



# CENSUS OF INDIA, 1951

VOLUME XIII

## TRAVANCORE-COCHIN

PART I A—REPORT

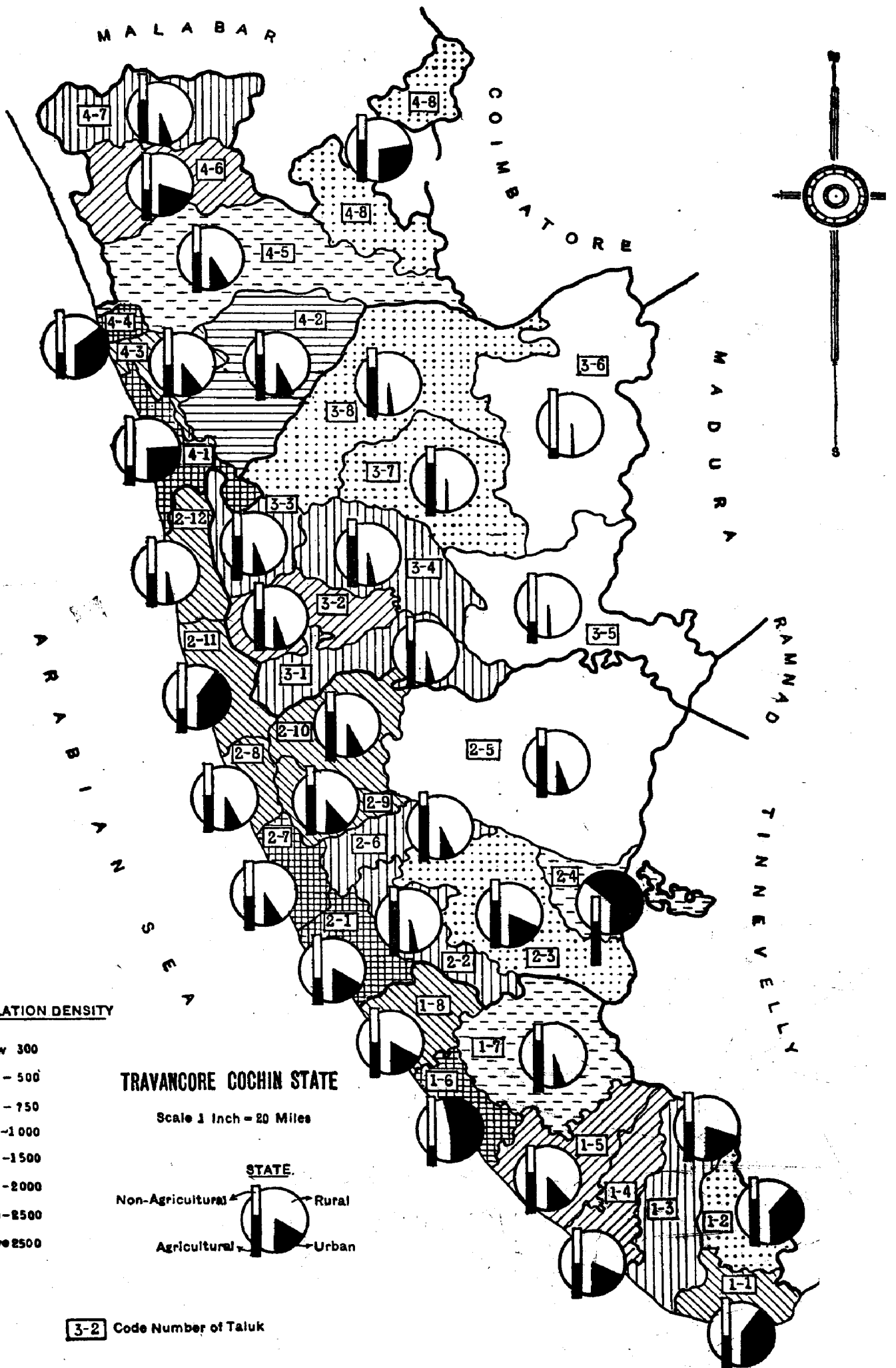
*by*

U. SIVARAMAN NAIR, M. A., Ph. D., F. A. SC., F. N. I.,  
*Superintendent of Census Operations,  
Travancore-Cochin*

*Price Rs. 2—8—0.*

PUBLISHED BY THE MANAGER OF PUBLICATIONS,  
GOVERNMENT OF INDIA PUBLICATIONS BRANCH,  
CIVIL LINES, DELHI

1953



MALABAR

COIMBATORE

MADURAI

ARABIAN SEA

RAMNAD TINNEVELLY

**3-2** Code Number of Taluk

PRINTED BY THE  
SUPERINTENDENT OF GOVERNMENT PRESSES  
AT THE GOVERNMENT CENTRAL PRESS,  
TRIVANDRUM.

## CONTENTS

	PAGE
MAP OF TRAVANCORE-COCHIN STATE	<i>Frontispiece</i>
PREFATORY NOTE .. .. .	i
1 INTRODUCTORY .. .. .	1
2 CHAPTER I—GENERAL POPULATION .. .. .	8
3 CHAPTER II—RURAL POPULATION .. .. .	29
4 CHAPTER III—URBAN POPULATION .. .. .	34
5 CHAPTER IV—AGRICULTURAL CLASSES .. .. .	43
6 CHAPTER V—NON-AGRICULTURAL CLASSES .. .. .	52
7 CHAPTER VI—FAMILIES, SEXES AND PRINCIPAL AGE GROUPS .. .. .	64

---

## PREFATORY NOTE

The 1951 Census Report consists of four volumes:—

1. Part I—A. Report
2. Part I—B. Subsidiary Tables
3. Part II Tables
4. Administrative volume

Parts I-B and II contain the results of the processing of census enumeration slips. Part I—Report—is a brief study of the main population characteristics as revealed by census data. This study confines itself to the population of the state as a whole and contains only brief references to district figures. The statements made and conclusions drawn in the Report are wholly mine and do not necessarily represent the views of Government.

Detailed figures for taluks within the four districts of the state have been assembled and published in the four District Census Handbooks. These handbooks contain besides the district tables, a description of the district and its population, a Gazetteer and certain essential statistics relating to every village in the district.

I take this opportunity to record my deep sense of gratitude to the Government of Travancore-Cochin for their generous assistance at all stages of census work. I must particularly express my obligations to Sri K. G. Menon, I. C. S., and Sri V. N. Rajan, I. C. S.—the two Chief Secretaries to the State Government during the tenure of my appointment as Census Superintendent—for their help and prompt action on my numerous and often troublesome requests.

The Secretaries to Government, Revenue Department, with whom, I had a great deal to do, were uniformly helpful to me. To them, I tender my sincere thanks.

The heads of almost all the departments of Government have helped me in my work and I am deeply indebted to them all. I shall be failing in my duty if I do not record my gratitude to the Director of Public Instruction, the Director of Public Health and the Chief Conservator of Forests who readily supplied the basic manpower required for census operations.

The success of the census enumeration goes entirely to the energy and enthusiasm of the District Collectors, the Tahsildars, Municipal Commissioners and the Divisional Forest Officers. I feel extremely happy to record that these officers devoted themselves to the work wholeheartedly and with ability. They have laid me under a deep sense of obligation.

It is difficult for me to express adequately my appreciation of the work done by the large army of Census Supervisors and Enumerators. They have carried out their census duties efficiently in the face of serious difficulties, personal inconveniences and even financial loss at times. They have brought credit to themselves and to the state.

The enumeration of the personnel of the Army, Navy and Air Force in this state was kindly undertaken by Officers of the respective Services. The enumeration in the Cochin Harbour area was arranged by the Administrative Officer, Cochin Port. It is a pleasure for me to place on record my appreciation of their services.

The estates devoted to plantation crops in this state cover a large area of the hilly tract. The proprietors and managers of these estates have placed me under a deep debt of gratitude by readily undertaking the responsibility for enumeration in their estates and discharging it in a praise-worthy manner.

The Superintendent of Government Presses, Trivandrum and his staff have been extremely helpful in the printing of the large volume of census materials. It was only the personal interest taken by the Superintendent and the assistants detailed for this work, at a time when the Press was working at high pressure, that prevented possible dislocation of census work. The elegance of the printing and get up of the census volumes are due to their initiative and skill. To them, I tender my warm acknowledgment.

There was great difficulty in housing the Tabulation Office. Brigadier, P. N. Kripal, General Officer Commanding the Indian Army Unit at Trivandrum came to my rescue by placing

at my disposal a number of barracks to accommodate the Tabulation Office. To the Brigadier and his staff, who gave me all facilities in my work, I am deeply indebted.

Sri P. S. Narayanaswamy, B. A., L. T., was my Deputy Superintendent in charge of the Tabulation Office. His enthusiasm, tact and initiative are responsible for the efficient manner in which the tabulation-work was conducted in the state. I wish to record my gratitude to Sri Narayanaswamy and his staff — the Technical Assistants, the Supervisors, the Compiler-Checkers and Sorters—for the great pains they took in the efficient discharge of their duties.

I wish to make mention of the meritorious service rendered by each and every member of my office staff. My Personal Assistant, Sri K. Parameswara Menon, M. A., always stood by me in the discharge of my duties as Superintendent of Census. With an eye for absolute efficiency, thoroughness and prompt disposal Sri Menon, has given me of his very best during the few years we worked together. I take this opportunity

to record my great appreciation of the services rendered by Sri K. Parameswara Menon.

The work that fell upon my Head Clerk, Accountant and the Typists was extra-ordinarily heavy. They shouldered the responsibilities placed on them to my entire satisfaction and I have the greatest admiration for their excellent performance.

Whatever success I may claim in my experiment with Census, is due to the prompt, critical and always sympathetic help unstintedly given by Sri R. A. Gopaldaswamy, I. C. S., Registrar General, India. I wish to place on record my gratitude to him.

Sri D. Natarajan, Assistant Census Commissioner, has helped me a good deal. His experience in census work was always available and to him I offer my grateful thanks.

Sri P. N. Kaul, the Tabulation Officer, has given me very substantial help. He has checked the tables with scrupulous care and pointed out several mistakes in some of the tables. For this great help, I am deeply grateful to him.

U. SIVARAMAN NAIR,  
*Superintendent of Census Operations.*

## INTRODUCTION

### 1. The Importance of the 1951 Census

1. Census history in Travancore-Cochin goes as far back as 1816. In Travancore, censuses were subsequently conducted in 1836, 1854 and 1875; in Cochin, censuses were taken in 1820, 1836, 1849, 1858 and 1875. From 1881, censuses in both states synchronised with the Indian Censuses. As the earlier attempts at population count do not appear to have been very systematically organised, the first regular systematic census is believed to be that of 1875. The present census is thus the eighth decennial (and the ninth systematic) census to be held in this state.

2. The 1951 Census will go down in census history as a memorable event. To it belongs the distinction of having been the first census to be taken after India's attainment of independence. It is also the first census of the integrated state of Travancore-Cochin. (The states of Travancore and Cochin were integrated with effect from 1st July, 1949.)

3. From the legal and constitutional point of view the 1951 census marks a new development. Previously, censuses were conducted under the authority of Acts passed by the legislatures in the two states, though of course, the operations were carried out under the general guidance of the Census Commissioner to the Government of India. Under the Constitution of India which came into force on the 26th January, 1950, census is a central subject. The Central Government had already enacted a piece of permanent legislation—the Indian Census Act (Act XXXVII of 1948)—to regulate the conduct of census operations. As it was pointed out that at the time of passing this Act, the Government of India could not legislate for this state, the Census (Amendment) Act of 1950 was passed extending the Indian Census Act to this state; the amendment came into force from the 6th August, 1950. Thus for the first time census operations in this state came to be governed by central legislation.

### 2. New features

4. While each census inevitably makes some innovations on its predecessor, no previous census can claim so many new features as the 1951

census. The most important change made at this census is the abandonment of the collection and tabulation of data for separate castes or communities and the emphasis laid on the gathering of economic data relating to every citizen. The only exception is in regard to Scheduled Castes, Scheduled Tribes and Anglo-Indians. The caste and community tables which were a serious head-ache to previous Superintendents (and perhaps served little purpose) were dropped.

5. Emphasis was rightly laid on the collection of economic data, because basic data on the economic life of the nation, essential for proper planning were sadly lacking. As the census was the only administrative effort reaching every household in the country it was decided that at the census special attention should be devoted to the collection of economic data. Three questions (questions 9, 10 and 11) out of a total of 14 in the census questionnaire were set apart to gather information relating to the economic status and means of livelihood of each citizen.

6. The National Register of Citizens prepared for the first time at this census represents the result of an administrative effort of immense magnitude and usefulness. The Register, compiled in separate parts for each village and ward in town or city, contains the names of all persons enumerated at the census arranged by households in the house-numbering order; it also gives the more important census data relating to each citizen.

7. Another important new development was the decision to compile and publish District Census Handbooks, under the auspices of the State Government. At previous censuses, no doubt, some essential data relating to villages and towns were published under the title 'Village Statistics'. The District Census Handbooks were designed to be more comprehensive, in fact, to take the place of the old gazetteers; the volumes were to be published as soon as tabulation was over and the census tables ready. Besides village statistics, the Handbooks include all the important census data in respect of each district, a descriptive account of the district with special reference to its population, a gazetteer and an index of the names of villages and towns; they represent the

Results of great co-operative effort and labour. Judging from the nature and volume of enquiries received in this office from official and non-official sources the Handbooks appear to fulfil a real need.

8. The award of the 1951 Census Medals in the name of the President of the Indian Republic to those census workers who showed outstanding zeal and quality in their work was another new feature; this was in addition to the recognition of meritorious census work by the State Government by way of appropriate entries in the Service Books of the officers concerned. It helped to stimulate enthusiasm and a spirit of emulation among many census workers. The number of medals was fixed at the rate of approximately three per lakh of population; there were two varieties of medals, silver and bronze, in the ratio of 1:2. This state got 86 silver and 172 bronze medals. The presentation of medals was made at appropriate functions held at district and taluk headquarters.

9. For the first time, a sample verification of census enumeration was conducted to check the accuracy of census enumeration. This was conducted by magisterial officers of the State Government in March, immediately after the census. This sample check was intended to determine the limits of errors of census enumeration.

10. A new arrangement to improve the efficiency of training census workers was the conduct of a Training Sample Census, undertaken at the instance of the Registrar-General. It was also intended to give advance publicity to the census; the tabulation of the material collected at this census was to be used in fixing the out-turn of work in the Tabulation Office to be opened later. The Training Sample Census was to be a dress rehearsal of the census in selected sample households, to be conducted after the 'class-room training' was over. In this state it was held during October 1950. It proved extremely useful, for the results of the sample census revealed deficiencies in the training of the supervisors themselves. Revised instructions with special emphasis on the weak points disclosed at the census were, therefore, issued and a programme of intensive training laid down, in order to equip the field staff properly for their work.

### 3. Travancore-Cochin—a short sketch

11. The Travancore-Cochin state was formed by the integration of the two ancient states of

Travancore and Cochin, as a result of the policy of integration of Indian states initiated by Sardar Vallabhai Patel. Travancore and Cochin along with Malabar and adjacent territories constituted the ancient Chera kingdom. When the authority of the Chera emperors waned, the kingdom broke up into a number of small independent principalities, the physical configuration of the country favouring the growth of centrifugal forces. The early histories of Travancore or (Venad as it was called in ancient times) and Cochin (or Perumpadappu as it was known) are shrouded in obscurity. Travancore was originally a small kingdom whose territories were confined to the extreme south. The expansion of the kingdom was the work of great warrior-king Marthanda Varma (1729-58) who conquered all the principalities lying between Travancore and Cochin. During the reign of his successor, Cochin had to cede to Travancore some of its southern possessions for help against the powerful Zamorin of Calicut. Both states made common cause against Hyder Ali and his son, Tippu Sultan. In 1790 Tippu Sultan marched his armies into the country as far as Alwaye; the intervention of the East India Company, however, prevented further aggression. The establishment of friendly relations with the British power in India about this period secured for the two states protection from external invasion. The establishment of internal peace and order took some more years. The feudal chieftains who for centuries exercised vast powers in their respective territories were curbed and brought under control. The national militia was disbanded and replaced by a trained standing army, the administrative machinery was reorganised and strengthened, communications were improved and a strong police force created to stamp out offences against life and property. A succession of enlightened rulers and able ministers helped the two states to make such progress in all nation-building activities that from about the middle of the nineteenth century these states came to be held up as models for other Indian states. The integration thus brought together two states which though linked together by common geographical features and a common cultural heritage had remained two separate political units for several centuries.

### 4. Area and physical features

12. The state of Travancore-Cochin (lat. 8° 4' N and 10° 50' N; long. 76° 5' E and 77° 38' E) lying at the southwest corner of India between



the Western Ghats and the Arabian Sea is one of the most beautiful regions of India. Its total length, from the Bharathapuzha in the north to Cape Comorin (Kannyakumari) in the south is about 250 miles; the breadth varies irregularly from about 20 miles in the extreme north and south, to a maximum of 75 in the middle. There are two isolated pieces of Travancore-Cochin territory—portion of Chittur taluk in the north and of Shenkotta taluk about the middle — lying engulfed within the Madras state. The littoral in the extreme north forms part of Madras state. Lying within the state are three small isolated bits of territory about a square mile in total extent, under the jurisdiction of Madras state; they are the municipal town of Fort Cochin (area 657 acres 5 cents) in the Cochin-Kanayannur taluk, and Tumbolipattom (area 13 acres 98 cents) and Katturpattom (area 4 acres 60 cents) in the Ampalapuzha taluk. The total area of the state according to the figures furnished by the Surveyor-General, India, is 9,143.9 sq. miles.

13. There was no change in the areas of the two states between 1941 and July 1949. The area of the integrated state was almost unaffected by the territorial changes which accompanied the coming into force of the Constitution of the Indian Republic. Under the Provinces and States (Absorption of Enclaves) Order 1950, a few bits of territory were added to this state from Madras and a few enclaves were surrendered to Madras, with effect from the 25th January, 1950. The additions (the chief of which were Anjengo in the Trivandrum district and Tangasserri in the Quilon district) amounted to 643 acres and the losses to 360 acres; the losses were all from the Trichur district.

14. The erstwhile state of Travancore consisted of three districts, Trivandrum, Quilon and Kottayam. The integration of Travancore and Cochin resulted in the creation of a fourth district, Trichur, formed by the addition of two taluks—Kunnathunad and Parur—from the Kottayam district to the erstwhile Cochin state. As the four districts in the state lie more or less parallel to each other from south to north, each district has its area distributed among the three natural sub-divisions, a feature peculiar to this state.

The area, number of taluks comprised in and

the head-quarters of each district are as follows:—

District	Area in sq. miles	No. of taluks	District Head-quarters
Trivandrum	1491.8	8	Trivandrum
Quilon	2729.6	12	Quilon
Kottayam	2954.1	8	Kottayam
Trichur	1968.4	8	Trichur

15. The physical configuration of the state is singularly diversified. The forest-clad Western Ghats lie on the eastern border of this state at a distance varying from about 20 to 75 miles from the sea. The average elevation of the Ghats is 4000 feet. There are several peaks above 7000 feet. Anamudi (8837 feet) is the highest peak in the Western Ghats and also the highest point in India, south of the Himalayas. A few passes lie across the Ghats; a railway line and roads connecting this state with Madras have been constructed along the easiest of these passes.

16. From the Western Ghats in the east the country undulates to the west and presents a series of hills and valleys intersected by numerous rivers running east to west. The waters of these rivers spread themselves out into a number of lakes or lagoons near the coast. These have been connected by artificial canals to facilitate inland navigation. Starting from the north, the chief rivers are Chalakkudi (90 miles), Periyar (142 miles), Muvattupuzha (62 miles), Pampa (90 miles), Kallada (70 miles) and Karamana (42 miles). The largest lake (Vembanad) is about 50 miles long and 9 miles broad while the smallest is barely three-fourth of a mile long and half a mile broad. Some of these lakes open out into the sea as at Cranganur, Cochin, Kayamkulam and Neendakara.

17. A heavy annual rainfall, a warm humidity of the atmosphere and a fairly uniform temperature throughout the year are the characteristic features of the climate of the state, as of the Malabar coast generally. The seasons are mainly controlled by the two periods of rainfall viz., the south-west monsoon from June to August and the retreating or north-east monsoon from October to December. December to February is mainly a clear bright season with fairly cool nights, the average minimum temperature being 74° F and the maximum 87° F. From March to May, the atmosphere gets hotter and more moist and during the latter half of the period, clouding increases and afternoon thunder showers occur. The

thunder showers account for 19 inches of rain at Cochin and about 15 inches at Trivandrum. The average maximum temperature during this season is 89° F and has never risen above 93° F. The southwest monsoon bursts on this coast towards the end of May and is usually associated with a depression or storm.

18. June to September, when the southwest monsoon holds sway, is the season when nearly two-thirds of the annual rainfall are received. Skies are heavily clouded and rainfall occurs on about 25 days each in June, July and August. In September, stations north of Alleppey have about 15 rainy days, while the number of rainy days is smaller and the rainfall less, for stations south of Alleppey.

19. During October and November when the south-west monsoon retreats and the north-east monsoon establishes itself over the country, the intensity of the rainfall increases slightly. During this season, there is more rainfall on the hills than on the plains.

20. The annual rainfall is heavy and is also fairly regular and uniform. As mentioned above, the south-west monsoon brings in the greater portion of the rainfall. Two essential features of the distribution of the rainfall are its progressive increase from the south to the north and a similar increase from stations on the coast to stations at the foot of the Ghats. The average rainfall at Trivandrum is about 67 inches, at Cochin about 115 inches and on the Cardamom Hills on the Western Ghats, about 200 inches. In the wettest year, Trivandrum has received 120 inches and Cochin 166; in the driest year Trivandrum received 40 inches and Cochin 80.

21. As the state receives the benefit of both monsoons complete failure of rains and famines are unknown; this does not, however, rule out the possibility of the seasonal distribution of rain being unfavourable to the agriculturist. There are occasionally heavy floods in the basins of some rivers causing considerable damage to crops.

22. This state falls within the Western Ghats and Coastal Region and Malabar-Konkan Sub-Region in the scheme adopted at this Census for the division of India by natural regions. On the basis of physical features, the state is

divided into three natural sub-divisions, each having its own soil, rainfall and vegetation— (i) the highland comprising the Ghats, which gradually decrease in height as they go west (ii) the midland, or the central belt, consisting of series of uplands and plains which sink gradually in level towards the west and (iii) the lowland or the littoral tract.

23. The highland, covering the eastern portion of the state and containing most of its reserve forests occupies an area of 4,135 sq. miles; this forms about 45 per cent of the total area of the state. The annual rainfall ranges between 100 inches in the south and 200 inches in the north; Peermede receives 201 inches and Neriamangalam 209. The climate is cool and bracing. Despite the lack of communications, plantation crops like tea, rubber and cardamom were introduced in this area from the sixties of the last century by European planters. A number of good roads built during the past two decades have developed transport facilities.

24. The midland consists of uplands of varying elevation through which the rivers have carved out for themselves long narrow valleys; it covers an area of 3,361 sq. miles (37 per cent of the total area of the state). The rainfall ranges from 55 to 140 inches. Rice is grown in the valleys while tapioca, cocoanut, pepper, ginger and rubber are cultivated on the hill slopes. Road facilities are fairly well developed.

25. The lowland covering 1,648 sq. miles (18 per cent of the area of the state) is narrow and irregular in shape and consists mainly of recent deposits of sand and alluvium. It is low, and in some places even swampy and liable to inundation during monsoons. One of the most characteristic and picturesque features of this area is the almost continuous line of lagoons or backwaters lying parallel to the coast and receiving the drainage of several rivers. They are connected with the sea at some places. The rainfall ranges from 35 inches in the extreme south to 110 inches in the north. The soil is peculiarly suited for the cultivation of cocoanut and rice. Fisheries, both inland and marine, constitute an important source of food and of wealth. Water and road communications are excellent. Almost all the cultivable area has been brought under cultivation.

26. The heavy rainfall and diversity of physical features have resulted in a great variety.

and abundance of vegetation. The reserve forests of the state cover 2456 sq. miles and contain about 600 species of timber trees (including teak, blackwood, ebony) and 3600 other plants, many of which like bamboos and reeds are of great economic value.

27. Rice, the staple food of the people on this coast, is the most important food crop cultivated in the state. The dominant factor in rice cultivation as of agriculture generally is seasonable rainfall.

28. Among other agricultural products, coconut is the most important, providing as it does, raw material for the coir, oil and soap industries. Plantain and arecanut are grown extensively in the lowland and midland. The midland produces spices like pepper and ginger and also lemon grass oil for which the state holds a monopoly in India. Hill produce consists of rubber, tea, cardamom and coffee. This state is the chief producer of rubber and cardamom in India.

29. The fisheries of the state, comprising as they do, freshwater fisheries, (including rivers, tanks and channels) backwater or estuarine fisheries and the most valuable of all, marine fisheries, are very important. Marine fisheries extending to about 8000 sq. miles of sea (of which only 1200 sq. miles are harvested at present) include the Wadge Bank, one of the richest fishing grounds in the Indian Ocean. The annual catches are estimated at about one lakh tons. Fish forms an important article of food and also of the export trade of the state.

30. The state contains large reserves of white clays and pottery clays used in the manufacture of tiles, bricks and pottery. There are small deposits of phlogopite and graphite in south Travancore; there is a small production of phlogopite mica from central Travancore (amounting from 500 to 1000 tons per annum). The beach sands along the Travancore coast carry large reserves of ilmenite, monazite, garnet, as well as zircon, rutile and sillimanite. A factory has been opened at Trivandrum for the manufacture of titanium dioxide from ilmenite. Another factory for the processing of cerium and thorium compounds from monazite, has been established at Alwaye. Iron, coal or mineral oil deposits are absent in the state. It has, therefore, been said that water constitutes the chief mineral wealth in the state,

because there are sufficient heads in the rivers to enable production of a large volume of hydro-electric power. However, the seasonal nature of water supply in the rivers necessitates the construction of costly storage reservoirs. The falls at Pallivasal have been harnessed; as the present production does not suffice for the requirements in the state, other projects have been taken up. The electric power generated in the state is 158.38 million units during 1951—52.

31. Though Travancore-Cochin is predominantly an agricultural country, there are a number of industries, most of them started in recent years. The chief factory industries in the state are coir-matting, cocoanut oil, cotton textiles, rayon, rubber, paper, glass, soap, ceramics, aluminium, match, plywood, chemicals and fertilisers and cement. About a lakh of persons are employed in factories. Small industries like coir, cotton weaving, mats and baskets, palmyra jaggery, lace and embroidery, wood and ivory carving, pottery, oil crushing, leather and metal works give employment to a large number of people.

32. The extensive river and backwater system in the state affords easy and cheap water communication particularly in the lowland. There is a well developed system of road communications in the state with bridges across most of the rivers. The total length of roads is about 7500 miles giving 1.5 miles of road for every sq. mile of cultivated area. There are two stretches of railway in the state, the metre gauge line from Trivandrum to Shencotta (length 99 miles) and the broadgauge line from Cochin Harbour to Shornur (length 72 miles). Cochin and Trivandrum have aerodromes which are halting places for regular air services.

33. The chief port in the state is Cochin, the best harbour on the coast south of Bombay; other ports with fairly convenient anchorage are Alleppey, Kolihottam, Quilon, Trivandrum and Colachel.

## 5. Government and Finance

34. Under the Constitution of India, Travancore-Cochin like other unions of Indian States, is a Part 'B' state; the executive power is vested in the Rajpramukh and is exercised by him either directly or through officers subordinate to him in accordance with the provisions of the constitution. There is a Council of Ministers headed by

the Chief Minister to advise the Rajpramukh. The Chief Minister is appointed by the Rajpramukh, who also appoints the other ministers on the advice of the Chief Minister. The Council of Ministers is collectively responsible to the Legislative Assembly.

35. The revenues for the year 1950—51 amounted to Rs. 1,399 lakhs including contributions from the Government of India towards the revenue gap and subsidies for the Grow More Food Campaign. The expenditure on revenue account was Rs. 1,274 lakhs and that on the capital investments, Rs. 275 lakhs.

#### 6. The Census Questionnaire

36. The 1951 census questionnaire consists of 14 questions as against 18 in 1941. Out of these 14 questions, one (question 6) is on Displaced Persons\* and another\*\* (question 13) is for any special enquiry in which the state may be interested. For purposes of comparison, the two sets of questions are arranged below in parallel columns.

1951 census	1941 census
1. Name and relation to head of household	1. Name
2. (a) Nationality (b) Religion (c) Special groups	2. Race, tribe or caste 3. Religion
3. Civil condition	4. (a) unmarried (b) married (c) widowed (d) divorced
4. Age	5. Age
5. Birth place	13. Birth place
6. Displaced persons	No question
7. Mother-tongue	14. Mother-tongue
8. Bilingualism	15. Other languages commonly used

\* A 'displaced person' means any person who has entered India having left or being compelled to leave his or her home in Western Pakistan on or after the 1st March 1947 or his/her home in Eastern Pakistan on or after the 15th October 1946 on account of civil disturbances or the fear of such disturbances or on account of the setting up of the two dominions of India and Pakistan.

\*\*As the steady growth of population at a high rate is the most urgent aspect of the population problem in the state and as fertility enquiries were attempted at the 1931 and 1941 censuses, permission of the state government was obtained to use this question for a study of the maternity pattern in the state.

9. Economic status	6. (a) Wholly dependent (b) Partly dependent (c) Not dependent
i. Dependency	
ii. Employment status	Nil
10. Principal Means of Livelihood	10. Means of Livelihood
11. Secondary Means of Livelihood	7. Means of Livelihood of person on whom dependent
12. Literacy and Education	16. (a) Language read and written (b) Languages read only (c) Illiterate
	17. (a) How far studied (b) Highest examination passed
	18. Literate in English
13. Duration of marriage and size of family	3. Duration of married life
(a) Completed years of married life	4. Age of mother at first maternity
(b) Age of mother at first maternity	
(c) Number of children born	(1) Number of children born (a) Male (b) Female
(d) Number now alive	(2) Number of children alive (a) Male (b) Female
14. Sex	Separate slips were used to enumerate males and females.

Question 9 (ii) of 1951 giving the employment status of self-supporting persons has no counterpart in 1941. However, four questions in 1941 are on employment. These are:—

- (8) Number of paid assistants  
(a) members of household  
(b) others

- (9) (a) Employed
- (b) Unemployed
- (c) In search of employment
- (d) How long in search?

(11) Means of Livelihood-period

(12) If employed, name of employer's business. Question 18 of 1941 in regard to literacy in English has been omitted in 1951.

**37.** The above comparison shows that the important change in the 1951 census is in regard to the questions regarding economic status and means of livelihood. Self-supporting persons have been described as employer, employee or

independent worker at the 1951 census while a similar classification was absent in 1941.

**38.** Abbreviations were used to record the answers to census questions in the enumeration slips. This made the entries precise and ruled out illegible writing. At the tabulation stage there was considerable saving in time also.

**39.** The size of the enumeration slip was only  $4\frac{3}{8}$ " x  $4\frac{1}{2}$ " nearly and the fourteen questions were indicated by the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14. At the top of each slip, the district, taluk, village, town or ward and the house number were entered in terms of location code numbers.

## CHAPTER I

### GENERAL POPULATION

#### Section i. Preliminary remarks

1. The total population of the state as enumerated at the 1951 census is 9,280,425; the area of the state as determined by the Surveyor-General, India, is 9,144 square miles. Among the states in India, Travancore-Cochin is nineteenth in area while in regard to population it ranks eleventh; in point of density it really leads all the other states. The number of inhabitants per square mile is as high as 1,015. Detailed comparison with other states is contained in the following table.

<i>Name of the State</i>	<i>Area in sq. miles</i>	<i>Population</i>	<i>Density per sq. mile</i>
India .. ..	1,269,640	356,829,485	281
Delhi .. ..	578	1,744,072	3,017
Travancore-Cochin .. ..	9,144	9,280,425	1,015
West Bengal .. ..	30,775	24,810,308	806
Bihar .. ..	70,330	40,225,947	572
Uttar Pradesh .. ..	113,409	63,215,742	557
Madras .. ..	127,790	57,016,002	446
Punjab .. ..	37,378	12,641,205	338
Bombay .. ..	111,434	35,956,150	323
Mysore .. ..	29,489	9,074,972	308
Orissa .. ..	60,136	14,645,946	244
Hyderabad .. ..	82,168	18,655,108	227
Madhya Pradesh .. ..	130,272	21,247,533	163
Bhopal .. ..	6,878	836,474	122
Rajasthan .. ..	130,207	15,290,797	117
Assam .. ..	85,012	9,043,707	106

Barring Delhi, this state has the greatest density. Comparison with Delhi is not strictly valid because the metropolitan aggregations of Delhi and New Delhi account for the high density there. West Bengal, though the home of several large industries, comes only below Travancore-Cochin in point of density. The neighbouring state of Madras has an overall density of only 446.

2. A comparison of the densities of some of the thickly-peopled Population Divisions in India (figures given below) throws into relief the density in the state. Greater Bombay and Delhi Divisions are dominated by urban concentrations. The Plain Divisions are some of the most fertile regions in the Gangetic basin and even there, the densities are smaller than that in this state.

	<i>Area in sq. miles</i>	<i>Density</i>
1. Greater Bombay Division ..	211	13,456
2. Delhi Division .. ..	578	3,017
3. Travancore-Cochin Division ..	9,144	1,015
4. Bengal Plain Division ..	24,341	936
5. East Uttar Pradesh Plain Division ..	21,053	850
6. North Bihar Plain Division ..	21,661	839
7. South Bihar Plain Division ..	15,509	721
8. Central Uttar Pradesh Plain Division ..	22,505	717
9. West Madras Division ..	10,872	627

3. The following figures of density reveal the extent of population concentration in this state as compared with other countries.

<i>Density in some other countries</i>			
Japan .. ..	..	..	583
Pakistan .. ..	..	..	205
Belgium .. ..	..	..	733
Denmark .. ..	..	..	256
Germany .. ..	..	..	505
Italy .. ..	..	..	399
Norway .. ..	..	..	26
Switzerland .. ..	..	..	295
England and Wales .. ..	..	..	754
Scotland .. ..	..	..	171
Australia .. ..	..	..	3
Canada .. ..	..	..	3
United States of America .. ..	..	..	49

The countries listed in the above table have considerably greater areas than this state. Further the Western countries and Japan are highly industrialised; as such, the figures are not exactly comparable. The figures, however, go to indicate that this small state is faced with the serious problem of accommodating an unduly large population in a comparatively small area. The position becomes worse when it is remembered that out of 9,144 square miles 2,456 square miles are under reserve forests and that the area under occupation is only about 5,000 square miles; the density on occupied land is above 1,800.

