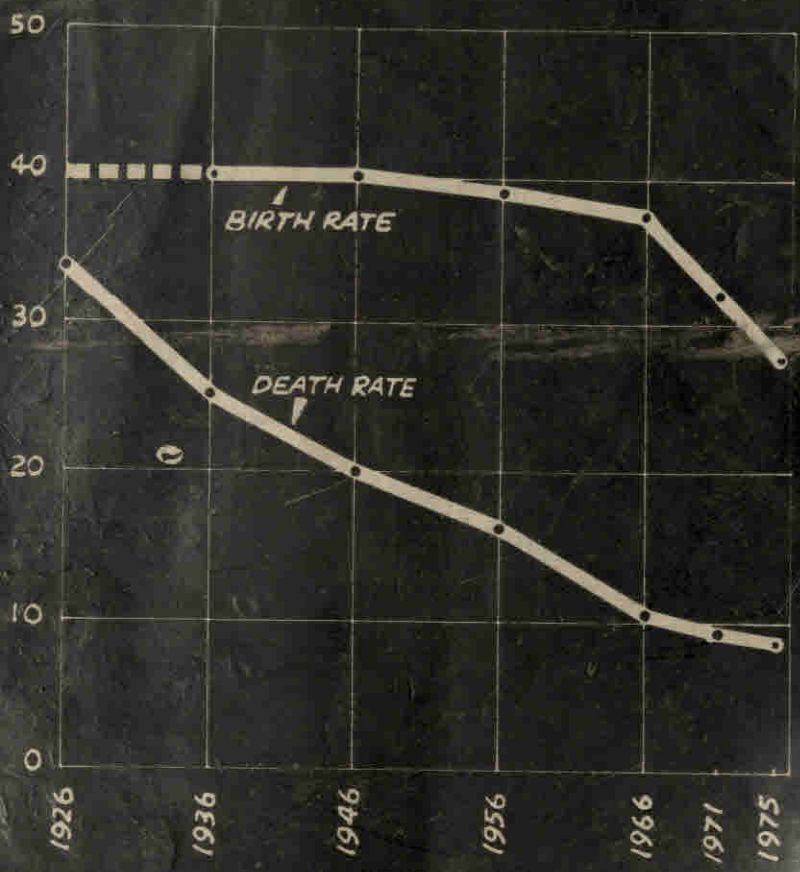




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GOVERNMENT OF KERALA

# DEMOGRAPHIC REPORT OF KERALA 1901-61 (with addendum for 1971)



DEMOGRAPHIC RESEARCH CENTRE  
BUREAU OF ECONOMICS & STATISTICS,  
TRIVANDRUM

SEPTEMBER 1976

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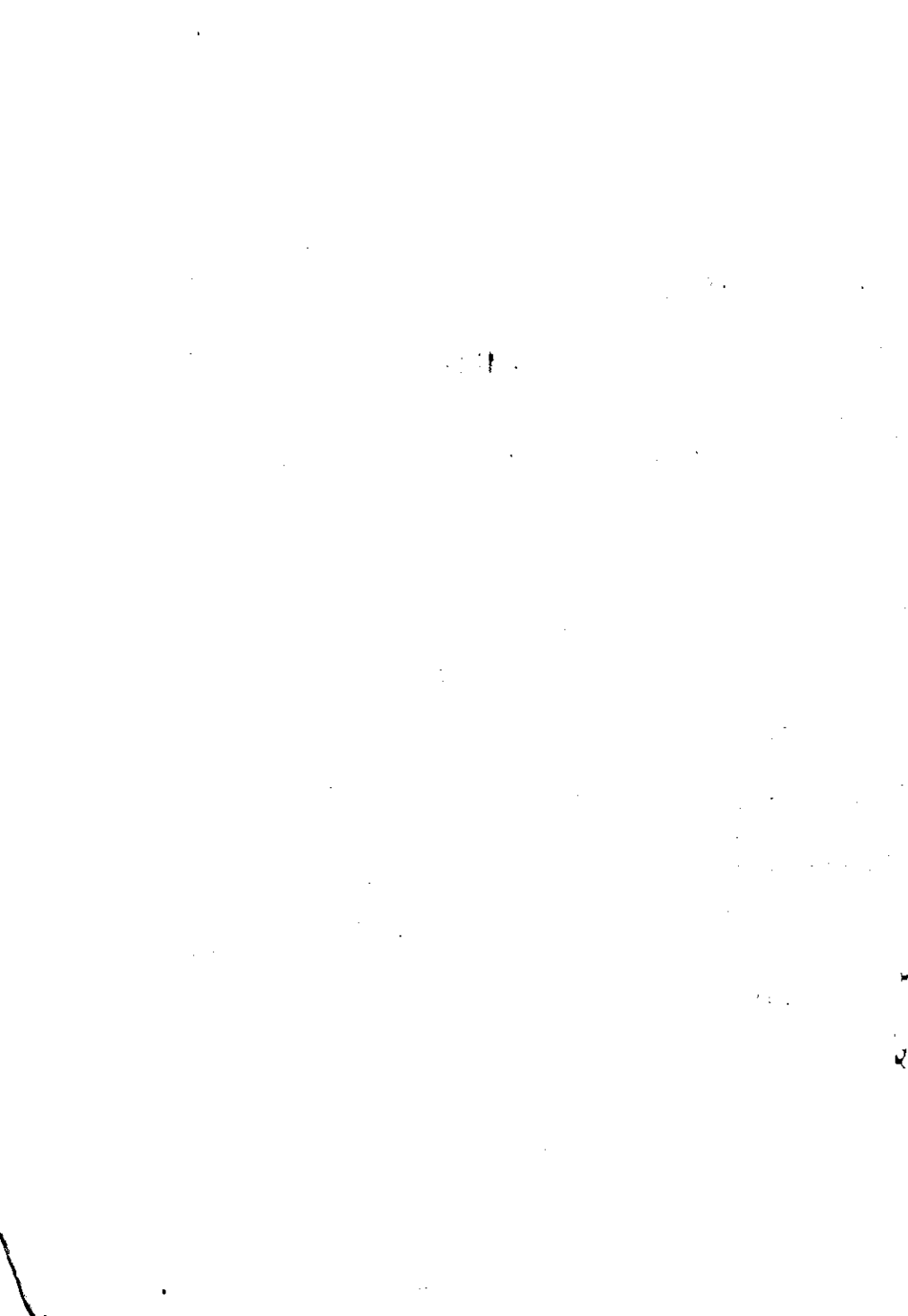


