cowherd.
KONDAIPUCHI	: An insect pest affecting the gingelly crop.
KOORKA	: A root crop in Malabar.
KORAI	: <i>Cyperus rotundus</i> , a reed of which mats are made.
KORAVA	: A backward tribe engaged in menial work or basket-making.
KORRA	: Italian millet, <i>Tenai</i> in Tamil.
KORUKALAPPAI,	: An agricultural implement used for sowing seeds in
GORRUKALAPAI:	line.
KOTA, KOTTAI	: A measure of grain in use in Ramnad and Tinnevely districts varying from 96 to 112 Madras measures.
KOTTUNALI	: A measure used for payment of wages.
KOVILAKAM	: The royal palace.
KOZHU	: The iron share in the wooden plough.
KOZHUNTHADAI	: Sugarcane tops.
KUDIMARAMAT	: Repair of irrigation works by ryots themselves.
KUDIRAIVALI	: <i>Panicum frumentaceum</i> , sanwa millet.
KULAM	: Tank.
KUNCHAM	: A measure of grain equal to 320 tolas or 8 1/3 lbs.
KUNAIVANDU	: Weevil with prominent beak, attacking cotton, etc.
KURI	: Chit-Fund, an indigenous savings and credit institution, resembling a slate club.
KURIKKAPPADAI	: Pledge of documents for raising a loan.
KURUNI	: Measure of grain equal to 4 Madras measures.
KURUTHUPUCHI	: Literally shoot insect, the stem borer, <i>chilo simplex</i> .
KURUVAI	: A coarse variety of paddy.
KUTHAGAI	: Lease in which rent is fixed in kind or in cash as distinguished from Varam or share tenancy.
LAKH	: One hundred thousand.
LAKKAPANAM	: A corrupt form of 'rokkapanam' cash presents given to Padiyals.
LINE-KALAPPAI	: Seed-drill for sowing in lines.
LUNGIS	: Cloths of check pattern worn by Muhammadans.
MADI	: Four towels woven in one piece.
MADIGAS	: Depressed classes corresponding to Chakilies in Tamil country, leather workers.
MAGUDU	: Insect pest affecting horse gram.

MAHALI	: Insect pest affecting arecanut, a fungoid disease.
MAHIMAI	: A communal levy on the sale of village produce and other transactions.
MAHSOOL	: Produce.
MAIKURUVAI	: A variety of paddy.
MALAS	: Harijans in Telugu villages.
MALIGAI	: Retail grocery store.
MAMMATTI	: Spade.
MAMUL	: Custom, a customary payment.
MANAWARI	: Depending upon rainfall; a corrupt form of Vanamari (Vanam=sky; mari=rain).
MANDAPAM	: A stone pavilion generally inside a temple.
MANDHAI	: A flock of sheep.
MANDI	: Warehouse or shop selling grain or other agricultural produce on commission.
MANGALYAM	: The symbol of wedlock.
MANIAM	: Grant usually of land for service.
MANTRA	: A sacred word or syllable.
MARAKKAL	: A measure for grain varying from 2 to 4 Madras measures.
MARAM	: An agricultural implement used for levelling the land.
MARASARI	: Carpenter in Malabar.
MARAVARS	: A community of blackmailers originally, but now settled down as cultivators.
MARGAZHI	: Tamil month, mid-December to mid-January.
MARIAMMAN	: A village goddess.
MARUMAKKATHA-YAM	: Custom of inheritance through the female line.
MASALA	: Seasoning with spices.
MASI	: Tamil month, mid-February to mid-March.
MATAM	: A place for the practice of religious austerities.
MATHANGA	: Pumpkin, in Tamil <i>Parangikai</i> .
MATTUPONGAL	: A festival following the Pongal day for the welfare of cattle.
MILAGAIPUNDU	: <i>Vinca pusilla</i> , a green manure plant.
MINVAI	: A share which the tenant gets of the grain.
MIRAS	: Inherited property or right.
MIRASDAR	: One who holds a miras.
MOSANAM	: Dry crop-paddy.
MOSQUE	: The place of worship for Muhammadans.
MOTHIRAPUCHI	: Insect pest affecting paddy.
MRIGASIRA KARTE	: Season when rains commence and ploughing is done.
MUDALALI	: The principal employer, one who has invested capital.
MUDALIAR	: Honorific title of a sub-sect among Non-Brahmin Hindus.
MUNSHI	: A teacher of Indian languages.
MUNSIFF (VILLAGE)	: Chief village official with magisterial and other functions.
MUTHAL KADAN	: Cash advance to a tenant.