#### Section ii. General distribution and density

4. The state presents a diversity of physical features and natural resources, resulting in wide

variations in the distribution of population and density. A brief account of the physical features and natural resources has already been given in the introduction. The distribution of population is now analysed according to the natural sub-divisions and administrative divisions of the state.

5. As explained before, geographical and physical features divide the state into three natural sub-divisions—lowland, midland and highland. The distribution of population into these regions is given below:—

	<i>Percentage</i>		
	<i>Area</i>	<i>Population</i>	<i>Density</i>
Lowland	18.0	43.5	2,448
Midland	36.8	50.0	1,381
Highland	45.2	6.5	147

The densest region—lowland—with a little less than one-fifth of the area contains 44 per cent of the population. The midland with 37 per cent of the area has half the population of the state. The highland, covering an area of approximately 45 per cent has only 6.5 per cent of the population. These differences in the distribution of population in the natural sub-divisions are only to be expected in the light of the differences in the physical features of these areas.

6. The lowland has an equable climate. The land is easily cultivated and there are good fishing waters. The products of the cocoanut tree and fisheries give employment to a very large number of people in this region. Further, means of communication both by land and water have always been good. Thus, the cheapness of living in an area where variations in temperature are unknown, the comparative ease with which food is produced, the existence of industries and the abundance of communication facilities account for the teeming population and high density in this region.

7. In regard to the midland, though the soil is fertile, the cultivation of rice—the staple food of the people—is possible only in the small valleys. Tapioca, grown extensively forms only a supplement to the diet of the people. These are factors limiting the size of population. The presence of 50 per cent of the state population in this region is to be explained by the abundance and variety of its natural resources. The soil and rainfall are suitable for cultivation of cash crops like pepper, ginger, cashew, lemon grass and cocoanut. Also means of communication have improved consider-

ably in the recent past. These have attracted increasing numbers from the lowland.

8. The highland is mostly covered with dense forests. The percentage of cultivated area is only 12 out of which a large slice is devoted to plantation crops. Naturally the population here is small.

9. The wide variations in the distribution of population are reflected in the densities of these natural sub-divisions. The density of 2,448 persons to the square mile in the lowland shows a very heavy pressure of population here. Even though the overall density is 2,448, there are in this area, whole taluks with density exceeding 2,500 (Trivandrum, Quilon, Karunagapally, Cochin-Kanayannur and Cranganur) and the lowest density at taluk level is over 2,000. Densities at village level will give a more realistic picture of population concentration in the lowland.

10. The percentages of area and population and density of the four districts in the state are given below.

	<i>Percentage</i>		
	<i>Area</i>	<i>Population</i>	<i>Density</i>
Trivandrum	16.3	23.2	1,444
Quilon	29.9	32.6	1,109
Kottayam	32.3	19.2	604
Trichur	21.5	25.0	1,176

The populations of the districts are not in accordance with their size. The largest district, Kottayam, has the smallest population, while, Quilon, standing only second in area, has the largest population. Such inequalities between population and size of the districts are caused by the unequal distribution of the area of the districts in the natural sub-divisions.

11. The table given below summarises the data on the distribution of population of each district within the three natural sub-divisions.

<i>District</i>	<i>Percentage</i>		
	<i>Area</i>	<i>Population</i>	<i>Density</i>
TRIVANDRUM	100	100	1,444
Lowland	31.5	63.9	2,930
Midland	35.9	32.6	1,308
Highland	32.6	3.5	157
QUILON	100	100	1,109
Lowland	21.4	46.9	2,424
Midland	35.0	49.9	1,583
Highland	43.6	3.2	81

District	Percentage		
	Area	Population	Density
KOTTAYAM	100	100	604
Lowland	7.4	20.2	1,646
Midland	31.0	62.4	1,215
Highland	61.6	17.4	171
TRICHUR	100	100	1,176
Lowland	19.0	38.0	2,347
Midland	48.4	56.7	1,379
Highland	32.6	5.3	191

Trivandrum has almost a third, Quilon and Trichur about a fifth and Kottayam only one-fourteenth of their respective areas under lowland. The lowland region in Trivandrum is much more thickly-populated than those in Quilon and Trichur, which in their turn have greater densities than the lowland region in Kottayam. Further, Kottayam has about 17 per cent of its area under thinly populated highland while the corresponding percentages for the other districts are small. These by themselves explain in general the low density of Kottayam and the small variations between the other districts.

12. The natural sub-divisions within themselves are not uniform in density. The lowland area in Trivandrum district has a density of 2,930 while the corresponding densities for Quilon, Trichur and Kottayam are respectively 2,424, 2,347 and 1,646. In regard to midland area in the districts, Quilon with a density of 1,583 ranks first followed by Trichur, Trivandrum and Kottayam with densities of 1,379, 1,308 and 1,215 respectively. The highland areas in Kottayam and Quilon have densities of 171 and 81 while in Trichur and Trivandrum the densities are 191 and 157. Such differences in population densities within the same natural sub-divisions can only indicate the varying degrees of development the districts have had from time to time.

13. The distribution of the natural sub-divisions in the four districts (shown in the table below) also explains the variations in densities.

	Percentage	
	Area	Population
LOWLAND	100	100
Trivandrum	28.5	34.1
Quilon	35.5	35.2
Kottayam	13.3	28.9
Trichur	22.7	21.8
MIDLAND	100	100
Trivandrum	16.0	15.1
Quilon	28.4	32.6
Kottayam	27.3	24.0
Trichur	28.3	28.3

	Percentage	
	Area	Population
HIGHLAND	100	100
Trivandrum	11.7	12.6
Quilon	28.8	15.9
Kottayam	44.0	51.3
Trichur	15.5	20.2

Quilon has the largest percentage of lowland; the other districts come in the order, Trivandrum, Trichur and Kottayam. The midland area is almost equally distributed among Quilon, Kottayam and Trichur, Trivandrum alone having a smaller percentage. 44 per cent of the highland falls within Kottayam, while Quilon, Trichur and Trivandrum have respectively 29, 15 and 12 per cent.

14. In point of distribution of area under lowland and population, Quilon stands first. Trichur comes next in respect of population closely followed by Trivandrum though the latter has a higher percentage of lowland area. The effect of this difference in lowland area in these two districts is more than neutralised by the higher percentage of midland area in Trichur. Kottayam has not only the lowest percentage of lowland area but also the highest percentage of highland area. Thus the distribution of population in the districts is in general controlled by the extent of lowland area in them.

15. The densities of the districts in the state and of the contiguous districts of Madras differ significantly as will be seen from the following table.

District in the State	Density	Neighbouring district in Madras	Density
Trivandrum	1,444	Thirunelveli	563
Quilon	1,109	Ramanathapuram	429
Kottayam	604	Madurai	589
Trichur	1,176	Coimbatore	464
		Malabar	814

In point of physical features and climate, the two sets of districts (Malabar excepted) are wide apart. Malabar, having almost the same physical features as this state has a density of only 814.

16. The discussion of population density of the state, districts and natural sub-divisions contained in the preceding paragraphs gives only a general picture of the extent of over-crowding in the land. The densities of taluks give a more precise idea of the distribution of population. The table given below has been abstracted from



Subsidiary Table 1 (i) — Area and population, actual and percentage, by taluk density.

Density	Percentage	
	Area of taluk	Population of taluk
STATE		
ALL	100	100
Below 300	22.4	4.7
300—750	30.6	16.3
Over 750	47.0	79.0
TRIVANDRUM		
ALL	100	100
Below 300	..	..
300—750	34.3	14.9
Over 750	65.7	85.1
QUILON		
ALL	100	100
Below 300	33.9	8.3
300—750	19.8	7.9
Over 750	46.3	83.8
KOTTAYAM		
ALL	100	100
Below 300	37.9	10.2
300—750	31.7	23.6
Above 750	30.4	66.2
TRICHUR		
ALL	100	100
Below 300	..	..
300—750	41.2	22.8
Above 750	58.8	77.2

17. The above figures show that taluks with density below 300 occupy nearly 22 per cent of the area of the state and have less than 5 per cent of the population while taluks with density exceeding 750 cover 47 per cent of the area and contain 79 per cent of the state population. Thus over three-fourths of the population are living in taluks with density over 750.

18. In regard to the districts, Trivandrum and Trichur have no taluks with density below 300 while Quilon and Kottayam have respectively 8 per cent and 10 per cent of the population in taluks with density varying from 300 to 750. In taluks with density above 750, Trivandrum and Quilon have almost 85 per cent of the population while Kottayam and Trichur have respectively 62<sup>6</sup> and 72<sup>7</sup> per cent.

19. The subsidiary table does not classify taluks into groups with densities higher than 750. As more than 75 per cent of the people in the state live in taluks with densities over 750, a detailed analysis of such taluks (given in the table below) seems necessary.

Density	Percentage of State	
	Area	Population
750—1000	3.9	3.4
1000—1500	16.8	19.8
1500—2000	9.4	14.8
2000—2500	11.3	23.8
2500—3000	2.6	7.1
Over 3000	3.0	10.1
ALL	47.0	79.0

The table shows that taluks with density between 750 and 1,000 cover only 3.9 per cent of the area and contain 3.4 per cent of the population. Taluks with density varying between 1,000 and 2,000 comprise 26 per cent of the area and have 35 per cent of the people. Taluks having densities over 2,000 occupy 17 per cent of the area and account for 41 per cent of the population. The taluks with the highest densities are Trivandrum (3,805), Cochin-Kanayannur (3,255) and Cranganur (3,092).

20. Eventhough the above analysis conveys an idea of the pressure of population in the state, the picture becomes seriously grim when density is calculated on the extent of occupied land. The following table shows the percentages of occupied area and population of taluks in six groups, density being based on the area under occupation.

Density	Percentage of State	
	Area	Population
Below 500	4.5	0.9
500—1000	1.4	1.0
1000—2500	38.1	62.1
2500—4000	8.0	23.2
4000—6000	1.8	8.8
Over 6000	0.6	4.0

The table shows that 62 per cent of the population are in taluks with densities between 1,000 and 2,500 and 23 per cent in taluks with densities between 2,500 and 4,000. That only 2 per cent of the population are in taluks with density below 1,000, is an index of the alarming density of population in the state.

21. The following table compares the distribution of taluks according to density in Madras and Travancore-Cochin.

Density	Percentage of the State			
	Area		Population	
	Madras	Travancore-Cochin	Madras	Travancore-Cochin
Below 300	41.9	22.4	16.8	4.7
300—750	43.9	30.6	49.3	16.3
Above 750	14.2	47.0	33.9	79.0

The percentages of areas of taluks in the two lower density groups are very much higher in Madras than the corresponding percentages for Travancore-Cochin; the percentage of area with density exceeding 750 is only less than a third of that for this state. Further, two-thirds of the population of Madras live in taluks with density below 750 while the corresponding proportion for Travancore-Cochin is only one-fifth. Thus in point of distribution of population Travancore-Cochin presents a pattern entirely different from that of Madras.

### Section iii. Growth of population

22. The population of the state is now almost two and a half times what it was fifty years ago. This unusual growth is one of the highest recorded and may be compared with those in other countries (in the following table\*) having high growth rates.

Country	Year	Population (Percentage of 1900)
Egypt	1947	196
Japan	1948	183
China	1948	130
Philippines	1949	255
Netherlands	1948	206

The only country that has exceeded the growth here during the past half century is the Philippines.

23. During the last decade the population of the state has increased by 23.7 per cent. The following table gives the growth rate for some of the states in India.

State	Growth rate (percentage for 1941-1951)
India	13.4
Delhi	90.4
Travancore-Cochin	23.7
Mysore	23.7
Bombay	23.2
Assam	19.1
Rajasthan	14.9
Madras	14.4
West Bengal	13.6
Hyderabad	14.3
Uttar Pradesh	11.4

\*The figures have been calculated from "Population Problems"—Thompson (1942) page 255 and the Demographic Year Book 1949-50, United Nations.

State	Growth rate (percentage for 1941-1951)
Bihar	10.1
Madhya Pradesh	8.2
Bhopal	7.4
Orissa	6.4
Punjab	0.5

Barring Delhi, Mysore and Bombay have alone recorded as high an increase as this state. Assam registered 19 per cent increase while Madras, Rajasthan, Hyderabad and West Bengal have 14 per cent. All the remaining states have recorded only less than half the percentage increase for this state.

24. Though Mysore and Bombay have also the same rate of increase as this state, the densities for the two states (308 for Mysore and 323 for Bombay) are only a third of the density here. The population problem is therefore more serious in this state than anywhere else in India.

25. To compare the rate of increase in this state with those in other countries, it may be seen that an increase of 23.74 per cent during ten years is equivalent to an increase of 2.12 per cent annually.\* The table below gives the annual rate of increase of population in some countries.\*\*

Country	Percentage annual rate of increase	
	Year	Rate
Australia	1947	2.50
Egypt	1947	1.80
Canada	1941	1.04
Mexico	1950	2.48
United States	1950	1.36
Ceylon	1946	1.55
China	1940	2.41
Japan	1948	3.26
Turkey	1950	2.15
Denmark	1950	1.07
France	1946	0.34
Brazil	1950	2.48
Puerto-Rico	1950	1.68

Among Asian countries, China and Japan have higher rates of increase than this state. In almost all the Western countries, the rates are lower.

26. Subsidiary Table 1.2—Variation and density of general population—shows density and percentage growth of population for the state

$$* (1 + .0212)^{10} = 1.2374$$

\*\*Demographic Year Book 1949-50: United Nations. Population Index July 1951. Vol. 17, No. 3, Princeton.

and the districts during the last three decades. The following table gives these figures from 1901.

<i>Year</i>	<i>Percentage growth</i>	<i>Density* at the end of the decade.</i>
1901—11	15.5	476
1911—21	14.7	546
1921—31	26.4	690
1931—41	18.9	820
1941—51	23.7	1,015

The fall in growth rate for the decade 1911—1921 is negligible. The growth rate for the decade 1921—1931 is almost double that for 1911—1921; during the decade 1931—41, there is a fall to about two-thirds of the value for the previous decade. The last decade records a rise, but not to the value for 1921—31. How far such ups and downs in the growth rate are real has to be examined in detail.

27. The prevalence of epidemics, famine, large-scale migration and over-enumeration at the beginning of a decade possibly followed by under-enumeration at the end, result in a fall in the growth rate as revealed by census data. Similarly the absence of famine or epidemics, an influx of immigrants and over-enumeration at the end possibly combined with under-enumeration at the beginning of a decade will result in a rise in the growth rate. Causes like changes in maternity and marriage rates have been excluded as their effects, particularly in this state, may not become perceptible, in the course of one decade.

28. The previous Census Reports for the two states—Travancore and Cochin—contain brief descriptions of the general and public health conditions during the decades covered. In Cochin the decade 1901—1911 “has comparatively been a very prosperous one and consequently very favourable for the growth of population. There had been no wide-spread out-breaks of epidemics, such as cholera or small-pox, in any part of the State, nor did plague make its appearance anywhere. During the decade taken as a whole, the monsoon rains proved fairly copious and regular...”. In Travancore, public health conditions were generally satisfactory, though cholera prevailed in three years. “Fevers, dysentery and diarrhoea usually contribute to the annual mortality in greater degree than cholera and small-pox, but there is nothing to show that they

\*The density is calculated on 9143.9 square miles—the area of the state furnished by the Surveyor General, India. The density for 1901 is 412.

have been in special evidence during the last decade.” Further, the seasons were generally favourable. Thus 1901—1911 was a period of comparative prosperity in Travancore and Cochin.

29. The next decade 1911—1921, particularly the latter part, cannot be said to have been a prosperous one for Cochin. The outbreak of influenza in 1918—19 was as virulent as elsewhere in India. There were failure of monsoons, and depression in trade and industry. The cost of living was high. In Travancore, public health conditions, were more satisfactory than in the previous decade. “Plague has been kept out; and influenza, to which about six millions succumbed in places outside Travancore, affected the State only lightly and was not attended with high mortality. Some scarcity was felt though not actual famine, in the middle of the decade caused more by world conditions than by failure of crops.” In general, it should therefore be expected that the growth of population during this decade was retarded to some extent by unfavourable conditions.

30. The decade 1921—31 was prosperous on the whole and conducive to a normal increase in population in both states. The only calamities were the floods of 1924 and 1929. Thus the growth rate for this decade can only be higher than that for 1911—1921, but it is doubtful whether these conditions can lead to the very high rate recorded in 1931.

31. During 1931—41, Cochin and Travancore did not face any serious famine or epidemic. But the world-wide economic depression that started in 1929 hit the states during the first half of the decade. Prices, particularly of agricultural commodities fell to the lowest depths recorded. The volume of trade shrunk. Employment was scarce and living difficult. Thus even though public health conditions were in general satisfactory, the economic depression has probably affected the growth rate to some extent.

32. The first half of the last decade, covered the war years. With the fall of Burma in 1942, there was acute food shortage in the states. But the level of employment went high due to recruitment to war services and other auxiliary services and the starting of various industries as part of war effort. Rainfall and seasons were favourable. The prices of agricultural products shot up. Wages also rose correspondingly. There

was a large influx of money even into the remotest villages from persons who had gone outside on war service. Public health conditions showed steady improvement. Thus the decade was one favourable to a high growth of population.

**33.** How far the conditions of the respective decades detailed above explain the decline in growth rate in 1921, the abnormal increase in 1931 and the fall in 1941 has to be examined from other standpoints.

**34.** The influence of migration may first be considered. The marginal table gives figures for immigrants and emigrants for the state and percentage of population increase due to migration.

Year	Immigrants	Emigrants	Percentage of migrants
1911	83,278	26,112	1.3
1921	88,603	29,025	1.2
1931	164,389	48,503	1.8
1951	206,823	205,806	0.01

- The increase of population due to migration is only 1.8 per cent in 1931 while it is negligible in 1951. Figures for emigrants are not available for 1941. The state proved a very important area for recruitment of army personnel during the second World War; but the volume of recruitment was only small before 1941. Hence it is extremely unlikely that the fall in growth rate from 26.4 in 1921—31 to 18.9 during the decade 1931—41 could be due to migration. The effect of migration cannot account for the variations in growth rate.

**35.** Data on births and deaths throw considerable light on the pattern of population growth. Birth and death statistics have been gathered from reports of the Department of Public Health. The entire state came under Birth and Death Registration Act as early as 1921; but it was not possible to collect data for Cochin State for the decade 1921-30. Subsidiary Table 1.3—Mean decennial growth-rates during three decades, general population—summarises the information in birth and death statistics. Figures are given for the three decades 1921—30, 1931—40 and 1941—50. As population is dynamic, the figures in the table relate to mean population of each decade\*.

**36.** The table shows that birth rates have generally been on the increase; the death rates

\*The mean population of a decade is the average of the populations at the beginning and end of the decade.

for 1931—40 are slightly higher than those for the preceding and following decades. But the balance of births over deaths (natural increase) is consistently on the increase during the last three decades. Since the influence of migration, as stated already, is negligible, it has to be inferred that the trend of growth of population should be almost the same as that of the natural population. But the mean decennial growth rates for the state and the districts have declined during 1931—40 and have increased during the last decade though not to the values for 1921—1930. There exist appreciable differences not only between the two rates but also in the direction of the trend. This disagreement necessitates a scrutiny of the accuracy of vital statistics in the state.

**37.** Till the integration of states in July 1949 both states had separate Departments of Public Health and the reliability of vital statistics has been examined by Census Commissioners of the two states.

The Census Commissioner for Cochin state in the 1921 Report that “registration of vital statistics is still in its infancy and the statistics collected from that source is useless from an actuarial point of view.” Ten years later, the Census Commissioner (1931) writes as follows:—

“Registration of births and deaths is still wholly unsatisfactory except in municipal areas. The births registered in the year is 142,516 but the census returns show 354,399..... The vital statistics of municipal towns are far more reliable and furnish another proof of the worthless character of the vital statistics as a whole. In the four municipal towns the average annual birth rate per mille of the population during the intercensal period was 31.73 against 12.73 in rural areas—a very unnatural state of affairs. The death rate in municipal towns was 18.34 but only 8.36 elsewhere. It has to be remembered at the same time that municipal towns with the exception of Mattanchery are after all not over-crowded or unhealthy and there is therefore no reason why the death rate in towns should be more than double the rate in the villages. The only explanation for this wide difference is to be found in the utterly unreliable character of these vital statistics. Thirty-six years have passed since the registration of vital statistics was initiated in the State..... And yet there is hardly any improvement seen in the value of the statistics so collected”.

The Census Commissioner for 1941 has not correlated population growth with birth and death rates and has therefore not commented on the accuracy of vital statistics.

38. In Travancore also, Census Commissioners from decade to decade have commented on the unreliability of vital statistics. The 1921 Census Report contains the following statement:—

“An average village under a pakuthy officer is too big to serve as a convenient administrative unit. Hence the birth and death figures collected for the rural areas where about 90 per cent of the population live, cannot be supposed to be accurate”.

The Census Commissioner for 1931 makes a critical study of vital statistics and writes“.... Such a large difference cannot possibly be due entirely to mistakes in enumeration. The inaccuracy of the vital statistics is responsible for it to a very large extent. In 1921 the recorded excess of births over deaths during the previous decade was only 'a quarter of the increase shown in the census'. This time, the percentage has increased from 25 to 36, which is certainly an improvement, but it is still so far below the mark as to render the vital statistics collected in the State practically useless for the purpose of estimating the increase in the population..... The accuracy of vital statistics registered in Travancore has recently been tested by the Public Health Department of the state.....In the Health unit area, the omissions by the Registrar are 59 per cent in the case of births and 50 per cent in the case of deaths, while in Vilavancode taluk the corresponding omissions are 63 per cent and 48 per cent respectively.”

In 1941, a vital statistics enquiry was conducted along with the census and the Commissioner in his study on the results of his enquiry states that “the data available from the Public Health and Land Revenue Departments cannot be relied upon as there is almost cent per cent divergence between these and the figures of the population census.”

39. Apart from the criticisms of the Census Commissioners from decade to decade, the Director of Public Health in his report to Government (17th August, 1949 to 31st March, 1950) has given the following results based on an actual verification of births and deaths in several parts of the state.

Number of births verified	..	85,403
Number of births unregistered	..	17,074
Number of deaths verified	..	27,405
Number of deaths unregistered	..	3,410

40. It is, therefore, reasonable to believe that the vital statistics in the state are far from satisfactory. This important record of human life cannot be used to explain the variations in the growth of population as recorded by census from decade to decade. Thus one is forced to fall back upon census data with such defects as may exist, to detect the causes of the fluctuations in growth rate.

41. Defects in census data are likely to cloud the trend of population growth. It is, therefore, necessary to locate them before drawing conclusions from census data.

Population may be assumed to follow, approximately at least, certain laws of biological growth. The constancy of proportions noticeable in the different organs of an organism may be expected to hold true in regard to the different segments of a population from time to time. Great variations in the proportions of any population segment from decade to decade can only indicate that there have been disturbing forces at work.

42. The population segments considered in the present study are the numbers of persons in broad age-groups. The table below gives the percentages of the persons in broad age-groups at the various censuses from 1901 onwards.\*

Age-group	Years						Variation
	1901	1911	1921	1931	1941	1951	
Below 10 years	26.6	27.1	26.9	30.2	28.0	26.9	3.6
10—19	21.5	21.8	22.5	21.8	23.1	23.0	1.6
20—29	18.3	17.9	17.7	16.7	16.5	17.7	1.8
30—39	14.3	13.8	13.4	12.7	12.6	12.0	2.3
40—49	9.5	9.4	9.4	8.8	9.1	9.0	0.7
50 and over	9.8	10.0	10.1	9.8	10.7	11.4	1.6

It will be seen that variation is greatest in the age groups below 10 and 30—39. As the age-group 0—10 has the largest percentage of persons in each decade, the variation in this group is more significant than those in the other groups.

43. A part of the variation is certainly due to the inaccuracies in age returns. Though it is not possible to assess, even approximately, the extent of error in age, it may be expected that

\*The population of Anjengo and Tangaserri has been omitted in this analysis as figures under age-groups are not available for these two areas.

there has been considerable improvement in the recording of age from decade to decade. Further, as the age-groups are fairly broad, the inaccuracies in age may not materially affect these proportions. Omissions or additions in census enumeration unless effected intentionally, will be evenly distributed among the various age-groups. Thus this source of error will not also affect the proportions. Therefore the variations have to be traced to other causes.

44. As already mentioned the most important group that has to be examined in detail is the one for children below 10 years of age. The figures for this group, for 1931 and 1941 appear to be abnormal. The possible causes are (i) there was an unusually large number of births in the two preceding decades or (ii) the infant mortality for these decades stood at lower levels than for the other decades or (iii) a combination of (i) and (ii).

Year	Percentage
1901	17.7
1911	17.5
1921	16.6
1931	15.9
1941	15.8
1951	15.7

45. The marginal table gives the percentage of married women in the child-bearing ages 15 to 44. It will be seen that these percentages are coming down from decade to decade. As such, if there were a large number of births in 1931 and 1941, it can only be accounted for by assuming that maternity rates for these two decades were greater than those for the other decades. Such an inference may not be valid. It is hard to believe that the two decades 1921—1930 and 1931—1940 were particularly so prosperous as to create in potential parents a great urge to have more children.

46. It is also not likely that the infant mortality rates for the decades 1921—1930 and 1931—1940 were significantly lower than those for the remaining decades. Public health and medical services have been improving from decade to decade and their results in respect of infant mortality should persist from decade to decade. Even assuming that the decades prior to 1941 had seen remarkable reduction in infant mortality, the health services did not deteriorate in the succeeding decade. On the contrary, both the State Governments (Travancore and Cochin) had all along been strengthening the public health and medical services. Thus the variations in the proportions of children below 10 could not be attri-

buted to either of the causes mentioned above.

47. Considerable light is thrown on this question by the survival rates of the persons in the age-groups. The survivors of any ten-year age-group at the end of a decade constitute the strength of the next higher ten-year age group at the beginning of the succeeding decade.\*

The subjoined table gives the percentage survival rates for the different age groups.\*\*

Age group	Year				
	1911	1921	1931	1941	1951
Below 10	94.73	95.43	..	90.76	..
10—19	96.57	93.31	93.58	89.88	94.94
20—29	87.06	85.88	90.60	90.00	89.84
30—39	76.03	77.96	82.85	84.97	88.45
Over 40	59.53	59.38	63.79	68.61	70.81

In the age-group below 10, the numbers for 1921 and 1941 are respectively 1,340,085 and 1,904,736. In the age group 10-19, of 1931 and 1951 the numbers are 1,371,871 and 2,135,982 respectively. Thus in 1931, the number in the ages 10-19 exceeds that in 0—10 of 1921 by 31,786; similarly the 1951 figure is in excess of the 1941 figure by 231,246. These sets of figures are clearly impossible because the immigrants in all the age-groups in 1931 and 1951 numbered 168,349 and 206,823 respectively.

Again the survival rate of the age-group 10-19 in 1941 is comparatively low and admits only of one explanation—the emigration of large numbers in the ages 10 to 19. Though the state formed a very good recruiting ground for army personnel, it is extremely improbable that such a wholesale migration of youths really took place.\*\*\*.

In regard to the remaining age-groups, the survival rates have an upward trend as should be expected. Thus it becomes necessary to reconcile the apparent discrepancies in the figures for the two lower age-groups.

48. These discrepancies can be eliminated by smoothing the figures for the two age-groups. The method of smoothing is described in the Appendix. The differences between the census and smoothed figures expressed as percentages of the estimated figures are given in the following table.

\*The effect of migration is not taken into account.

\*\*These rates are not to be confused with the survival rates of the actuary.

\*\*\*Migration statistics are absent in the 1941 Census Reports. In fact, the volume of recruitment rose only after 1941.

Year	Age-group			Population		Percentage
	Below 10	10—19	Below 20	Census	Adjusted	difference
	1901	+1.66	+3.24	+2.36	3,764,200	3,722,500
1911	-1.10	-0.50	-0.83	4,347,100	4,364,900	-0.41
1921	-6.91	-3.04	-5.18	4,985,100	5,119,800	-2.63
1931	+9.38	-2.89	+3.88	6,300,000	6,178,500	+1.98
1941	-0.30	+0.80	+0.19	7,492,900	7,485,600	+0.10
1951	-2.03	+2.37	-0.05	9,270,400	9,272,600	-0.08

For the age-group below 10, the 1921 figure is in deficit of the estimate by a little less than 7 per cent while that of 1931 is in excess by a little over 9 per cent. The epidemic and famine of the latter half of the decade 1911—21 have removed a large number of children, which probably explains the deficit.

The 2.03 per cent deficit in the age-group 0-10 in 1951 and the 2.37 per cent excess in the next higher age-group appear to suggest that there has been a general tendency to declare the age of children below 10 as above 10. To what extent food rationing is responsible for this is a moot question.

49. Taking the ages 0 to 20 as a whole, the differences between the estimates and the census populations have levelled up considerably. The 5 per cent value for 1921 is a deficit due to the famine and epidemics of the previous decade. The 1901 and 1931 figures are in excess of the estimates and these in all probability may be the result of mistakes of enumeration. The figures for the other decades do not appear to be significantly different from the estimates and call for little comment.

50. The real trend of population growth remains to be traced. In view of the discrepancies in census data the adjusted figures have to be taken as the basis for this study. It may be noted that the adjusted figures do not differ materially from the census figures as will be seen from the following table giving the census and adjusted population figures and the differences between them, as percentage of the adjusted population.

The census figures in the table exclude the population of Anjengo and Tangaserri. The adjusted figures for population have been derived by adding the graduated figures for children below 10 and young persons between 10 and 19 to the census figures for persons aged 20 and over.

51. The growth of population based on the adjusted and census figures is given below.

	Percentage growth	
	Adjusted	Census
1901—10	17.26	15.49
1911—20	17.30	14.68
1921—30	20.68	26.40
1931—40	21.16	18.92
1941—50	23.87	23.72

A glance at the two columns giving the growth of population for each decade shows that the fluctuations in the growth based on census figures are caused by conditions peculiar to the decade and the quality of census enumeration. Thus the fall in 1921 is the result of mortality due to the epidemics and famine during the decade prior to 1921. The over-enumeration of 1931 explains the low value of 1941.

52. The population of the state has been increasing consistently from 1901. The growth before 1931 was only 17 per cent per decade while from 1931 onwards, the population has grown much faster, yielding the high rate of 23.87 for the last decade.

53. A word of explanation for the high rate of growth of population in the state may be given. Travancore-Cochin has only limited resources. Industries have sprung up in a few centres in recent years. Agriculture is the mainstay of the people though the land per capita is small and has been dwindling from decade to decade. The soil is generally fertile and the state receives both monsoons. Even so, the small size of agricultural holdings, indebtedness and low capitalisation cannot be supposed to create a feeling of prosperity congenial to population growth. In fact, these important economic disabilities can only retard growth.

54. The factors responsible for the maintenance of this rate of growth appear to be (i) the high maternity rates for women (ii) the large numbers of married women in the age-groups with high maternity rates (iii) the proverbial cleanliness of the people (iv) the continuous improvement in public health and medical services and (v) social attitudes. Though a complete factual account of these factors is not possible

with data from census an attempt is made to assemble relevant information on the first two factors.

55. "A common measure of fertility, especially where adequate vital statistics and other types of direct information are lacking, is the ratio of children under five years of age to women in the child-bearing ages as computed from census data on the total population".\* Even though such ratios are only very crude pointers of fertility as they are affected by death rates and inaccuracies in age returns, they will show the high correlation between fertility and population growth. The following table gives the number of children under five years per 1,000 women aged 15 to 44 years for a few countries and the annual percentage rate of increase of population.

Country	Year	Children per 1000 women	Annual percentage rate of increase.
Travancore-Cochin	1951	647	2.12 (1951)
Canada	1950	517	1.04 (1941)
United States	1950	487	1.36 (1950)
France	1950	415	-0.34 (1946)
England & Wales	1950	390	0.46 (1951)
Denmark	1949	470	1.04 (1950)
Japan	1950	577	1.70 (1950)

The table shows that the annual rate of growth of population and fertility index as measured by the number of children per 1,000 women increase or decrease together. The high fertility index for the state points to a correspondingly high rate of growth of population.

56. Maternity rates given by the number of live births per 1,000 mothers in specified age-groups are more precise indices to explain the rate of increase of population. The following table gives these indices for a few countries.\*\* The figures for Travancore-Cochin have been calculated from the answers to census question 13.\*\*\*

*Numbers of children born to 1000 mothers in each age-group*

Age-group	Canada	United States	England & Wales	France	Denmark	Travancore-Cochin
	1948	1948	1948	1948	1949	1951
15—19	43	80	21	23	18	146
20—24	179	193	137	161	149	211
25—29	197	161	145	184	150	271
30—34	140	101	99	126	100	274
35—39	90	53	56	75	57	207
Annual rate of increase of population	1.4	1.36	0.46	-0.34	1.04	2.16
	1941	1950	1951	1946	1950	1950

The maternity rates here are considerably greater than those for any other country.

57. A highly significant feature of the maternity pattern for this state is contained in the following table.

Age at first maternity	No. per 1000 mothers who had their first maternity in ages in col. (1)		No. of children born to mothers in the maternity groups in col. (1)		No. of children born to 1000 still-married mothers	
	All mothers	Mothers aged 45 and over	All mothers	Mothers aged 45 and over	All mothers	Mothers aged 45 and over
(1)	(2)	(3)	(4)	(5)	(6)	(7)
All ages	1000	1000	1000	1000	428	660
13—14	14	8	15	8	453	684
15—19	546	506	585	461	458	725
20—24	376	416	353	432	401	636
25—29	52	57	41	75	331	505
30—34	10	10	6	18	263	362
35 & over	2	3	..	6	240	300

The table gives the distribution of

- (i) all mothers who had their first maternity in the age-group in column (1)
- (ii) all mothers aged 45 and over who have almost passed the child-bearing age and had their first child when they were in ages given in column (1)
- (iii) the number of children born to mothers belonging to the various maternity groups, and
- (iv) the number of children born to mothers who have passed the child-bearing age.

The table shows that among all mothers, 56 per cent had their first maternity before their 20th year, 94 per cent before their 25th year and 99 per cent before their 30th year. Of mothers who had passed their child-bearing age, 51 per cent had their first child before they were 20, 93 per cent before they were 25 and 99 per cent before their 35th year. Since the birth rates given in columns 6 and 7 are highest in the lowest maternity groups, it may be concluded that the large majority of mothers became so, in ages most conducive to population growth.

In regard to children born, 60 per cent belong to mothers who had their first maternity before 20, 95 per cent to mothers having their first maternity before 25 and 99 per cent to mothers having their first maternity before their 30th

\*Demographic Year Book 1949-50.

\*\*Demographic Year Book, 1951.

\*\*\*I am grateful to the Registrar General for these figures.



year. This once again corroborates the findings mentioned in the last paragraph.