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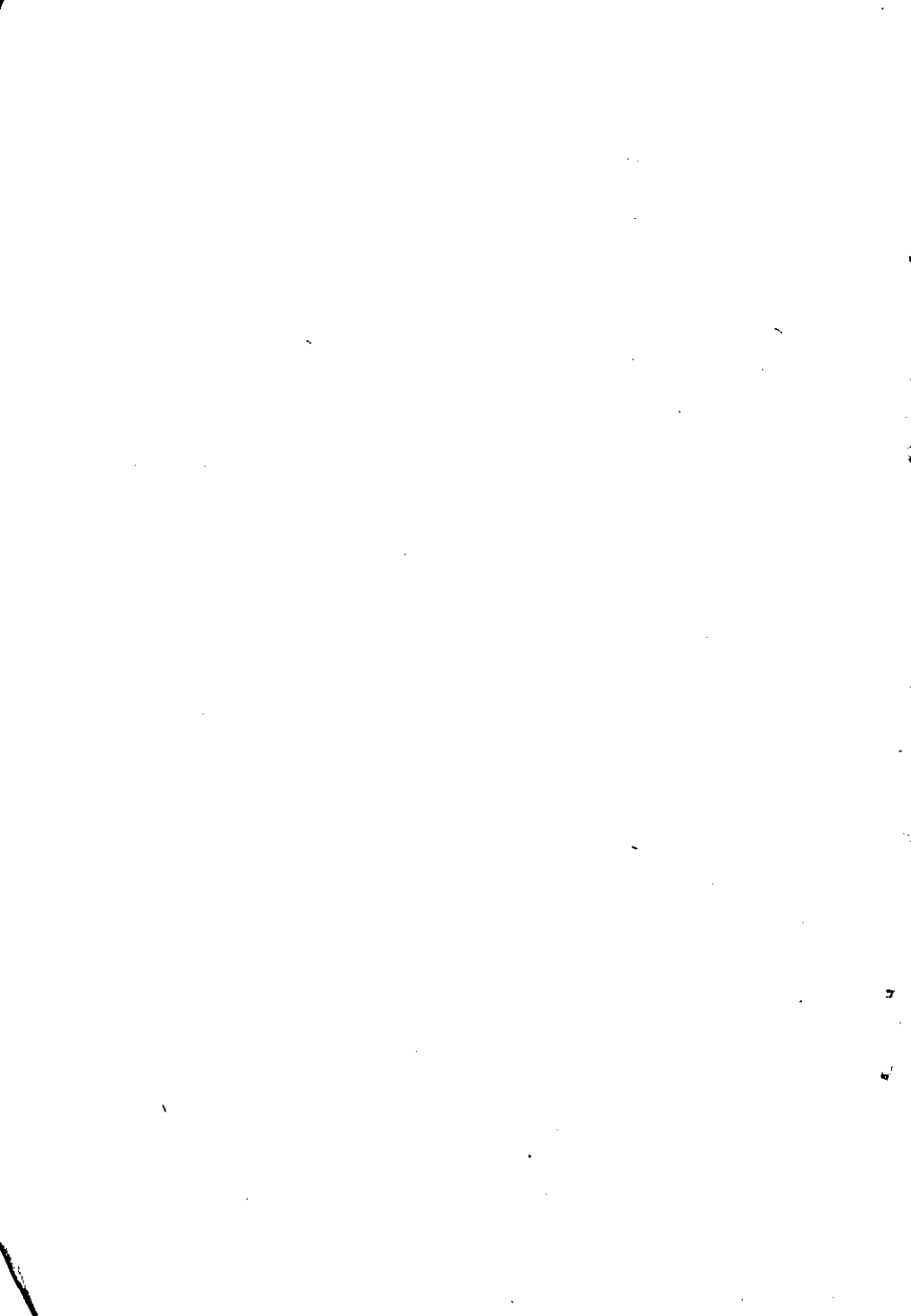


# DEMOGRAPHIC REPORT FOR KERALA

1901—61

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## PREFACE

The present demographic report of Kerala State covers the period of sixty years from 1901-1961. The preparation of this report was undertaken, in pursuance of the decision of the Demographic and Communication Action Research Committee of the Government of India. The report was completed in 1968 and later revised in 1971, on the basis of the comments made by experts. It is noted that there has been undue delay in the issue of this report. This was caused at the stage of scrutiny and comments at the level of experts. However, it is earnestly hoped that the report will be found useful by research workers. A brief addendum based on the results of the 1971 census has been added.

The report was prepared under the supervision and guidance of Dr. R. S. Kurup, Deputy Director. The first draft of the report was prepared by Sarvashree A. Abdul Gafoor, P. Vasudevan Namboodiri, N. Vikraman Nair and N. V. George who worked as Research Officers. The tables were prepared with the assistance of Sri P. S. Prabhakaran and Sri K. Divakaran Pillai who were working as Research Assistants. The report was scrutinised by Sri P. Gopinathan Nair, Research Assistant, Sri G. Surendranathan Nair, Research Officer and Messrs K. Narayanan Nair (late), P. S. Gopinathan Nair and T. Kuruvila Mathen who worked as Assistant Directors in various time periods, in the Demographic Research Centre of the Bureau of Economics and Statistics.

Demographic Research Centre,  
Bureau of Economics & Statistics,  
Trivandrum: August 1973.

N. GOPALAKRISHNAN NAIR,  
*Director.*



## CHAPTER I

### INTRODUCTION

Every Welfare State has to take increasing responsibilities in promoting the welfare of its people, and the standard of living which the people maintain serves as the index of prosperity or welfare they enjoy. A higher standard of living means enjoying better comforts in life and the problem before every Welfare State is mainly the problem of raising the standard of living or in other words, raising the per capita income of the people, in real terms. The per capita income being nothing other than the quotient of the national income and population, a comprehensive study of the various factors influencing the economic development and population growth is indispensable for tackling the problems of raising the per capita income of the people, to any desired level within a reasonable time limit.

Theoretically, a State can have an increasing, a declining or a stationary population and with respect to each type of population it can further have, a growing, a declining or a stagnant economy. The nature of economy and population problems, facing each type of population and economy vary and here, we are concerned only with the problems of developing economies with abnormal population growth. The problems of these States again differ according to the extent of the resources available for economic development. A State with plenty of resources and other favourable factors for the growth of the economy can allow the population to follow its own trends of growth and some times an increase in the population may further accelerate the economic growth. For example, every addition to the labour force gives more room for division of labour and specialisation which in turn would help the law of increasing returns to operate in the field of production. But in a country like India, where mobilisation of resources for economic development is a problem by itself, the growth of population has different economic and social implications. Here, the growth of population increases the magnitude of unemployment, brings down the rate of capital formation, makes the food scarcity more acute and necessitates huge unproductive investment such as the investment in education, medical service etc. In short, an increase in population retards the economic growth and creates social unrest. It goes without saying, that in order to raise the standard of living of the people to a satisfactory level, the country has to put forth all her efforts to effect a rapid economic growth on the one hand and to impose an effective check on the growth of population on the

other. When compared to the rest of India, Kerala has a higher population density and a smaller economic growth rate. Both the economic and population problems of the State deserve special attention and only an effective tackling of these problems can throw any light of optimism in the future. In this connection, a critical study of the problems is of no small significance. The present report therefore attempts to study the population problems of the State, in their varied aspects. It attempts to analyse in detail, the changes effected in the size, distribution, demographic characteristics, components of population growth and the social and economic characteristics of the population, during the last six decades from 1901 to 1961. It also gives a review of the population policy followed by the State and, in the light of the available data, traces the prospective changes in the size and characteristics of the population.

As for factors determining the size of population the historical and geographical factors play a vital role. The historical and geographical factors have encouraged the growth of population in Kerala. The geographical factors make the State highly inhabitable and the same factors again provided ample scope for diversified activities such as agriculture, fishing, hunting, trade, etc. The State was able to maintain trade and cultural relations with foreign countries from time immemorial. During the course of her history, the State had to accommodate a large number of immigrants consisting of traders, persons engaged in religious and cultural pursuits or persons who came in search of other occupations. A brief analysis of historic and geographic factors which had been influencing the population size is attempted below.