NADU	: Division of a district in Malabar.
NAIDU	: A Telugu sub-sect among Non-Brahmin Hindus.
NAINAR	: Title conferred on some families in Malabar.
NALI, NAZHI	: Unit of measure in the west coast, equal to 1/7 of Madras measure or nearly 1/2 pint.
NAMBUDIRI	: The indigenous Brahmin of the west coast.
NANJAI	: Irrigated land growing paddy and other crops requiring great deal of water.
NATHAM	: Village site.
NAVAL PUCHI	: Insect pest affecting gingelly.
NAYAKAR	: A sub-sect among Non-Brahmin Hindus.
NAYAR	: The predominant Hindu caste in the west coast.
NELLIKAI	: Fruit of the Nelli tree, <i>Phyllanthus Emblica</i> .
NILAM	: Cultivated land in the west coast.
NUNA	: A wild tree with fragrant flowers.
ODAI	: Brook.
ODDARS	: A backward tribe working on stone and earth and doing menial services.
ONAM	: Annual harvesting festival in the west coast.
OOLAI	: A disease affecting the sheep, running in the nose.
PACCA	: Solid, strong.
PADAL	: An agricultural implement for levelling lands.
PADAYACHI	: A farming community in Tanjore and S. Arcot Dists.
PADDU	: Debit entry.
PADI	: A measure; an allowance.
PADIYAL	: A semi serf labouring for a daily allowance.
PALAM	: A weight equal to 3 tolas or 1 1/4 oz.
PALAHARAMS	: Refreshments.
PALLAR	: Untouchables who are tillers of the soil.
PALLIVASAL	: Mosque.
PANAM	: A small coin of different values.
PANCHAMA	: One who is outside the fourfold Hindu caste system.
PANCHAYAT	: A Committee of Five for administration or arbitration.
PANCHAYATDAR	: A member of the Panchayat.
PANDAL	: A shed erected out of palm leaves and bamboos.
PANDARAM	: A mendicant or priestly class among Hindus.
PANDARAVAKA	: Land belonging originally to the (Cochin) Royal family, on which maximum revenue is assessed.
PANDIAN	: An ancient royal house in the Tamil country.
PANGUNI	: Tamil month, from mid-March to mid-April.
PANNAI	: Estate.
PANNAYAL	: A farm-servant paid fixed wages, in cash or kind.
PARACHERI	: A hamlet of Parayas.
PARA	: A measure equal to 60 nalis or 8 1/2 Madras measures.