58. Childlessness in this state is rare as only 3 per cent of married women aged 45 and over are without children. Spinsters are also uncommon as only 3 per cent remain unmarried by the time they are 45. Thus the overall high maternity rate, the large bulk of married women becoming mothers before they are twenty-five, the low level of childlessness and spinsterhood, have all contributed to the rapid growth of population in the state.

59. The high maternity rate may not create a high level of growth rate if the death rate is correspondingly high. Government has been continuously improving the medical and public health services in the state during the last few decades. Public health propaganda, the appointment of visiting nurses, anti-malarial work, opening of child welfare centres, milk canteens, school feeding, school medical inspection, improvement of rural water supply and rural sanitation have gone a long way to raise the level of public health and bring down mortality, particularly of children. Hospital facilities have also increased considerably in recent years. The spread of female education has also led to great improvement in the upbringing of children.

60. The scattered disposition of houses so characteristic of this state is conducive to the maintenance of a higher standard of environmental hygiene than would otherwise be possible. Each home, however lowly it be, stands in its own premises surrounded by a few trees, a practice which militates against the rapid spread of epidemic diseases. The people as a rule, take also particular care in keeping the premises clean and tidy. The availability of a plentiful supply of water in numerous rivers, tanks and lakes has given rise to two healthful habits, the daily bath—the Malayali bath is famous—and the frequent washing of clothes. These and other measures of personal hygiene supported by a relatively high percentage of literacy have been responsible to a large extent in warding off epidemics.

61. The social and psychological attitudes of the people born out of tradition, social usages and customs which existed in the past are such as to lead to a high growth of population. Marriage is universal; indeed marriage and the bringing up of children are generally considered to be the social obligations of an adult. Economic considerations which are weighty factors in marri-

ages in western countries receive as a rule much less attention here. Sterility is abhorred and fertility admired everywhere. Another important factor is the fatalistic outlook on life so tragically common; births, marriages and deaths are held to be divine dispensations outside the sphere of human control. According to this facile philosophy, "He who created human mouths will also find the food for them". The number of people who have broken away from the traditional patterns of family life and reproductive behaviour remains as yet infinitesimally small.

#### Section iv. Movement of Population

62. Movement of population in this state due to immigration and emigration has not been an important factor in the variation of population from decade to decade. The bulk of the immigrants are those who come to work in the plantations in the highland. A small section of the immigrants are engaged in trade and commerce. In regard to the emigrants, the majority are those who have gone out to other parts of India and countries beyond, in search of employment.

63. The following table shows the volume of immigration and emigration since 1901.

	Number of		Percentage of population		
	Immigrants	Emigrants	Immigrants	Emigrants	Balance
1901	82,023	16,346	2.18	0.43	1.75
1911	83,278	26,112	1.91	0.60	1.31
1921	88,603	29,025	1.78	0.58	1.20
1931	164,389	48,503	2.61	0.77	1.84
1951	206,823	205,806	2.23	2.22	0.01

The volume of immigration has been steadily falling from 1901 till 1931 when there is a rise by about one per cent followed by a slight fall in 1951. In regard to emigrants, there is a steady increase from 1901. The balance of immigrants over emigrants has been on the decline, though in 1931 there is an increase. The 1951 census shows that immigrants and emigrants are almost in equal numbers.

64. The immigrants have come from various states in India and foreign countries, as will be seen from the table below.

Country of birth	No. per 1000 of immigrants
All	1000
i. Other states in India	939
(a) Madras	911
(b) Bombay	8
(c) Mysore	6

<i>Country of birth</i>	<i>No. per 1000 of immigrants</i>
All	1000
(d) Uttar Pradesh	3
(e) Punjab	2
(f) Bihar	2
(g) Other states	7
ii. Countries in Asia beyond India	16
(a) Ceylon	6
(b) Straits Settlements and Malaya	5
(c) Afghanistan	2
(d) Other countries	4
iii. Countries in Europe	3
iv. Other countries	32

Amongst the immigrants from European countries, 346 are from the United Kingdom and Northern Ireland, 83 from Belgium, 58 from Spain, 35 from Switzerland, 29 from Germany and 23 from Italy. 8,596 persons have not furnished information regarding their place of birth.

65. The number (per 1000) of emigrants to other states in India is given below.

<i>State</i>	<i>No. per thousand</i>
All	1000
Madras	827
Bombay	74
Mysore	42
Coorg	16
Hyderabad	13
West Bengal	11
Delhi	7
Uttar Pradesh	5
Other states	5

66. The nature of migration is indicated by the proportion of males and females. There are 113 females per 100 males among immigrants from Madras and 82 females per 100 males amongst emigrants to Madras. The larger proportion of females amongst immigrants is a result of a comparatively larger number of females coming to work in the plantations. Among emigrants, the smaller percentage of females goes to show that the emigrants invariably leave their women-folk at home. In regard to migration, it is found that amongst immigrants from Indian states, other than Madras, there are only 44 females for every 100 males and for emigrants there are 36 females to 100 males. Thus migration within India is mostly temporary in nature without the movement of whole families.

In regard to immigration from countries in Europe, except the United Kingdom, there is a preponderance of females over males which is probably due to the large number of 'sisters' attached to religious orders, working in the hospitals in the state.

67. Movement of population within the state may be considered next. Subsidiary Table 1.4 gives the figures of migration district-wise. The figures represent the number per 1000 of the district population.

<i>Name of district of enumeration</i>	<i>District</i>	<i>Other districts in the state</i>	<i>Other states in India</i>	<i>Countries outside India</i>
Trivandrum	975	15	9	1
Quilon	967	24	7	2
Kottayam	904	52	43	1
Trichur	950	16	33	1

Kottayam has 90 per cent of the population born within the district; five per cent are from other districts in the state. In Trichur 95 per cent are born within the district, less than two per cent being from other districts. Quilon has 97 per cent of the population born within the district; a little over 2 per cent are from other districts. In Trivandrum, a little less than 98 per cent are born within the district. Thus the volume of internal migration is negligible. Kottayam and Quilon have comparatively large percentages of persons from other districts. This, in all probability is due to the facilities for work in the plantations.

68. The growth of population is due to the excess of (i) births over deaths and (ii) immigrants over emigrants. The growth due to the first factor is called the natural growth of population. The natural growth rate is the crude birth rate minus the crude death rate. If accurate birth and death rates are available, this rate can be determined with precision. The rate of migration can be found if migration statistics are maintained.

The sum of these two rates will give the rate of growth of census population.

However, statistics relating to births, deaths and migration are either incomplete or defective. Consequently the census growth rate is different from the sum of the growth rates due to natural increase and migration. The difference between the census growth rate and the natural growth rate is usually treated as migration-cum-registration error. Thus

$$\begin{aligned} \text{decennial growth rate} &= (\text{decennial birth rate}) \\ &\quad - (\text{decennial death rate}) \\ &\quad + (\text{migration-cum-registration error}) \end{aligned}$$

69. Subsidiary Table 1.3—Mean decennial growth rates during three decades, general population—analyses mean decennial growth rate

under the three component parts mentioned above. The natural growth rate for the state is only half that of the census in the decade 1931—40 and 1941—50 while it is only a third for the decade 1921—30. Similar proportions are seen in all the districts. The differences between census growth rate and natural increase are still more pronounced for Trichur.

Migration-cum-registration error is therefore, very high for the state and the districts. It has already been pointed out that the effect of migration is only 2 per cent for the decade 1921—30, and practically negligible in the last decade. Hence the migration-cum-registration error, in reality, consists almost wholly of registration error.

70. Even though registration of births and deaths in the state is as a whole unsatisfactory, registration of deaths in the urban areas particularly in Trivandrum district, may be assumed to be more or less complete. This is due to the Health Unit started for the first time in this district prior to 1931 and very intensive public health propaganda here. Births, however, have escaped correct registration. The following table gives the specific mortality rates for the urban population in Trivandrum district for 1931 and 1941.

<i>Age-group</i>	<i>1931</i>	<i>1941</i>	<i>Weights to Calculate standardised death rates</i>
Below 5	31.2	34.3	14.9
5—9	5.7	5.5	12.3
10—14	3.3	3.6	12.6
15—19	6.8	4.8	11.8
20—29	9.0	6.3	19.8
30—39	11.3	9.3	13.1
40—49	13.2	12.1	9.8
50—59	23.1	23.1	0.7
Above 60	71.4	81.4	5.0
Standardised death rate	14.8	14.6	

On the basis of the age distribution of population at this census, the age-mortality rates have been combined to give the standardised death rates for the two years.

71. The urban areas in this state are not centres of industry. The life of the people, their health and hygienic condition, is more or less the same in the urban and rural areas. It is, therefore, reasonable to assume that the death and birth rates for the state are almost the same as those in the urban areas.

72. It has been already stated that the percentage rate of increase of population during the last decade is 23.72; this is equivalent to a rate of 21.5 per thousand per annum. With a death rate equal to 14.7 the birth rate can be estimated to be 36.2.

73. In this connection reference may be made to a health survey conducted by the Department of Public Health in 1948\* in Travancore. The survey covered 30,535 houses scattered over 303 centres. The birth and death rates according to this survey are 34.9 and 11.4 per 1000 of population per year. Based on these figures the natural growth rate is 2.35 per cent per annum.

#### Section v. Livelihood Pattern of General Population

74. The distribution of the population into occupational classes is given in Subsidiary Table 1.8—Livelihood pattern of general population. It shows that 55 per cent of the people fall under agricultural classes; the remaining 45 per cent are non-agriculturists. These figures should not, however, create the impression that the state has attained a high level of industrialisation. In fact only a small section is engaged in organised industries. The forty-five per cent in the non-agricultural classes consists, as will be seen presently, of a number of persons engaged in services unrelated to industry. Again, the distribution—55 per cent in agricultural and 45 per cent in non-agricultural classes—would ordinarily imply a large percentage of urban population. But the percentage of urban population is only 16. Naturally the majority of persons in non-agricultural classes are in rural areas.

75. The 55 per cent of the agricultural classes consist of 27 per cent cultivating their own land, 7 per cent cultivating unowned land, 20 per cent agricultural labourers and 1 per cent rent receivers. Thus only 50 per cent of persons in this class cultivate their own land. This however, does not mean that the remaining 50 per cent are landless. Since occupational classification at this census is based on the principal means of livelihood, persons who own uneconomic holdings have been classified under other livelihood classes.

76. The forty-five per cent of the non-agricultural classes consist of 21 per cent engaged in

\*Public Health Department Administration Report 1948-49.

production other than cultivation, 7 per cent in commerce, 3 per cent in transport and the remaining 14 per cent in miscellaneous services. A detailed discussion of the nature of non-agricultural activity is contained in a subsequent chapter.

77. The livelihood pattern in the natural sub-divisions is given below:—

Livelihood Class	Natural sub-division		
	Lowland	Midland	Highland
All Classes	100	100	100
Agricultural	40	69	54
I	19	34	22
II	4	10	9
III	16	23	22
IV	1	2	1
Non-agricultural	60	31	46
V	29	13	30
VI	9	5	3
VII	5	2	2
VIII	17	11	11

78. The midland and highland have significantly larger percentages of agricultural classes than the lowland. The extent of cultivable land per capita is greater in the midland; in the highland, with only 6.5 per cent of the total population, the agricultural possibilities are great. In the lowland, with its high density and relatively low per capita extent of cultivable land, the large majority have been compelled to seek means of livelihood other than agriculture. The long stretch of sea coast and backwaters here affords facilities for fishing and coir industries. These explain the differences in the distribution of agricultural classes in the three natural sub-divisions.

79. It will be seen that among agricultural classes, livelihood class IV—Non-cultivating owners of land—has only a very low percentage in all the natural sub-divisions. In each of the remaining three classifications, the lowland has the smallest percentage.

80. In regard to non-agricultural classes, 30 per cent under V—Production other than cultivation and 11 per cent under VIII—Miscellaneous services—are accounted for by the plantation industry.

81. As between the lowland and midland, the higher percentage under V in the lowland is due to the industries in this area. Fishing and coir are two important industries here. Factory industries—tiles, coir, cashew, oil etc.—are also located in the lowland. The midland generally offers employment only in plantations; factory

industries have not developed to any appreciable extent.

82. In regard to VI—Commerce and VII—Transport—the percentages in the lowland are higher because of the greater concentration of population and better development of communication facilities in this area. Livelihood class VIII consists mostly of persons employed in administration and utility services. In view of the development and the higher proportion of urban population in the lowland, it has a larger percentage under livelihood class VIII.

District	Percentage in agricultural classes			
Trivandrum	..	..	..	51
Quilon	..	..	..	58
Kottayam	..	..	..	64
Trichur	..	..	..	47

83. The livelihood pattern varies significantly from district to district as is seen from the above table. Trichur and Trivandrum have only smaller percentages under agricultural classes than Quilon and Kottayam. Trichur and Trivandrum have had the benefit of development natural to seats of administration of the erstwhile states of Cochin and Travancore. Social, economic and cultural progress in these two districts has been much more rapid than that in the other two districts. Further, Trivandrum district formerly consisted of two districts with two separate headquarters. The proximity of state and district headquarters has resulted in a gradual change in outlook of the people. However low the salaries, the desire to be a Government servant got deep-rooted in the minds of the masses. The uneconomic size of the cultivators' holdings strengthened this move to seek petty jobs in preference to the cultivation of their own lands. Thus there has been a steady decrease in the numbers under agricultural classes in Trivandrum and Trichur.

84. Subsidiary Table 1.8 shows the distribution of population of each district into the eight livelihood classes. In livelihood class I—Owner cultivators—Quilon and Kottayam have 34 per cent, Trivandrum 27 per cent and Trichur 10 per cent. In regard to livelihood class II—Tenant cultivators—Trichur has 13 per cent and the percentages for the other districts are between 4 and 7. The low percentage of owner-cultivators and the relatively larger percentage of tenant-cultivators in Trichur require some explanation.

85. In this state large sections of people were under the matriarchal system of inheritance. The joint family system (round the 'Karanavar' as head of the 'Tharavad') had existed for such a long time that even after the enactments permitting the partition of 'Marumakkathayam' families were promulgated, it took time to break through the old tradition. This was particularly slow in the erstwhile Cochin state. The joint family system gave very little incentive to the members to cultivate the land belonging to the family and most of the land was cultivated by tenants. Further, large areas belonging to 'jenmies' and 'Devaswoms' (temple property) in Cochin were invariably tenant-cultivated.

86. The Board of Revenue has furnished the following explanation for the differences in proportions of owner-cultivators and tenant-cultivators.\*

"The main reasons for this seems to be the lack of sufficient safeguards in the Travancore Tenancy law to protect the interests of landowners, difficulties in cultivation in Travancore, and the unwillingness of land owners in Travancore to let out their lands to others for cultivation. The proclamation promulgated in Travancore as early as 1005 M. E. (1830) laid down that a cultivating tenant was not liable to action for ouster so long as he paid the stipulated dues to his Jenmi and this benefit to the tenants prompted subsequent landowners to cultivate lands themselves.

"In Cochin, the Verumpattomdars Act granting security of tenure to a lessee or sublessee was passed only in 1118 M. E. (1943). Till then many of the landowners preferred to lease out their lands and seek Government or other employment. This resulted in a decrease of the cultivating owners and increase of cultivating tenants and agricultural rent receivers.

"Again about 60% of the registered holdings are held on puravaka tenure and about 30% on pandaravaka verumpattom tenure. Most of the lands held under puravaka are owned by the Devaswoms and the big Jenmies who do not cultivate the lands themselves. These lands are outstanding with tenants on kanom, panayam, verumpattom and other tenures. Though under the law in force in the erstwhile Cochin state these tenants have practically fixity of tenure in respect of their holdings they are not absolute

\*D. O. L. Dis. 12466/52 dated 20-8-'52 from District Collector, Trichur.

owners of land and would have been treated in the census as cultivating unowned lands. Even as regards lands held on pandaravaka verumpattom tenure, the big Jenmies hold a major portion and they are mostly absentee landlords.

"In the other 3 districts it appears that as a result of the Jenmikaram Settlement the tenants holding lands on kanom tenure have become virtual owners and they may have been treated in the census as cultivating their own lands. It would also appear that there are no Devaswoms in these districts owning such extensive area as in Cochin."

87. Among non-agricultural classes, the largest percentage is in V—Production other than cultivation. Next in importance comes VIII—Miscellaneous services. In the latter group, Trichur and Trivandrum have greater proportions than the other two districts. As already mentioned this is due to these districts containing the capitals of the two states before the integration.

In regard to Commerce and Transport, Trichur leads. The Cochin Harbour is next to Bombay the most important port on the west coast and is, connected by road and rail to the hinterland and by canals, backwaters and roads to the coastal region. It is, therefore, only natural that there are greater proportions of persons in Commerce and Transport in Trichur.

88. The livelihood pattern in this state may now be compared with those for other states in India. The following table gives the distribution of population under agricultural and non-agricultural classes.

State	Number per 100 persons under		Land per 100 Persons Acres.
	Agricultural	Non-agricultural	
Travancore-Cochin	55	45	63
India	70	30	228
Madras	65	35	143
Mysore	70	30	208
Bombay	61	39	198
Madhya Pradesh	76	24	393
West Bengal	57	43	80
Uttar Pradesh	74	26	115
Bihar	86	14	112
Orissa	79	21	262

89. West Bengal comes closest to this state in regard to the proportion of agricultural population to the total, though the land per head is slightly more in West Bengal. All the other

states have a larger percentage of agricultural population and also a very much higher extent of land per head.

90. Though West Bengal resembles this state in point of agricultural population, wide differences exist in the distribution in the livelihood classes under agriculture as will be seen from the following table.

<i>Livelihood Class</i>	<i>Travancore-Cochin</i>	<i>West Bengal</i>
I	48	57
II	13	21
III	37	21
IV	2	1

In West Bengal, about 73 per cent of agricultural population cultivate land either owned or unowned, the corresponding percentage for the state being only 61. The percentage under agricultural labourers in this state is almost double that in West Bengal. The proportion of non-cultivating owners is negligible in both states.

91. The livelihood pattern of 1951 Census as described in the preceding paragraphs cannot be directly compared with that in the past censuses. Information in respect of occupations was collected at all censuses since 1875. In 1875, the occupation entries were only in respect of male adults. Male adults who were engaged in various occupations were classified under broad groups. The 1881 Census classified all persons who were contributing to the family income, under occupational groups. In 1891 all persons were classified as either workers in or dependants subsisting on various occupations.

92. In the 1901, 1911 and 1921 Censuses, the classifications into workers and dependants in the various livelihood categories were more or less alike. These classifications were being continuously enlarged and made more comprehensive. The relative importance of each occupation in respect of the numbers engaged in it appears to have been the primary consideration, in the census tabulations before 1931. It may be mentioned in this connection, that the traditional structure of society in which certain sections of people were set apart to attend to the needs of the society (caste system) made the occupational tables more or less simple at early censuses. Organised industries were few and modern ideas of social justice had not gained ground.

93. In 1931, 'workers' include principal earners engaged in an occupation and working dependants who assisted the chief earners in that occupation. The number of non-earning dependants subsisting on the various occupations has not been given. However, the number of non-earning dependants in all the occupations can be obtained by subtracting the number of workers from the total population.

94. The 1931 classification into earners and working dependants was replaced in 1941 "by another scheme of classification under five heads, in which the means of living were separately studied as principal as well as subsidiary, especially in view of the ostensible fact that most of the gainful workers have, in the words of the Census Commissioner for India 'several strings to their bow.' The first group is those to whom one means of livelihood is the sole source of sustenance. Those in the second are supported principally by that means but supplement their income by the pursuit of some subsidiary occupation or other. The third regard it only as a secondary means of living while they have other sources as the chief means. The fourth sub-division comprises those whose income from occupations or means of living is too insufficient for them to make both ends meet, so that they have to depend also upon the support of either the head of the family or some other individual. These are termed 'partly dependants' in contradistinction to the corresponding term of 'working dependants' given to such persons in 1931. 'Working dependants' was a term applied to those subordinate workers who added to the family income by their work. Their earnings reinforced only the family means of living while in the case of 'partly dependants' the earnings contribute to their personal income which is supplemented by what they derive from their services as dependants of some other person. The fifth group designated as 'total dependants' consists of all those who depend on this particular means of living either as 'partly dependants' or as 'full dependants'. The number of fully dependent workers for any geographical or communal group can be found out by deducting the number of partly dependants from that of total dependants".

95. The Economic Tables for the 1951 Census help to give a more comprehensive picture of prevailing conditions. In the place of the one

occupational table of previous census, there are three tables now—B. I, B. II and B. III. Means of livelihood have been broadly grouped into eight categories—four agricultural and four non-agricultural—as follows:—

#### Agricultural classes

1. Cultivators of land wholly or mainly owned and their dependants
2. Cultivators of land wholly or mainly un-owned and their dependants
3. Cultivating labourers and their dependants
4. Non-cultivating owners of land, agricultural rent receivers and their dependants

#### Non-agricultural classes

1. Production other than cultivation
2. Commerce
3. Transport
4. Other services and miscellaneous sources

Table B. I gives the distribution of persons in the eight livelihood classes. Table B. II is devoted to the Secondary Means of Livelihood of Principal Earners and Earning Dependants. Table B. III relates to the Self-supporting Persons in Non-agricultural Classes. They have been classified as Employer, Employee or Independent Worker. This information on the economic status of self-supporting persons has been gathered for the first time in 1951.

96. From the description of the data on occupation (or Means of Livelihood) available for the 1931, 1941 and 1951 Censuses, it is clear that the only major comparisons that may be made between these sets of figures relate to:

- (i) total number of principal earners, earning dependants and non-earning dependants in the state,
- (ii) number of principal earners in 1931, 1941 and 1951,
- (iii) number of workers classified according to the principal means of livelihood of chief earners in 1931 and 1951,
- (iv) number of workers classified according to the means of livelihood in which they are engaged in 1941 and 1951,
- (v) number of non-earning dependants in each of the livelihood classes corresponding to that in which the person who supports is engaged, in 1941 and 1951.

97. To effect these comparisons, the means of livelihood have to be placed on a common footing.

The occupations of 1931 and 1941 have been divided into classes, sub-classes, orders and groups. These have been carefully re-arranged to form the eight livelihood classes of 1951. The note to Subsidiary Table 5.6 gives the details of this re-allocation for 1931. The changes in 1941 are not great and the classification remains more or less the same as that in 1931.

98. The following table gives the number (per 1,000) of principal earners, earning dependants and non-earning dependants for 1931, 1941 and 1951.

	1931	1941	1951
Principal earners	309	207	285
Earning dependants	171	95	76
Non-earning dependants	520	634	639

Even though differences in definition might have caused, in general, variations in these three broad classifications of the population, it is reasonable to assume that the effect will be negligible in regard to principal earners. In the proportion of principal earners there has been a significant fall in 1941, though the last decade has shown a slight improvement. This is accounted for by the distressing economic conditions of the latter half of the decade 1931 to 1941 when the prices of agricultural commodities and wage levels were low. Persons with poor incomes leading a hand-to-mouth existence would have been returned only as earning dependants if not as non-earning dependants in 1941.

99. In 1931 the percentage of earning dependants is also relatively high. This is the result of the definition of earning dependants in 1931. The instructions show that a woman who keeps house for her husband is a dependant but has the subsidiary occupation of house-keeping. Further "it may be assumed as a rough and ready rule, that boys and girls over the age of 10 who actually do field labour or tend cattle are adding to the income of their family and should, therefore, be entered in column 10 (principal occupation of actual worker) or 11 (subsidiary occupation of actual worker) according to whether they earn pay or not." As such, the large majority of women and children particularly in the working class families would have been included as earning dependants in 1931. In 1941, they were placed as non-earning dependants if they did not have an occupation that brought an income in kind or money. In 1951, all women doing domestic

service were non-earning dependants unless they had other sources of income. In the light of this explanation, the 1931 figures for earning dependants can only be on the high side.

100. Even though the standards of classification of principal earner, working dependant and non-earning dependant were probably not the same in 1931, 1941 and 1951, the fall in the percentage of workers—principal earners and earning dependants—from 48 per cent in 1931 to 36 per cent in 1951 may be taken as an index of the increase in unemployment since 1931. It further points to a higher burden on the earner. But how far wage and price levels have stepped up to enable the earners to face the burden of dependency can be assessed only by special surveys.

101. The distribution of principal earners in the eight livelihood classes is shown in the table below.

	1931	1941	1951
All classes	100	100	100
<i>Agricultural</i>	48	45	52
I Owner cultivators	24	23	21
II Tenant cultivators	5	6	6
III Agricultural labourers	18	15	24
IV Rent receivers	1	1	1
<i>Non-agricultural</i>	52	55	48
V Production other than cultivation	25	26	24
VI Commerce	9	10	6
VII Transport	2	2	3
VIII Miscellaneous sources	16	17	15

The distribution of principal earners into agricultural and non-agricultural classes shows that the bias towards industrial pursuits existing in 1931 and 1941 has completely vanished in 1951. This change is the result of the relatively high percentage of agricultural labourers in 1951. May be, the low prices of agricultural products and the meagre wages given in kind had the effect of turning the labouring class to non-agricultural occupations in the decades before 1941. The last decade witnessed very high rise in prices and wage-levels; there was also acute shortage and non-availability of articles of food. Naturally, the working classes switched on to agriculture.

102. But for the agricultural labourers, the distribution patterns for the three decades remain more or less the same. The almost constant proportions in the major livelihood classes point

to the lack of initiative and enterprise; typical of a self-contained agricultural community.

## Section vi. Conclusion

103. The characteristics of population in regard to distribution, density, growth, movement of population and livelihood pattern have been examined in this chapter. This state is the most thickly-populated area in India and probably in the whole world, taking into account agricultural countries alone. The people are mostly agricultural and are confined to rural areas. The map given at the beginning of this volume gives a pictorial representation of the chief characteristics of the population.

104. Geographically, the country may be divided into three natural regions—the lowland, the midland and the highland. The lowland is the region of maximum density; next comes the midland. Even though the density in the highland is small, the movement of population towards the hilly tracts (started during the past decades in search of land for cultivation) has become more pronounced during the last decade. The clamour for land has become intense and people agitate for allotment of reserve forest land in the highland for occupation. The reserve forests are a great boon to this state as they control the rainfall by catching the moistureladen winds from the Indian Ocean and precipitating rain on this coast. The clearing of these forests will affect rainfall. Further, the hill slopes consist invariably of a thin layer of soil over a bed of rock and clearing the vegetation here and loosening the soil for cultivation will in a very short time result in exposing the rocky bed. The rains would wash down the loose earth to the valleys and plains causing soil erosion and raising the bed of rivers. Thus any large-scale movement of population to the highland would be a disastrous, short-sighted policy which would eventually make large tracts of good agricultural land in the plains barren.

105. The population has grown almost two and a half times what it was fifty years ago. During the past three decades, the growth has been steadily increasing from 20 per cent in 1931 to 23 per cent now. Though there was an appreciable excess of immigration over emigration in 1931, the present census has shown that the effect of migration is now negligible. The increase is therefore that due to natural growth. Vital



statistics data for the state are even now so highly inaccurate that the rate of natural growth cannot be assessed from them. Special enquiries conducted by the Department of Public Health have, however, shown that the birth rate in the state is 34.9 and the death rate 11.4 per thousand per annum.

106. A growth rate of 23 per cent per decade for a population consisting mostly of agriculturists living in rural areas with very little land for cultivation has brought down the standard of living of the masses to sub-normal levels. Stark poverty faces large numbers of highly literate young men. Naturally the future is gloomy and dangerous unless immediate remedial measures are taken to divert the youth of the land to new channels of economic activity.

107. Very early steps have to be taken to check the growth of population in the state. Intensive propaganda on family planning, has to be carried out vigorously. Without going into any controversies on the ethics of contraception, it may not be out of place to briefly consider the practical difficulties in the use of contraceptives. The masses are poor and live in houses, probably one-or two-roomed. Even if money is available to purchase contraceptives, it requires a certain amount of understanding, preparation and privacy before a married couple could use it successfully. In the houses of the poor people, in particular, and the average middle class families, it is felt that the environmental difficulties are such as to prevent the practice of contraception. The practice of abstinence requires great self-discipline which clearly cannot be expected of most people. It is therefore felt that contraception or abstinence may not be practical solutions to the problem of over-population.

108. The enquiry into maternity rates made at this census (question 13) has brought to light an interesting feature of the maternity pattern in this state. It is probable that this is true for other parts of India as well. As described in section iii, ninety-four per cent of the mothers had their first maternity before they were 25 and ninety-five per cent of the children were born to such mothers. Further, only 44 per cent of mothers had their first maternity after their twentieth year and children born to these mothers formed 40 per cent of the total. Thus the high percentage of first maternities before the mother is 25 years old is one of the

chief factors in the high rate of population growth. It is, therefore, suggested that the postponement of marriage of women to their 20th year, thereby putting off the first maternity to at least that age, will prove efficient in retarding population growth. The fall in birth rate will be so appreciable as to be detected even at the end of the decade.

109. The practical implementation of this proposal will not be possible unless the outlook of the people changes. Girls attain puberty at as early an age as 12 or 13. A small fraction of the girls go to schools till their 15th or 16th year and a still smaller fraction either get employed or go for higher education. But the large percentage of girls remain at home and become a burden and a source of anxiety to the parents. Naturally they are married at the earliest moment when young men become available. Further, the older girl, the smaller her chances of getting married. Thus the question reduces itself to one of finding ways and means to keep young girls engaged in wholesome and, if possible, gainful activities at least till they complete their 20th year. They could become earning dependants thereby relieving in some measure the burden on their parents.

110. The problem becomes once again economic. In an essentially over-populated agricultural country it is hard to think of providing work for all. Industrialisation can help a good deal. But a great drive towards the creation of centres in the villages where young women could congregate without social ostracism, to spend their time usefully, will produce a change in social outlook. At such centres, instruction in cottage industries, social welfare, house-keeping and hygiene should be imparted. The women would thus get trained to be more self-reliant, better mothers and an asset to the nation. Such organisations should be quasi-governmental, being run on donations and public subscriptions. These should spring up throughout the country and in course of time develop into institutions on which the future mothers would look back with pride and satisfaction.

111. It has been pointed out that the people are mostly agricultural. The size of the average holding is un-economic and people are in general living below minimum subsistence levels. Great relief can be had by improving cultivation. The use of scientific methods, manures suited to

the soil types and crops and improved seeds will give better returns from land.

112. The pressure of population is so great that even with the best of returns from land, the level of living can only be low. Existing industries have to be improved and new ones started so that the earning capacity of the people will increase, resulting ultimately in raising the standard of life.

113. The population of the state for the present decade may be estimated from the relation

$$\log P_t = 6.9675667 + 0.0079066 t$$

where  $t=0$  for 1951, 1 for 1952, 2 for 1953, etc.,

The population for 1961 may be estimated to be 11,133,000 giving an increase of 19.97 per cent for the decade 1951—1960. The population for the various individual years <sup>will be</sup> are:—

Year	Population figures
1952	9,451,000
1953	9,624,000
1954	9,801,000
1955	9,981,000
1956	10,164,000
1957	10,351,000
1958	10,541,000
1959	10,735,000
1960	10,932,000
1961	11,133,000

## Appendix

Adjustment of census figures in the age groups 0 to 9 and 10 to 19.

The census data on the number of children below 10 and of young persons in the ages 10 to 19 for the years 1901, 1911, 1921, 1931, 1941 and 1951 have been utilised in arriving at the graduated figures in these two age groups. Assuming that  $t$  denotes the census year and  $P_t$  the number of persons in an age group for the year  $t$ , the graph of  $\log P_t$  against  $t$  shows an almost linear trend. It is therefore assumed that

$$\log P_t = a + bt$$

The value of  $a$  and  $b$  are obtained by making

$$\sum (a + bt - \log P_t)^2$$

a minimum. This leads to two equations from which  $a$  and  $b$  can be determined. Calculations

give  $\log P_t = 5.9928098 + 0.0827005 t$  for the age group 0 to 9 and

$\log P_t = 5.8934036 + 0.0852166 t$  for the age group 10 to 19. Using these two relations, the adjusted figures have been calculated and are given below:—

Year	Age group			
	0—9		10—19	
	Census	adjusted	Census	adjusted
1901	999,926	983,600	807,666	782,400
1911	1,176,837	1,118,900	947,219	952,000
1921	1,340,085	1,439,500	1,123,042	1,158,300
1931	1,904,736	1,741,400	1,371,871	1,412,700
1941	2,100,310	2,106,700	1,728,681	1,715,000
1951	2,497,031	2,548,700	2,135,982	2,086,500

## CHAPTER II

### RURAL POPULATION

#### Section i. Preliminary

1. The country-side in Travancore-Cochin presents a picture unique in itself. In most parts of India, the country-side consists of large stretches of cultivated land and the agricultural population, has, from early times, formed themselves into small groups living in compact areas in the midst of the land they cultivate. Prevalence of bandits and marauders and dangers consequent on unsettled political conditions, probably resulted in such population agglomerations. In times of danger the community could gather together at a moment's notice and drive out the enemy.

2. Such compact dwelling places are invariably absent in rural areas in this state. A few places in South Travancore, and the two enclaves—Shenkotta and Chittur—alone have to a small extent, the features characteristic of the agricultural villages outside the state. Otherwise the whole state, barring the highland, is dotted over with isolated homesteads.

3. A heavy rainfall and the unevenness of the surface of the country have resulted in a diffusion of water supply; this along with the availability of comparatively easy means of communication, whether by land or by water, has been responsible for the scattered disposition of homesteads, a characteristic feature of the landscape in this state. Houses are never built in streets, regular or irregular, but lie scattered all over the countryside in picturesque confusion without any order or regularity, each house, even the humblest, standing in its own compound surrounded by valuable plants and trees.

4. The land has undergone indiscriminate subdivision. Formerly, under the joint family system, the family holdings, consisted of fairly extensive stretches, probably comparable to the modern farms in the west. With the growth of population and the enactment of laws permitting partition of joint families, fragmentation set in with the result that the countryside presents a chequered pattern of small plots of land.

5. The term 'village' as used at this census requires some explanation. In the erstwhile Travancore state, the taluk is divided into a number of administrative units, each called "pakuthy". The pakuthy is further sub-divided into a number of smaller units known as 'kara' or 'muri'. The pakuthy is under a revenue officer called the village officer, but there is no separate officer for each kara. Thus the kara is not an administrative unit, but its boundaries are well understood by the people of the locality.

6. The 'kara' has been adopted as synonymous with 'village' for all censuses from 1901 onwards. There were 3,885 karas in 1901. At subsequent censuses, the number of karas has varied slightly due to their inclusion wholly or partly in towns. The number of karas in 1951 was 3,855. The average area of a kara is 1.9 square miles now.

7. In the erstwhile Cochin state, the taluk is divided into a number of administrative units, each being called a "proverthy". A proverthy has also been divided into a number of units each called a 'desom', but the proverthy has been treated as a village from 1911 census onwards.\* The number of proverthies was 273 in 1911 while at the last census, the number was 275. The average area of a proverthy is 5.4 square miles\*\* now.