#### *Historical background:*

The present State was formed in 1956 by integrating the former Travancore-Cochin State excluding the four southern taluks of Thovala, Agastheeswaram, Kalkulam and Vilavankode and a portion of Shencottah taluk, with the Malabar District of former Madras State and the Kasaragode and Hosdrug taluks of the South Canara Districts of erstwhile Mysore State as per the State's Reorganisation Act of 1956. According to legends, the Kerala of Parasurama extended from Gokarna in the north to Kanyakumari in the south the Western Ghats safeguarding its eastern boundary and the Arabian Sea washing its western border, and the demon king Mahabali ruled over the whole country bringing plenty and prosperity to the people. The national festival, Onam, is celebrated by the people of Kerala, in commemoration of this benevolent ruler. From very ancient times, Kerala has been maintaining cultural and political ties with the remaining region of the country and the exploits of the ancient Chera Kings are seen recorded in the Ithihasas, Puranas and the

works of the Sangam period of ancient Tamil literature. The State has thus a long and continuous history beginning from a period earlier than the commencement of the Christian Era. She was also having trade and cultural relations with foreign countries and the Phoenicians are said to have visited Kerala by about 1000 B.C. in search of ivory, sandalwood and spices. There were a number of ports like Cranganore and Beypore, very familiar to the merchants and cultural groups from Israel, Baghdad, Jerusalem, Rome, China, etc.

The archaeological remains of the pre-historic period found in the various parts of the State suggest that the first foot print which fell on the soil of the region might be that of the Neolithic man. The archaeologists have not yet traced any evidence of the Palaeolithic man having lived in Kerala.

The relics of the historic period are available in plenty. The ancient architecture, sculpture, coins, inscriptions, the remains of forts, military works, tombs and monuments, supply a treasure of information to build up a reliable account of the past and open more scope for archaeological research; as there are still many gaps in the history of the early period.

During the long period of her history Kerala does not seem to have enjoyed political unity, perhaps, with the exception of the short periods under certain powerful Chera Kings. The early and medieval political history of the land mainly centres round the exploits of a number of major and minor rulers.

The history of the modern period is eventful. The formation of Travancore State, the rise of Cochin gaining recognition as a major State, the establishment of British Supremacy over Malabar and the over-throwing of the major and minor rulers were the important political events of the period, besides the struggle for independence and the achievement of freedom.

Marthanda Varma who is considered the Maker of Modern Travancore ascended the throne of Travancore (Venad) a small State embracing only the present Kanyakumari District and the portions of Trivandrum District in 1729. At the close of his reign in 1758, the minor principalities lying to the south of the Cochin Kingdom had all been conquered and annexed. According to available historical evidence he was such a powerful ruler, that he could have conquered the remaining portions of Kerala, had there been no resolute opposition from the Dutch. The friendly alliance which he established with the English East India Company survived and checked the threat of invasions and internal rebellions during this period. Making timely alliances with the European powers, the Dutch and the English, Cochin also, saved her crown and maintained peace within the country.

The political history of Malabar presents a different picture. There may not be any exaggeration in saying that the people of Malabar did not know what tranquillity was, throughout the modern period. Malabar was exposed to disastrous invasions from Mysore, fought a number of wars against the European powers and rebelled against them, to save the people from foreign domination and had to face a number of communal riots and internal rebellions which had tragic effects on the economy and social life of the people.

The Mysorean invasions which took place between the years 1766 and 1788, completely destroyed the ancient Government of the region, simply to introduce anarchy in its place. Forceful conversion, plundering, and so many other brutalities committed by Mysorean troupes backed by the Mopilas led to large scale migrations of people belonging to all strata of society, from Malabar. The Hindus fled to Travancore and the low castes which constituted the hard-working peasants took refuge in the forests and jungles. The population of Malabar declined by about one half during the period. Again, after the Pazhassi rebellion (1800-1805) which, for a while, shook the very foundation of the British power in north Kerala, there were rebellions by the Kurichias and Kurumbas of Wynad against the British rule in 1812. Much blood was shed, making the country more pale and weak. Then followed a series of Mappila-outbreaks or rebellions which marred the peace and tranquillity of the region for about a century—to be more precise, from the second quarter of the 19th century to the first quarter of this century. The outbreak of rebellions had both economic and religious basis. Whatever may be the causes of the outbreaks—religious fanaticism or agrarian discontent and poverty—the people were subjected to untold miseries and hardships. Eventhough the latest event of the series which is qualified as the Malabar Rebellion (1921) was motivated by strong political and economic reasons, the course of events took the shape of communal riots. In the final phase of the rebellion the Mappilas became desperate and committed acts of forcible conversions, looting of Hindus, arson and murder, besides looting and destroying public offices. This aspect of the rebellion defeated the very purpose of the movement, as it gave the Government a chance to use barbarous and inhuman methods to suppress the rebellion.

Kerala played her part well in the struggle for independence. Whether it was in Malabar, in Cochin or in Travancore, people began to think in terms of India and Kerala and the formation of Kerala State, is nothing, but the realisation of one of the aims hidden behind the National Movement.

Even in the absence of political unity, Kerala has evolved a distinctive culture of her own. The religion, legends and language,

helped the Keralites to cherish the feeling of oneness and to maintain cultural unity among people of different regions from very ancient times. The development of arts and literature further enhanced the cultural progress. As an assessment of the middle age Shri K. M. Panicker remarks "Politically divided into small principalities, Kerala was a single entity from the point of view of social and religious organisation. The very fact that there were no kingdoms and States but only Rajas and Chiefs who had often rights and properties in each other's territory, helped the growth of extra-political social unity".

The Hindus who constitute the majority of the population have been maintaining rigid caste system from time immemorial, as the Hindus in other parts of the country. But there existed a high degree of religious toleration from very early times. Christianity and Islam received a warm welcome in this land and patronage from the local rulers. The observance of untouchability and other social customs among the Hindus gave room for the conversion of Hindus to Christianity and Islam. Gradually the percentage of the Christians and Muslims in the population of Kerala became considerably high. Again, her trade relations with the foreign countries brought people belonging to different cultures and religions into this land. Viewing Kerala as a whole, there was communal harmony, throughout, perhaps with the exception of the Mappila riots in Malabar. Had there been no invasions from Mysore, it is likely, that there would not have been such unhappy incidents in that region.

As has already been pointed out, Kerala was an emporium of foreign trade in the early centuries before Christ and she amassed immense wealth through foreign trade. Towards the close of the middle ages the Malabar area enjoyed more prosperity than the southern region. But during the modern period the rate of economic growth was low in this region while Travancore and Cochin marched far ahead in progress. The invasions of Mysore rulers turned Malabar into a region of deserted villages; and the absence of communal harmony, the poor nature of tenant-landlord relationship, lack of educational progress etc., retarded the economic development of the region. But under the local rulers, Travancore and Cochin gained economic progress, through the development of agriculture, industry, trade, transport, etc.

The historical factors had considerable influence on the size of population and its distribution in the State. On the eve of the 19th century the density of population in the Malabar area was smaller than that in the southern part of Kerala, as it is today. Large scale migration of Hindus from Malabar to Travancore and to other regions, during the invasions from Mysore, considerably reduced the pressure of population on land in Malabar. The actual

loss of lives which occurred during the invasions and during the outbreaks of riots might also have indirectly influenced the size of population in Malabar region. Owing to the slow growth of the economy, for the reasons noted earlier, young men mainly belonging to the middle class, had to leave their native village to try their fortunes elsewhere in India. This type of migration might have influenced the sex-ratio also. In addition to the immigrants from Malabar, Travancore had to support the immigrants from Madras. It was the development of plantations in the eastern border of the State which attracted the Tamil population. Most of the people who came to Travancore from Madras were estate-labourers. Migration of middle class youngmen (mostly educated) from Travancore in search of high paid jobs was not uncommon but this was out-numbered by the in-migrants from the neighbouring States mainly from Madras. In Cochin, the movement of population took almost the same course. Since the beginning of the second quarter of this century, a movement of population from the Travancore and Cochin areas to the Malabar region has been taking place. The formation of Travancore-Cochin State and Kerala later on, further encouraged the movement of population within the State especially from Travancore-Cochin area to Malabar. The expansion of administrative units, development of education, growth of industries, urbanisation, etc., since the formation of the State of Kerala, have increasing influence in determining the pattern of population distribution. These aspects are discussed in detail in later Chapters.