PARAMBA	: Dry land in Cochin.
PARAMBU	: Levelling plank.
PARASU	: An agricultural implement used for levelling the dry lands after sowing with the seed drill.
PARE VARUM	: Nominal share tenancy.
PARIVARTHANAI	: Voluntary exchange of lands.
PATHI	: A small plot of land.
PATHINURANDU	: Rate of interest at the rate of two for every ten.
PATIMANNU	: Old earth scraped out near the walls in dilapidated houses and put in on fields as manure.
PATTA	: A document given by the receiver of revenue or rent to the cultivator or tenant specifying the conditions of holding the land.
PATTADAR	: One who holds a patta.
PATTARASAMBA	: A variety of paddy.
PEEPUL	: <i>Ficus religiosa</i> , <i>Arasa maram</i> in Tamil.
PENTAMANNU	: Farm-yard manure.
PERUMARUNTHU-	
KODI	: A creeper used as an antidote for rinderpest.
PERUM VARAGU	: A seven month's crop of millet.
PICOTAH	: Water-lift worked by men.
PIL, PUL	: Grass.
PILLAIMAR	: Community of Pillais, the most important section of Vellalas in Tinnevely.
PISHANUM	: The crop of paddy harvested early in spring.
PISINI	: A variety of dry paddy.
PODHI	: A weight equal to 250 lbs.
PONGAL	: An important Hindu festival on the eve of harvest.
PORAMBOKE	: Land reserved for purposes other than cultivation.
POTTAL	: Absolutely dry land.
POTTU	: Husks of pulses.
PUDU	: New.
PUJA	: Worship.
PULAYAS	: Agricultural serfs in Malabar.
PULUSU	: Vegetable soup (Telugu).
PULLADI	: Black soil tract.
PULLUPAI	: Grass mat.
PUMBALAI	: A variety of paddy.
PUNDIT	: One who can expound ancient lore.
PUNDU	: Garlic.
PUNJA	: Dry, unirrigated land, as distinguished from Nanjai.
PURANAM	: Ancient legend.
PURATTASI	: Tamil month, mid-August to mid-September.
PURAVAKA	: Land which is not pandavaraka (crown land) but held as private property or jenmam.
PURDAH	: Literally screen, but used for the custom of seclusion of women.

PUVARASU	: <i>Hibiscus populneus</i> , a tree with large yellow flowers.
PUZHUDIKAL	: Dry cultivated (paddy).
PUZHUTHI	: Dry dust.
RAGI	: <i>Eleusine Coracana</i> , an important cereal crop.
RAJABHOGUM	: King's share of produce.
RAMAYANAM	: One of the greatest Hindu epics.
REDDIS	: Telugu speaking agriculturists.
RYOTWARI	: A system of settlement of land revenue in which the individual ryots or landholders are liable for the payment of revenue to the Government, each on his holding.
SAIVITE	: Worshipper of Siva.
SALU	: Ploughing once breadthwise and lengthwise.
SAMAI	: <i>Panicum Miliare</i> , a millet grown on poor soils often along with pulses.
SAMANS	: Goods.
SAMBA	: A class of paddy, composed of many varieties.
SAMIBOGUM	: Owner's share of produce.
SAMUDAYA BHO-	: A relic of the traditional method of joint cultivation.
GAM	: tion.
SANKARANTHI	: Pongal Festival.
SAREES	: Women's clothes.
SASWATHAM	: Perpetual tenure, as distinguished from Kanam tenure, which is renewable.
SATHANI	: A Telugu caste of servants in Vaishnavite temples.
SEDAI	: Flooding the land with water for wet cultivation.
SEER	: A measure of weight equal to 5/8 lbs. in Madras.
SEMMAN	: Tailor, Chuckler.
SENNA	: <i>Cassia Augustifolia</i> , <i>surat avarai</i> , <i>nilavagai</i> , (Tamil) a medicinal plant.
SETTIBALIJAS	: Tappers in Telugu country (corresponding to Shanar in Tamil).
SEVVARAM	: A form of tenure, meaning literally exact half-sharing.
SHANAR	: Toddy tapper in Tamil districts.
SHANDY	: <i>Sandhai</i> in Tamil, <i>Santha</i> in Telugu, fair generally held once a week to serve a group of villages.

SIRKAR	: Government.
SIROMANI	: Title awarded for Sanskrit learning.
SMARTHA	: : Brāhmins following the doctrines of Sankara.
SORNAVARI	: : A coarse variety of paddy in N. Arcot dist.
SRARDHA	: Annual ceremony.
SURRA	: Cattle disease.
SWADANTRAM	: Customary payment of grain at harvest to the village artisans.
SWARNADAYAM	: Revenue or rent paid in cash.