8. It would have been more appropriate to consider the smaller units called the desom as a village in Cochin; but this could not be done owing to the practice in force at previous censuses.

#### Section ii. General Distribution

9. Eighty-four per cent of the population of the state live in villages. The total area of villages is 8,846 sq. miles so that rural density

\*At the 1901 census a desom with an area of 2.1 sq. miles was treated as a village.

\*\*The average area of 'kara' or 'proverthy' has been calculated by dividing the rural area by the corresponding number of karas or proverthies.

is as high as 881. If the reserve forests covering 2,456 sq. miles be excluded, the density becomes 1219. The pressure of population in the villages in the state is thus very great.

10. The table below gives the percentage of rural population and density for some of the states in India.

	<i>Percentage of rural population</i>	<i>Density</i>
Travancore-Cochin	84	881
Uttar Pradesh	86	487
Madras	80	367
Orissa	96	234
Madhya Pradesh	87	146

Uttar Pradesh in the Gangetic plain has nearly the same percentage of rural population as this state; but the density is only a little over half of what it is here. The other states have very much lower densities and in view of the high density of the total population in this state it can safely be concluded that the rural density in all other states will be below that in Travancore-Cochin.

11. The distribution of rural population in (i) natural sub-divisions, (ii) administrative divisions and (iii) villages, may now be considered.

The natural sub-divisions—lowland, midland and highland—contain 39, 54 and 7 per cent of the rural population and have densities of 2021, 1297 and 136 respectively. It is only natural that the density in the highland is low as the reserve forests lie mostly in this area. In regard to the lowland and the midland, the difference in density is due to reasons explained in section ii of Chapter I. The per capita extent of land is only one-third of an acre in the lowland and half an acre in the midland. Even assuming that the land is exceptionally fertile (which is not true) the total agricultural returns from such small holdings are meagre, leading to low standards of living.

12. Quilon contains a little over one-third, Trichur one-fourth and each of the remaining two districts about one-fifth of the total rural population. The distribution and density of rural population in the districts is given in the table below.

	<i>District percentage</i>	<i>Density</i>
Trivandrum	76	1169
Quilon	87	996
Kottayam	89	549
Trichur	84	1014

Trivandrum district has 76 per cent of

its population in rural areas; the percentages for Trichur, Quilon and Kottayam are respectively 84, 87 and 89. In point of density, Trivandrum leads closely followed by Trichur and Quilon. The differences in density are due to the presence of varying proportions of natural sub-divisions in the districts. The table below shows the percentages of rural population in the natural sub-divisions within each district.

	<i>Lowland</i>	<i>Midland</i>	<i>Highland</i>
Trivandrum	58	38	4
Quilon	45	52	3
Kottayam	16	65	19
Trichur	35	59	6

It is seen that almost 95 per cent of the rural population of all the districts except Kottayam (with 81 per cent) are confined to the lowland and midland; Kottayam has about a fifth of the rural population in the highland. The tea and rubber plantations in the highland in Kottayam have led to greater communication facilities and opened up an otherwise inaccessible tract, though only to a small degree, for occupation. This explains the significantly higher percentage of rural population in the highland in Kottayam.

13. The densities of rural population in the lowland and midland in the four districts are given in the table below.

	<i>Density in</i>	
	<i>Lowland</i>	<i>Midland</i>
Trivandrum	2,346	1,226
Quilon	2,135	1,510
Kottayam	1,290	1,173
Trichur	1,890	1,244

Kottayam has the lowest density in both midland and lowland. In regard to the density in the lowland, Trivandrum stands first, followed by Quilon and Trichur while in regard to midland density, Quilon leads, Trichur and Trivandrum coming next in order. These differences are similar to those observed for the general population in the districts and are to be expected from the small percentage of urban population in the state.

14. The density of rural population in the adjoining districts in Madras is given below:

<i>Districts in Travancore-Cochin</i>	<i>Density</i>	<i>Districts in Madras</i>	<i>Density</i>
Trivandrum	1,169	Thirunelveli	416
Quilon	996	Ramanathapuram	326
Kottayam	549	Madurai	448
Trichur	1,014	Coimbatore	380
		Malabar	737

The table shows that the density of rural population in the districts in Madras is much

smaller than that of the adjacent districts of Travancore-Cochin. The Western Ghats which forms an almost impregnable barrier between these two states shuts out from Madras the moisture-laden winds from the Indian Ocean and precipitates an abundance of rainfall in Travancore-Cochin. This gift of Nature to the agriculturists of this state has been conducive to the growth of a large rural population.

15. The following table, prepared from Table A. 1.— Area, houses and population, gives the relative areas of villages in the districts and in the natural sub-divisions in each district.

*The average size of villages  
(Area in sq. miles.)*

	<i>All</i>	<i>Lowland</i>	<i>Midland</i>	<i>Highland</i>
State	2.14	0.96	1.51	10.13
Trivandrum	0.93	0.49	0.92	4.10
Quilon	2.04	1.17	1.16	31.69
Kottayam	3.83	1.79	2.06	83.33
Trichur	3.25	1.90	2.50	19.41

The table shows that the areas of villages in the highland are subject to large variations. But the concept of a village in the highland covered by reserve forests in purely arbitrary and conveys very little sense. The areas of villages in the lowland and midland do not show large variations.

16. In regard to the distribution of population in the villages, Subsidiary Table 2.1— Distribution of population between villages—shows that there are on an average 1912 persons in a village. In the districts, the average population per village varies considerably, the highest being in Trichur and the lowest in Trivandrum. The table also shows that only 3 per cent of the rural population are in villages having less than 500 persons; 25 per cent are in villages with population varying between 500 and 2,000. The remaining 72 per cent dwell in villages with population over 2,000. In regard to the districts, Trichur has only 15 per cent of the rural population in villages with less than 2,000 persons and 53 per cent are villages with 5,000 persons or more. In Trivandrum, Quilon and Kottayam, the largest percentage of rural population is seen in villages with 2,000 to 5,000 persons. Thus the large majority of rural population live in villages with more than 2,000 inhabitants. This is only to be expected as educational facilities, hospitals, markets and means of transport would become available only for population groups that are not very small.

17. The distribution of rural population in villages under different population groups for the last two decades is shown in the following table:—

	1931	1941	1951
Rural population per 1,000	879	872	840
Population per 1,000 rural population living in villages with persons			
5,000 and over	171	229	323
2,000 to 5,000	388 (58)	408 (94)	393
500 to 2,000	385 (78)	320 (79)	253
Below 500	56 (13)	43 (12)	31

The numbers within brackets show the extent of changes in sizes of villages in terms of population per 1000.

A steady decrease in the percentage of rural population is seen during the last twenty years. This has been accompanied by a general transfer of villages from lower to higher population groups. Thus during 1931—41 and 1941—51, some villages with less than 500 persons and having 1.3 and 1.2 per cent respectively of rural population have shifted to the group 500 to 2,000. Similarly during each of the two decades a few villages in the group 500 to 2,000 having 7.8 per cent of the population have entered the group 2,000 to 5,000. Finally some villages in the group 2,000 to 5,000 with 5.8 and 9.4 per cent of the population in the two decades have moved to the higher group—over 5,000. This shuffling is due partly to natural increase of population and partly to internal migration.

#### Sections iii, iv and v.

#### Growth, movement and natural increase of rural population

18. The rural population in the state has been steadily growing in numbers from decade to decade. The table below gives the growth and also the decennial growth from 1901.

	<i>Rural population at each census as percentage of that in 1901</i>	<i>Percentage decennial growth</i>	
		<i>Rural</i>	<i>General</i>
1901	100	..	..
1911	115	15	16
1921	127	11	15
1931	159	24	26
1941	187	18	19
1951	223	19	24

The rural population in 1951 is two and a quarter times what it was in 1901. The growth

during each decade is slightly less than that for the general population.

19. Subsidiary Table 2.3—Mean decennial growth rates, rural population—gives birth, death and growth rates based on published figures. The figures for birth and death rates for rural population are slightly lower than those for the general population. But these figures are not to be relied upon as already stated in Chapter I; the defects of registration of births and deaths are so great.

20. In an analysis of the growth of rural population, it has to be remembered that the definition of rural area has not remained the same from decade to decade. The growth rates calculated for areas treated as rural both at the beginning and end of a decade, should reflect differences between rates of growth of rural and general population. The following table gives the rural population and percentage growth for the last three decades, the rural area being kept the same at the beginning and end of each decade.

	<i>Population at</i>		<i>Percentage</i>
	<i>beginning</i>	<i>end</i>	<i>growth</i>
1921-30	4,461,469	5,615,350	25.9
1931-40	5,552,257	6,552,630	18.2
1941-50	6,558,523	8,012,482	22.2

The differences between growth rates of general and rural population are now negligible. It is, therefore, clear that the variations in growth rates of rural population at each census are the result of differences in the area treated as rural from decade to decade. The rural population grows more or less at the same rate as the general population.

21. The influence of migration on growth of rural population is negligible in this state. Two seasonal temporary migrations however exist in certain parts of the state. The harvest season in Kuttanad—February and March—attracts large numbers of agricultural labourers to Ambalapuzha, Changanacherry and Kottayam from adjoining taluks. But they return to their homes immediately after the season is over. A similar phenomenon exists in South Travancore during the harvest seasons—August—September and February—March—in Nanjinad. These migrations are mostly from one rural area to another and would affect the population of taluks; but their influence in the districts or the state as a whole is very little.

The tea and rubber plantations in the highland also attract large numbers of immigrants from the adjoining districts in Madras. This again is temporary though continuous, one gang of labourers being replaced by another from time to time.

#### Section vi. Livelihood Pattern

22. The percentage of rural population in the state as already mentioned, is 84. It is therefore natural to expect that the livelihood pattern of the rural population will be more or less the same as that of the general population. Subsidiary Table 2.4—Livelihood pattern of rural population—gives the distribution of rural population under the 8 livelihood classes. The table shows that among 100 persons in rural areas, 30 cultivate their own land, 8 are cultivating tenants, 22 are agricultural labourers, one is an agricultural rent receiver; 20 are engaged in production other than cultivation, 5 are in commerce, 3 in transport and 11 in miscellaneous services. Thus 61 per cent. depend on agriculture.

23. Though 39 per cent of rural population is engaged in non-agricultural means of livelihood, almost 50 per cent of this section are in production other than cultivation. This category includes plantation industry and a variety of occupations more akin to agriculture than to industry proper.

24. A brief comparison of the livelihood pattern of rural population of this state with that in some other Indian states may be made from the following table giving the percentages in the various livelihood categories.

	<i>Livelihood categories</i>									
	Agri-cultural	I	II	III	IV	Non-agri-cultural	V	VI	VII	VIII
Uttar Pradesh	84	71	6	6	1	16	6	2	1	7
West Bengal	75	42	16	16	1	25	11	4	1	9
Orissa	83	62	6	13	2	17	6	2	..	9
Madhya Pradesh	85	62	4	18	1	15	8	2	1	4
Mysore	88	71	6	8	3	12	4	2	..	6
Madras	76	42	11	21	2	24	10	4	1	9
Travancore-Cochin	61	30	8	22	1	39	20	5	3	11

West Bengal and Madras have almost the same proportion of persons in agricultural classes; this proportion is lower than that for other states. Travancore-Cochin has only a still smaller proportion under agricultural classes.

This relatively low percentage and the high density (1219) in rural areas definitely show that agriculture, has reached a stage when it can scarcely provide livelihood for more, even at the existing low standards of life.

About a fifth of the rural population are agricultural labourers. Generally many of the agricultural labourers own small bits of land; but the returns from them are so low that their principal source of livelihood is not cultivation of their own land.

25. Livelihood pattern in the natural subdivisions is indicated in the table below.

	<i>Lowland</i>	<i>Midland</i>	<i>Highland</i>
Agricultural	46.6	71.6	55.0
I	22.7	35.6	21.9
II	4.8	10.1	9.3
III	18.4	24.6	22.8
IV	0.7	1.3	1.0
Non-agricultural	53.4	28.4	45.0
V	29.4	12.6	30.9
VI	7.1	4.2	2.9
VII	4.6	1.7	1.3
VIII	12.3	9.9	9.9

These figures may be compared with the corresponding figures for general population on page 22 of this volume.

26. The livelihood pattern for the rural areas in the districts is similar to that of the general population. The proportions in the livelihood classes—cultivators of owned land, tenant cultivators and agricultural labourers—are greater than the corresponding values for the general population. In the remaining five categories the proportions for rural population are slightly lower than those for the general population.

#### Section vii. Conclusion

27. The population of the state is predominantly rural. A disquieting feature of the distribution of rural population is the high rural density. There is very great congestion on occupied land in several localities. The pressure of population is particularly serious in the lowland.

28. Rural population has been growing more or less at a rate similar to that of the general population. A detailed study of this growth has not been possible for want of figures of migrants and of birth and death rates.

29. During harvest seasons, there is a temporary migration of agricultural labourers to Kuttanad in Central, and Nanjinad in South Travancore, from the adjoining taluks. There has also been a slow movement towards the highland for work in the plantations; this migration has become more pronounced in recent years as there is great demand for labour in some localities in the high-land where construction works for irrigation and generation of electric power are in progress.

30. The percentage of agricultural classes in the rural population in the state is significantly smaller than that in most states in India. This no doubt reflects the progress made in industrial development in the state.

31. The proportion of owner-cultivators exceeds 70 per cent in Uttar Pradesh and Mysore, 60 per cent in Orissa and Madhya Pradesh and 40 per cent in West Bengal and Madras. In this state, there are only 30 per cent cultivating owned land. This should not be interpreted to mean that the majority are landless. It only indicates that cultivation of owned land forms the important means of livelihood for only 30 per cent of the rural population and that for other owners of land, returns from land have become so low that cultivation has ceased to be their main occupation. Pressure on land has become enormously great and the size of the holdings has become correspondingly small. It is only natural to expect that cultivation of owned land has become uneconomic.

32. The relatively greater percentage of agricultural labourers, particularly when agricultural operations are seasonal, leads to a certain amount of under-employment among them. Among non-agricultural classes, the greatest percentage is under production other than cultivation.

## CHAPTER III

### URBAN POPULATION

#### Section i. Preliminary

1. Urban population was separately enumerated in this state, for the first time at the 1891 census; at all subsequent censuses the urban-rural dichotomy has been maintained. It appears, however, that the definition of urban localities has remained arbitrary. In the 1891 Census report for Travancore, it is stated that "size, compactness and certain architectural, commercial and industrial features are all considerations which would go to make up the definition of a town." In Cochin also localities satisfying this description would have been treated as urban in 1891. Probably in those days, this description was sufficient to pick out urban areas. Trivandrum, Nagercoil, Alleppey, Quilon, Kottayam, Shenkotta, Trichur, Mattancheri, Ernakulam, Irinjalakkuda and Chittur are the eleven places treated as urban in 1891. Most of these places were essentially non-industrial, though some had commercial importance. But the omission of centres of trade like Kayamkulam and Changanacherry goes to show that the standards of specification of urban areas were more or less arbitrary.

2. Localities treated as urban are mostly headquarters of taluks. Thus at the 1931 census, out of 58 towns, 34 are taluk headquarters, the remaining places being either municipalities or conservancy towns. At the 1951 census, all municipalities and places where conservancy arrangements exist have been "elevated" to the status of towns.

3. A few of the towns are undoubtedly centres of trade; industrial towns are practically non-existent. Alleppey with its coir factories was probably the only industrial town in the state. Recently, however, Quilon with its cashewnut factories, Alwaye with its rapidly growing industries like textiles, fertilisers, aluminium, glass and rayons, and Ernakulam with its soap and oil factories have come into importance. The remaining towns can only be characterised as more or less compact residential areas with easy access to educational, medical and other government institutions.

4. There are 103\* towns in this state covering an area of approximately 300 sq. miles. Trivandrum and Alleppey are the only two cities. There are 23 other municipal towns and 78 conservancy towns. Nagercoil, Quilon, Kayamkulam, Kottayam, Ernakulam, Mattancheri, Alwaye and Trichur are the most important municipal towns.

#### Section ii. General distribution

5. The urban population in the state is only 16.5 per cent of the total. Thus for every 5 persons living in the countryside, one person lives in the town. Subsidiary Table III (i)—Distribution of Population between towns—shows that a little over 52 per cent of the urban population are in towns having more than 20,000 persons and only 6 per cent are in towns with less than 5,000. The table below compares the distribution of urban population in towns of varying size since 1931.

Size of town	1951	1941	1931
20,000 and over	52	55	51
10,000—20,000	24	26	25
5,000—10,000	18	14	17
Under 5,000	6	5	7

The distributions for 1931 and 1951 are almost alike. In 1941 there is a slight increase in the percentage of population in the larger towns and a decrease particularly in towns of size 5,000—10,000. There has been only a few additions to the list of towns in 1941 (Ollur and Pazhanji in Trichur district). Hence this shift in urban population can only be due to internal migration. The decade 1931 to 1941 was a period of economic depression when wages and the prices of agricultural commodities were low. A movement to the bigger towns in search of better employment has probably produced this shift in urban population.

6. The distribution of urban population into cities, municipal and conservancy towns for 1931, 1941 and 1951 is given in the subjoined table.

\*Includes Trippunithura, Cranganur, Njarackal, Vadakkancheri and Pazhanji.



*Percentage of urban population in*

	<i>Cities</i>	<i>Municipal towns</i>	<i>Conservancy towns</i>
--	---------------	------------------------	--------------------------

1951	20 (2)	45 (23)	35 (78)
1941	13 (1)	59 (22)	28 (38)
1931	..	72 (23)	28 (35)

(The numbers in brackets give the number of urban localities of each category)\* In 1931 and 1941, 72 per cent of urban population were confined to municipal towns (including one city in 1941) and 28 per cent were in conservancy towns. In 1951, only 65 per cent are in municipal towns (including the two cities) while 35 per cent are in conservancy towns. It should not therefore be inferred that the urban population in municipal towns and cities has dropped in 1951. In fact the figures for 1931, 1941 and 1951 are 549,318, 690,827 and 998,784 respectively. Relative to 1931 these figures are 100, 126 and 185 respectively. The growth has therefore not only been steady but very rapid.

7. A large number of conservancy towns, almost double the number at the previous decades, has been treated as towns in 1951. This has resulted in a more uniform distribution of urban population in 1951 than at previous census years.

8. The distribution of urban population in the natural sub-divisions is given in the table below.

		<i>Percentage of urban population to</i>	
		<i>total urban population</i>	<i>in the natural sub-division</i>

All	103	100	..
Lowland	47	66	25
Midland	49	31	10
Highland	7	3	7

Thus for every 3 persons in the lowland or 9 in the midland or 13 in the highland rural areas, there is one person in the town in each of the three natural sub-divisions. Further, two thirds of the entire urban population in the state are confined to the lowland and a little less than a third in the midland.

9. It has been pointed out that from very early times, towns sprung as centres of trade and industry in the lowland. It was only later that urbanisation spread to the midland. Further, means of communication afforded by the back-

\*Harippad which was a municipal town in 1931 ceased to be one subsequently. Chittur and Thathamangalam were separate municipalities in 1941 but have been amalgamated since then. Minachil, a non-municipal town in 1941, became the Palai municipal town by 1951.

waters in the lowland gave additional incentive to the growth of urban population in the lowland. Thus the greater proportion of urban population in the lowland has been the result of continuous growth fostered by natural resources existing in abundance in this area.

10. The towns in the highland are more or less of recent origin. These have sprung up to meet the increasing needs of workers in the plantations in the highland.

11. The distribution of urban population in the districts is contained in the table below.

		<i>Percentage of urban population to</i>	
		<i>Total urban population</i>	<i>District population</i>
All	103	100	..
Trivandrum	38	34	24
Quilon	24	27	13
Kottayam	18	13	11
Trichur	23	26	18

Trivandrum has a little over one-third of the total urban population in the state; Quilon and Trichur have a little over one-fourth in each. Kottayam has only one-eighth of the urban population in the state. Further, for one person in the town, there are 3 in the country-side in Trivandrum, 7 in Quilon, 8 in Kottayam and 5 in Trichur. Thus Trivandrum district ranks first in point of degree of urbanisation, followed by Trichur, Quilon and Kottayam.

### Section iii. Growth of urban population

12. The growth of urban population in the state is exhibited in Subsidiary Tables 3.2—Variation and density—and 3.3—Mean decennial growth rates. Table 3.2 shows that the urban population in the state had a remarkable increase of 43 per cent during the decade 1921-31, an alarming decrease of 27 per cent during 1931-41 and an unprecedented increase of 60\* per cent during the last decade. Similar trend exists for all the districts also.

13. The differences in the growth of urban population may be due to changes in boundaries of towns, inclusion of new towns and exclusion of existing towns and the natural rate of growth of the population. The effect of inclusion or exclusion of towns at each census on growth can

\*The figures giving percentage increase for 1941-51 for the state and Trichur exclude Thrippunithura, Njarackal, Cranganur, Vadakkancheri and Pazhanji. The inclusion of these towns gives 59.8 for the state and 35.8 for Trichur.

be removed by finding the growth rate on the basis of population in localities that were considered as towns both at the beginning and end of each decade. This is given in the following table.

*Comparable urban populations for consecutive censuses.*

	1921—30			
	1921	1931	Percentage variation	1931
State	529,591	692,405	30.74	755,498
Triyandrum	79,577	223,954	24.72	234,130
Quilon	144,979	180,485	24.49	201,626
Kottayam	59,173	76,348	29.03	84,742
Trichur	145,862	211,618	45.08	235,000

	1931—40		1941—50	
	1941	Percentage variation	1941	Percentage variation
947,427	25.40	941,534	1,267,943	34.66
300,049	28.15	300,049	404,454	34.80
249,850	23.92	249,850	353,184	41.36
104,404	23.20	104,404	144,616	38.52
293,124	24.73	287,231	365,689	27.32

The percentage growth based on the adjustment for omission and addition of localities at each census, does not show the abnormal variations mentioned above. The figures for percentage growth for the three decades 1921-30, 1931-40 and 1941-50 are respectively 31, 25 and 35.

14. To analyse the differences in these figures, the changes in geographical boundaries in the towns have to be determined. Census data, unfortunately do not give figures required for this adjustment. This can, however, be estimated by allowing for the growth of population. Subsidiary Table 3.3 gives detailed figures for births and deaths during the three decades 1921-51. But for reasons discussed in Chapter I, these figures do not help the study of growth of population. Further, the towns with a few exceptions are not industrial centres and it may not be far wrong to assume that the differences in birth and death rates between the urban and rural classes are negligible. On this hypothesis, the urban population will have a natural growth almost equal to that of the total population.

15. The subjoined table gives the figures of growth of population (vide subsidiary table 1.2) and also of the adjusted comparable urban populations.

	General	Adjusted urban
1921—30	26	31
1931—40	19	25
1941—50	24	35

The differences between the corresponding rates—5, 6 and 11—represent the percentage increase in population due to changes in boundaries of towns during the three decades. Thus the components of the growth of urban population are (1) growth due to new localities being elevated to the status of towns, (ii) natural growth of population and (iii) growth due to changes in boundaries of towns. The table below gives these components.

	1921—30	1931—40	1941—50
Growth of urban population	42.7	26.5	59.8
Growth due to			
(i) New towns	12.0	1.1	25.1
(ii) Natural growth	26.4	18.9	23.7
(iii) Changes in boundaries	4.3	6.5	11.0

In the above analysis, the inaccuracies in the natural growth of population discussed in Chapter I, remain. But as similar inaccuracies will be present in the original figures for urban population, it is felt that these errors will cancel out on differencing. The estimates for the two components of growth of urban population—due to new towns and change in boundaries—appear acceptable.

16. The urban population in the state includes people living in cities, municipalities and conservancy towns. Most of the conservancy towns are, as mentioned already, only residential places. The cities and municipalities, have relatively, greater urban traits and this section of the urban population will be more representative of the urban classes in the state.

The table below gives the number, area, population and density of the municipal towns including cities since 1931.

Municipal towns	1931	1941	1951
Number	23	23	25
Area (sq. miles)	98.87	107.13	127.54
Population	549,318	690,827	998,784
Density	5,556	6,448	7,831

The population within municipal towns was 8.7, 9.2 and 10.8 per cent of the total population for 1931, 1941 and 1951 respectively. Thus in 1931 and 1941, for every person living within municipal towns there were 10 persons living outside municipal towns; in 1951, however, for every person in municipal towns there are eight persons outside the municipal towns. Hence change in urbanisation due to growth of municipal towns has been very slow during the last two decades.

17. The population in the municipal towns has, however, grown fast. During the decades

1931-40 and 1941-50, the percentages of growth of population are 25.8 and 44.6 and those of area are 8.4 and 19.1 respectively. The percentages in growth of population and area for the last decade are higher than the corresponding figures for 1931-40. This large variation is due to the two new municipalities created during the last decade.

18. The rate of growth of population in municipal towns, after making allowances for changes in area will generally be reflected in the rate of growth of density. It is seen that the densities during the two decades 1931-40 and 1941-50 have increased by 16.1 and 21.5 per cent respectively. The growth of general population, (Subsidiary Table 1.2) is 18.9 and 23.7 per cent for these two decades, while the estimated growth rates are 21.2 and 23.9. It is reasonable to expect that the inaccuracies in census enumeration in municipal towns are negligible so that the differences between the estimated growth rates and the rates of variation in densities, go to show that the urban rate of growth is smaller than that of the general population.

19. A little more urbanised than the general run of municipalities are the two cities in the state. Trivandrum was a city at the 1941 census, but Alleppey became a city, on the basis that over one lakh of population was counted within the municipal limits, only at this census.

20. The importance of Trivandrum as the biggest town in the state dates back to early times. It was the seat of administration of the erstwhile Travancore state and improvement of the town has been continuous and steady. The sub-joined table traces the growth of this town since 1901.

Year	Area in sq. miles	Density	Percentage variation in each decade in	
			Population	Density
1901	9.89	5,853	..	..
1911	9.89	6,427	9.8	9.8
1921	10.00	7,278	13.2	13.2
1931	11.29	8,507	31.9	16.9
1941	11.84	10,842	33.7	27.4
1951	16.98	11,009	45.6	1.5

During the past fifty years the area of the town has increased by 72 per cent and the population by 223 per cent. The changes in boundaries till 1931 have been only little and in 1931, 1.29 square miles has been added to the municipality. This has effected an increase in

density by about 17 per cent, though the population has increased by about 32 per cent. Again an increase of 0.55 sq. miles in the decade 1931-40 gives an increase of 27 per cent in density and 34 per cent population. Finally, 5.14 square miles added during the last decade has increased population by 46 per cent though the change in density is only less than 2 per cent.

1941 has therefore witnessed the greatest congestion in the city, the density increasing from 17 to 27 per cent. The last decade has considerably relieved this congestion by the addition of 5 square miles to the city from the less dense suburbs, the increase in density dropping from 27 to 2 per cent.

21. In regard to housing conditions in Trivandrum city, the table below gives the number of occupied houses in Trivandrum from 1901.

Year	No. of occupied houses	Percentage rate of increase	No. of persons per house
1901	9,846	..	5.88
1911	10,485	6.48	6.06
1921	11,902	13.51	6.12
1931	14,272	19.91	6.73
1941	21,370	49.73	6.01
1951	25,232	18.07	7.41

It is clear that the decade 1931-40 has shown an increase of almost 50 per cent in the number of occupied houses giving relief to overcrowding in houses. During the last decade the number of occupied houses has increased by only 18 per cent, while the population has increased by 46 per cent. Naturally, there has been a very great increase in the number of inmates per house.

22. Thus, during the last decade, even though the city limits have been widened, housing accommodation has not kept pace with demand. In spite of overcrowding, this city maintains a high level of sanitation and is an exceptionally healthy residential locality. The town has grown up around a series of hills and valleys and the climate is uniformly pleasant throughout the year. The city has a good water supply running throughout the twenty-four hours of the day. Electric lighting and good dustless roads have added to the civic amenities in the city.

23. This city has little industrial importance. Though a few factories—the rubber factory, the titanium factory and the textile mills in the suburbs—exist, none of the harassing evils of industrialisation are apparent. On the other hand, the city is a university centre with a large

number of schools and colleges; this city admits of a high level of cultural contacts.

24. Alleppey is the only other city in the state. Unlike Trivandrum, this city is essentially industrial. It has been a commercial centre for nearly two centuries and is the most important seat of the coir industry.

25. The growth of this town since 1901 is shown in the table below.

	Area in		Percentage variation	
	sq. miles	Density	Population	Density
1901	3.54	7,039		
1911	3.54	7,250	3.00	3.00
1921	4.54	7,065	24.97	-2.55
1931	4.54	9,656	36.68	36.67
1941	4.54	12,408	28.50	28.50
1951	12.50	9,302	106.41	-25.03

It is clear that till the beginning of the last decade, the changes in town limits have not materially affected congestion in the city. The density in Alleppey has remained consistently higher than that in Trivandrum. It is only during the last decade that the size of the town was almost trebled. Even so, the density remains very high.

26. The result of expansion of the city limits has produced a decrease in the rural population of the taluk. This city is in Ambalapuzha taluk and the rural populations of this taluk in 1941 and 1951 are 202,063 and 196,508 respectively. Actually the rural population in 1951 is in excess as the census date coincided with the harvesting season in the 'punja' lands, when a very large number of agricultural labourers from the neighbouring taluks had made temporary residence in Ambalapuzha taluk. Thus a good percentage of the rural population of Ambalapuzha taluk has gone within the Alleppey city as a result of its expansion. The increase of 106 per cent of the population of Alleppey during the last decade is therefore not an increase in population with urban traits.

27. In regard to housing conditions, the table below gives the number of occupied houses, their variation and number of inmates per house from 1901 onwards.

	Number of occupied houses	Variation	No. of inmates per house
1901	4,849		5.14
1911	5,152	6.25	4.98
1921	5,830	13.16	5.50
1931	7,426	27.38	5.90
1941	9,223	24.20	6.11
1951	17,318	87.77	6.71

The unusual increase in the number of houses during the last decade is once again due to the extension of the city limits. The number of inmates per house has been consistently increasing since 1911 and even the houses that have come into the city due to its extension have not arrested the over-crowding in houses.

28. Alleppey is one of the most important towns in the state. The taluk in which it is situated is mostly waterlogged and this town, with its educational and administrative institutions, water supply and electric lighting, will necessarily attract large numbers from the surrounding rural areas. Even as it is, houses are insufficient in number and unless the city is developed systematically by providing adequate residential quarters, the level of public health is bound to deteriorate especially, because it has always been the victim of epidemic diseases in the past.

29. It is not considered necessary to describe the growth of each of the other towns at length. The table below has been prepared to give an idea of the extent of over-crowding in some of the important towns in the state.

	Area in sq. miles	Density per sq. mile	No. of inmates per house
Trivandrum	16.98	11,009	7.41
Alleppey	12.50	9,302	6.71
Nagercoil	8.00	9,910	5.49
Mattancheri	2.69	27,474	8.44
Trichur	4.77	14,573	7.23
Quilon	6.15	10,572	6.15
Ernakulam	3.27	19,047	7.88
Kottayam	6.26	7,061	6.85
Changanacherry	5.50	6,598	7.22

Mattancheri, the smallest Municipality has the greatest degree of congestion and over-crowding. Ernakulam comes next. The figures also indicate that all municipalities except probably Kottayam and Changanacherry require immediate expansion to relieve congestion and over-crowding.

30. The growth of these towns since 1901 is indicated in the following statement.

Town	Rank at each census					
	1951	1941	1931	1921	1911	1901
Trivandrum	1	1	1	1	1	1
Alleppey	2	3	3	3	3	3
Nagercoil	3	5	4	2	2	2
Mattancheri	4	4	5	6	5	5
Trichur	5	2	2	4	4	8
Quilon	6	6	7	5	7	7
Ernakulam	7	7	6	7	6	4
Kottayam	8	8	8	9	9	6
Changanacherry	9	9	9	8	8	9

Trivandrum has always stood first in size of population. Alleppey stood third till 1941, but has taken the second rank in 1951. Nagercoil which stood second till 1921 became the fourth in 1931, fifth in 1941 and has during the last decade won two places, becoming third in 1951. Mattancheri, the fifth town till 1911, became the sixth in 1921; but it steadily grew and became fourth in 1941 and held this rank during the last decade. Trichur was the eighth town in 1901. It grew in importance steadily, becoming second in 1931. Since 1941, it has sunk to the fifth rank. Quilon started as the seventh and after slight gain or loss in rank, has kept up the sixth rank since 1941. Ernakulam was fourth in 1901. Its rank fell till 1921, then had a lift by one place, and then again a fall. Since 1941 its rank has been seven. Kottayam and Changanacherry since 1921 have occupied the eighth and ninth places respectively.

#### Section iv. Livelihood Pattern

31. The percentage of urban population in the state is 16. Of this, 25 per cent depend on agriculture and the remaining 75 per cent have non-agricultural sources of livelihood. Even though the percentage of agricultural classes is only one-third of that of non-agricultural classes, this proportion of agricultural classes in an urban population is definitely high. Most of the non-conservancy towns are only residential localities. Taking the more urbanised section—the population in municipalities—it is found that as high as 19 per cent belong to agricultural classes. This is a clear index of the rural economy typical of the urban population in the state.

32. Subsidiary Table 3.7—Livelihood pattern of urban population—shows the distribution of urban population into livelihood classes. Nine per cent of the urban population depend on cultivation of their own land while three depend on cultivation of land taken on lease. About 10 per cent are agricultural labourers and two per cent depend upon rent from land or other remittances.

33. Among the non-agricultural classes, the largest proportions are in Other Services (29 per cent) and Production other than cultivation (25 per cent). Fifteen per cent are dependent on Commerce and 7 per cent on Transport.

34. Livelihood class VIII—Other Services—includes occupations contained in Divisions 5

(Construction and utilities), 7 (Transport, storage and communications excluding transport by road, air, water and railway), 8 (Health, education and public administration) and 9 (Miscellaneous services) of the 1951 Census Economic Classification Scheme. Thus all persons depending on clerical, professional, administrative and utility services as distinct from industrial occupations come within livelihood class VIII. It is this administrative class that forms the 29 per cent mentioned above.

35. Under V—Production other than cultivation—come industries, mining and quarrying, plantation industry, processing and manufacture of food-stuffs, metals and chemicals, textiles, manufacture of leather goods and other unspecified primary industries; these account for 25 per cent of the urban population.

36. A more realistic picture of the urban population is contained in the following table giving the distribution of non-agricultural classes under the various divisions mentioned above.