#### *Geographical background:*

Kerala, the Kashmir of the South, constitutes a narrow strip of land along the west coast of India. It lies between  $8^{\circ}$ — $18'$  and  $12^{\circ}$ — $48'$  North latitudes and  $74^{\circ}$ — $52'$  and  $77^{\circ}$ — $22'$  East longitudes. The State is bounded by the Mysore State on the north, the Kanyakumari District of Madras State on the south, the Western Ghats on the east and the Arabian Sea on the West. The State has an area of 38855 Sq. Kilometres. From South to North the coast line is about 580 kilometres in length while the breadth of the State varies from a minimum of 11 kilometres to a maximum of 121 kilometres.

The State can be divided into three natural divisions, the low land, the midland and the high land. The lowland forms a narrow coastal belt with sandy soil and numerous backwaters. But small cliffs are also there in certain places north of Kozhikode. The midland is an undulated terrain, with hills and valleys. The land bordering the Western Ghats on the eastern border of the State, forms the high land. They have an elevation of 1520 metres on an average. There are many peaks of varying heights in this region, the highest among them being the Anamudi which has a height of 2690 metres.



The low land is noted for its coconut cultivation. Paddy is the crop next in importance. Coir making and fishing form the two main occupations. The midland raises a variety of crops such as paddy, tapioca, spices, sugarcane, plantain, etc. The upper ranges of the high land consist of dense forests. The major forest produces are teak wood, rosewood and other kinds of hard wood, and several varieties of soft wood. The lower ranges are interspersed with plantations of different crops such as tea, cardamom, rubber etc. The density of population increases from the high land to the low land.

The geological formations found in Kerala are of three types. The recent deposits generally found along the coastal area, alluvium and laterite found in the interior and the unclassified crystalline of gneisses found in major parts of Kerala, constitute the different types.

The soil of the State is mainly classified into 7 types viz., hill and forest soil of the high land, the sandy soil seen all along the coastal line, the laterite soil seen all along the mid land region, black soil which occurs as a patch on the eastern border of Palghat District, the peaky or Kari soil seen in Alleppey District, the alluvial soil which occurs along the eastern and southern parts of the Vembanad lake in Ernakulam, Kottayam and Alleppey Districts and the red soil found in the extreme tip of Trivandrum Taluk. The soil in the high land is mainly laterite combined with humus which is good for tea and cardamom plantations. The soil of the mid land is loamy and gravelly which is suited for cultivating many crops. The sandy loam found in the coastal region is well suited for coconut cultivation.

Kerala enjoys an equable climate. But the climatic conditions show considerable regional variation. The high land has a cool and bracing climate throughout the year, while the plains are hot and humid. But the range of variation in temperature is small, the normal limit being 80°—90° F. The humidity of the coastal area is as high as 95% during August and it seldom goes below 60% even during December and January. Both humidity and temperature show a progressive decline from the low land to the high land.

Kerala gets rains, both from the south-west and north-east monsoons and the rainfall is fairly spreadout over the year. January to April are practically the only months which are dry. There is wide regional variation in the distribution of rain fall. There is progressive increase in the rain fall from the south to the north and from the low land to the high land. In the high land the rainfall varies between 2500 m. m. and 5000 m. m., in the midland 1400 m. m. and 4000 m. m. and in the low lands it varies from

900 m. m. to 3500 m. m. The rainfall is heaviest during the southwest monsoon period (May to September) as nearly two thirds of the annual rainfall are received during this period.

The nature of terrain and climate make the region highly habitable and as we have already seen, Kerala can be considered as an abode of men even during the Neolithic age. The fertility of the soil, regularity of monsoon rains, diversity in physical features etc., help to grow different varieties of food and cash crops, mainly depending upon the nature alone. As has already been referred to earlier, our sandalwood and spices secured markets in foreign countries even as early as 1000 B. C. A long coastal line with a number of natural ports placed the country in constant contact with the different cultures of the world and it also encouraged immigration from countries like Ceylon, Arabia, etc., even in early centuries. As a gift of nature the region enjoys comparatively, better sanitary conditions and fresh water is available in most parts of the State, for drinking and washing purposes. The standard of cleanliness maintained by the people of Kerala seems to be higher than that maintained by people in most other regions of India. This has been putting an effective check on the spread of epidemics. Again the availability of different medicinal herbs and the development of Ayurvedic system of treatment or the system of treatment using rare herbs might have played another check on the death rate of the population, even in early times. In short, providing the region with habitable conditions, fertile soils, regular seasons and ever so many such attractions, mother nature has been playing her role to effect a steady increase in the population, but the actual extent of influence exerted by these factors, on population growth is difficult to be assessed.

## CHAPTER II

### POPULATION SIZE AND GROWTH DURING 1901 TO 1961

2.1. The population is growing much faster in Kerala, than in India as a whole. The rate of growth during 1951-61 was 2.21 percent per annum or 1100 persons per day. In the absence of economic growth of a similar order Kerala has become a problem State, with acute food scarcity on the one side and unemployment on the other. As time passes each of these problems becomes more alarming. It is said that the basic reason for a faster rate of population growth in Kerala is comparatively low death rate while the birth rate is only slightly less than the all India one. In the recent decades the migrants from the State have been out-numbering the inmigrants. But for this the population of the State would have been slightly higher than what it is today. A small State like Kerala, with as much high density as 435 persons per square kilometre cannot but have certain unique demographic features which distinguish it from the other States in the Indian Union. As a part of the study of the demographic features, the nature of population growth and the distribution effected in the past, especially during the last six decades, are elaborated in the following pages.

As has already been referred to earlier, Kerala has been inhabited thousands of years ago and according to Shri V. Nagom Aiya, Kerala is not less than 6500 years old. For want of authentic records, no reliable estimates of population can be framed for those early days. Yet basing on some scattered evidences it is said that there were about 30 lakhs of people in Kerala by the beginning of the 17th century. It took about 250 years for this population to increase by 50%, as there were only about 45 lakhs of people in 1850. The population, during the next 50 years, increased to 63.96 lakhs, showing a variation of 42.13 percent. By 1961, it further increased to 169.04 lakhs registering a variation of 164.27 percent. Because of this high rate of growth, the proportion of the State population to that of the Indian population has been steadily increasing. It was only 2.71% in 1901, but increased to 3.85% in 1961. The population of Kerala has doubled within the 50 years between 1901 to 1951 while that for India did not double even after 60 years from 1901. Considering the world at large, there may be countries like Brazil, Equador, Venezuela, Malaya, Israel, Vietnam, etc..

which have higher rates of growth, in comparison with Kerala. But as far as Kerala is concerned, the rate at which her population grows, is more than sufficient to create very many serious social and economic problems. For example at the present rate of growth the population in 1981 will be 263.10 lakhs as against 169.04 lakhs in 1961. But there are prospects of still higher increase in the growth rate as the death rate falls very rapidly. According to the pamphlet "Revised population projections for the period upto 1981" published by the Planning Commission the population will be 268.29 lakhs in 1981. In the former case the variation works out to 55.64 percent and 58.72 percent in the latter.

Considering the different districts of the State the rate of population growth varies widely. During the period between 1901 and 1961 the population increased by more than 250 percent in 3 of the 9 districts while there is only one district where it has not doubled during the period. The districts with the higher rate of growth fall in the erstwhile Travancore State and those with lower rates form part of the former Malabar district. The inter-district variations of population growth throughout the decades are influenced by various social, economic and historic factors which deserve a detailed analysis.