TAHSILDAR	: A revenue officer in charge of a taluq.
TALUQ	: A subdivision of a district.
TARAM	: Sort or class of land.
TARAVAD	: Nayar family of the matriarchal type.
TEERMANAM-TANAKA	: The form of mortgage of land where the creditor becomes the virtual owner of the property either for a stipulated period (10, 15 or 20 years) or indefinitely till payment.
THAI	: Tamil month mid-January to mid-February.
THALAIARY	: Watchman of the village.
THALI	: Also Mangalyam, symbol of wedlock.
THALPUCHI	: An insect pest affecting paddy.
THANGAL	: A small tank.
THARAGAN	: Broker, employed in cattle and other trades.
THATTAN	: Goldsmith.
THATTI	: A bamboo screen.
THATTU	: An agricultural implement.
THEENDAL CASTE	: Caste to observe 'distance pollution'.
THENAI	: Italian millet.
THEVAR	: Caste name for the Maravar.
THIDAL	: Land on higher elevation than ordinary fields.
THITHI	: Annual ceremony.
THOMBAN	: A wandering tribesman.
THOTTI	: Village Sweeper.
THOZHUVARI	: Cattle shed fee.
THUKKU	: A measure of weight.
THULA, THULAM	: A native water lift worked by a single person.
THULAM	: Unit of weight in Watakancheri, 37½ lbs.
THUMBAL	: <i>Leucas aspera</i> , a small plant used as green manure.
THUNDU	: A piece, a towel.

TIYYAS,	: Originally toddy tapping community in the west
THIYYAS	: coast, now engaged in several other walks of life.
TOLKOLLAN	: Leather worker in Malabar.
TOPE	: A grove.
URANI, URUNI	: A pool providing drinking water.
UVARVENRAN	: A kind of paddy, literally the victor of saline soil.
VADUGAR NAICKEN	: A Telugu-speaking sect signifying north comers among Non-Brahmins.
VAIDIK	: Orthodox.
VAIDYASALA	: Hospital, Pharmacy selling indigenous drugs.
VAIGASI	: Tamil month, mid-May to Mid-June.
VAIKAL	: A channel from the river for irrigation purposes.
VAISHNAVITE	: A worshipper of Vishnu.
VAISYAS	: The trading caste among Hindus.
VAKAI, VAGAI	: <i>Albizzia Lebbek</i> , the Indian Walnut, a large deciduous tree.
VALLUVARS	: Priestly class among Parayas.
VANNIA	: Honorific title of an agricultural community in Arcot and other districts.
VANIA CHETTY	: Oil-monger or trading Chetty.
VARAGU	: <i>Paspalum Serobiculatum</i> , a hardy cereal crop grown on any soil.
VARAM	: Share tenancy.
VASI	: Interest paid in kind.
VATHIES	: The barber women serving as midwives in Malabar.
VATTELUTHU	: An ancient script in Malabar.
VEKKAI	: Rinderpest.
VELI	: An extent of land in Tanjore Dt., roughly 6½ acres.
VELLALA	: The great farmer class of the Tamil country.
VELLARIKKA	: <i>Cucumis Sativus</i> , Cucumber.
VEMBU	: The margosa or neem tree.
VEPPAL	: Drought.
VERUMPATTAM	: Tenancy at will.
VESHTI, DHOTI	: Cloth worn by men round the waist.
VETIYAN	: The village watchman and measurer.
VETTUVA	: A class of agricultural serfs in Malabar.
VINAYAKAR	: God Ganesa or Ganapathi.
VISHU	: Annual festival in Malabar, marking the beginning of the new year.

VISS : Standard weight in Madras, equal to 120 tolas or
3 1/8 lbs.

YADHAVA : Cowherd sub-caste.

ZAMIN : Estate under Permanent Settlement.

ZAMORIN : The title of the head of the old royal family who
once ruled in Malabar with Calicut as capital.

INDEX

ABBREVIATIONS :

Vad. = Vadamalaipuram.
Gan. = Gangaikondan.
Pal. = Palakurichi.
Eru. = Eruvellipet.
Dus. = Dusi.
Vun. = Vunagatla.
Wat. = Watakancheri.
Gur. = Guruvayur.
Ana. = Analysis and Observations.

AGRICULTURE—AREA UNDER CROPS, SYSTEM OF CULTIVATION

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