<i>Division</i>	<i>Percentage</i>
ALL	100
0 Primary Industries	7.7
1. Mining and quarrying	0.3
2. Processing and manufacture of food-stuffs etc.	15.7
3. Processing and manufacture of metals, chemicals, etc.	3.3
4. Processing and manufacture not elsewhere specified	8.0
5. Construction and utilities	4.7
6. Commerce	18.0
7. Transport, storage etc.	9.8
8. Health, education and public administration	12.0
9. Miscellaneous services	20.5

It now becomes clear that 33 per cent are engaged in health, education, administration and other miscellaneous services; 18 per cent are in commerce and 16 per cent in processing and manufacture of foodstuffs, textiles etc. Thus the persons engaged in industries are relatively few in number.

37. Again Subsidiary Table 3.6 giving the distribution of persons in each of the eight livelihood classes in the towns shows that the proportions in the towns are comparatively lower than those in the rural areas. The low proportions in each of agricultural classes in the towns is an urban trait; but the low proportions in each of the non-agricultural classes, however, is a rural characteristic. This, once again, goes to show that the towns here are essentially non-industrial.

38. The livelihood pattern of the urban population in municipalities including cities is contained in the table below giving the percentage of persons in the eight livelihood classes.

<i>Livelihood Class</i>	<i>Percentage</i>
I	6
II	2
III	9
IV	2
V	23
VI	17
VII	8
VIII	33

The 19 per cent under agricultural classes consists of 6 per cent cultivators of owned land and 9 per cent agricultural labourers; 23 per cent belong to production other than cultivation, 33 per cent depend on miscellaneous services, 17 per cent on commerce and 8 per cent on transport. Thus the largest section of the people in the municipalities belong to administrative and utility services. Next in importance are V—Production other than cultivation and VI—Commerce.

39. The distribution of urban population in the natural sub-divisions may be examined. The table below gives the percentage of population of each natural sub-division in the various livelihood classes.

<i>Livelihood class</i>	<i>Lowland</i>	<i>Midland</i>	<i>Highland</i>
All	100	100	100
I	6	15	16
II	1	5	9
III	9	13	18
IV	2	4	2
V	28	18	21
VI	16	13	10
VII	8	5	4
VIII	30	27	20

Since the lowland has two-thirds of the urban population and the midland a little less than a third, the distribution in these two natural sub-divisions will govern the livelihood pattern of the urban population. The percentages under non-agricultural classes are 82 in the lowland, 63 in the midland and 55 in the highland. It may therefore be inferred that the lowland towns have attained a higher degree of urbanisation than the towns in the midland and the highland.

40. In the lowland, 28 per cent depend on production other than cultivation and 30 per cent on miscellaneous services. Commerce and transport have absorbed 16 and 8 per cent respectively. In the midland 18 per cent are in production other than cultivation, 27 per cent are in miscellaneous services, 13 per cent in commerce and 5 per cent

in transport. Further, 15 per cent depend on cultivation of their own land and 13 per cent are agricultural labourers. In the highland, almost 20 per cent each are engaged in both production other than cultivation and miscellaneous services; under owner cultivators and agricultural labourers are found 16 and 18 per cent respectively. Thus a greater proportion of the urban population in the midland and highland are engaged in agriculture. It has already been mentioned that practically all the land available for cultivation in the lowland has been utilised and that the per capita extent of land is very small. The urban population in the lowland has naturally to seek non-agricultural means of livelihood. In the midland and highland there is greater availability of land for cultivation and at least a fairly good section of the people live in towns to enjoy the comforts of town life and at the same time stick to the soil for their means of livelihood.

41. Subsidiary Table 3.7—Livelihood pattern of urban population—shows that in Kottayam and Quilon nearly 15 and 12 per cent respectively of the people depend on cultivation of their own land. Trichur has only 4 per cent owner cultivators and Trivandrum has 9. In regard to tenant cultivators, the percentages for all the districts are almost three. Among agricultural labourers, the largest proportions are in Kottayam and Quilon, while these two districts have the lowest percentages under non-cultivating owners of land and agricultural rent receivers.

42. The distribution in the non-agricultural categories shows that in all the districts, V—Production other than cultivation and VIII—Other services and miscellaneous sources—contain the largest proportions. Next in importance are VI—Commerce and VII—Transport. In Trivandrum and Quilon about 27 per cent are engaged in V, while there are only 23 per cent in Trichur and 18 per cent in Kottayam. In regard to VIII, Trivandrum and Trichur have 32 per cent while Kottayam has 27 per cent and Quilon 23 per cent. In VI, the highest percentage (17) is for Trichur, while Kottayam, Quilon and Trivandrum have respectively 16 per cent, 15 per cent and 13 per cent. The percentages under VII are 9, 7, 7 and 4 for Trichur, Kottayam, Quilon and Trivandrum respectively.

43. The differences in livelihood pattern in the districts arise chiefly from unequal distribution of the urban population in (i) the municipal

towns and (ii) the natural sub-divisions. Urban population in municipal towns within the lowland will have a double weightage on livelihood classes V, VI and VIII as persons under these three classes are found in larger numbers in municipalities as well as lowland towns. The municipal towns in the midland will show the importance of livelihood classes V, VI and VIII only to a slightly lower extent as the agricultural classes particularly I, and III are in greater numbers in the midland than in the lowland. In the highland, the tendency is more or less similar to that in the midland.

44. The table below shows the percentage of urban population of the districts in the municipal towns and the natural sub-divisions.

	<i>Municipal town</i>	<i>Lowland</i>	<i>Midland</i>	<i>Highland</i>
Trivandrum	65	83	15	2
Quilon	62	59	35	6
Kottayam	57	54	41	5
Trichur	73	57	43	..

In Trivandrum, there is a higher percentage of lowland urban population while there is a higher percentage of municipal population in Trichur. These two compensating factors produce more or less a similar livelihood pattern for the two districts. Quilon has a higher percentage of population in municipal towns and lowland towns than Kottayam. Thus the towns in Quilon are more urban than those in Kottayam. Further, these two districts will naturally have larger numbers in I and III than the other two districts.

45. Even though, the differences in the livelihood pattern in the districts have been broadly explained in relation to the distribution of urban population within the municipalities and the natural sub-divisions, a few exceptional variations call for further comment. Between Trivandrum and Trichur, great differences exist in the proportions under livelihood classes I and VII. Trivandrum has over 9 per cent under owner cultivators and 4 per cent under transport while Trichur has 4 per cent and 9 per cent respectively under the two livelihood classes. In regard to owner cultivators, the higher proportion in Trivandrum is due to the extremely uneconomic size of the agricultural holdings resulting from indiscriminate parcelling of land due to the partition of joint families. This has led to a gradual movement of the population to the towns to supplement their income from land. In Trichur, on the other hand, the effect of partition has not

been so drastic and owner-cultivators maintain themselves on the land they possess. The movement of owner-cultivators to the towns in Trichur does not seem to be as strong as in Trivandrum.

46. As regards transport, Trichur has greater facilities than Trivandrum. Trichur has 72 miles of rail road, while Trivandrum has only 12<sup>30</sup> miles. Further, the Cochin Harbour with its railway terminus and the Pallivasal road connecting the highland with the harbour, has become an exit for plantation produce and an inlet for foreign goods. Naturally a greater proportion of persons are engaged in transport in Trichur than in Trivandrum.

47. As between Quilon and Kottayam, small variations exist in almost all the eight livelihood classes, the most outstanding being the one in V—Production other than cultivation. The explanation for this is that in Kottayam, industries have not developed to absorb large numbers. Coir industry is confined only to three taluks. Quilon on the other hand has a long stretch of sea coast and a net work of backwaters and canals—factors conducive to the growth of the two major industries in the state, fishing and coir. The cashew factories in the southern taluks of Quilon, the tile factories, and the monazite factories along the coast have given opportunities for large sections of the people to be employed in production other than cultivation. In fact, these industrial openings in Quilon, have resulted in giving Quilon almost the same proportion under production other than cultivation as for Trivandrum.

#### Section v. Conclusion

48. The urban population in the state is only 16 per cent of the total. There has been a very rapid increase of population in towns during the last decade. Alleppey has risen to a city. A large number of localities with population below 5,000 have been elevated to the status of towns at this census.

49. 25 per cent of the urban population depend on agriculture; the remaining 75 per cent consist of almost 30 per cent in miscellaneous services, 25 per cent in production other than cultivation and 20 per cent ~~each~~ in commerce and transport. The distribution of the non-agricultural classes into the various divisions of the 1951 Census Economic Classification Scheme shows that the numbers engaged in factory industries

are very small. The largest numbers are in the administrative and utility services.

50. The growth of urban population during the past decades does not seem to fit into a consistent model. Rural areas develop into conservancy towns and conservancy towns are constituted into municipalities as a result of popular demand. The arbitrariness in the definition of urban localities, from census to census, makes it difficult to compare the urban population from decade to decade. As such, it is extremely dangerous to venture to forecast the size of urban population at the end of this decade.

51. Though increasing emphasis is laid in the national plan on the welfare of rural communities and the development of rural industries, through extension of electric power, it appears that the tendency towards urbanisation may not lose any strength during the coming years. The natural growth of population and the saturation point agriculture has reached, both tend to a steady growth of urban population. Further, the construction of a railway between Quilon and Ernakulam already started, will certainly help the growth of towns. It may therefore be inferred that the urban population at the end of the decade will bear a higher percentage to the total population than that of 1951.



## Chapter IV

### AGRICULTURAL CLASSES

#### Section i. Preliminary

1. The large majority of population in the state, as in the case of other states in India, depend on land for livelihood. It is, therefore, necessary to discuss the availability and utilisation of land for a proper understanding of the life of the agricultural classes in the state.

2. A brief description of the soil, climatic conditions and crops has already been given in the introduction. The following table gives the classification of the land area of the state.\*

	Area in acres	Percentage
Total	5,852,160	100
Forests	1,571,730	26.9
Area not available for cultivation	489,080	8.4
Other uncultivated land		
excluding fallow land	392,473	6.7
Fallow land	70,439	1.2
Net area sown	2,824,957	48.2
Area for which village papers are not available	503,481	8.6

Thus 48 per cent of the total area is under cultivation. The cultivated area per capita is 30.4 cents. Taking the average size of a family to be 5.50, a family holding is only 167 cents in extent.

3. The land under cultivation falls under two main sub-divisions—wet-land where rice is grown and garden land where all other varieties of plants and trees are cultivated. The extent of wet-land may be estimated to be 916,054 acres out of which 205,600 acres are sown more than once. Thus in effect 1,018,854 acres are under rice and 2,011,703 are under other crops.

4. The per capita land can now be analysed into 11 cents of wet land (including double crop land) and 21.7 cents of garden land. On this basis a family holding consists on an average of 61 cents of wet land and 119 cents of garden land.

5. The following table gives the acreage under principal crops.

\*Census of India, Paper No. 2, 1952.

<i>Crop</i>	<i>Area in acres</i>	<i>Percentage of Cultivated area</i>
Rice	1,018,854	33.6
Other food grains	92,581	3.1
Food crops other than food grains and oil seeds	895,420	29.5
Oil seeds	695,670	23.0
Fodder crops	44,743	1.5
Tea, coffee etc.	258,195	8.5
Others	25,094	0.8

It is seen that a third of the cultivated area is under rice, the staple food of the people. Other food-crops cover a third of the area and oil seeds, tea and coffee take up the remaining third. Thus food crops alone cover two-thirds of the area under cultivation. Tapioca is the most important of the food crops and the poor classes practically live upon this tuber. Coconut is also plentifully grown in the lowland and midland valleys. Sweet potato, yams and other tubers are cultivated almost everywhere. Varieties of plantain and fruits like mango, jack, papaya and pine apple are also grown throughout the land.

6. It may be mentioned in this connection that in the lowland and valleys in the midland wherever rice is not cultivated the other crops mentioned above are found invariably mixed up. Thus cocconut, tapioca and other tubers, plantain, jack and mango are seen in almost any garden. This mixed cultivation characteristic of the garden land, has led to serious difficulty in the determination of area under them. In the hill slopes in the midland where cocconut cannot be grown, tapioca is the chief crop. Pepper and tubers are also grown. Rubber and tea have been planted in the mountain slopes in the highland.

7. From the distribution of land and the nature of cultivation described above, it is possible to estimate the yield from an average family holding. Changes in income will arise due to variations in the fertility of the land, kind of crop and price. Due to shortage of rice, it is reasonable to assume that the wet land is completely under rice cultivation. In the garden

lands, cocoanut, tapioca and other money crops are generally grown so that the estimate of income cannot be very precise. However, by taking the worst and best situations, limiting estimates may be calculated to throw light upon the income from a family holding. Average yield per acre for rice, cocoanut and tapioca are given in the following table.

Rice (lbs.)	..	1,300
Cocoanut (Nos.)	..	4,500
Tapioca (lbs.)	..	6,300
<i>Yield from family holding.</i>		
Rice (lbs.)	..	793
Cocoanut (Nos.)	..	5,355
Tapioca (lbs.)	..	7,497
<i>Income in rupees</i>		
Rice	..	145
Cocoanut	..	856
Tapioca	..	300

The table also gives the total yield from an average family holding—61 cents of wet land and 119 cents of garden land. In the table the income has been calculated at Rs. 15 per maund of unhusked rice, Rs. 16 per 100 cocoanuts and Rs. 4 per maund of tapioca.

8. Assuming that the family holding can be classified under two types of cultivation: (a) rice and cocoanut and (b) rice and tapioca—the family income varies between Rs. 445 and Rs. 1,000. It will be remembered that ordinarily, cultivation will vary with the locality and the two types are purely theoretical. But they help to give an indication of the return from land for an average family.

9. It is from this family income that expenses for cultivation and taxes have to be met. Deducting these, it may roughly be said that the annual income varies between Rs. 400 and 900. The best rice fields and the best cocoanut growing areas alone will give Rs. 900. But unfortunately such a happy combination is very rare and as such, the average family income should be assessed at a value nearer the minimum than the maximum. About Rs. 600 a year may not be an unreasonable estimate of family income.

10. The return from agriculture is low and with the high level of prices, the family can only afford to lead a hand to mouth existence. Invariably the family runs into debt, which only increases from time to time. This has resulted in a steady lowering of standards of cultivation. There is not enough to pay for manure or buy good seeds. The question of keeping livestock

\*A 'pattadar' is one who has ownership of land.

is beyond the resources of the cultivator. Thus, the agriculturist leads a half-starved life and is forced to neglect cultivation.

11. This sad state of affairs is further aggravated by the indiscriminate fragmentation of agricultural holdings. Subsidiary Table 4.1 gives the distribution of agricultural holdings according to size. Nearly 87 per cent are below 5 acres. This does not reveal the extent of fragmentation of holdings in the state. It has not been possible to get reliable data on the size of plots. However, the number of 'Pattadars'\* paying tax at different rates of assessment will give an estimate of the size of holdings. It is found that 61 per cent of the pattadars are assessed for land tax below a rupee. Even though land tax also varies with the type of land, this very high proportion shows that the average holding can only be small.

## Section ii. Agricultural population ratios

12. The brief account of the economy of an agricultural household given in the previous section serves as a proper background to the study of the agricultural population in the state. The agricultural population comprises persons including dependents who derive their principal income from (i) Cultivation of Owned Land, (ii) Cultivation of Unowned Land, (iii) Agricultural Labour and (iv) Agricultural Rent. The last category virtually corresponds to absentee—landlords.

13. Fifty-five per cent of the total population depend on agriculture. The table on the livelihood pattern of the general population (Chapter I, paragraph 26) gives the percentage of agriculturists in some states. The proportions for West Bengal and Travancore-Cochin are nearly the same though the pressure on land is more heavy here than in West Bengal. The other states have very much higher proportions and also higher per capita extent of land. Thus the low percentage for this state (probably for West Bengal too) emphasises the heavy pressure on land that has resulted in low income from agriculture.

14. The distribution of agriculturists in the natural subdivisions is shown in the table below.

	<i>Percentage</i>
Lowland	40
Midland	60
Highland	54

The proportion for lowland is the lowest and that for midland the highest. In the lowland where pressure on land has gone far beyond the optimum peak level, agriculture has ceased to be economic and the people have turned to other sources—particularly fishing and coir—for their main income. In the midland, pressure on land is not so great as in the lowland. Industries have also not developed. In the highland, agriculture and plantation industry are the only two main occupations. Since plantation industry can only absorb a limited number, there is a relatively higher proportion of agriculturists.

15. In regard to the districts, distribution of agriculturists will be largely controlled by the varying proportions of the natural subdivisions in them. Kottayam has the highest percentage of agricultural population. Next in order are Quilon, Trivandrum and Trichur.

16. Kottayam has only 604 persons to the square mile. Though most of the land is mountainous, the fertile valleys and the undulating land in the midland area in the district are particularly suited to the cultivation of money crops. The 'punja lands'—low lakes converted into rice fields—are also extensive here. These, in the absence of large industrial concerns, are responsible for the high percentage of agriculturists in Kottayam.

17. Quilon has almost the same physical features as Kottayam. But the percentage of agricultural population is lower due to the presence of a higher proportion of lowland area in Quilon.

18. Trivandrum differs from Quilon in that in the southern taluks, rains are not plentiful and the climate is more dry. Coconut cultivation is not so extensive in the southern taluks as in the north. This has produced a smaller percentage of agricultural population in Trivandrum than in Quilon.

19. In Trichur, the proportion of agriculturists is the lowest. This has been examined in some detail in Chapter I when discussing the livelihood pattern of the rural population. The existence, till a decade ago, of the joint family system where the 'karanavar' was the trustee of the land and the other members had little to do with the affairs in the family, probably explains the low proportion of agriculturists in Trichur.

20. In the first section of this Chapter, a broad indication has been given about the low income

levels of the agriculturists in the state. The burden of dependency on the earner is also high. Every 100 agriculturists consist of 27 self supporting persons, 8 earning dependants and 65 non-earning dependants. In agriculture, earning dependants generally follow the vocation of the earners on whom they depend. Their income may be roughly estimated at half that of a full earner. On this basis, 31 earners have to support 69 non-earners. Thus each earning agriculturist has to support two dependents.

21. Agriculturists are mostly engaged in the cultivation of rice, cocoanut and other money crops. Rice cultivation does not require full time attention throughout the period from planting to harvest. Cocoanut requires only seasonal care. So also is the case with other money crops. It may be roughly estimated that about 8 months in the year will be the maximum period for which the agriculturist is actively at work in cultivation. He has four months in the year to devote to other occupations.

22. To what extent, agriculturists avail themselves of opportunities to earn an additional income will be clear from the following table giving the percentage of self-supporting persons having secondary means of livelihood.

State	..	19
Trivandrum	..	22
Quilon	..	22
Kottayam	..	17
Trichur	..	19

Nearly a fifth have a subsidiary source of income. Thus four-fifths of the agriculturists are idle for nearly 4 months in the year.

23. The period of inactivity is not a continuous one; it is the aggregate for the year, of a day or two at a time. The irregular periods when he is free is one great handicap to the agriculturist. Generally he is also unskilled except in agriculture. These keep the agriculturists certainly under-employed, if not unemployed, for nearly 4 months in the year.

### Section iii. Relative proportions of different agricultural classes

24. In regard to the distribution of agricultural population in the different livelihood classes, it is seen that 48 per cent cultivate their own land, 13 per cent are cultivating tenants, 37 per cent are agricultural labourers and two per cent are non-cultivating owners of land. Thus 61 per cent cultivate land.

25. The distribution in the natural subdivisions is given in the table below:—

	Lowland	Midland	Highland
Cultivators of owned land	47	49	40
Cultivators of unowned land	10	14	17
Agricultural labourers	41	34	41
Rent receivers	2	3	2

Cultivators of owned land are almost in equal proportions in the lowland and midland. In the highland, the capital required for cultivation is relatively greater than in the plains. This factor keeps out a large majority of persons from cultivation of owned land. There is, therefore, a lower proportion of owner cultivators in the highland.

26. The varying proportions of tenant cultivators and agricultural labourers in the natural subdivisions are easily explained. In the lowland, cultivation has become uneconomic to a large section of the people, as mentioned already. The poorer classes who are unskilled and who have by way of capital next to nothing, can only resort to agricultural labour. In the midland, the volume of agricultural labour is less

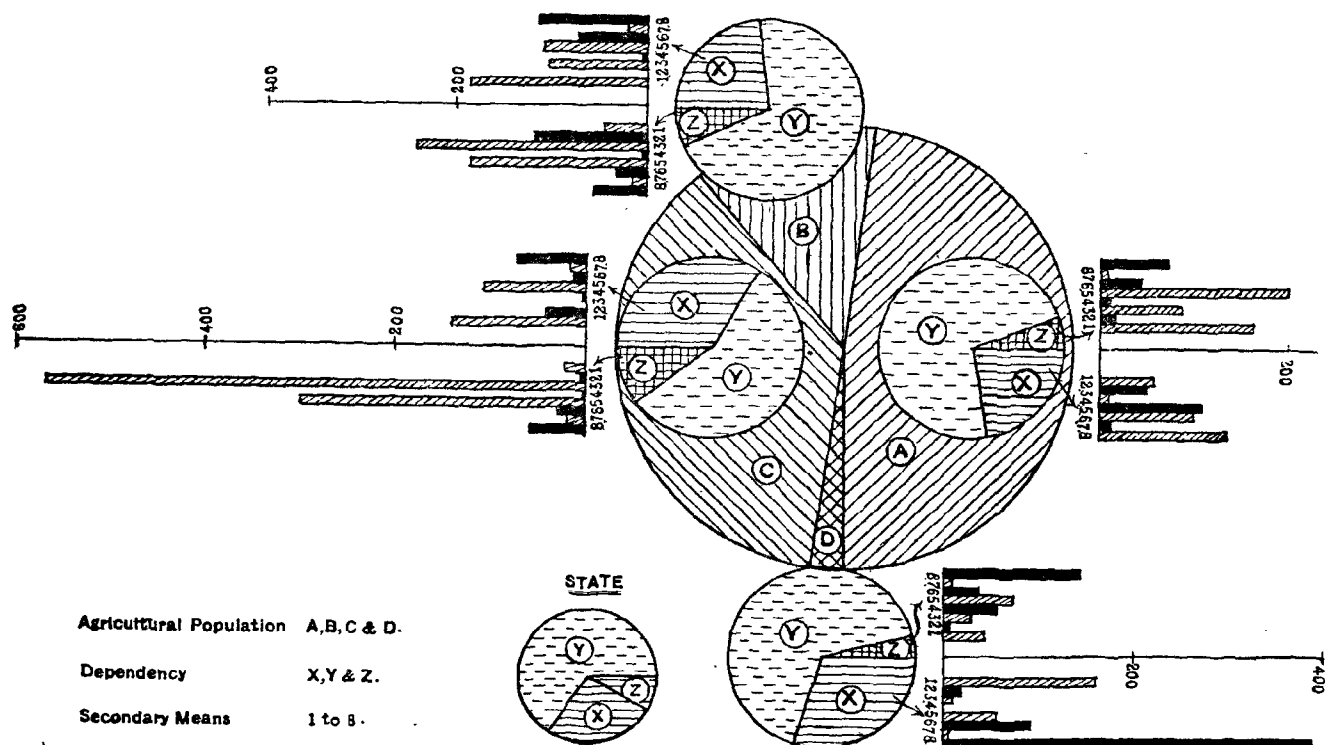
as cultivation has not become so uneconomic as in the lowland. The greater availability of garden land where money crops can be grown has led to a relatively higher percentage of cultivators with a correspondingly lower percentage of agricultural labourers in the midland. In the highland, cultivation is certainly advantageous to those who have the requisite capital. The rich and the upper middle class alone cultivate the land. There is demand for labour and the poorer classes remain as labourers.

27. The proportions of agricultural rent receivers are almost the same in all the natural sub-divisions. They correspond probably to the few who can afford to remain as absentee landlords.

28. The distribution of agriculturists is almost similar in all the districts except Trichur. Here, there is a low percentage of owner cultivators and relatively high percentages in the remaining three classifications. This difference is only to be expected in the light of the comments made in the first Chapter on the livelihood pattern of the general population.

Diagram (No. 1) given below shows the distributoin of agricultural classes in the state.

Diagram 1. Agricultural classes



- A. Cultivators of land wholly or mainly owned and their dependants.
- B. Cultivators of land wholly or mainly unowned and their dependants.
- C. Cultivating labourers and their dependants.
- D. Non-cultivating owners of land, agricultural rent receivers and their dependants.
- X. Self-supporting persons.
- Y. Non-earning dependants.
- Z. Earning dependants.

Numbers 1 to 8 denote the eight livelihood classes.

29. The table below gives the distribution of agricultural classes for some states in India.

	I	II	III	IV
Uttar Pradesh	84	7	8	1
West Bengal	57	21	21	1
Madhya Pradesh	65	6	27	2
Orissa	75	7	16	2
Mysore	79	7	10	4
Madras	54	15	28	3
Travancore-Cochin	48	13	37	2

In Travancore-Cochin, the percentage of cultivators of land, owned or unowned, is the lowest and that of the agricultural labourers the highest. This however is only to be expected in view of what has been said in the earlier paragraphs. However, it may be pointed out that this should not be taken as an index of the number of landless persons in the state.

#### Section iv. Cultivators of owned land

30. Subsidiary Table 4.2 gives detailed information on the economic status of owner-cultivators. As stated before, 48 per cent of the agricultural population cultivate their own land. Out of this, 22 per cent are self-supporting, 72 per cent are non-earning dependants and 6 per cent are earning dependants. The burden of dependency is therefore very heavy.

31. The burden on the earner can be estimated more precisely by making allowance for extra income from secondary means. Subsidiary Table 4.2 shows that for every 22 self-supporting persons, there are only 5 with secondary means of income. Assuming that the income of earning dependants and chief earners from other sources is half of what is obtained from the principal source, the addition to the income of 22 self-supporting persons is equivalent to the income of 6 more self-supporting persons. Thus 28 earners have to support 72 non-earners.

32. The secondary means of livelihood of self-supporting persons are mostly Production Other than Cultivation, Commerce and Other Miscellaneous Services. Earning dependants help in cultivation; otherwise they are engaged in Production Other than Cultivation or as Agricultural Labourers.

33. The economic characteristics of cultivators of owned land in the districts are more or less similar to those for the state. Trichur has a slightly higher proportion of self-supporting persons. In Kottayam the proportion of non-earning dependants is higher. In Trivandrum

and Quilon, the proportion of earning dependants is a little more than in the other two districts.

34. The burden of non-earners on an effective earner is 2.44 in Trivandrum, 2.57 in Quilon, 2.84 in Kottayam and 2.36 in Trichur. The percentages of self-supporting persons who supplement their main income from secondary sources are 21.5 in Trivandrum, 23.3 in Quilon, 18.7 in Kottayam and 29.4 in Trichur. Kottayam affords the least and Trichur the greatest opportunities to owner cultivators for employment in other occupations.

#### Section v. Cultivating tenants

35. Persons engaged in cultivation of unowned land constitute 13 per cent of the agricultural population. Out of this, 24 per cent are self-supporting, 69 per cent are non-earning dependants and the remaining 7 per cent are earning dependants.

36. Subsidiary Table 4.3 shows that out of every 24 self-supporting persons, 6 have a secondary means of livelihood. Assuming as before, that the income of every self-supporting person or earning dependant from the secondary source is half of that of a self-supporting person, it is seen that the additional income from secondary means of livelihood is that of 7 self-supporting persons. Thus 31 effective earners have to support 69 non-earners.

37. The important secondary means of livelihood of self-supporting persons are Cultivation of Owned Land and employment in Production Other than Cultivation, Other Services and Miscellaneous Sources and as Agricultural Labourers. Earning dependants, are mostly Agricultural Labourers or are engaged in Production Other than Cultivation.

38. In regard to the districts, Trichur has the highest percentage (28) of cultivating tenants; the corresponding percentages for Kottayam, Trivandrum and Quilon are 10, 9 and 7 respectively. These differences have already been explained in the first chapter.

39. In Trichur and Kottayam the percentages of self-supporting persons are almost the same and are slightly in excess of the remaining districts. The proportion of non-earning dependants is nearly the same for all the districts.

The proportions of earning dependants in Trivandrum and Quilon are a little over those in the other two districts.

40. The following table gives the percentages of cultivating tenants who are self-supporting and also of persons with secondary means of livelihood.

	<i>Self-supporting persons</i>	<i>Self-supporting persons</i>	<i>Earning dependants</i>	<i>Total</i>	<i>Effective earners</i>
Trivandrum	22.35	5.32	8.76	14.08	29
Quilon	21.17	7.02	9.63	16.65	30
Kottayam	24.08	6.14	5.89	12.03	30
Trichur	24.70	5.93	5.79	11.72	31

The number of effective earners is obtained by adding half the number of persons with secondary means of livelihood to the number of self-supporting persons. All the four districts have nearly the same burden of dependency—30 effective earners having to support 70 non-earners.

41. Subsidiary Table 4.3 shows that cultivation of owned land, production other than cultivation and other services and miscellaneous sources and employment as agricultural labourer are the important secondary means of livelihood. It will be observed that some persons who cultivate their own land have declared themselves as tenant cultivators as the income from their own small holdings is probably very low. Earning dependants are mostly agricultural labourers or are engaged in production other than cultivation.

#### Section vi. Agricultural labourers

42. 37 per cent of agriculturists are labourers. Amongst them 33 per cent are self-supporting persons, 57 per cent are non-earning dependants and 10 per cent are earning dependants. Out of 33 self-supporting persons, 4 have subsidiary means of income mostly from cultivation of owned land or production other than cultivation. Earning dependants are themselves agricultural labourers or are employed in production other than cultivation.

43. The additional income from secondary sources of livelihood is that of 7 self-supporting persons. Thus there are 40 effective earners in every 100 agricultural labourers. The pressure of dependency is, therefore, lower than that for earners in the livelihood categories, cultivation of land owned and cultivation of unowned land.

44. The percentages of agriculturists who are agricultural labourers are 46 in Trichur, 36 in Trivandrum, 35 in Kottayam and 32 in Quilon. The high proportion in Trichur is due to the existence of comparatively larger number of landless persons there than in the other districts. This is brought out by the low percentage (.33) of agricultural labourers who cultivate their own land in Trichur as against 1.19, 2.21 and 1.75 in Trivandrum, Quilon and Kottayam respectively.

45. The following table gives the percentages of self-supporting persons and of those who have a secondary means of livelihood.

	<i>Self-supporting persons</i>	<i>Self-supporting persons</i>	<i>Earning dependants</i>	<i>Total</i>	<i>Effective earners</i>
Trivandrum	27.76	2.59	9.53	12.12	34
Quilon	31.23	5.08	13.28	18.36	40
Kottayam	32.86	3.73	7.74	11.47	39
Trichur	40.62	3.83	8.67	12.50	47

Thus among agricultural labourers, the pressure of dependency is least in Trichur, almost equal in Kottayam and Quilon and highest in Trivandrum. Cultivation of owned land and production other than cultivation are the important secondary sources of income of self-supporting persons in Trivandrum, Quilon and Kottayam, while there are production other than cultivation and other services and miscellaneous sources in Trichur. Earning dependants are mostly agricultural labourers or are engaged in production other than cultivation. It may also be mentioned that in Quilon, the relatively very high proportion in production other than cultivation as secondary means of livelihood is due to the presence of large numbers engaged in coir and cashew industries.

#### Section vii. Non-cultivating owners of land

46. Non-cultivating owners of land form only 2 per cent of the agricultural population of the state. A study of Subsidiary Table 4.5 gives a good picture of this section of agriculturists. The most common subsidiary source of income of the self-supporting persons here is other services and miscellaneous sources. The negligibly low proportions in the other livelihood classes go to show that the non-cultivating owners of land belong to the upper classes.

47. Among non-cultivating owners of land, 30 per cent are self-supporting persons, 66 per cent are non-earning dependants and 4 per cent are earning dependants. 7 per cent of non-cultivating owners of land are self-supporting persons who supplement their income from subsidiary sources. Thus the total number of effective earners is 36 for every 100 persons.

48. In regard to the districts, Trichur has a greater proportion of non-cultivating owners of land than the remaining three districts.

The following table gives the percentages of self-supporting persons and of earners with secondary means of income.

*Percentage with secondary means of income*

	Self-supporting persons	Self-supporting persons	Earning dependants	Total	Effective earners
Trivandrum	33.25	5.51	6.51	12.02	39
Quilon	29.68	7.71	3.80	11.51	35
Kottayam	29.14	7.31	2.81	10.12	34
Trichur	26.65	8.28	2.69	10.97	34

The proportion of self-supporting persons is the highest in Trivandrum; the burden of dependency on the earner is also least here.

### Section viii. Active and semi-active workers in cultivation

49. A brief description of the population belonging to the four occupational categories in agriculture has been given in the preceding sections.

Making allowance for the income from secondary means of livelihood of self-supporting persons and earning dependants, the net burden of dependency on the effective earners has been assessed for each livelihood category.

50. In this section, the distribution of the economically active or semi-active workers in the livelihood categories under cultivation of land, is studied. Economically active persons are those who earn an income by their own effort. Persons who are non-cultivating owners of land are therefore not economically active unless they have a secondary means of livelihood. Thus the economically active workers in cultivation consist of (a) all self-supporting persons in the

livelihood classes I, II and III (b) all self-supporting persons in livelihood classes IV, V, VI, VII and VIII who have I, II or III as secondary means of livelihood and (c) all earning dependants whose source of income is livelihood class I, or II or III. The persons included under (a) are active workers and those under (b) and (c) are semi-active workers. The total of active and semi-active workers gives the number of persons who are engaged in cultivation of land.

51. Subsidiary Table 4.6 gives the break-up of the active and semi-active workers in cultivation. 1,722,063 persons forming 18.6 per cent of the population are engaged in cultivation. 7.7 per cent are cultivating their own land, 2.1 per cent are cultivating tenants and 8.8 per cent are agricultural labourers. Thus among workers in cultivation, 42 per cent are owner cultivators, 11 per cent are tenants and 47 per cent are labourers. It will be noticed that cultivating tenants and labourers who may be cultivating their own land as a secondary means of livelihood have been treated as workers engaged in cultivation of owned land. This leads to the conclusion that at least 42 per cent of cultivators have their own land.

52. The following table gives the percentages of the workers in cultivation to the total district population and the percentages of cultivators in the three livelihood categories.

	Trivandrum	Quilon	Kottayam	Trichur
Total	16.8	19.0	20.4	18.2
Cultivation of owned land	49.5	52.5	44.5	17.3
Cultivation of unowned land	8.0	6.0	9.8	21.6
Agricultural labourers	42.5	41.5	45.7	61.1

It will be noticed that Kottayam has 20 per cent of the population working as cultivators; the corresponding percentages for Quilon, Trichur and Trivandrum are respectively 19, 18 and 17. In regard to the distribution of workers in cultivation, Trichur presents a pattern significantly different from the remaining districts. In Trichur only 17 per cent cultivate their own land as against over 45 per cent in the other districts. Cultivating tenants are as high as 22 per cent while they vary from 6 to 10 per cent in the three remaining districts. Agricultural labourers form 61 per cent in Trichur though in the other districts this percentage does not arise above 46. These figures point to a probable concentration

of ownership of land in the hands of a relatively smaller proportion of persons in Trichur than in the other districts.