As has been pointed out earlier the State population has increased by 164.27 percent during 1901-61. The percentage variation of population is higher than the State average in five of the districts, Trivandrum, Quilon, Kottayam, Alleppey and Ernakulam while in the remaining districts it is smaller than the figure for the State. The percentage variation is the highest in Quilon (270.1%) and the lowest in Palghat (81.8%). The geometric growth rate for the State works out to 1.63 percent while that for the districts it varies between 1 percent and 2.2 percent. Table 2.1 in Appendix gives the distribution of the population by districts and State along with the percentage increase of population for the period between 1901 and 1961.

But the trends of population changes took different turns in the different districts. For, there are districts with higher or lower percentage variation throughout the period, with percentage variation initially lower but finally higher, and with percentage variation initially higher (or equal) but finally lower. With a view to watching the trends of growth, the decades are divided into 3 periods—1901 to 1921, 1921 to 1951 and 1951 to 1961 and the following paragraphs give a detailed analysis of the population change.

During the period between 1901 and 1921 the population of the State has increased by about 22 percent while that of Trivandrum, Quilon, Alleppey and Kottayam by 36.1 to 37.5 percent. The one other district where there was a higher rate of growth than that of the State was Ernakulam, the percentage variation being 24.6. The increase in population with respect to the other districts fell between 9.9 and 19.4 percent, the former figure represents Cannanore and the latter Trichur. The variation has been uniform in Kozhikode and Palghat as the percentages of variation fell between 11.6 and 11.8.

The increase in the population of the State during the period between 1921 and 1951 was 73.7 percent. In Quilon and Kottayam the population has doubled while in Trivandrum it increased by 99.3 percent during the period. There were significant changes in the trends of population growth in the Alleppey District. Here the rate of growth fell below the average rate for the State, the percentage of variation being only 67.3. The percentage variation with respect to Ernakulam District was higher (83.5) than that of the State while the Trichur District showed an identical growth rate with that of the State. The variation of population in Palghat was 43.2 percent, in Kozhikode 60.6 percent and in Cannanore 58.9 percent.

In the last decade between 1951 and 1961 the population of the State increased by 25 percent while, considering the different districts the increase varied between 13.5 percent in Palghat and 31.7 percent in Quilon. Unlike in the previous periods, the percentage variation of population in Kozhikode and Cannanore has exceeded and that in Ernakulam has fallen below the corresponding figure for the State. The variation was as high as 31 percent in Trivandrum and Kottayam while that in the remaining districts of Alleppey and Trichur, varied between 19 and 20 percent. Considering the State as a whole the geometric rate of growth for the initial period (1901 to 1921) works out to 1.00% The rate of growth for the periods 1921-51 and 1951-61 works out to 1.86 percent and 2.24 percent respectively.

Now based on the deviation from the State variation in population, the districts can be classified into the different categories as follows. The districts of Trivandrum, Quilon and Kottayam with higher percentage variation throughout the period constitute the first category. Palghat and Trichur districts with lower percentage variation and the Cannanore and the Kozhikode districts with percentage variation initially lower but finally higher respectively constitute the second and the third categories. Alleppey and Ernakulam Districts which fall in the 4th

category had a higher percentage variation in the initial stage, but a lower in the final stage.

Before examining the causes of the population changes in each district, the nature of change is further studied by ranking the districts on the basis of the percentage variation. Generally speaking only 3 of the districts gained higher ranks while all the others have lower ranks in comparison with the initial period as can be seen from the table below:

TABLE 2.1

Sl. No.	Name of District	Ranks according to the variation in population		
		1901-1921	1921-1951	1951-1961
1	Trivandrum	1	3	2
2	Quilon	4	1	1
3	Alleppey	3	6	8
4	Kottayam	2	2	3
5	Ernakulam	5	4	6
6	Trichur	6	5	7
7	Palghat	7	9	9
8	Kozhikode	8	7	5
9	Cannanore	9	8	4

The fluctuation in the ranks is greater in the districts of Alleppey and Cannanore while it is smaller in Trivandrum and Kottayam. Considering the intercensal period between 1911 and 1921 there was a slight fall in the percentage variation, due to influenza epidemic, in all districts except in Alleppey and Quilon while drop in the percentage increase in population during 1931-1941, compared to the previous decade was reflected in all the districts of the State.

It requires no mention that the factors affecting population growth are natural increase and the increase due to migration. The natural increase is the effect of two opposite forces, fertility and mortality. The former helps the population growth through births and the latter helps the decrease of population through deaths. It can be assumed that the fertility of the people is almost equal in all the districts. But due to the difference in socio-economic conditions and medical and public health facilities, the mortality varies from

district to district. Hence the differential variations in population growth is to be studied in this light.

The influences of historic factors effecting a higher rate of economic development and population growth in the former Travancore-Cochin area, have already been discussed. Under the local rulers, there were from very early times, more advanced medical and public health facilities, in these areas, especially in the Travancore area. This may be an important reason for a higher rate of growth in all the districts in the Travancore area than the average rate for the State, throughout the period. The low death rate on account of better medical facilities is one of the factors which contributed to the high growth rate of population in these districts. The nature of the other factors which influence the population growth of the different districts differ in details. For example, Trivandrum attracts immigrants, as the capital of the State and also as an educational centre. The formation of the Travancore-Cochin State as early as 1949 and the Kerala State in 1956 have accelerated the rate of immigration to Trivandrum District. At least a few percent of the immigrants, who come to Trivandrum as employees establish permanent settlement in or around the capital city, mainly because of the superior living facilities available there. Depending upon trade, commerce, agriculture etc., thousands of employees thrive in this area. The district also provides large scope for miscellaneous occupations including transport and other services. As a centre of education also Trivandrum has some attractions, and pupils from all parts of the State constitute a good portion of the institutional population. So long as Trivandrum enjoys the privilege of being the capital and the cultural centre, the district may have to accommodate immigrants every year; though the rate of migration may not be higher than that in the previous years.

Quilon forms one of the industrially advanced districts of the State. Quilon is noted for its cashew, tile, clay and Aluminium industries. These industries are located in the coastal and midland regions of the districts while a number of plantations thrive in the eastern part of the district or the high land region. The employment opportunities provided by the industries and plantations encouraged migration to the district during the last decade. The size of migration was very high. Considering the variation in population the rank of the districts has changed from 4 in 1901 to 1921, to 1 in 1921 to 1951. It has well preserved the first rank during the period between 1951 and 1961. The district still enjoys much industrial potential.

The only other district which falls in the first category indicated earlier is Kottayam, the home of plantations in Kerala. Apart from plantations, the agricultural prospects of the region are also very good. The industrial advancement attained by the region is not negligible. But the growth of population in the district has been checked by migration from the district. A good number of small cultivators and agricultural labourers migrated to the high land regions of the Malabar area where land was available for encroachment or at nominal prices. But for such a large scale migration, the rate of growth of population in this district might have been much higher.

Throughout the periods Palghat and Trichur were having lower percentage variations, than that for the State. But in the details of variations these districts differ from each other. During each of the periods under consideration, the percentage variation of population in Palghat fell much below the corresponding figure for the State. But the difference between the percentage variations of population of Trichur and the State is much smaller than that in the previous case. During the period between 1921 and 1951, the percentage variation of population in Trichur was almost equal to the corresponding figure for the State. The factors which have been influencing the population growth in these districts were not the same. The death rate in Palghat has been slightly higher. Because of this the natural growth rate was also low. Again there has been a constant outflow of persons from this district to the neighbouring Madras areas which have been fastly developing. The migrants from Palghat were able to secure employment and earn a living. On the other hand Trichur had to provide room for the immigrants from the taluks of Ernakulam and Kottayam Districts. The population of the eastern part of the Trichur District consist of a good portion of the immigrants. As in the high land taluks of the districts in the Malabar area, the eastern taluks of the Trichur district also provided land for the immigrants.

The rate of growth of population was the lowest in Cannanore and Kozhikode during the initial period. But during the last decade between 1951 and 1961, the population was seen increasing in the districts, at a higher rate than the rate for the State. The historical factors which pulled down the level of economic activities in these districts, have been discussed earlier. Young men from all over the area, especially those belonging to the middle class families used to go in search of employment to the other parts of the country. The health and sanitary conditions of the area were also poor. The death rate was higher than that in the southern districts. All these factors contributed to a small rate of population growth during the earlier periods. The economic development and the population growth, in the southern districts increased the demand for land



which led to considerable increase in price. So the small cultivators in the areas, especially of the Kottayam district, found it profitable to dispose off the small plots. It was easy for them to secure a few acres in the Malabar area, with a small sum of money. Either they were able to take land in their possession by encroachment or by paying a nominal price to the landlords there. Since independence, measures were taken to improve the health and sanitary conditions of the area. The formation of Kerala State gave a further impetus for the economic, social and cultural life of the people in these areas. The Kozhikode port became more active. Different kinds of administrative and developmental offices sprang up in the neglected rural tracts. The immigration has some indirect effect on the economic and social development of the area. Imitating the immigrants the local ryots began to take increasing interest in cultivation. The education of children was given increased attention. The internal economic development has been putting a check on the outflow of population during these years by providing employment opportunities within. The development in education postponed the supply of employment seekers and this also reduced the outflow of youngmen from the land. The development of medical facilities reduced the death rate. Thus a fall in the death rate, a fall in the outflow of population and immigration together account for the rapid growth of population in the districts of Cannanore and Kozhikode.

The Districts of Alleppey and Ernakulam had a higher percentage variation in the initial stage but a lower rate in the final stage. As in the case of Trichur and Palghat, the nature of the variation in population which occurred in these districts differ in details. The growth rate in Alleppey district was initially high. The district was the most important industrial and commercial centre of the erstwhile Travancore State upto 1931. Coir and Oil Industries thrived in this district. It was through the Alleppey port that a considerable portion of the import and export trade was carried out. Fertile paddy fields, high yield of cocoanut garden, tremendous facilities for fishing in addition to the industries referred to above brought economic prosperity to the people in the early period. It seems that the economic depression of the 1930's checked the economic growth of the district. The prices of agricultural commodities fell. The export trade was affected adversely. No large scale industries which depend upon the internal market, have come up in the district. With the result the people have to seek employment in the other districts or outside the State and so there was gradual movement of population from this area to the neighbouring districts. Again Alleppey was noted for the strength of its trade unions. This might have discouraged the industrialists from making large scale investments in new industries. Again the formation of Travancore-Cochin State affected the growth of Alleppey Port, as Cochin developed into a major port. A considerable volume of trade was

shifted from Alleppey to Cochin and the bulk of the hill produce and coir and coir products found their way directly to the Cochin Harbour, without coming to the Alleppey market. The railway line connecting Trivandrum and Ernakulam passes through Changancherry and Kottayam. This has further reduced the economic progress of Alleppey district by making the above towns the hinterland of Cochin rather than Alleppey. As a district of industries and trade, Alleppey has lost most of its importance. From 1930 onwards there seems to have been continuous migration from the district. This forms the major factor which accounts for the fall in the percentage variation of population during the periods between 1921 to 1951 and 1951 to 1961.

The fall seen in the rate of population growth in the district of Ernakulam is due to reasons different from those discussed above. Both industry and commerce have shown substantial development during the whole period and the district has been enjoying considerable medical facilities. So naturally the rate of population growth was very high during the earlier periods. But during the decade between 1951 and 1961 there was considerable fall in the growth rate. After the formation of Travancore-Cochin State there was large scale migration from Ernakulam and Trichur to Trivandrum because of the shifting of the headquarters of the former Cochin State to Trivandrum. Again, as has already been referred to, there was migration of cultivators and agricultural labourers from the rural areas of the districts to the highlands of Trichur and the Malabar areas. These factors, in the main account for the fall in the rate of growth of population in the district during the last decade.

Considering the natural divisions it is seen that the density of population in general decreases from the low land to the high land region. The growth of population in the highland and the midland regions has effected a shift in population in favour of these regions from the low land. Large scale migrations to the high land and midland villages have led to a very high rate of population growth. For example in the South Wynad taluk which falls in the high land region there was an increase of population by 68.69 per cent during 1951 to 1961. Such an increase in population was mainly due to migration. Because of the migration the population of certain midland taluks has also increased in recent decades. There was a large scale movement of population to the eastern villages of the Trichur Taluk, and the villages fall in the midland region.

On the whole, it is interesting to note, that the availability of cultivable land, industrial development, administrative changes, etc., have considerably influenced the nature of population movement. Generally speaking it can be said that there was flow from the high density areas to low density areas depending upon the availability

of agricultural resources, from the undeveloped areas to the industrialised areas and from areas with poor living facilities to the areas with increased urban facilities. Again the growth of educational institutions of different types and administrative and development institutions has necessitated population movement, though on a small scale. The formation of Kerala State has further enhanced the scope for increased social contact and it has some indirect influence on the movement of population. For example unlike in the previous generations marriages are taking place between persons born in far off places. The rate of movement due to this reason is likely to increase in future, while that due to the major causes detailed above, is likely to fall in the coming decades. The value of land has considerably increased in the northern districts. The people in those districts has already realised the importance of land as an economic factor. Further encroachment may not be allowed by the Government. Some kind of regional distribution may be effected in the starting of industries under public sector. As the solution of our major economic problem lies in industrialisation, the industrial potential of each district has to be assessed and exploited. No movement of population in such a magnitude as happened during the last decade is therefore likely to happen in future. It can be said without much error that the percentage variation of population in the different districts may not show so much fluctuation in the coming decades as it has shown in the previous decades. The higher growth rate in Kerala is mainly due to the low death rate in the State. Because of the rapid decline in death rate without a corresponding decline in birth rate the gap between birth and death rates has widened in Kerala. The decline in death rate in the neighbouring States has not been so rapid. This is the reason for the high growth rate in Kerala in spite of a low birth rate. (Birth rate in Kerala during 1951-60 was the lowest among the States in India except Madras).

### 2.3. *Population Concentration:*

Among the States in the Indian Union, Kerala has the highest density of population. According to the census of 1961, there were on an average 435 persons per sq. kilometre and the density of the State was more than thrice that for the whole of India. The density in Mysore was lower than that in India while that in Madras slightly higher than half the density of the State.

The density of the State has increased from 165 persons per sq. km. in 1901 to 435 persons per sq. km. in 1961. Considering the different districts of the State, it can be seen that the density varied between 75 and 364 persons per sq. km. in 1901. The corresponding variation fell between 102 and 496 in 1921, between 209 and 830 in

1951 and between 272 and 988 in 1961. In spite of a constant fall in the rate of growth of population Alleppey held the first rank in density of population throughout the above periods. Though Kottayam had to accommodate large number of immigrants its density stood at the lowest level during the periods mentioned above. Because of its large areas of practically uninhabited forest and extensive plantations, the district was having only a small base density and even a high rate of population growth was not able to change the relative position of the district among the others, as far as the density was concerned. The economic prosperity enjoyed by the Alleppey District in the early decades can be accounted for by such a large base density. The rate of fall seen in the population growth during the last decades was insufficient to affect the rank of Alleppey District in this respect, among the other districts. The ranks of the remaining districts except that of Kozhikode, changed during the decades, the districts which assumed higher ranks being Trivandrum, Quilon and Ernakulam. The following table gives the ranks of the districts for the periods under discussion.