53. Table B I—Livelihood Classes and Sub-classes—in Part II of the Census Report shows that the total number of self-supporting persons in the state is 2,648,254. Subsidiary Table 4.6 shows that 1,327,241 are active workers in cultivation. Thus 50 per cent of the self-supporting persons are cultivators. Out of this 50 per cent, 41 per cent are owner cultivators, 12 per cent are cultivating tenants and 47 per cent are agricultural labourers. It may, therefore, be asserted that cultivation of owned land is able to sustain only two-fifths of the total principal earners engaged in cultivation.

54. The total number of self-supporting persons whose principal means of livelihood is production other than cultivation and who supplement their income by a secondary source is 213,779. Out of this 139,405 persons, forming 65 per cent, are cultivators. Cultivation is, therefore, the secondary source of income for almost two-thirds of the principal earners among non-cultivators with a secondary means of livelihood. Thus the non-agricultural classes mostly fall back to cultivation of land to supplement their income. This emphasises the essentially agricultural economy of the people in this state.

#### Section ix. Progress of cultivation

55. The preceding sections have been devoted to a brief discussion of the man-power engaged in cultivation. To trace the progress attained by the agriculturists in recent decades, it is necessary to assemble information on the number of agriculturists and the land they cultivate. Limitations of occupational data available at previous censuses and the non-availability of correct statistics of land and crops make this study difficult. However, an attempt is made to collect all relevant information and strike the correlations between them.

56. For reasons already pointed out in paragraphs 90 to 95 of the first chapter, the growth of agricultural classes from 1931 to 1951 can be examined only in terms of the principal earners engaged in cultivation. The following table gives the number of principal earners among

agricultural classes and their growth during the last two decades.

	1931	1941	Percentage growth		
			1951	1931-40	1941-50
Agricultural classes	932,368	917,778	1,361,721	-1.6	48.4
Owner cultivators	468,372	463,983	547,531	-0.9	18.0
Cultivating tenants	89,491	112,547	155,049	25.8	37.8
Agricultural labourers	349,981	314,516	624,661	-10.1	98.6
Rent receivers	24,524	26,732	34,480	9.0	29.0

57. It is clear that during the decade 1931 to 1940 there has been a phenomenal decrease in the number of agricultural workers though the population growth has been as high as 18.9 per cent. The last decade records an abnormal rise of 48.4 per cent against 23.7 per cent for population.

In regard to the individual livelihood classes, the decade 1931 to 1940 does not witness any growth in the percentage of owner cultivators; there is a definite decrease in agricultural labourers and cultivating tenants have increased at a rate higher than that of population. Rent receivers have also increased but the rate is less than half of that population.

58. During the last decade, the increase in all the livelihood classes except owner cultivators has been very much more than that of population. Owner cultivators have also increased, though only at a lower rate.

59. The figures clearly indicate that the decade 1931 to 1940 was a period when the agriculturists were hard hit while the last decade was one of comparative prosperity. The following table shows the prices of agricultural products during 1931 to 1940 and 1941 to 1950 and the wages of an unskilled labourer.

	1931-40			1941-50		
	Rs.	As.	Ps.	Rs.	As.	Ps.
Paddy	2	7	0	8	8	0 per maund
Cocanut oil	62	0	0	450	0	0 per candy
Pepper	142	0	0	892	0	0 per candy
Tapioca	0	13	0	6	0	0 per maund
Labourer's wages	0	5	0	2	0	0

60. These figures are only approximate; but they serve to emphasise the very low price levels during the decade 1931-40. It is, therefore,



only natural that cultivators had very little to gain by sticking to their agricultural occupation. There has, therefore, been a definite shift towards non-agricultural occupations. This explains the diminution in the number of agricultural workers during 1931 to 1940.

61. The high prices of agricultural commodities and the increased wages for labourers during 1941-1950 have resulted in a very substantial occupational shift of workers to cultivation. This has been further strengthened by the non-availability of rice due to decreased imports. Thus, the factor governing the growth in the number of workers in cultivation is the price of agricultural products.

62. The progress of cultivation is now examined in terms of the land cultivated. For purposes of this study, the land under cultivation has been divided into four categories, (i) area sown (A1), (ii) area sown more than once (A2), (iii) area irrigated (A3) and (iv) area irrigated more than once (A4). These four classifications are not mutually exclusive and the variation in the per capita extent of land cannot be determined from the figures under these categories.

63. Four mutually exclusive components of cultivated area have been calculated from the four classifications given above. These are:—

- i. Un-irrigated single crop cultivation (USC)
- ii. Un-irrigated double crop cultivation (UDC)
- iii. Irrigated single crop cultivation (ISC)
- iv. Irrigated double crop cultivation (IDC)

The formulae to determine the above classifications are:—

- i.  $USC = A(1) + A(4) - A(2) - A(3)$
- ii.  $UDC = A(2) - A(4)$
- iii.  $ISC = A(3) - A(4)$
- iv.  $IDC = A(4)$

64. Subsidiary Table 4.7 gives the area under cultivation since 1921, the figure for each census year being the average of five years prior to it. Table 4.8 gives the components of the cultivated area per capita. These figures are obtained by dividing the areas in the four categories of the previous paragraph by the population at each

census. Table 4.9 gives the total extent of land under cultivation per capita.

65. The un-irrigated single crop and irrigated single crop lands cover almost the total area under cultivation. Double crop land—both irrigated and un-irrigated—forms only a very small percentage of the total. The per capita un-irrigated single crop land has remained almost the same during the past four decades. With a population continuously growing at increasing rates, the constancy of the extent of per capita un-irrigated single crop land can only go to prove that more land was being brought under cultivation during each decade. Irrigation facilities being limited, the extent of irrigated single crop land per capita has been coming down. The total extent of land under cultivation per capita has also been decreasing continuously. From about half an acre in 1921, it has come down to 30 cents in 1951.

66. The agricultural returns from a family holding corresponding to the distribution of cultivated land per capita detailed above, has already been estimated at the beginning of this chapter. An annual income of about Rs. 600 for a family of 5 to 6 persons is all that is available. A slight set back in the prices will bring great distress, if not utter ruin, to the agriculturists.

67. The pressure of population on land is the most serious problem that has to be tackled immediately. Without entering into the possibilities of clearing up reserve forests and other land for cultivation, it may be pointed out that one means of increasing land under cultivation is by bringing (i) more un-irrigated land under irrigation and (ii) more single crop land into double crop land. These two means of agricultural progress have to engage the attention of experts in agricultural engineering. The construction of reservoirs to store rain water and a systematic improvement of tanks and wells will improve irrigation facilities. Further, in places where tanks and wells may not serve the purpose, lift irrigation has to be tried. Conversion of single crop lands to double crop lands involves more intensive manuring and in many places, selection of seeds suited to the locality. This will require systematic soil analysis, and research before any large scale constructive programme can be launched.

## CHAPTER V

### NON-AGRICULTURAL CLASSES

#### Section i. Preliminary

1. The non-agricultural classes discussed in this chapter comprise persons including dependants who derive their means of livelihood from (a) Production other than cultivation (b) Commerce (c) Transport and (d) Other services and miscellaneous sources. A word of explanation about the industries in the state, is necessary to give a clear picture of the types of occupations covered by each of these livelihood classes.

2. There are no heavy industries in the state. Handicrafts and light factory industries resulting from deficiency of capital and extreme under-employment absorb a relatively large section of the population. The most important cottage industry, requiring very little capital investment is hand-loom weaving. In spite of the plentiful supply of millmade cloth, the hand-loom weaver has not become scarce. The Coir industry is important in the industrial economy of the state. The long stretch of backwaters that open into the sea in places, provides natural facilities for this industry. Collection of husk even from inland areas and soaking them in the brackish water for a period of 6 to 10 months provide work for men in the lowland. Beating the soaked husks into fibre and spinning into coir-yarn have become a cottage industry in almost every poor man's home in the lowlying areas along the backwaters.

3. Fishing both at sea and inland waters is becoming an important industry in the state. Shortage of food has forced the Government and the people to a more intensive exploitation of the fishery resources in the state.

Among other cottage industries may be mentioned, jaggery making in South Travancore, bell metal work, and making of screwpine mats, baskets and articles of furniture from cane and earthen pots.

4. Factory industries in the state relate to cashewnut, coir, fertilisers, aluminium, glass, cement, ceramics, tiles, rayon, cotton textiles, paper, plywood, oil and soap. Except for the coir factories in and about Alleppey and cashew

factories in Quilon, the labour force employed in the other factories is only small. The processing of mineral-sand near Manavalakuruchi and Chavara give employment for some during times when ships have to be loaded.

5. The plantation industry absorbs practically the whole of the population of the highland. Plucking tea leaves from the plant and extracting rubber juice from trees give employment to a large section of the people most of whom are immigrants.

6. Small scale workshops doing repairs and manufacturing simple pieces of machinery exist in various places but they give employment only to a very limited number.

7. Poultry keeping, dairy farming and allied food industries are also common; but these have not been organised as major concerns.

8. The nature of non-agricultural employment becomes evident from the brief description of the industries in the state contained in the preceding paragraphs. For greater comprehensiveness and comparability of data, the Registrar General has prepared a scheme of occupations called the Indian Census Economic Classification Scheme with 10 divisions, 88 sub-divisions and 211 groups. The introduction to the Economic Tables—B series in Part II of Census Report—contains a full account of this scheme.

9. In terms of the Economic Classification Scheme the four non-agricultural classes comprise the following divisions and sub-divisions.

V. Production other than cultivation.

Division O. Primary industries not elsewhere specified.

1. Mining and Quarrying.
2. Processing and manufacture—  
Food stuffs, Textiles, Leather and products thereof.
3. Processing and manufacture —  
Metals, Chemicals and products thereof.
4. Processing and manufacture —  
not elsewhere specified.

VI. Commerce.

Division 6—Commerce.

VII. Transport.

Division 7. Transport Storage and communications excluding the following sub-divisions:—

7.5 Storage and warehousing.

7.6 Postal Services.

7.7 Telegraph Services.

7.8 Telephone Services.

7.9 Wireless Services.

VIII. Other services and miscellaneous sources.

Division 5. Construction and utilities.

8. Health, Education and Public Administration.

9. Services not elsewhere specified and sub-divisions 7.5 to 7.9 in VII.

10. A classification of the industries according to the above statement brings out a realistic picture of the occupations pursued by the non-agricultural classes in the state. In particular, Production other than cultivation comprises all industries and handicrafts while Other services and miscellaneous sources take in services relating to administration, arts and letters, religion, law, hotels and restaurants and also includes domestic services. Thus, between these two livelihood classes could be found the majority of the non-agricultural population in the state.

### Section ii

#### Non-agricultural population ratios

11. Subsidiary table 5.1 gives the distribution of persons in the non-agricultural classes into the four livelihood classes and also into the dependency classifications — self-supporting persons, non-earning dependants and earning dependants. The self supporting persons have been also classified as employer, employee, independent worker and others. The last category—others—consists of persons who are not economically active.

12. The non-agricultural classes cover 45 per cent of the total population. In 1941, this section of the people formed 51 per cent. The decrease is, in all probability, due to the increase in the prices of agricultural products during the last decade which induced more people to turn agriculture.

13. Among 100 persons belonging to the non-agricultural classes, 47 are engaged in Production other than cultivation, 15 in Commerce, 8 in Transport and 30 in Other services and miscellaneous sources. The greater proportion in Production other than cultivation is only to be expected as this category contains almost all the cottage and factory industries. Other services and miscellaneous sources is next in importance. In this group fall all persons in the regular administrative services in Government and other private institutions and also persons in utility services. The relatively lower percentages in Commerce and Transport are due to the limited capacity to absorb workers in them.

14. In respect of dependency status, 31 per cent are self-supporting, 62 per cent non-earning dependants and 7 per cent earning dependants. Thus for every self-supporting person there are two non-earning dependents. It may be mentioned in this connection that the majority of earners are those without any special training and the returns are bound to be low. As such, the pressure of dependency on the earner can only bring down the standard of living.

15. Among every 1,000 self-supporting persons, 28 are employers, 522 are employees, 390 are independent workers and 60 are economically in-active. Employers form only a low percentage as the number of industrial concerns is small. The percentage of employees is high as should be expected. Independent workers include artisans and craftsmen who carry on their small-scale business, probably with the assistance of their house-hold members.

16. The distribution of non-agricultural classes in the rural and urban areas may now be considered. 73 per cent of this section of the population is in the country-side. The presence of almost three-fourth of the non-agricultural population in rural areas where factories do not exist, clearly reflects the stage of industrial evolution the state is passing through. Besides the village artisans, persons running small stores and tea-shops form the bulk of non-agricultural population in the country-side. Their activities involve little investment and organised labour.

17. In rural areas, 53 per cent of the non-agricultural classes are engaged in Production other than cultivation, 13 per cent are in Commerce, 7 per cent are in Transport and 28 per

cent are in Other services. In urban areas, 33 per cent are in Production other than cultivation, 20 per cent in Commerce, 9 per cent in Transport and 38 per cent in Other services. The variations in these percentages between the rural and urban areas are only incidental to rural—urban differences here.

18. As between districts, the percentages of non-agricultural classes are 53 for Trichur, 49 for Trivandrum, 42 for Quilon and 36 for Kottayam. The low percentage for Kottayam points to the relatively poor development of industries here. The Cement Factory at Kottayam is the only major factory in the district. It may be mentioned that the absence of good retting fields and fishing waters has more or less shut out the people from coir industry and fishing. Even in handloom weaving the numbers are few. The most important industry in the district is confined to the plantations in the highland.

19. A brief comparison with other states in respect of the distribution of non-agricultural classes may be made. The following table gives the percentage of non-agricultural population for some states in India.

States	Percentage of non-agricultural classes				
	to total population	in rural areas	in urban areas	in rural areas to rural population	in urban areas to urban population
Uttar Pradesh	26	54	46	16	88
West Bengal	43	56	44	25	96
Orissa	21	83	17	18	86
Madhya Pradesh	30	52	48	15	84
Mysore	30	30	70	12	87
Madras	35	54	46	23	83
Travancore-Cochin	45	73	27	39	75

Uttar Pradesh, West Bengal, Madhya Pradesh and Madras have a more or less equal distribution of non-agricultural population between rural and urban areas. Mysore has a significantly higher percentage of non-agricultural classes in the towns. Orissa and Travancore-Cochin differ from the first group of states and Mysore in that there are greater numbers in rural areas than in urban areas. Again, less than a fourth of the rural population is engaged in non-agricultural occupations in most of the states while almost two-fifths of the rural population in this state consist of non-agricultural classes. Over 85 per

cent of urban population are employed in non-agricultural occupations in most states while the corresponding percentage here is only 75. These lead to the conclusion that the non-agricultural classes are very much more (in absolute numbers) in the country side in Travancore-Cochin and Orissa while they are very much more concentrated in the towns in Mysore and almost evenly distributed in the other states. Further, the urban localities in almost all states are highly non-agricultural while Travancore-Cochin is not predominantly so. Herein lies the difference between the towns in this state and those elsewhere in India.

20. In West Bengal and Travancore-Cochin, the percentages of non-agricultural classes are almost equal; but the distribution of this section of the people between rural and urban areas is essentially different in the two states. The towns in West Bengal consist almost wholly of non-agricultural classes while in this state one-fourth of the urban population belongs to agricultural classes.

21. The broad features in the distribution of non-agricultural classes into the livelihood categories and dependency and economic sub-divisions have been briefly indicated in the previous paragraphs. The burden on the earner and the relief through subsidiary means of livelihood and the contribution by the earning dependant are important factors in the economy of the household. Income from secondary means of livelihood varies with occupations. On the basis of income of a self-supporting person as unit, income from each of subsidiary sources and of earning dependants may be reckoned as half. This conversion factor is, no doubt, very crude. But it will give broad indications on the effort of self-supporting persons to enhance their income, the contribution of earning dependants towards family income and the burden on the effective earners.

22. The family income consists of three components — income from (i) principal means of livelihood, (ii) secondary means of self-supporting persons and (iii) earning dependants. These three component parts may be evaluated from the subsidiary tables 5.2 to 5.5 giving the distributions of persons in each of the four non-agricultural livelihood classes. The following table gives the total effective income and the component parts per 1000 persons in each of the

livelihood classes. The income is expressed in terms of that of a self-supporting person as unit.

	Livelihood classes			
	V	VI	VII	VIII
Total income	392	305	343	374
Principal	321	249	281	321
Subsidiary	23	28	19	27
Earning dependents	48	28	43	26
Burden on 100 effective earners	255	328	292	267

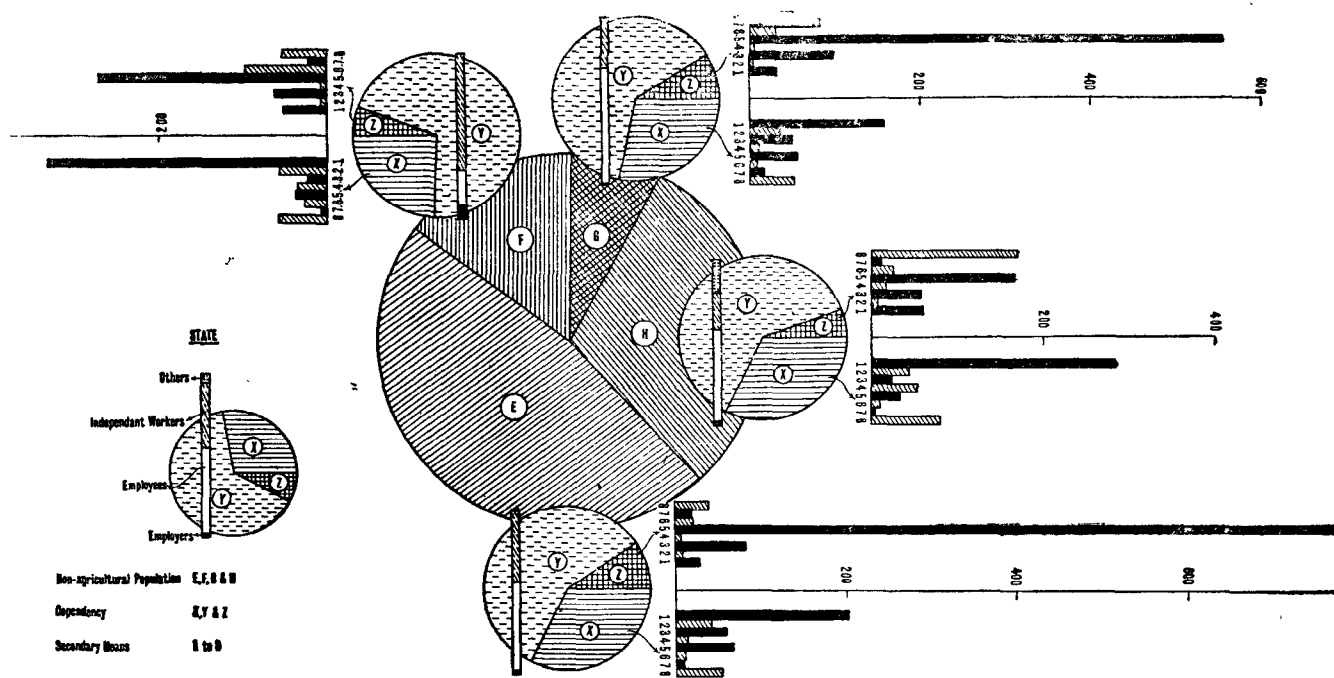
Production other than cultivation gives the highest effective income; Other services, Transport and Commerce come next in order. The burden

on the effective earners is highest in Commerce and least in Production other than cultivation.

23. Among self-supporting persons belonging to all the non-agricultural livelihood classes the most popular subsidiary source of income is cultivation of owned land, the numbers in almost all the other classes being very small. In respect of earning dependants, the majority are in Production other than cultivation.

24. The characteristics detailed above are represented pictorially in diagram (No. 2) given below.

Diagram 2. Non-agricultural classes



- E. Production other than cultivation.
- F. Commerce.
- G. Transport.
- H. Other services and miscellaneous sources.

- X. Self supporting persons.
- Y. Non-earning dependants.
- Z. Earning dependants.

Numbers 1 to 8 denote the eight livelihood classes for Secondary Means of Livelihood.

### Section iii

#### Employers, employees and independent workers

25. The employment status of self-supporting persons classified as employer, employee and independent worker has been assessed for the first time at this census. The number of employers will show the extent of organised concerns in the land, that of employees will be an index of demand for labour and that of independent

workers will indicate the facilities for individual enterprise.

26. A word of explanation on the definition of the terms—employer, employee and independent worker—may not be out of place. In regard to an employee, there is no ambiguity in definition. An employee does a piece of work specified by another and gets paid for it. An employer is one who has necessarily to employ others in order to carry on the business from which he (or she)

secures his (or her) means of livelihood. One who employs a cook or other persons for domestic service is not an employer. Further, persons employed as managers, superintendents and agents who control other workers are only employees and are not employers. An independent worker is not employed by any one else and does not also employ any body else in order to earn his livelihood.

27. All self-supporting persons are economically active. But there are certain classes and groups which constitute an exception to this rule. These are (a) non-working owners of non-agricultural property, (b) pensioners and remittance holders, (c) persons living on charity and others with un-productive occupations and (d) inmates of penal institutions and asylums. Persons in these categories have been placed under 'others'.

28. Subsidiary table 5.1 shows that for every 100 self-supporting persons in non-agricultural classes, 3 are employers, 52 are employees, 39 are independent workers and 6 are others. The very low percentage of employers is due to the shortage of organised industries. The presence of almost two-fifth under independent workers also reflects upon the fewness of industrial concerns here.

29. The percentages of employers, employees and independent workers in the four non-agricultural livelihood classes are given in the following table. In Production other than cultivation comprising almost all industries, only 2 percent are employers and 43 percent are independent workers. This once again emphasises the scarcity of organised industries in the state. The relatively high percentage of independent workers in Production other than cultivation has resulted from the large numbers of persons engaged in handicrafts who work on their own.

*Employer Employee Independent  
worker*

V. Production other than cultivation	2	55	43
VI. Commerce	8	23	69
VII. Transport	1	69	30
VIII. Other services	2	55	24

(19 in VIII are economically inactive)

30. In Commerce, employers form 8 per cent and employees 23 per cent. The comparatively high percentage of employers is only natural as almost every shop-keeper employs assistants to help him in his business. The relatively low percentage of employees is due to the smallness of commercial concerns wherein only few persons can be employed as assistants. The large percentage of independent workers shows that there are small shops in plenty, owned and conducted by individuals probably assisted by members of the household.

31. In Transport, the percentage of employers is lowest and of employees highest. Transport by land has been almost completely taken over by Government. A few land routes and transport by water are alone open to private enterprise. This accounts for the low percentage of employers in transport. Besides technical personnel, unskilled workers as cleaners and porters are numerous and they form the bulk of employees in Transport. The independent workers consist mostly of persons owning country-carts, canoes and other vehicles.

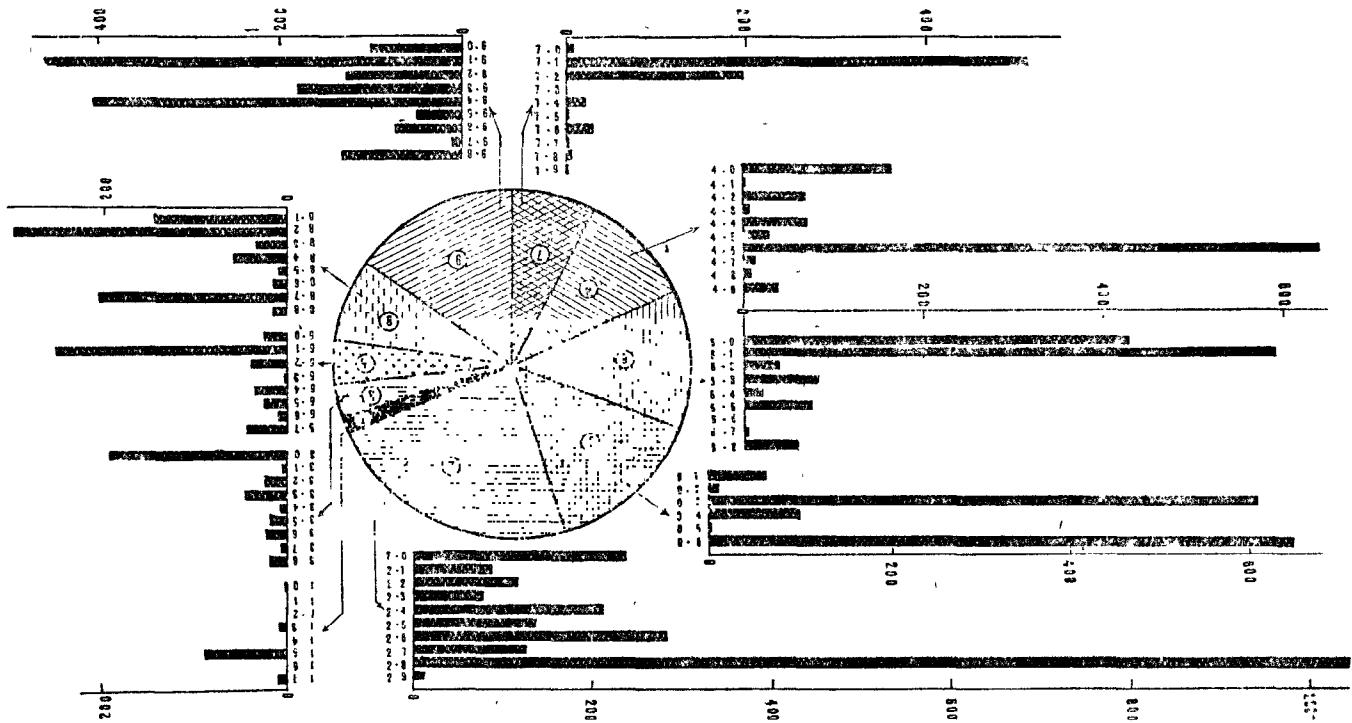
32. In Other services and miscellaneous sources, the distribution is more or less similar to that in Production other than cultivation. But about one-fifth are economically inactive.

33. A brief analysis of non-agricultural classes in four broad occupational categories has been given in the preceding sections. Fuller details can be had by analysing the non-agricultural classes into the specific divisions of the Indian Census Economic Scheme. Subsidiary

tables 5.7 to 5.17 and Index of Non-agricultural Occupations are devoted to this study. Brief comments on the various divisions and sub-divisions of the Industries and Services in the

state are contained in the following sections. Diagram (No. 3) given below brings out the distribution of self-supporting persons into the various divisions and sub-divisions.

**Diagram 3. Industries and Services**



The distribution of self-supporting persons in the 10 major divisions of Industries and Services in the Indian Economic Classification Scheme is shown in the pie-diagram. The distribution into the sub-divisions within each division is shown by the bar-charts.

**Section iv**

**Division O—Primary industries**

34. Primary industries not elsewhere specified absorb 14 per cent of the self-supporting persons in the state. The main sub-divisions here relate to stock-raising, rearing of small animals and insects, plantation industries, collection of forest products, hunting and fishing. The most important of these are fishing with 45 per cent and plantation industries with 43 per cent, out of the total 14 per cent engaged in this division. The long sea-coast, the lakes and backwaters and to a smaller extent the inland rivers afford great facilities for fishing in the state. A very substantial section of the Malayalees are fish eaters and naturally fishing has become an important industry here.

35. In regard to the plantation industries,

the highland in the state is particularly suited for the cultivation of tea and cardamom. The lower elevations are good for rubber. Thus innumerable tea and rubber plantations have come up in the highland. The plantation industry falls under two major categories, the collection of raw products and processing in the factory. There are 50 factories for the processing of rubber and 100 for tea.

36. The above details relating to the two major sub-divisions of primary industries show that the majority of persons employed in fishing are confined to the lowland and that in plantation industries to the highland. The table below gives the number of persons in primary industries per 100 self-supporting persons in the districts and also the numbers in plantation industries and fishing per 100 persons engaged in the primary industries.

	<i>Primary Industries</i>	<i>Plantation</i>	<i>Fishing</i>
Trivandrum	14	11	79
Quilon	11	20	67
Kottayam	32	87	7
Trichur	8	17	56

In Kottayam, about one-third of the total self-supporting persons in the district are engaged in primary industries not elsewhere specified while the corresponding proportions for the remaining three districts lie between 8 to 14; Kottayam with its vast area under highland has 87 per cent of persons in primary industries engaged in plantation industries. In the other districts, the facilities for fishing are in abundance and naturally those employed in fishing are numerous.

37. In Trichur, unlike the other districts, two other sub-divisions—stock-raising and collection of forest produce—are also relatively important. About 16 per cent are engaged in exploitation of forest resources in Trichur; the tram way connecting Chalakudy to Parambikulam gives access to the interior of the forests and helps transport of timber.

#### Section v

##### Division 1—Mining and quarrying

38. The industries division — mining and quarrying—relates to the mining of iron ore, coal, mica, crude petroleum, salt and saline substances, metals and stone quarrying. Most of these sub-divisions are not found in this state. Stone-quarrying and manufacture of salt are probably the two important sub-divisions. Only one per cent is engaged in mining and quarrying.

39. Stone-quarrying has been an important industry from early times. The midland area has in many places a hard deposit of laterite and stones cut from these deposits have proved strong and durable in the construction of houses. Burnt bricks of clay have not been so popular as deposit of clay for large scale manufacture of bricks is comparatively scarce in the midland. Rocks are also in plenty in the midland and highland. Blasting rocks for granite masonry and breaking up granite pieces into 'metal' for roads are important occupations.

40. The percentage of persons in mining and quarrying engaged in stone-quarrying is as high as 85. In Quilon and Kottayam almost all the persons in this division of industries is confined to stone quarrying. In Trichur the percentage is 84 while that in Trivandrum is 54.

41. The sea coast regions in the extreme south of Trivandrum district are noted for salt industry. The natural features and climatic conditions here are particularly suited for the manufacture of salt. The sea coast is almost on a level with the sea; and the fields into which sea water could be let in are easy to construct. A dry climate and low rainfall permit speedy evaporation of sea water in the fields by sun's heat. The salt produced is of high quality and is sufficient to meet the entire demand of the state. Almost all the persons engaged in the production of salt are in Trivandrum district.

#### Section vi

##### Division 2—Processing and manufacture—food stuffs, textiles, leather and products thereof

42. This industries division relates to manufactures connected with grains and pulses, vegetable-oil and dairy products, sugar, beverages, tobacco, cotton textiles, weaving apparel and made up textile goods and leather goods. It also includes food industries and textiles industries otherwise unclassified.

43. 23 per cent of self-supporting persons are engaged in processing and manufacture described above. Of this 23 per cent, 45 per cent are in textile industries otherwise unspecified, 12 per cent in cotton textiles, 9 per cent are in production of beverages and 10 per cent in food industries otherwise unspecified. The remaining 24 per cent are more or less evenly distributed between the other sub-divisions.

44. The highest percentage is engaged in textile industries otherwise unclassified. Even though this sub-division includes workers on jute, wool, silk, hemp and rayon, it will be seen from the index of non-agricultural occupations that this section of the people is almost completely engaged in the manufacture of rope, twine, string etc., from cocoanut and other fibres. The importance of cocoanut industry in the state has already been mentioned. The figures for the districts show that the number of persons employed in the manufacture of rope, twine etc., is least in Kottayam and highest in Quilon.

45. In respect of cotton textiles, Kottayam lags behind. Trivandrum has the largest number. Trichur comes next and Quilon is third. It may be mentioned in this connection that handloom weaving has reached a high standard in the



southern taluks of Trivandrum district and high-count laced cloth produced in these parts has proved unparalleled both in quality and beauty.

46. The unclassified food industries in the state relate to preservation of fruits and vegetables and canning of fish. Quilon district stands in the fore-front in this industry. The midland area of this district gives a plentiful supply of pine-apple and banana which have a wide market both inside and outside the state. Collection and processing of these fruits give employment to many. In Punalur, there are a few factories wholly devoted to this industry. Canning and preservation of fish is almost a cottage industry along the sea coast.

47. The manufacture of beverages relates to brewing and distillation, toddy-tapping and making of aerated waters. Toddy-tapping appears to be the most important of these in so far as it embraces the largest number. Among the districts, Trivandrum has the greatest number of toddy-tappers. Even though prohibition is in force in this district, toddy is used to manufacture jaggery and as such the toddy-tapper has not dwindled in numbers.

48. A brief account of the minor sub-divisions of the industries division—processing and manufacture of food stuffs, textiles and other products—may be given as they comprise 24 per cent of the total in the division. Dehusking and hand-pounding of rice is an important occupation for females, particularly of the poorer class. Here, Trivandrum engages the largest number. Even though rice-mills are in existence, it seems that demand for hand-pound rice has not fallen.

49. Crushing of oil from cocoanut, gingely, laurel and other seeds is the traditional occupation of certain communities. With the establishment of oil-mills, this occupation is gradually becoming out of date. Still, there are a number of persons sticking on to this industry.

50. Preparation of dairy products is another important occupation. Sugar industries in the state relate to manufacture of gur and jaggery. Even though there are two sugar factories, the demand is met by supply from outside.

51. Manufacture of bidi is an important occupation. The bidi is fast replacing the cigarette.

52. Wearing apparel is again a necessity. The village tailor is coming to prominence day by day not so much due to change of fashions, but due to the increasing numbers going to schools.

## Section vii

### Division 3—Processing and manufacture—metals, chemicals and products thereof

53. Processing and manufacture—metals, chemicals and products thereof—relates to manufacture of metal products, transport equipment, machinery and appliances, basic industrial chemicals, fertiliser and power alcohol, medical and pharmaceutical preparations and other chemical products. This industries division has only 3 per cent of the self-supporting persons. Out of this 3 per cent, 61 per cent are engaged in the manufacture of metal products otherwise unclassified and 14 per cent are in production of transport equipment. The remaining 25 per cent are mostly confined to basic manufacture of non-ferrous metals (6 per cent), chemicals and fertilisers (6 per cent), unclassified chemical products (5 per cent) and machinery (6 per cent), medical and pharmaceutical preparations (1 per cent) and basic manufacture of iron and steel (1 per cent).

54. Under the sub-division (manufacture of metal products otherwise classified)—with 61 per cent of persons in the division—come blacksmiths, workers in copper, brass and bell metal. Trichur, Quilon and Kottayam have the largest numbers in this sub-division.

55. Manufacture of transport equipment is confined to the building and repair of ships and boats, and manufacture, assembly and repair of railway equipment, motor vehicles and bicycles. A large number of buses, lorries and other motor vehicles run in this state and this has given great opportunities to the development of workshops in various centres. A repair shop for cycles is seen almost everywhere on the road side. Cochin with its natural harbour and naval base has a large number of persons engaged in the manufacture of transport equipment.