TABLE 2.3

District	Rank according to the density of population.			
	1901	1921	1951	1961
Trivandrum	3	2	2	2
Quilon	8	7	5	4
Alleppey	1	1	1	1
Kottayam	9	9	9	9
Ernakulam	4	4	4	3
Trichur	2	3	3	4
Palghat	5	5	7	7
Kozhikode	6	6	6	6
Cannanore	7	8	8	8

The low land region of the State is more densely populated than the midland or high land regions. According to the census of 1961, the low land constituted 10.13 per cent, midland 41.21 per cent and the highland 48.66 per cent of the total area of the State and the population of the low land covered 26.48 per cent, midland 59.73 per cent and the highland 13.79 per cent of the total population. On an

average for every square kilometre there were 1138 persons in the low land, 630 persons in the midland and 123 persons in the highland region. The population figures by natural divisions for the State as a whole are not available for the previous periods. But in the former State of Travancore-Cochin, the low land covered about 18 per cent, midland 37 per cent and the high land 45 per cent of the total area and according to the census of 1951 the density of population was 945 persons per sq. km. in the lowland, 533 in the midland and 56 in the highland.

Paddy and coconut form the major crops of the low land region, the former being the staple food and the latter an important cash crop of the State. The backwaters and sea coast provide ample facilities for fishing. Retting of husk and spinning of coir is a traditional industry of the coastal area which is mainly concentrated in the low land region. The rivers, backwaters and a network of canals provided facilities for water transport, throughout the year, and the lengthy coastal line with natural facilities for the development of ports and harbours encouraged the growth of a number of commercial and industrial towns in the low land areas of the State. All these factors contributed to the growth of such a dense population in this area. The midland region adjacent to the low land area was also having a fairly high density, even from very early times. The fertility of the soil enabled the cultivators, to cultivate a variety of crops such as paddy, tapioca, pepper, ginger, turmeric, rubber, sugarcane etc. The midland covers more than 35 per cent of the total area of the State and it accommodates larger number of people than the low land. It was the development of plantations which attracted the populations to the high land regions, in early days. The gradual increase in the pressure on land diverted the movement of population from the areas of higher density to the areas of lower density. That was why there was so much migration to the forest areas of the State in the midland and high land regions. Thus the peculiar features of the natural division influenced the growth of population in each region. The development of Transport and Communications, medical facilities, construction of irrigation projects etc., had considerably reduced the influence of the natural factors on population growth. A table showing the district-wise variations in population for the period from 1901 to 1961 is given in Table 2.31. The table also gives the population and density by natural regions for the year 1961.

#### 2.4. *Rural, urban distribution of population by State and districts 1901-1961:*

Every one is conscious of the main features of the rural and urban life. The word 'urban' carries with it the image of a thickly populated place with an occupational pattern and a standard of

1951 and between 272 and 988 in 1961. In spite of a constant fall in the rate of growth of population Alleppey held the first rank in density of population throughout the above periods. Though Kottayam had to accommodate large number of immigrants its density stood at the lowest level during the periods mentioned above. Because of its large areas of practically uninhabited forest and extensive plantations, the district was having only a small base density and even a high rate of population growth was not able to change the relative position of the district among the others, as far as the density was concerned. The economic prosperity enjoyed by the Alleppey District in the early decades can be accounted for by such a large base density. The rate of fall seen in the population growth during the last decades was insufficient to affect the rank of Alleppey District in this respect, among the other districts. The ranks of the remaining districts except that of Kozhikode, changed during the decades, the districts which assumed higher ranks being Trivandrum, Quilon and Ernakulam. The following table gives the ranks of the districts for the periods under discussion.

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Alleppey	1	1	1	1
Kottayam	9	9	9	9
Ernakulam	4	4	4	3
Trichur	2	3	3	4
Palghat	5	5	7	7
Kozhikode	6	6	6	6
Cannanore	7	3	3	3

The low land region of the State is more densely populated than the midland or high land regions. According to the census of 1961, the low land constituted 10.13 per cent, midland 41.21 per cent and the highland 48.66 per cent of the total area of the State and the population of the low land covered 26.48 per cent, midland 59.73 per cent and the highland 13.79 per cent of the total population. On an

average for every square kilometre there were 1138 persons in the low land, 630 persons in the midland and 123 persons in the highland region. The population figures by natural divisions for the State as a whole are not available for the previous periods. But in the former State of Travancore-Cochin, the low land covered about 18 per cent, midland 37 per cent and the high land 45 per cent of the total area and according to the census of 1951 the density of population was 945 persons per sq. km. in the lowland, 533 in the midland and 56 in the highland.

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#### 2.4. Rural, urban distribution of population by State and districts 1901-1961:

Every one is conscious of the main features of the rural and urban life. The word 'urban' carries with it the image of a thickly populated place with an occupational pattern and a standard of

living unfamiliar to the village of peasants. While agriculture forms the predominant occupation of the rural area, the urban people mainly depend upon other occupations such as trade and commerce, industry, etc. The heart of India still throbs in her villages, but a luxurious urban life seems to have been well familiar to her people even before the Aryan immigration. Establishment of royal capital, concentration of trade and commerce, holiness of places etc., seems to have effected the growth of ancient towns. The development of industries mainly contributes to the growth of new urban centres in modern times.

Though the words rural and urban create distinct images in our mind, the classification of a population into urban and rural, presents very many problems. In fact it has been found difficult to adopt a uniform definition of an urban area, throughout the world. According to the paper No. 3, 1960 Census of India, "the definitions of 'urban' differ from country to country, even in the highly industrialised west. In agricultural countries like our own, it is all the more difficult to distinguish between rural and urban".

The enumeration of the rural and urban population in separate operations was introduced only in 1891, in India. The principle enunciated in this census was followed in the later Indian Census upto 1951. It was based on an idea common to all States, that the tests were prescribed for distinguishing the towns from villages in different States. But the tests were not identical, nor had they been applied with meticulous uniformity. The concept of town was not uniform for all census and its application differed from State to State. This difference makes it difficult to assess the rate of urbanisation through the decades. But it was considered desirable to apply certain uniform tests throughout the country for classifying places which could be considered as towns, for the census of 1961. The paper No. 1 of 1962 Census of India, states that this was necessary first, to fix the number of places which could be regarded as possessing urban characteristics as distinct from swollen villages and secondly to start a base line to determine Indian's growth of urban population, in the future, particularly in the context of our Five Year Plans". The study of urbanisation has gained increased attention, as it can be considered as the index of progress. In developing countries the study of urbanisation has got special significance, particularly in countries like India with planned economies. Leaving the details regarding the changes in the definition of urban area and the consequent changes in the population for the present, a study of the rural-urban population is attempted in the following paragraphs.

The rural population of the State has increased from 59.42 lakhs in 1901 to 143.50 lakhs in 1961, marking an increase of 142 per cent and the urban population from 4.54 lakhs to 25.54 lakhs effecting



an increase of 461 per cent. In 1901 the size of both the rural and urban population was the largest in Kozhikode. The size of rural population is still greater in Kozhikode when compared with that of any other district. Ranking the districts according to the size of rural and urban population (vide table 2.4), it is seen that the ranks of the districts with respect to the size of the rural population did not vary so much as that with respect to the size of urban population. The rate of urbanisation has been increasing at a rapid rate and year by year it has been gaining momentum.