56. A scrutiny of the index of non-agricultural occupations shows that only few persons are engaged in most of the other industries and that they relate to engineering workshops, manufacture of dyes and explosives, medical and pharmaceutical preparations including soaps and cosmetics.

57. The numbers of factories engaged in the manufacture of articles in this industries division are 18 in engineering and electrical goods, 3 in electricity generation and transmission, 20 in automobiles and coach-building, 4 for iron and

steel smelting, 1 locomotive shop, 8 for tin containers, 8 for pharmaceutical, 28 for vegetable oils, 1 for ayurvedic medicines, 13 for matches, 3 for manure, 4 for soap and 2 for dyeing and bleaching.

### Section viii

#### Division 4—Processing and manufacture— not elsewhere specified

58. Under the industries division—processing and manufacture not elsewhere specified—come manufacture of cement and cement products, bricks and tiles, non-metallic mineral products, rubber products, paper and other unclassified products. It also includes printing and allied industries. Out of the 10 per cent engaged in this industries division, 63 per cent are employed in industries connected with wood and 16 per cent in unclassified industries. The remaining 21 per cent consist of 7 per cent in manufacture of bricks and tiles, 4 per cent in printing, 3 per cent in rubber and 7 per cent in non-metallic mineral products.

59. Travancore forests are rich in timber. Teak, blackwood and rosewood for house construction and manufacture of furniture are available in plenty. The forests are also rich in light wood used in the manufacture of plywood and packing cases. The increasing demand for wood-products keeps engaged a large section of the people as sawyers, carpenters and furniture makers.

60. Bamboo, reeds and canes grow in abundance in the valleys in the highland and these are utilised in the making of mats and baskets. They are also used in making paper. Their collection and utilisation in various ways give employment to many.

61. Even though manufacturing industries otherwise unclassified, consists of a large variety of manufacture, the index of non-agricultural occupations shows that the bulk of the people are only workers in precious stones and precious metals and makers of jewellery. Small numbers are also engaged in manufacture of articles of stationery and toys.

62. The numbers of factories in this industries division are 100 for bricks and tiles, 1 for ceramics, 3 for glass ware, 15 each for plywood, wood-ware and sawing, 1 for paper, 2 for pencils and 40 for printing and binding.

### Section ix

#### Division 5—Construction and utilities

63. This division consists of construction and maintenance of buildings, roads, bridges and other transport works, telegraph and telephone lines, irrigation and agricultural works and also works and services relating to electric power, water supply and sanitation. Only 4 per cent of self-supporting persons in industries and services are engaged in construction and utilities. Out of this, 61 per cent are in construction and maintenance of buildings, 10 per cent in sanitary works, 9 per cent in roads and bridges, 8 per cent in agriculture and irrigation, 5 per cent in supply of electric power and 5 per cent in unclassified items of work.

64. Masons, bricklayers, stone-cutters, painters and decorators form the majority in the construction and maintenance of buildings. The state has a good system of roads and a large portion of state revenue is taken up in their maintenance. Various projects have been recently started in the state. The Neyyar, Peechi and Chalakudy schemes for irrigation, the Chengulam Project for hydro-electric power and the Thottapalli spillway to convert the shallow lakes in Ambalapuzha taluk into rice fields are in full swing. These absorb a very large section of both skilled and unskilled workmen.

65. The importance of public health and sanitation has been realised by large sections of the people. Municipalities and conservancy towns are fast growing. In villages, the panchayat is affording facilities in rural sanitation. Nagercoil, Trivandrum, Alleppey, Ernakulam and Trichur have protected water-supply. Sanitary works are increasing in numbers from day to day. These have given employment to a fairly good number of persons.

66. Electric power has been given to almost all towns and villages adjoining them. Supply of electric power and maintenance services have employed skilled technicians in various places in the state.

### Section x

#### Division 6—Commerce

67. Under commerce are included retail and wholesale trade, management of estate, insurance and banking. 13 per cent of self-supporting persons in industries and services are engaged in commerce. Of this, the vast majority are

retail traders—46 per cent in food stuffs, 3 in fuel, 6 in textile goods and 33 in items unclassified. About 6 per cent are wholesale traders and 5 per cent are bankers.

68. A large number of retail shops has sprung up throughout the country to meet the demand for distribution of articles of food and clothing under the rationing scheme. This explains the high percentage of retail traders in the state.

69. Banking has been a very thriving concern in the state. The influx of money during the war and post-war years by way of remittances to families of persons gone out on war service and growth of commerce even in the villages gave great opportunities for banking. One interesting variant of money transactions peculiar to the state (and Malabar) is the "chitty". \*The most popular institution both for investment and credit is the chitty. It is a very ancient institution. The antiquity of chitty is spoken of by Mr. Logan in his Manual of Malabar district and by Mr. Sim Cox in his primitive civilisations. A chitty is a transaction by which one or more persons enter into an agreement with a number of persons that every one of the contracting parties shall subscribe a certain amount of money or quantity of grain by periodical instalments for certain definite period, and that each in his turn, as determined by lot or auction, or in such other manner as is provided for in the Varyola (rules), shall be entitled to the prize amount.

There are two main classes of chitties:—

1. Narukku chitty, and
2. Lela chitty (auction chit).

In the Narukku chitty the amount that a subscriber gets is determined by lot. A certain percentage of the capital is set apart as the foreman's (the person who conducts the chitty) commission. Another portion, usually 12 per cent, is deducted from the prize amount by way of interest and rateably distributed among the remaining subscribers. This kind of chitty is not so popular as the lela chitty.

There are two kinds of lela chitty. The common feature of both is that the chitty amount or total collection at each instalment is put to open auction. The subscriber who offers to pay the highest discount for the advance gets the prize. In one type the amount deducted is distributed among non-prized subscribers only,

\*The Travancore State Manual, Volume III.

while in other the amount is distributed among all the subscribers. All chitties have now to be registered at the office of the Registrar of Chitties."

## Section xi

### Division 7—Transport storage and communications

70. The number of self-supporting persons engaged in transport, storage and communication is 8 per cent of the total under industries and services. Of this, 66 per cent are employed in transport by land, 25 per cent by water, 3 per cent railway and 4 per cent in postal services.

71. It has been mentioned that there is a good network of roads and canals in this state. Buses run between almost all important places. Motor and steam launches ply along the backwaters and these have become cheap means of transport in the low-lying areas. Country-boats are used for the transport of goods as they are relatively cheap.

72. There are two railway lines in the state—one connecting Trivandrum to Shencotta and the other Cochin to Shornur. A third line connecting Quilon to Ernakulam is under construction.

73. Trivandrum is connected to Ernakulam and Madura by plane service operating daily. There is service thrice a week between Ernakulam and Bombay and a daily service from Ernakulam to Coimbatore.

74. Postal service has been extended to almost all villages in the state. Telephones are also becoming popular.

## Section xii

### Division 8—Health, Education and Public Administration

75. This industries and services division consists of medical and health services, educational services and administrative services under state and Union Governments. About 8 per cent are employed in these services. Of this, 39 per cent are in education, 27 per cent in State Government Service, 18 per cent in medical and health services, 6 per cent in Union Government Service, 7 per cent in police force, and 2 per cent in local boards.

76. Government have all along pursued a liberal policy in the spread of education among

the masses. Primary and high school education have been made possible even to the poorest classes of people by the opening of schools in the villages and by the grant of fee-concessions and scholarships. Over 80 per cent of the children between the ages 5 and 12 are undergoing instruction in various schools in the state. The large number of teachers required to impart instruction to the children in the state accounts for the high percentage of persons employed in educational institutions. Over 2.30 crores of rupees is being spent by Government every year for public instruction.

77. Medical and Public Health services have been greatly extended. Besides hospitals and dispensaries, about 200 in number, there are a number of private dispensaries and nursing homes. Government also gives liberal grants to Ayurvedic hospitals. The Department of Public Health has extended its activities to even the remotest villages. Sanitary staff, make periodical house-to-house inspection and this has completely brought under control epidemics. These explain the numbers employed in medical and public health services in the state.

78. There are four districts and 36 taluks in the state. The headquarters and sub-offices of the various departments of public administration in the state necessarily employ a large staff in different cadres and these account for the numbers in the occupational sub-divisions of the industries and service division—health, education and public administration.

### Section xiii

#### Section 9—Services not elsewhere classified

79. Services not elsewhere classified relate to domestic service, legal and business services, arts, letters and journalism, religions, charitable and welfare services and services in hotels, restaurants and places of recreation. 15 per cent of self-supporting persons in industries and services are employed in these categories. Out of this, 30 per cent are in domestic service, 27 per cent are in hotels and restaurants, 12 per cent are in laundry services, 9 per cent in religious and charitable services, 8 per cent in toilet and beauty shops, 5 per cent in legal and business services and 3 per cent in recreation services.

80. Even though the largest number is found in domestic service it has been said before that

only few households contain unrelated persons. Hence, domestic service can only relate to part-time employment. Hotel keepers are also relatively numerous as hotels and tea shops have sprung up in large numbers throughout the land. Theatres have proved extremely paying; picture houses are seen even in the villages.

81. Religious and charitable institutions have existed in the state from very early days. Originally, they were devoted exclusively to the cause of religion. The tendency now is to extend their scope to social uplift. Hospitals, schools, reading rooms and congregational classes have been organised in various centres.

82. Laundry services in the state engage 12 per cent of the persons in this division. The Malayalees devote great attention to personal hygiene. Daily bath and washing ones clothes are typical of almost every one in this state and the village washerman is indispensable to the villagers.

### Section xiv

#### Conclusion

83. A brief discussion of non-agricultural classes in the state has been made in this chapter. The percentage of non-agricultural classes here is 45 while that in most other Indian states is very much smaller. West Bengal with 43 per cent comes nearest. It may therefore be inferred that the non-agricultural occupations have attained a higher level of development here and in West Bengal than in other states. An essential difference in the distribution of these classes of people between rural and urban areas is that unlike other states where almost equal numbers of non-agricultural classes are found in the country side and towns (except in Mysore where the vast majority are in towns), Travancore-Cochin has the greatest numbers in the country side. Further the urban population in all states is predominantly non-agricultural, and the rural population agricultural while the corresponding figures for this state do not show such pronounced differences.

84. There are some factory industries in the state; but the total volume of labour employed in them is only small. The large majority of non-agricultural classes are engaged in cottage industries requiring very little capital investment.

85. A little less than a third of the population is self-supporting. A small percentage of self-supporting persons have other subsidiary means of income. The percentage of earning dependents is also small. It is found that cultivation of owned land is the most common subsidiary source of income and earning dependents work largely in production other than cultivation. It has also been estimated that about 83 per cent of income comes from the principle means of livelihood, 7 per cent from subsidiary sources and 10 per cent from earning dependents.

86. The employment status of self-supporting persons in non-agricultural classes gives a picture

of the extent of organised industries, the volume of labour recruited and the opportunities for individual initiative in the land. For every 100 persons 3 are employers, 52 are employees and 39 are independent workers; 6 per cent are economically inactive. The very low percentage of employers goes to show the dearth of organised industries in the state. Nearly half the self-supporting persons are employees. The employees are mostly unskilled workmen in factories, artisans and persons belonging to administrative and utility services. The independent workers are engaged in handicrafts and cottage industries.

## CHAPTER VI

### FAMILIES, SEXES AND PRINCIPAL AGE-GROUPS

#### Section i. Preliminary

1. The present chapter is devoted to a study of the socio-cultural characteristics of the population presented in the C series of Population Tables. These tables do not cover the whole population but refer only to a random sample. Table C I—Households (size and composition)—is in respect of a 4 per cent sample of households from the National Register of Citizens and corresponds approximately to a 4 per cent sample of the population. The remaining tables are based on a 10 per cent sample extracted from the enumeration slips at the commencement of sorting operations.

2. The distribution of households, family size and structure, marital status and age composition have important bearing on the social and cultural life of the people. A study of households in terms of relationship of members has been made for the first time at this census. Sex ratio and age composition — important population characteristics—have been analysed and their social and economic consequences, broadly indicated. The progress of education in the state during the last fifty years has also been examined.

#### Section ii

##### Territorial distribution of houses and households

3. The population living in households is 9,194, 881; 76, 793 are institutional inmates and 8,751 are houseless persons. Thus for every 1,000 persons living in households, the number of institutional inmates is ninety-two and that of houseless persons, one. In 1941, the resident population in the state was 7,266,130; 233,927 being treated as floating population. This yields 31 non-residential people for every 1,000 of the residential population. As institutional inmates have not been classified separately in 1941, a comparison of 1941 and 1951 figures in regard to numbers of institutional and houseless persons is not possible.

4. Houses have been rapidly growing in numbers from decade to decade. The table

below shows the number of houses, their percentage growth and the growth of population (based on adjusted figures) from 1901.

	<i>No. of houses</i>	<i>Percentage houses</i>	<i>growth population</i>
1901	803,098	..	..
1911	826,439	2.9	17.3
1921	940,038	13.7	17.3
1931	1,137,493	21.0	20.7
1941	1,340,054	17.8	21.2
1951	1,553,077	15.8	23.9

Clearly the growth of the number of houses has not kept pace with that of population. The explanation is to be sought in the existence of the joint family system in the earlier decades. Legislation permitting partition of families was promulgated during the last three decades for different communities and this has had its effect on the growth in the number of houses. The effect of partition appears at its maximum in 1931. The fall in 1931 to 1940 is due to the slump during the decade. The further fall during the last decade is explained by the shortage and high prices of house building materials, prevalence of controls over their distribution and the abnormal increase in wages of masons and carpenters.

5. During the last thirty years, the number of houses has increased by 65 per cent. The density of houses per square mile, omitting the forests is given in the table below.

	<i>No. of houses per sq. mile</i>	
1901	..	120
1911	..	124
1921	..	141
1931	..	170
1941	..	200
1951	..	232

In 1951, the number of houses is almost double that in 1901; the density of houses per square mile of occupied land works out to 311.

6. The growth of houses in the districts from 1931 is shown in the table below.

	1931-40	1941-50
Trivandrum	19.4	19.1
Quilon	18.4	16.4
Kottayam	16.6	13.9
Trichur	16.4	13.8

In all the districts, the percentage growth during the last decade is lower than that for the previous decade. In Kottayam and Trichur, the growth rate is lower than that for the other districts.

The number of houses per square mile of occupied land in the four districts in 1951 is given below.

Trivandrum	..	408
Quilon	..	382
Kottayam	..	182
Trichur	...	328

In respect of proximity of houses, Trivandrum ranks first followed by Quilon, Trichur and Kottayam. The densest area in the state is the lowland and the districts with higher percentage of lowland area will naturally show a closer proximity of houses.

7. Nearly 84 cents of land surround a house in the urban areas. In the districts the areas are 76 cents for Trivandrum, 97 for Quilon, 126 for Kottayam and 56 for Trichur. These figures clearly indicate the preference of the people of this coast for houses with separate premises.

### Section iii Family size

8. Subsidiary Table 6.1 gives the average size of a household and its variation since 1921. The number of inmates per 100 households in the state increased from 530 in 1921 to 598 in 1951 showing an increase of 12.6 per cent during 30 years; in the countryside the percentage increase has been 11.7 while that in the towns is 14.8. The percentage increase of inmates in households in the districts during the last 30 years is shown in the table below.

	Total	Rural	Urban
Trivandrum	10.4	8.6	14.8
Quilon	9.5	8.8	11.9
Kottayam	20.5	20.6	14.7
Trichur	13.8	12.3	19.1

Kottayam shows the highest growth. The relatively high rates—20.5 for Kottayam and 13.8 for Trichur—are to be expected as it has already been pointed out that the rate of growth of houses in Kottayam and Trichur has not been so rapid as in the other two districts.

9. Eventhough there are on an average six inmates in a house, the distribution of the households according to size will give a more realistic picture of the extent of over-crowding in this state. Subsidiary Table 6.2 contains this information. Households have been classified as small (having three or less inmates) medium (with 4 to 6 inmates) large (with 7 to 9 members) and very large (having 10 or more members). The table below shows the percentage of population in small and medium-sized households taken together.

	Percentage of	
	households	population
State	69	52
Rural	69	52
Urban	67	47

31 per cent of the households are large or very large and contain 48 per cent of the people. In the towns almost every third household is large or very large and together they accommodate 53 per cent of the urban population. Thus it may be said that about 50 per cent of the population belong to large or very large households.

10. The percentages of small and medium sized households and population in the districts are given in the subjoined table. In point of large or very large households and percentages of population in such households, the order is Trichur, Kottayam, Quilon and Trivandrum. Trichur has more than half the population living in large or very large households.

	Percentage of	
	households	population
Trivandrum	73	56
Quilon	69	52
Kottayam	68	51
Trichur	65	47

11. The non-availability of houses is probably the chief cause for almost half the population to form large or very large households. There is also, particularly in Trichur, a slight indication that the break-up of the joint family has not been complete or that the dissolution has not always been followed by a corresponding increase in the number of small households.

12. The members of a household have been enumerated at the 1951 census in terms of the head of the household, his or her relations and other unrelated persons. Subsidiary Table 6.3 gives the number of persons per 1,000 households under the classifications—heads of households and their wives, sons, daughters and other male and female relations. From this table, the structure of an average household appears to be as follows:—

	<i>No. of persons in 100 households</i>	
All	598	
Heads of households and their wives	188	
Sons	147	
Daughters	126	461
Other male relations	51	
Other female relations	77	128
Unrelated persons	9	

Out of 598 persons for 100 households, 461 form heads of households and their near relations, 128 are other relations and 9 are unrelated persons. Thus 77 per cent are heads of households, their wives and children, 21 per cent other relatives and 2 per cent unrelated persons.

13. This picture of an average household shows that the number of other male relations and of daughters are respectively less than those of other female relations and sons. Daughters given away in marriage generally leave the household whereas sons bring their wives into the household. The unrelated persons seen in a few households probably belong to the class of domestic servants. The vast majority of households therefore have no servants in them.

14. Information regarding the structure of households in the districts is given in the table below.

	<i>Percentage of household population</i>	
	<i>heads, wives sons, daughters</i>	<i>other relations</i>
Trivandrum	81	17
Quilon	77	22
Kottayam	78	20
Trichur	73	25

In all the districts percentage of unrelated persons is utmost only 2. The households in Trivandrum district have the lowest percentage of other relations while Trichur has the highest. Households in Trichur appear to accommodate relations to a greater degree than those in the other three districts. Here again may be traced the lingering effects of the fast dying joint-family system.

15. The table below gives the percentage of household population in the rural and urban areas under various classes of relationship. There is a high percentage of unrelated persons in the household in the towns than in the country-side. This is to be expected as persons will be engaged for domestic services in greater numbers in towns than in the country-side.

	<i>Rural</i>	<i>Urban</i>
Heads of household and their wives	32	30
Sons	25	23
Daughters	21	20
Other male relations	8	10
Other female relations	13	13
Unrelated persons	1	4

#### Section iv Sex-ratio

16. The balance between the sexes is an important factor in demography and have direct bearing on social and economic problems. Birth and death rates, marriage rate, magnitude and direction of migration, appreciably affect and are also affected by the ratio of sexes. A large proportion of males will imply a lower marriage rate and a higher rate of recruitment to labour force. A large proportion of females will lead to a relatively large proportion of unmarried women. Further, women have generally a lower death rate and a population with a higher percentage of females will have naturally a lower death rate.

17. The 1951 census shows that there are 1,008 females per 1,000 males in the state. The table below gives the number of females per 1,000 males in some of the states in India.

India	..	947
Uttar Pradesh	..	910
Bihar	..	989
Orissa	..	1,022
West Bengal	..	859
Assam	..	879
Manipur	..	1,036
Madras	..	1,006
Mysore	..	949
Travancore-Cochin	..	1,008
Bombay	..	932
Kutch	..	1,079
Madhya Pradesh	..	993



Orissa, Manipur, Madras and Kutch alone show as in this state, an excess of females over males. In India as a whole, males are in greater numbers than females. This is contrary to the position in most of the western countries where there is a preponderance of females. The subjoined table gives the number of females per 1,000 males in some other countries. The figure in bracket is the year for which the sex ratio has been calculated.

Canada	962	(1945)
	965	(1949)
United States of America	993	(1940)
	1,004	(1945)
	1,010	(1949)
Mexico	1,027	(1940)
Belgium	1,019	(1930)
	1,040	(1948)
Denmark	1,020	(1945)
	1,017	(1948)
Norway	1,051	(1930)
	1,228	(1948)
Sweden	1,010	(1945)
Germany	1,044	(1939)
	1,465	(1946)
France	1,080	(1936)
	1,111	(1946)
England & Wales	1,088	(1931)
	1,063	(1948)
Scotland	1,083	(1931)
	1,052	(1948)
Australia	969	(1933)
	996	(1947)
Japan	1,038	(1948)

In all the European countries the number of females exceeds the number of males. The two sets of figures—the one before and the other after Second World War for some countries show that even before the war, the females have generally been in excess. It has to be concluded that the excess of females is due to emigration of males, and a greater death rate for males than for females. The low sex-ratios for Canada and Australia are probably the result of immigration.

18. The low proportion of females in India can only arise as a result of high death rates for women particularly in their reproductive ages when mal-nutrition and lack of medical aid take a very heavy toll at the time of child birth. Whatever be the causes of a higher proportion of males in India, its consequences are that there is a trend towards a higher rate of marriage

followed by a high birth rate. Also, a large number of men are available for work. These aspects, however, require further study.

19. The table below gives the sex ratio for this state from 1901. There has been a decline till 1921 and a steady raise thereafter. Further, the males are in excess till 1931. Ordinarily sex ratio is affected by differential birth and death rates for the sexes and migration. In the absence of accurate vital statistics, the survival rates for the sexes cannot be determined precisely. However, an analysis of sex ratio in broad age-groups over successive decades, throws light on the trend.

1901	..	986
1911	..	986
1921	..	982
1931	..	997
1941	..	1,002
1951	..	1,008

20. The table below gives the sex ratio of infants below one year and also of children below 10. There is a steady decline in sex ratio of infants. Girls are in excess of boys till 1921 and subsequently boys are more numerous. In regard to children below 10 years of age there is a gradual decline in sex ratio though in 1941 there is a slight increase. Migration can have only very little influence in altering the sex ratio of infants or children below 10. The steady decline therefore is either due to a higher survival rate among boys or due to biological causes.

	Infants below 1	Children below 10
1901	1,108	1,029
1911	1,080	1,011
1921	1,003	992
1931	991	982
1941	987	989
1951	976	979

21. Since infants below one year and surviving children born during the decade are the children below 10 years of age at the beginning of the next decade, the sex ratios at the beginning and end of a decade give an idea of the excess of births over deaths for boys and girls.\* The

\*Suppose that there are  $F$  girls per 1,000 boys at the beginning of a decade; during the decade let the excess of the births over deaths per 1,000 girls and 1,000 boys be  $g$  and  $b$  respectively. Then the sex ratio at the end of the decade is  $F(1000+g)/(1000+b)$ . Comparing this ratio with  $F$ , it is clear that the sex ratio at the beginning exceeds (or falls below) the sex ratio at the end if  $b$  is greater (or less) than  $g$ .

figures show that during the last fifty years sex ratio at the beginning of a decade is greater than that at the end. It may, therefore, be concluded that survival among boys is greater than that among girls. Thus the continuous fall in sex ratio of infants should be attributed to a higher net survival rate for boys.

22. An analysis of sex-ratios for broad-age groups is contained in the following table. Among children below 15, sex-ratio has been falling till 1921; 1931 and 1941 show an increase but in 1951, it comes down again. This once again points to a higher survival rate for boys.

	Below 15	15-44	45-59	60 and over
1901	993	987	898	1,131
1911	986	992	907	1,118
1921	978	994	897	1,098
1931	979	1,020	950	1,053
1941	986	1,022	969	1,041
1951	982	1,032	996	1,085

23. In regard to the reproductive age-group 15 to 44, sex ratio is steadily increasing. Till 1921 males are in excess of females indicating the high death rate for females in their child-bearing ages. However, there appears to be an improvement in death rates in the last two decades. Since 1931, the females are in excess of the males and this is due to a decrease in death rate of females, emigration of able-bodied males in larger numbers than females or to a combination of both.

24. In the age-group 45 to 59, the trend points to an increase in sex-ratio, the fall in 1921 being the result of greater mortality for females in the influenza epidemic during the latter half of the decade. Males are consistently in excess of females. The greater mortality rate for women during their reproductive period, particularly before 1931, leaves only smaller numbers of women to attain the higher ages. This probably explains the excess of males over females in this age-group.

25. In regard to persons above 60 years, women are in excess, though the sex ratio has been coming down. The emigration of old men is rare and the excess of females is therefore caused by the lower death rate for old women.

26. The influence of migration has now to be examined.

The sub-joined table gives the sex-ratio since 1901 for immigrants, emigrants and for persons born in the state and censused within or outside. Till 1921, males immigrated in larger numbers than females and from 1921 onwards female immigrants are more numerous. The large bulk of immigrants come from the adjoining districts of Madras state and a small section belong to mercantile classes from Bombay. The excess of females can only be attributed to the immigration of female dependants along with the males who support them. This is particularly true of the poor classes coming into the state. In regard to emigrants, the females are smaller in numbers than men. Thus migration into and from the state shows that females accompany men coming in, while they do not generally follow males going out. The net result of migration has therefore been to leave an excess of females over males in this state.

	Immigrants	Emigrants	Persons born in the state
1901	878	893	988
1911	966	599	984
1921	1,030	548	978
1931	1,017	535	992
1941	1,074	..	..
1951	1,103	719	999

27. The sex-ratio of persons born in the state and censused anywhere has been declining till 1921. From 1931 onwards, it has been increasing and in 1951 men and women are in equal numbers. It may therefore be said that the women in the state had higher mortality rates till 1921 and that there has been perceptible improvement since 1931.

28. The analysis made so far leads to the conclusion that the excess of females over males is due (i) the improvement of mortality rates among women over 15 years of age and (ii) migration. Generally this excess will lead to lower marriage rates resulting in a plausible lowering of growth of population.

29. The sex-ratio for the rural and urban population in the state may be examined now. Since 84 per cent of the population belong to the countryside, it should be expected that the sex-ratio of the rural population will have more or less the same characteristics of the general population. Subsidiary Table 6.4 shows that the sex-ratio has been increasing from decade to decade and that for each decade the rural sex-

ratio is a little higher than that of the general population. The emigration of males to urban areas explains this.

30. In towns, females are less numerous than males even though their number has been steadily increasing from decade to decade. Clearly men from the country-side move to the towns leaving their females at home. Females in towns cannot get employment whereas in the country-side, men and women employ themselves in agriculture—men taking up the more strenuous items of work like ploughing and digging while women do the less physically hard jobs like planting and weeding. Thus women have greater opportunities for employment in the country-side than in towns. The 'stay-at-home' attitude in women also has contributed to produce a larger female rural population in the state.

31. The sex-ratio for the population in the two cities in 1951 is 953 which is very much smaller than 981 the sex-ratio for the whole of urban population. A low sex-ratio appears to be an outstanding feature of the cities in India. The table below gives the population and sex-ratio of some of the cities in India

City	Population	Sex-ratio
Patna	283,479	822
Jamshedpur	218,162	802
Bombay	2,839,270	596
Ahmedabad	788,333	765
Poona	480,982	865
Nagpur	449,099	919
Madras	1,416,056	921
Madura	361,781	967
Kanpur	705,383	699
Lucknow	496,861	783
Calcutta	2,548,677	570
Bangalore	778,977	883
New Delhi	276,314	764

The sex-ratio for all the cities in India is only 785, and that for the population of India is 947. It is therefore clear that women as a rule have not moved to the cities to the same extent as men. The reason appears to be the 'stay-at-home' attitude of the Indian women and the lack of adequate openings for employment in the cities.

32. The three major religions in the state are Hinduism, Christianity and Islam and the sex-ratios in these religions are respectively 1,016, 1,001, and 984. Among the Muslims in the country-side, the two sexes are almost in

equal numbers. In the towns the sex-ratio is 938. It is, therefore, probable that the muslim merchants in the towns who are mostly emigrants, have left their women in their homes outside.

33. The sex-ratios in the three natural subdivisions are 1,009 for lowland, 1,018 for midland and 936 for highland. The low proportion of females in the highland is only natural as the population here consists mostly of able-bodied men who are emigrants employed in the plantation industry.

34. In regard to the districts (*vide* Subsidiary Table 6.4) Trichur and Quilon have a greater proportion of females than males. In Trivandrum, males and females are almost equal in numbers and in Kottayam the males are very much in excess of the females. The sex-ratios for Trichur and Kottayam are significantly different from those for the state or the other two districts and call for comment. The table below gives the sex-ratios for these two districts from 1901.

	Kottayam	Trichur
1901	951	999
1911	948	1,006
1921	939	1,016
1931	948	1,036
1941	956	1,037
1951	977	1,045

In Kottayam, the sex-ratio has been declining till 1921 and subsequently it has been increasing. But all along the males have been in excess. In Trichur on the other hand, females have been in excess and the sex-ratio has been consistently increasing.

35. Kottayam district has 93 per cent of its area under midland and highland which are hilly and mountainous. Cultivation of this area requires hard and strenuous manual labour and it is extremely likely that even in very early days only robust young men went to work in the hilly tracts. The following table gives the sex-ratio for the taluks in this district.

	1901	1911	1921	1931	1941	1951
Changanachery	959	963	917	944	954	942
Kottayam	948	953	956	969	967	1,019
Vaikom	969	968	980	994	994	1,012
Minachil	954	958	946	967	961	988
Peermade	832	807	709	726	796	880
Devikulam	695	799	856	799	823	852
Thodupuzha	979	931	924	937	961	968
Muvattupuzha	980	959	974	993	999	1,015

All the taluks have started with a deficit of females even as late as 1901. In the course of fifty years Kottayam, Vaikom and Muvattupuzha have got over the deficit while, the remaining taluks show even now an excess of males. In regard to Devikulam and Peermade, the tea plantations employ females for plucking leaves and the variations in sex-ratio are due to the changes in volume of immigration of females from the adjoining districts of Madras.

36. The table below gives the sex-ratio in Kottayam for broad age-groups from 1921. In regard to boys and girls, the excess of boys has to be attributed to their higher survival rate. In the ages 15-44, the excess of males can only be due to the higher mortality rate for women. Lack of medical and maternity services and malnutrition have probably removed a large number of potential mothers during their period of child-birth. The next higher age-group also points to higher death rates for women. In the age-group over 55, women are in excess indicating that the females who have survived up to 55 are more long-lived than men.

Age	1921	1931	1941	1951
Below 15	967	975	984	986
15-44	923	928	938	984
45-54	864	887	900	917
55 & over	1,040	1,037	996	1,052

37. The over-all deficit of females in Kottayam district is therefore due to greater proportion of male immigrants and the high mortality rates for women below 55. With the development of transport facilities and improvement of medical and maternity services, the sex-ratio has been fast increasing.

38. In Trichur district, the excess of females over males has persisted since 1901. An analysis of sex-ratio in broad-groups is contained in the following table.

Age	1921	1931	1941	1951
Below 15	984	983	990	961
15-44	1,040	1,092	1,077	1,092
45-59	957	990	1,028	1,092
60 & over	1,203	1,081	1,064	1,137

In the ages below 15, boys are more numerous than girls. This is due to a higher survival rate for boys. In the age-group 15-44, females exceed males and this can only point to a greater immigration of females, emigration of males or a combination of both. In regard to the sex-ratio in the ages 45 to 59 there has been a steady increase; after 1931, there is an excess of

females. Among old persons, 60 years and over, females are in greater numbers than males. The sex-ratio has, however, been decreasing till 1941 and there has been an increase during the last decade. Thus among persons above 15 years, there is an excess of females over males and this should be attributed to the persistence of greater volume of male emigrants\* and a higher longevity of females. Among boys and girls below 15, boys appear to have a higher survival rate.

39. Before examining the sex-ratio in livelihood classes, a word of explanation may be given about the status of women in this state. Under the matriarchal law of inheritance, women were the channel by which the 'tarawad' property was conserved. Invariably they were owners of land. It was considered beneath the dignity of females to go out for work. In the country-side, this feeling was all the more strong. They were confined to their homes; and even when forced to work for a living, they worked more or less in neighbouring houses getting a return in kind. Among the poor backward classes, women work mostly as agricultural labourers.

40. With the break-up of the joint family system and spread of education, a change in the social attitude to the employment of women outside their homes has set in and the females began to seek employment in greater numbers. Wage-rates for females are lower than those for males; this gradually lead to the recruitment of women in all sorts of miscellaneous labour.

41. It is now easy to explain the sex-ratio in the livelihood classes given in the table below.

Agricultural Classes	1,020
I. Owner cultivators	1,020
II. Tenant cultivators	982
III. Agricultural labourers	1,017
IV. Agricultural rent receivers	1,308
Non-agricultural Classes	995
V. Production other than cultivation	1,015
VI. Commerce	931
VII. Transport	895
VIII. Miscellaneous services	1,022

Among agricultural classes, confined mostly to the country-side, women are in greater numbers in livelihood classes I, III, and IV. Among non-agricultural classes women are in excess in Production other than cultivation and Miscella-

\*It is probable that the joint family system under which married women did not generally live in the husband's house, helped to increase emigration among males.

neous services. Commerce and Transport have only smaller numbers of women.

42. Sex-ratio in livelihood classes has a direct bearing on the social and economic life of the people. Women now are ready to work; but lack of proper openings for them leaves a relatively large proportion of females unemployed. Naturally therefore the women should be expected to be in greater numbers in almost all livelihood classes as dependants.

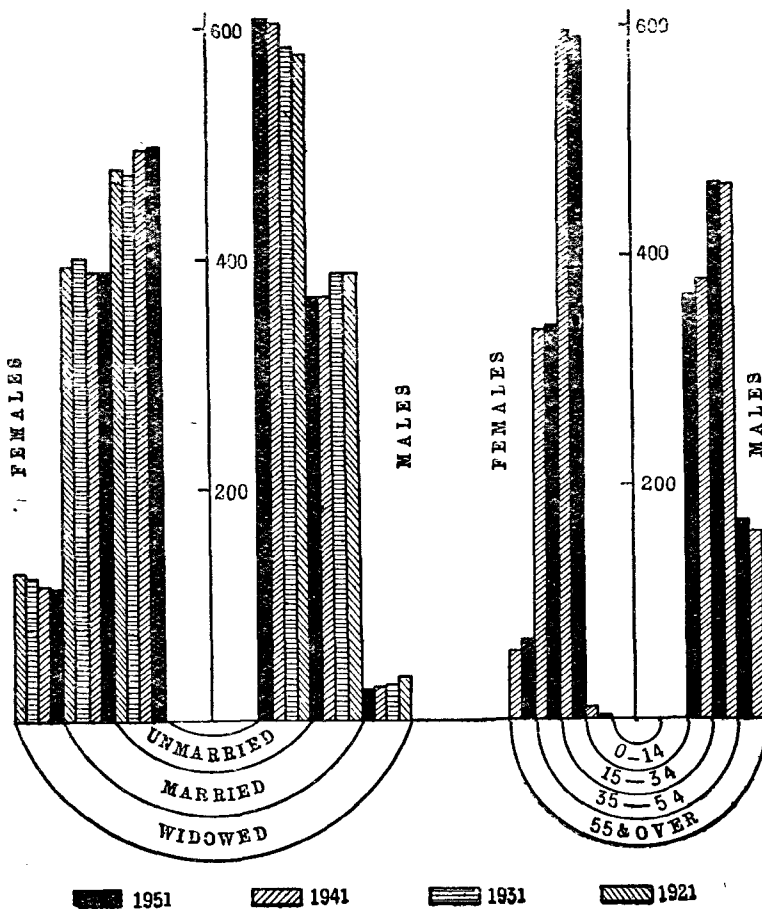
43. Subsidiary Tables 6.5 and 6.6 give the number of females per 1,000 males in agricultural and non-agricultural classes and sub-classes. Taking the livelihood classes together, self-supporting females form less than a third of the males; and for every two males there are nearly three females in each of the categories of non-earning and earning dependants. In view of the inherent modesty of women and their unwillingness to describe themselves as self-supporting, it is to be expected that the number returned as self-supporting will only be lower than the actual number. Further the very large

number of women who remain in their homes and look after domestic duties have been returned as non-earning dependants if they had no income of their own. Even so, the low sex-ratio among self-supporting persons and very high values for non-earning dependants show that the majority of women have no gainful employment. Under earning dependants, women are more numerous than men. This is probably due to women getting employment in various fields of work which carry only low wages.

44. The general comments made above in respect of all livelihood classes apply to the agricultural and non-agricultural classes separately. The sex-ratio for self-supporting persons is generally low in all livelihood classes except non-cultivating owners of land. Here there are three women for every two men indicating that more women let out their land than men.

45. In regard to earning dependants, women are more numerous than men in almost all the livelihood classes. Among non-earning dependants, there are nearly three women for every two men.

Diagram 4. Marital Status and Age Profile



Section v  
Marital status

46. In regard to marital status, persons have been classified as unmarried, married, widowed or divorced. Subsidiary Table 6.7 gives the number per 1,000 of males and females in these three groups from 1921. At the last census 61 per cent of the males and 50 per cent of females were unmarried; 37 per cent of males and 39 per cent of females were married. During the last thirty years there has been an increase in the proportion of unmarried persons.

47. The percentage of married men remained constant in 1921 and 1931 and also in 1941 and 1951, the values for the later years being lower. For married women, 1941 showed an increase over 1931 and the percentages for 1941 and 1951 are equal and lower than that of 1921. The diagram (No. 4) given in the margin brings out these trends.

48. The table below gives the number per 1,000 of each sex who are unmarried and married from 1901.

	<i>Unmarried</i>		<i>Married</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
1901	536	440	419	415
1911	547	443	411	412
1921	577	477	386	395
1931	585	474	386	402
1941	605	496	367	388
1951	607	497	367	388

The figures clearly show an increasing trend for unmarried persons and a decreasing trend for married persons. Since the persons who are unmarried include children, and since marriages are extremely rare before a boy or girl is fifteen, the trend for unmarried persons should be based on figures for men and women who are at least fifteen years old.

49. The sub-joined table gives the number (per 1,000 of the total for each sex) of unmarried men and women who are at least fifteen years old. Omitting boys and girls below 15, it is seen that there is a steady increase in the number of unmarried persons in both sexes. The high proportion of both sexes who are unmarried in 1921 is probably the effect of the influenza epidemic of the previous decade.

	<i>Men</i>	<i>Women</i>
1901	153	64
1911	156	62
1921	181	88
1931	158	64
1941	193	94
1951	208	110

50. The tendency to remain unmarried can be determined from the number of persons who are above 45 and remain single. The table below gives the number per 10,000 of each of sex who are unmarried even after the 45th year.

	<i>Males</i>	<i>Females</i>
1901	21	18
1911	21	21
1921	54	53
1931	34	15
1941	29	14
1951	33	21

Less than one per cent of either sex remain unmarried after the 45th year. Thus eventhough about 20 per cent of the men and 10 per cent of the women aged 15 years and over are unmarried, it is reasonable to conclude that almost all of them get married by the time they are 45.

51. Subsidiary Table 6.8 gives the distribution of 1,000 married persons of each sex for 1941 and 1951 in broad age-groups. The table below gives these figures from 1901.

	<i>Age-groups</i>			
	<i>Below 15</i>	<i>15-34</i>	<i>35-54</i>	<i>55 &amp; over</i>
	<i>Males</i>			
1901	3	444	447	106
1911	4	436	444	116
1921	0	416	458	126
1931	3	438	430	129
1941	0	378	462	130
1951	0	367	463	170
	<i>Females</i>			
1901	27	665	277	31
1911	26	660	279	35
1921	18	647	295	40
1931	25	649	284	42
1941	8	597	336	59
1951	1	591	339	69

Boys below fifteen marry very rarely. The percentage of married girls below 15 is also small—2 or 3 per cent before 1931 and negligible in 1951. The percentages for married men and women in the ages 15 to 34 have a declining trend, though in 1931 there is an increase in the case of males. In the remaining two age-groups the percentages are increasing. These go to show that the age at marriage for either sex has been slightly increasing from decade to decade.

52. The precise age at marriage is not available from census data. However, any suitable average of the age of married persons will give an indication of the changes in age at marriage. A convenient average for this purpose is the median dividing the population into two halves. Fifty per cent would be below the median and the remaining fifty per cent would be above it. Additional information on the age structure is given by the lower and upper quartiles that divide respectively the fifty per cent below the median and the fifty per cent above the median into two equal halves. Thus fifty per cent lie between the quartiles and the median is more or less the centre about which the individuals are scattered.

53. The table below gives the median (M), the lower quartile (L. Q.) and the upper quartile (U. Q.) from 1901. The median and the quartiles for 1921 are slightly higher than those for 1911 and 1931. This can only be attributed to

the removal by death of a good number of married persons in the younger ages as a result of the influenza epidemic of the previous decade. Allowing for this it appears that there is a consistent shift in the values of the median and the quartiles to higher ages from decade to decade. There is therefore a definite increase in the age at marriage for both sexes.

	L. Q.	M.	U. Q.
		<i>Males</i>	
1901	29	36	46
1911	29	37	47
1921	32	38	48
1931	29	37	47
1941	31	39	50
1951	31	40	50
		<i>Females</i>	
1901	22	28	37
1911	22	29	37
1921	23	30	39
1931	22	29	39
1941	24	31	41
1951	24	32	42

54. In Chapter I, it has been pointed out that raising of the age of married women to twenty years will tend to produce a lower rate of growth of population. The investigation made in the previous paragraph brings out that there is a definite increase in the age at marriage though the rate of growth of population has been steadily increasing. It has therefore to be inferred that the age at marriage of women has not come up to twenty.

55. The number of unmarried persons has been increasing from decade to decade and the age at marriage of women has also been increasing. Further, the proportion per 1,000 of married women in child-bearing ages 15 to 45, given in the table below, has a declining trend.

Year	Married women
1901	858
1911	853
1921	847
1931	840
1941	816
1951	803

These tendencies work in unison to bring down the rate of growth of population in the state. The forecast of an increase of 19.97 per cent for the decade 1951-60 which is lower than that for the last decade, appears to support the conclusion that the rate of growth of population

in the state is likely to fall in the decade to come.

56. The number of married females per 1,000 married males is given in the subjoined table.

Year	No. of married women to 1,000 married men
1901	976
1911	989
1921	1,005
1931	1,040
1941	1,058
1951	1,067

Polyandry, even if it existed in the early decades of the present century is dead and gone. The greater number of wives to husbands may be due to migration of husbands or to the existence of polygamy. Polygamy is fast disappearing due to spread of education and social and economic changes. Migration can therefore be the only main cause for the excess of wives over husbands.

57. In regard to widowed or divorced persons, the number is fast coming down. This is due to the almost complete absence of child marriage and absence of ban on widow marriage. The percentage of widowed or divorced persons is 3 among males and 12 among females. The table below gives the number per 1,000 of widowed or divorced women in broad age-groups.

Age	No. of widows
Below 15	0
15-24	39
25-34	96
35-44	158
45-54	234
55 and over	473

Thus among women who are widowed or divorced, only 4 per cent are below twenty-five and 29 per cent below forty-five. The large majority of widowed or divorced women are over 45 years old.

58. In regard to the districts, no separate comments are made as the characteristics noticed for the population in the state are found in the districts in almost similar form. Kottayam alone shows slight difference in age-distribution of married men. The proportion of married men between the ages 15 to 34 is higher in Kottayam than in the remaining three districts. Christians who form a good section of the people in this district, encourage early marriage. The dowry received by the bridegroom is compulsory among

them and has probably become a very important economic factor in the life of the community. The dowry amount which has in recent years become a very substantial sum, induces early marriages among men. This accounts for the relatively larger proportion of married men in the ages 15 to 34 in Kottayam.

### Section vi Age Composition

59. The age-structure of a population is of paramount importance in demographic studies. It is also of vital interest in the social and national life of the people. Provision of educational facilities for the youth, the creation of gainful occupations for the able-bodied and help to the aged, depend on the age profile of a population.

60. Unfortunately, the census data on the age of the people has been faulty here as in many other countries. The most obvious inaccuracies in census data are the tendency for ages to cluster in even years and in numbers ending with 5 and 0. Other sources of error in age returns are the ignorance of one's age particularly among the old persons and backward classes and the tendency on the part of unmarried women to give a lower age if they are in their thirties. The extent of such deficiencies in age returns can be assessed though only in very general terms. If persons below hundred years of age be taken, it should be expected that nearly 10 per cent have ages ending in 0 and 5 each and 40 per cent have ages ending in each of even and odd digits. Further preference for ages ending in even digits and 5 or 0 is greater than that for odd digits. The actual percentages in these four classes of ages may be compared to the corresponding expected values to give an indication of the extent of inaccuracies in age. The table below gives the percentage of age returns in the four classes for the state.

	<i>Travancore- Cochin</i>	<i>Canada</i>	<i>Australia</i>
	(1951)	(1941)	(1947)
Ending in 0	16	11	11
Ending in 5	14	10	10
Ending in an even digit	40	40	39
Ending in an odd digit	30	39	40

The figures for Canada (1941) and Australia (1947) are given for purposes of comparison. It is obvious that the age data for the state is not

very satisfactory as the discrepancies of ages ending in 0, 5 and odd digits are relatively large. These inaccuracies can be adjusted by smoothing the data with a suitable graduation formula.

61. Subsidiary Tables 6.9 to 6.14 give detailed figures on the age distribution for various sections of the population. Before studying these tables, the broad features in the age structure of the population may be indicated. The table below gives the percentages to the total population of the number of persons in three age-groups—below 15, 15 to 54 and 55 and over—corresponding to dependent young persons, possible earners and old age dependants.

	Below 15	15-54	55 and over
1901	38.6	55.1	6.3
1911	39.3	54.1	6.6
1921	39.6	53.8	6.6
1931	42.4	51.1	6.5
1941	40.8	51.8	7.4
1951	39.3	52.7	8.0

It is clear from this table that the percentages of children below 15 have been increasing till 1931 and then decreasing. In regard to persons between 15 and 54, the percentages have been decreasing till 1931 and then these have started increasing. In respect of persons—55 and over—the percentages have been more or less increasing.

62. In the ages below 15, the effect of migration is negligible. The trend for this age-group can therefore be affected by births and deaths only. The increase in trend till 1931 points to an increase in balance of births over deaths and the decrease subsequent to 1931 shows a decrease in balance of births over deaths. Since medical and public health services have been steadily improving from 1931, it is natural to expect that death rates have come down. The decrease in balance of births over deaths has therefore to be accounted for by a decrease in births.

63. The analysis of marital status in the previous section shows that there has been a steady increase in the proportion of unmarried men and women over 15 years of age. Further, the proportion of married women in the ages 15 to 34—the most productive period for women—has been consistently dropping. Also the median age of married women has been steadily rising; and the result of fertility enquiry show that the



net maternity rate for women decreases with increasing age at marriage. These factors clearly indicate that the fall in balance of births over deaths has to be attributed to a definite decrease in birth rates and death rates, due to:—

- (i) a decrease in marriage rates;
- (ii) a decrease in the proportion of married women in the ages 15-34;
- (iii) an increase in the age at marriage of women; and
- (iv) improvement in medical and public health services and spread of female education.

The results of the fertility enquiry show that the crude birth rates for the three decades since 1921 are 37.2, 36.3 and 35.0 respectively.

64. In regard to persons between 15 and 54, the proportion has been steadily declining till 1931 and then it has been increasing. Since migrants are mostly confined to this age-group, the trend is likely to be influenced by their numbers.

1901	53.3
1911	52.8
1921	52.6
1931	49.3
1951	52.7

The table given above shows the percentages of persons in this age-group, eliminating the effect of migration. (The figures of emigrants for 1941 are not available). The trend once again shows a decrease till 1931 and then an increase in 1951. The decrease in the early decades should be the result of death rates and the increase since 1931 is due to an improvement in death rates for adults.

65. In respect of persons, 55 and over, the increase in proportions can only be due to the longevity of old persons, probably due to improvement in death rates.

66. The above discussion applies almost in toto to the sexes also. Further, any differences in proportions for the sexes in the age-groups have been examined in section v dealing with sex-ratios.

67. A broad indication may now be given about the economic position revealed in the age composition. Persons in the ages 15 to 54 are the potential earners in a population and children below 15 are complete dependants. Persons who have passed their 55th year, even with what they have earned during their younger years, may also be classed generally as dependants.

Thus the ratio (expressed as a percentage) of the number of persons below 15 and those over 55 to that in the ages 15 to 54 may be taken as an index of the burden of dependency upon the potential earners. The table below gives this ratio since 1901.

1901	81
1911	85
1921	86
1931	96
1941	93
1951	90

It has been steadily increasing till 1931 and has fallen subsequently. This decrease in the burden upon the earner is due to the decline in the proportion of children subsequent to 1931.

Having discussed the broad features in the age profile of the population, an analysis of the trends in smaller age intervals may be attempted. One difficulty in this analysis should be kept in mind. Apart from inaccuracies in individual age returns, the comments made in Chapter I (section iii, paragraph 47) show that there are errors in the numbers of persons in the lower age-groups. This would naturally mar the trends relating to the proportions in the lower ages. It is therefore necessary to treat irregular variations in trend line, unless explainable in terms of local conditions, as due to errors in census data.

68. Subsidiary Tables 6.9 to 6.14 give the distribution of the persons in broad age-groups for 1941 and 1951. The following table gives the number of persons and of each sex per 10,000 of the general population having ages below certain specified values. Proportions in individual age-groups can be obtained from this table.

Age		1901	1911	1921	1931	1941	1951
below							
1	Persons	269	281	280	400	265	295
	Males	128	135	140	201	133	149
	Females	141	146	140	199	132	146
5	Persons	1334	1381	1334	1707	1435	1475
	Males	645	679	667	857	723	747
	Females	689	702	667	850	712	728
10	Persons	2656	2707	2688	3023	2803	2694
	Males	1309	1346	1349	1525	1410	1361
	Females	1347	1361	1339	1498	1393	1333
15	Persons	3860	3924	3964	4239	4081	3929
	Males	1937	1976	2004	2141	2055	1982
	Females	1923	1948	1960	2098	2026	1947

Age	1901	1911	1921	1931	1941	1951
below						
35 Persons	7383	7393	7409	7571	7427	7323
Males	3664	3678	3702	3766	3698	3664
Females	3719	3715	3707	3805	3729	3708
45 Persons	8602	8582	8577	8636	8510	8418
Males	4323	4314	4318	4318	4246	4191
Females	4279	4268	4259	4318	4264	4227
55 Persons	9370	9337	9340	9347	9258	9201
Males	4727	4710	4719	4685	4626	4585
Females	4643	4627	4621	4662	4632	4616
55 and over						
Persons	630	663	660	653	742	799
Males	308	325	327	322	368	387
Females	322	338	333	331	374	412

70. In regard to infants, the percentages for different years show irregular variations. The percentage that remains below 2.81 till 1921 shoots up to 4.00 in 1931 and then drops to 2.65 in 1941 to be followed by an increase to 2.95 in 1951. These fluctuations level up for children below 5. The proportion here steadily increases from 13.34 in 1901 to 14.75 in 1951. The fall in 1921 is due to the influenza epidemic of the decade and the rise in 1931 is in all probability due to over-enumeration. In respect of children below 10, the proportion has been more or less increasing till 1931 and then decreasing. Since this group also contains children below 5, the proportion for which has an increasing trend, children between 5 and 10 should have a decreasing trend after 1931.

71. The table below gives the percentages of children in the ages 5 to 9 and 10 to 14.

	5-9	10-14
1901	13.22	12.04
1911	13.26	12.17
1921	13.54	12.76
1931	13.16	12.16
1941	13.68	12.78
1951	12.19	12.30

The percentages for both age-groups in 1931 deviate from the slow increasing trend up to 1941. In 1951 there has been a drop in the proportions in both age-groups. From what has been stated in the first Chapter regarding the numbers in the lower age-groups, it is to be taken that the low values for 1931 are due to errors in the census data for that year. It may be inferred that the proportions of children in these age-groups have been increasing till 1941 and that their values have dropped in 1951.

72. The percentages in the ages 15 to 34, and 35 to 44, are given below.

	15-34	35-44
1901	35.23	12.19
1911	34.69	11.89
1921	34.45	11.68
1931	33.32	10.65
1941	33.46	10.83
1951	34.43	10.46

Percentages in these age-groups have been falling till 1931; after 1931, the proportions in the ages 15 to 34 show an increasing trend while they decrease for the age-group 35 to 44 even though the 1941 value is a little out. It has been said that the most fertile period in human life is between the ages 15 to 34. If this is accepted the age structure shows that the reproductive section of the population has been increasing since 1931.

73. Before making any further comment on the trends in these age-groups, it is necessary to study the figures relating to the sexes separately. The table below gives the percentages (to the total population) of men and women in the two age-groups.

	15-34		35-44	
	Males	Females	Males	Females
1901	17.27	17.96	6.59	5.60
1911	17.02	17.67	6.36	5.53
1921	16.98	17.47	6.16	5.52
1931	16.25	17.07	5.52	5.13
1941	16.43	17.03	5.50	5.35
1951	16.82	17.61	5.27	5.19

In regard to the males, the increase since 1931 in the proportion in the first age-group is a sign of improvement in the death rates of men in this age-group. The continuous fall, though slow, in the proportion of females in their most active reproductive period is also to be accounted for by death rates. There is however a slight improvement in the last decade. The proportions for both males and females in the ages 35 to 44 are slowly coming down. This is in all probability due to loss by death.

74. The percentages in the age-group 45 to 54 are given in the table below.

	Persons	Males	Females
1901	7.68	4.04	3.64
1911	7.55	3.96	3.59
1921	7.63	4.01	3.62
1931	7.11	3.67	3.44
1941	7.48	3.80	3.68
1951	7.83	3.94	3.89

In this age-group, it may generally be said that the proportions are improving since 1931. Smaller irregular variations in the first three years are probably due to the defects in census data.

75. In respect of persons aged 55 and over, there has been once again a steady increase in the proportions after 1931. Females are in greater proportions than males. It may therefore be said that longevity of old men and women has improved during the last two decades.

76. It has been customary to say that a population in which the numbers in the lower age-groups are decreasing, is 'aging'. The analysis of the age profile for this state has shown that the proportion of children has been increasing till 1931 and that subsequently it has been falling. Thus after 1931 the population has been aging. A precise assessment of the age of the population is contained in the median and the quartiles given below.

	<i>Lower quartile</i>		<i>Median</i>		<i>Upper quartile</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
1901	9.5	9.3	21.0	20.8	36.3	35.0
1911	9.3	9.0	20.8	20.5	36.0	35.0
1921	9.5	9.3	20.3	20.3	36.3	35.3
1931	8.0	8.3	18.5	19.0	34.8	34.0
1941	9.0	9.0	19.5	19.5	35.3	35.8
1951	9.3	9.3	20.5	20.5	36.0	36.0

Till 1931, the median age for both males and females has been falling; subsequently, it has been increasing. The lower quartiles giving the age below which 25 per cent of the population fall, has also been increasing for both sexes after 1931. The upper quartile above which 25 per cent of the population fall, has also been increasing after 1931. These support the conclusion that the average age of the population has been increasing during the last two decades. Even so, the average age is only between 20 and 21.

77. The age profile of the population in this state may be compared to that in other countries. The following table gives the median and the percentage of either sex in broad age-groups.

	Percentage							
	Median		Below 15		15-54		55 and over	
	<i>M.</i>	<i>F.</i>	<i>M.</i>	<i>F.</i>	<i>M.</i>	<i>F.</i>	<i>M.</i>	<i>F.</i>
Canada (1950)	27.5	27.3	29	29	55	56	16	15
United States (1950)	29.0	30.3	28	27	56	56	16	17
Denmark (1949)	30.8	32.3	27	25	56	56	17	19
France (1950)	37.8	41.8	23	21	58	54	19	25
England & Wales (1950)	33.8	36.8	23	21	58	56	19	23

In almost all these countries, nearly 55 to 58 per cent of both sexes are between the ages 15 to 54 and about 42 to 45 per cent are either below 15 or above 55. Thus the pressure on the active earners is very much lower in these countries than in this state. Further, the median age is also very high compared to that for this state. It may also be mentioned in this connection that the birth rate in these countries is very much lower than that here. An 'aging' population indicates a fall in birth rates. The greater longevity of persons in these countries is clear from the proportions in the ages 55 and over. Old women generally are more long-lived than old men.

78. The age structure of the population of 1951 in the rural and urban areas is briefly discussed below. The table below gives the percentage of males and females in broad age-groups for the country-side and the towns.

<i>Age</i>	<i>Rural</i>		<i>Urban</i>	
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>
Below 15	20.0	19.7	18.9	18.5
15-54	25.7	26.6	27.8	26.8
55 and over	3.9	4.1	3.7	4.3

In regard to children below 15, the proportions are slightly higher in the rural areas than in the towns, while the proportions in the ages 15-54 are higher in urban areas than in the country-side. The differences in these percentages are, however, only very small. In the country-side the percentage in the ages below 15 and 55 and over is 47.7 while that in the towns is 45.4. Thus the pressure of dependency on the potential earners is higher in the rural population.

79. In regard to the agricultural and non-agricultural classes, the percentages in broad age-groups are given in the table below.

	Agricultural classes		Non-agricultural classes	
	Males	Females	Males	Females
Below 15	20.0	19.7	19.6	19.2
15-34	16.0	17.1	17.9	18.2
35-54	8.9	9.4	9.5	8.7
55 and over	4.5	4.4	3.2	3.7

The percentages of children below 15 are higher for agricultural classes than for non-agricultural classes. Among young men and women in the ages 15 to 34, higher proportions are seen among non-agricultural classes, the females being slightly in excess of males. Middle-aged men in the ages 35-54 are relatively more numerous in non-agricultural classes, while women in these ages are slightly in excess in agricultural classes. Old men and women are in greater proportions in agricultural than in non-agricultural classes.

80. In regard to the burden of children and old persons on the potential earners, it will be seen that among agricultural classes the percentage is 95 while that among non-agricultural classes it is 84.

#### Section vii.

#### Literacy and education

81. Travancore-Cochin stands in the very fore-front of all other states in point of literacy and education. From the early years of the nineteenth century government have paid great attention to education. In its early stages, education was free so as to attract increasing numbers to the schools. Year by year large numbers of government and aided schools spring up in various parts of the state as a direct result of the liberal and progressive policy pursued by government.

82. The percentage of literate persons to total population over 5 years from 1921 onwards according to census is given in the table below.

1921	26.7
1931	29.8
1941	52.3
1951	53.8

There is an abnormal rise in 1941. To investigate this sharp rise, it is necessary to examine the standards fixed for literacy at each census.

83. In 1921, the standard prescribed was "ability to write a letter to a friend and read the reply". In 1931, the instruction in Travancore was to treat a person as literate if he or she had passed the fourth standard in vernacular education or had the same degree of proficiency in reading and writing as one who had that standard. Cochin retained the instructions for 1921. The ability to read and write a simple letter was the test of literacy in 1941 and 1951. It is thus seen that there is a certain amount of arbitrariness in the definition of literacy from decade to decade.

84. The table below giving the percentage of literates to the total number in each of the age-groups 5-9, 10-14, and 15 and over, brings out the effect of lack of precision in the definition of literacy at the 1931, 1941 and 1951 censuses.

	5-9	10-14	15 and over
1931	15.6	26.0	33.4
1941	46.4	64.9	51.3
1951	26.7	67.7	56.3

Obviously, a very stiff interpretation has been given to literacy in 1931. Probably, persons who have attained the standard of or passed the fourth class have alone been returned as literate. In 1941, 46 per cent of the children between the ages of 5 to 9 have been reckoned as literate. This can only lead to the conclusion that children even in the third class have been treated as literate. In 1951, 27 per cent in the ages 5 to 9 are literate, showing that only children who have probably passed the fourth class have been considered as literate\*.

85. In respect of children over 10 years of age, the effect of definition of literacy appears to be more or less the same at both the 1941 and 1951 censuses; the increase in the percentage in 1951 is a sure indication of the progress achieved during the last decade.

86. Subsidiary Table 7.1--Progress of literacy—compares figures of literacy for 1941 and 1951. The comparison is made for the age-groups

\*During the training classes, the enumerators, 99 per cent of whom were teachers, had stressed that they would treat children who had passed the fourth class alone as literates. Even though I could not subscribe myself to this stiff standard, I feel that the teachers have stuck to their conviction regarding literacy among children.

5 to 9, 5 to 14, 5 and over and 15 and over. The 1941 figures for all these age-groups except 15 and over are on the high side as they comprise children between 5 and 9 who were treated as literates in a very liberal sense in that year.

87. To compare the literacy figures for 1941 and 1951, it is necessary to consider separately the children in the ages 5 to 9. The following table gives comparative figures for literates per 1,000 persons in each of the age-groups 5-9, 10-14, 10 and over and 15 and over.

Age	Year	Persons	Males	Females
5-9 on	1-3-51	267	275	259
	1-3-41	464	495	412
10-14 on	1-3-51	677	724	630
	1-3-41	649	721	576
10 & over on	1-3-51	583	708 <sup>1/2</sup>	461
	1-3-41	527 <sup>1/2</sup>	670	396
15 & over on	1-3-51	583	708	461
	1-3-41	537	670	396

It is seen from the table that except for the first age-group, there has been significant progress in literacy during the last decade. The figures for the age-group 5 to 9 are not comparable due to the differences in the standards prescribed for literacy in 1941 and 1951.

88. The percentage of literate persons to the total population is 45.8 and in relation to population over 5 years of age it is 53.8. For males these percentages are 54.8 and 64.5 while for females they are 37.0 and 43.2. The table below gives the percentages of literate persons of each sex in broad age-groups.

Age	Males	Females
5-9	27.5	25.9
10-15	72.4	62.9
15-24	75.0	58.7
25-34	75.4	48.4
35-44	68.6	35.4
45-54	64.5	25.3
55-64	60.1	19.0
65-74	56.7	8.1
75 and over	48.2	13.2

This table helps to give a good idea of the progress of education in the state. The proportion of males in all the age-groups except the first is consistently high. As old men in the ages 65 to 74 now should have been in the

ages 15 to 24 half a century ago, it may be estimated that even at the beginning of the present century about 56 per cent of young men in the ages 15 to 24 should have been literate. At present this percentage is as high as 75.

89. In regard to females, the percentage for each group is lower than that for males. In the higher age-groups the percentages are very low. This goes to show that female education was not very popular in the early decades of the present century. However, the progress has been rapid during the last three decades and at present among children in the ages 5 to 9, boys and girls attending schools are almost equal in numbers.

90. It will be interesting to analyse the educational attainments of the literates. Table D. VII — Livelihood Classes by Educational Standards — gives the distribution of persons according to educational qualification. Persons who are literate and who do not possess any qualification are simply classified as “literate”. The remaining persons have been classified according to the type of institution in which they received their education. These are:—

- (a) Schools only (at least the Middle School standard),
- (b) Colleges of arts, science, law and teaching,
- (c) Technological institutions — agriculture and engineering,
- (d) Medical,
- (e) Unspecified.

91. The table below gives the proportion per 10,000 literates of each sex belonging to those categories.

	Males	Females
Literates	9,286	9,578
Schools only	543	340
Colleges	108	48
Technological	2	..
Medical	7	2
Unspecified	54	32

Thus 93 per cent of the males and 96 per cent of the females who are literates can probably read and write only. Of the remaining 7 per cent of literate men, about 5 per cent have had only the general education available in the schools, one per cent has had college education and the balance (one per cent) has medical or technical training of some kind or other. Among

literate females, 96 per cent have only ability to read and write, 3 per cent have had the general education of the schools, about one-half per cent has had college education and the remaining one-half, some specialised training. It is thus seen that the educational attainments among the literates are such that the large majority have undergone only elementary education.

92. It should not be felt that these comments have been made to under-estimate the educational attainments of the people of the state. The table below shows the proportion per 10,000 of the total population, in the various categories of educational attainment described above.

All	..	4,642
Literates	..	4,365
Schools only	..	214
Collegiate	..	39
Technological	..	1
Medical	..	2
Unspecified	..	2

The figures speak for themselves. Clearly, the education now available is far from being adequate for the needs of community.

93. A brief discussion may now be directed to the level of literacy among the livelihood classes. Table D. VII—Livelihood Classes by Educational Standards — gives the number of literates in each livelihood class. From Table C. IV—livelihood classes by age-groups—estimates of population in each livelihood class in ages 5 and over can be calculated. Based on these estimates, the percentage of literate persons among those aged 5 and over, have been calculated and these are given in the following table.

	<i>Males</i>	<i>Females</i>
I. Owner cultivators	74	59
II. Tenant cultivators	66	46
III. Agricultural labourers	42	24
IV. Agricultural rent receivers	86	70
V. Production other than cultivation	60	34
VI. Commerce	76	49
VII. Transport	61	39
VIII. Miscellaneous sources	77	56

The highest percentage for both sexes is seen among agricultural rent receivers. This should be expected as this section generally consists of the relatively rich land-lords. It will be noted that the level of literacy is lowest among those engaged in Production other than cultivation and

Agricultural Labour. As has already been pointed out in Chapter V, these two livelihood classes contain large numbers of unskilled workers and it is only natural that they are also backward in point of education.

94. Among rural and urban populations, the percentages of literates to the respective totals in the ages 5 and over are given below.

	<i>Rural</i>	<i>Urban</i>
Persons	52.6	59.6
Males	63.4	69.9
Females	42.1	49.2

The level of literacy is higher in the towns than in the country-side. But the difference between the percentages of literates among the rural and the urban populations is not very great showing that education is not confined to towns only.

95. The levels of literacy in the districts are different as will be seen from the table below giving the percentages of literates who are at least 5 years of age.

	<i>Males</i>	<i>Females</i>
Trivandrum	58.6	35.5
Quilon	67.8	46.3
Kottayam	69.9	51.5
Trichur	61.1	40.2

Kottayam closely followed by Quilon leads in point of literacy among both men and women. Trichur comes as third and Trivandrum is the last. These differences have to be attributed to the varying degrees of private and Government effort in the field of education in these districts.

#### Section viii.

#### Conclusion

96. A brief commentary has been made in this Chapter on the social, economic and cultural characteristics of the population presented in the census tables. For the first time in the census history of this state, an attempt has been made to enumerate the inmates of a household in terms of the head of the household, his or her relations and other unrelated persons. Every 100 households consist of 550 persons on the average. Out of this, 424 are near relations—heads of households, their wives or husbands, sons and daughters—118 other relations and 8 unrelated persons. Households have also been classified according to their size. 23 per cent of the households are small having less than

3 members, 46 per cent are medium-sized with 4 to 6 members, 24 per cent are large with 7 to 9 members and 7 per cent are very large with ~~over~~ <sup>or more</sup> 10 members.

97. In regard to the balance between the sexes, a population characteristic of fundamental importance, there are 1,008 females for every 1,000 males. This ratio has been steadily increasing from decade to decade. It is found that if the influence of migration is eliminated, the numbers in either sex are now almost equal. But as it stands, among children below 15, boys are in excess of girls; among young men and women in the ages 15 to 34, women are in excess of men, while in the middle ages 35 to 54, men are <sup>more</sup> numerous. Among elderly persons, women exceed men. These point to higher survival rate for boys in the early years, higher mortality rates for women in their child-bearing years and greater longevity of old women.

98. Among agricultural classes there are 1,020 females per 1,000 males while this number is 995 for non-agricultural classes. For every 10 self-supporting males there are only 3 self-supporting females and among each of the categories of earning and non-earning dependants, for every 2 males there are 3 females. Females, in view of the low wages for them, are often more in partial employment than men.

99. In respect of marital status, 61 per cent among males and 50 per cent among females are married. There is a slow decreasing trend in the proportion of married persons during the last 20 years; this has been followed by an increase in the age at marriage. These combine to lower the birth rate. The results of the fertility enquiry show that the birth rates for the decades 1921 to 1931, 1931 to 1940 and 1941 to 1950 are 37.2, 36.3 and 35.0 respectively.

100. The age profile of the population shows that for every 100 persons, 3 are infants below one year, 12 are in the ages 1 to 5, 24 are between 5 and 15, 34 are young men and women

aged 15 to 34, 19 are middle aged persons between 35 and 54 and 8 have passed the 55th year. Compared to the last two decades, the proportions in the lower age-groups have slightly decreased while those for old persons have increased. A more detailed scrutiny reveals that (a) the number of school-going children is more than sufficient to replace the current body of recruits to industry and services; (b) in the working ages 15 to 54 women exceed men and (c) among women over 15 years of age, about 72 per cent are in the reproductive ages 15 to 44. Further, the percentage of non-earning persons—consisting of children and a large section of old men and women—is approximately 47 against 53 of potential earners. Thus the pressure of dependency is indeed great here.

101. The median age of the population is between 20 and 21. A comparison with England and Wales, France, United States of America, Canada and other countries shows that this average is very low. These countries have low-birth rates and the median age is over 35. The low median for this state is due to the relatively high birth rate.

102. The population in the state has a fairly high literacy ratio. Approximately 54 per cent of the population over 5 years of age are literate, the corresponding values for males and females being 65 and 43 respectively. Very rapid progress in female education is noticeable during the last two decades. Education is not restricted to the towns only; figures show that the difference in literacy ratio between urban and rural population is only about 6 per cent. In respect of educational attainments among the literates, about 95 per cent are literates in the sense that they can only read and write. The rest are mostly those who have had the general education available in schools. It is only a very small percentage who have had the benefits of liberal education in the colleges or have undergone technological training.