TABLE 2.4

Districts/State	Rank according to the size of population.							
	Rural				Urban			
	1901	1921	1951	1961	1901	1921	1951	1961
Trivandrum	9	9	9	9	4	1	1	1
Quilon	7	7	3	2	9	9	8	9
Alleppey	4	4	4	5	7	4	4	4
Kottayam	8	8	8	4	6	7	7	8
Ernakulam	6	5	5	7	2	3	3	3
Trichur	5	6	7	8	8	3	6	6
Palghat	2	2	2	3	3	5	5	7
Kozhikode	1	1	1	1	1	2	2	2
Cannanore	3	3	6	6	5	6	9	5

Viewing from another angle the percentage growth of rural population during the period between 1901 and 1961 varies between 77 and 254, when the different districts are considered. The trend in growth of the rural population is almost parallel to the trend in the general growth. But the urban population of the districts followed different paths of growth. The urban population of Alleppey District got multiplied 10 times, Quilon 9 times and Trivandrum about 8 times. Considering the State as a whole one can see that the urban population has increased by more than five and a half times during this period. The rate of growth of the general population has been falling in the district of Alleppey during the decades whereas its urban population has been showing an abnormal increase as indicated

above. There is no district in the State where the urban population has increased, not less than about 2.5 times, during the period. The reasons for the general growth of population detailed earlier can be applied without much modification to explain the changes effected in the rural population, during the decades. But to explain the growth of urban population certain other factors, should also be taken into account. Apart from the natural growth and migration, the changes in definition of a town and the extension of urban areas by the inclusion of neighbouring rural areas have great influence on higher rate of growth in the urban population of the State and the districts. The change in the definition of towns may some times necessitate the inclusion of thickly populated rural areas with certain traits of urban characteristics. In such a thickly populated State like Kerala, areas of this type naturally develop. The growth of population encourages the development of trade, especially in the necessary articles. The trade centres develop in villages which are easily accessible from the neighbouring villages. A few fashionable buildings, shops, banks and other institutions come into existence. Electrification, establishment of theatre, etc., may increase the status of the village with urban characteristics. The inclusion of these villages in the category of urban areas has resulted in the abnormal increase of urban population. Again, during the period, the areas of certain towns have been expanded by including neighbouring areas with rural traits. These factors accounted for the abnormal increase of population in the districts of Alleppey, Trivandrum, etc., during the period under reference. Migration was an important factor which encouraged the growth of urban population in Trivandrum, since the formation of the Travancore-Cochin State. Growth of industries mainly account for the increasing urbanisation in Quilon and both industrialisation and the development of trade in Cochin have made considerable contribution for the growth of urbanisation in the Ernakulam district. The rate of growth of urbanisation was the lowest in Palghat and in this respect Kozhikode takes the second place.

The nature of urban and rural population growth can be further studied by considering the different periods. Taking the different districts the increase of rural population fell below 35 per cent during 1901 to 1921 while there are two districts in the State where the urban population had doubled during the period. Between the years 1901-51 rural population has doubled in only 5 out of the 9 districts but there are no districts where the urban population had not doubled by this time. In no district the rural population did increase by more than 200 per cent whereas the percentage increase of the urban population varied between 121 and 794 and the nature of growth effected during the whole period has already been indicated. Table No. 2.4.1 given in the Appendix gives the rural and urban population in the different districts and the State. The

district-wise variation of population growth for the different periods gives some more ideas regarding the recent trends in urbanisation in the different districts. The increase of rural population varied between 10 and 34 per cent and the urban population between 12 and 84 per cent during the period 1901 to 1921; the corresponding sets of figures for the period 1921 to 1951 and 1951 to 1961 being 38 and 98 per cent and 97 and 249 per cent, and 15 and 35 per cent and 1 and 142 per cent respectively, as can be seen from the following tables. But the table is of very little value in making detailed comparisons. With a view to having a uniform approach throughout India, some modifications have been made in the definition of urban area on the eve of the 1961 census. It influenced the size and distribution of the urban population in each district. That is the reason why there was only an increase of one per cent in the urban population of Quilon and Palghat and the very same factor explains the abnormal increase in the population in the districts like Cannanore and Kozhikode, during 1951-61. The data are more useful to study the effect of changes in the definition or concept of an urban area, on the size and distribution of the urban population.

TABLE 2.4 (2)

State/Districts	Variation of Population in percentage					
	Rural			Urban		
	1901-21	1921-51	1951-61	1901-21	1921-51	1951-61
Trivandrum	32	81	27	76	201	46
Quilon	32	98	35	56	249	1
Alleppey	29	58	16	84	152	40
Kottayam	34	97	34	78	179	4
Ernakulam	24	71	16	31	175	48
Trichur	17	63	21	68	215	13
Palghat	11	38	15	19	107	1
Kozhikode	11	52	22	14	168	6
Cannanore	10	56	18	12	97	142
STATE	20	65	22	49	167	40

As much as 93 out of every 100 persons lived in the rural areas according to the census of 1901 and the number of such persons

decreased to 85 by 1961. It means that the percentage of the population in the urban areas has more than doubled during the period. The proportion of urban population in the population of the different districts varied between 3 and 12 per cent in 1901, between 6 and 65 per cent in 1921, between 9 and 23 per cent in 1951 and between 7 and 26 per cent in 1961. Trivandrum and Ernakulam districts were having a higher percentage of urban population compared to that of the State, throughout the periods. Alleppey was also shifted to this category since 1921 census. The urban population of Kozhikode did bear more or less the same proportion to that of the whole State. The change of definition of the urban area during the 1961 census mainly account for the doubling of the proportion of urban population in Cannanore and the fall in proportion of such persons in the total population of Quilon. It may be interesting to note that Quilon which has higher variation in population than that of most of the other districts has the least proportion of the urban population.

The proportion of urban population is the highest in Trivandrum, followed by Alleppey and Ernakulam. The high density of population can be attributed to the high proportion of urban population in these districts. Though Trichur has very high density of population the proportion of the urban population is very small. The case of Quilon is also more or less the same, though it has a higher density than Kozhikode, Cannanore and Palghat, the proportion of urban population to the total is the least in Quilon than in the other districts. A possible reason for this is the smaller number of towns and the area under towns in these districts as compared to other.

### 2.5. *Growth of Cities and Towns:*

The number of towns in the State has increased from 21 in 1901 to 44 in 1921 and to 94 in 1951. Due to the change in the definition of town, certain areas which had been considered as towns were eliminated in the re-classification of the urban areas and certain new areas were added to this category during the census of 1961. These adjustments resulted in a fall in the number of towns by 2 and in a rise of urban population by 7.28 lakh persons. In the adjacent State of Madras, similar adjustments increased both the number of towns and urban population, the increase in the number of towns being 41 and that in population 16.57 lakh persons. But in Mysore State towns have decreased in number owing to new classification. The number of towns fell by 59 and the population increased by 8.10 lakhs persons.

According to the size of population the urban areas in India are classified into six classes. The class I represents cities of population

1,00,000 and above, Class II of 50,000 to 99,999, Class III of 20,000 to 49,999, Class IV of 10,000 to 19,999, Class V of 5000 to 9999 and Class VI below 5000. The Status of towns in the State, when classified on the above basis, has changed during the period under reference. There were no Class I towns either in 1901 or in 1921. Three of the towns have attained the status of Class I towns by 1951 and the number of such towns increased to 4 by 1961. The towns in the IV category were found larger in number during all the years except in the year of 1921, during which the towns in the V category were larger in number.

Considering the different districts of the State the number and size of urban population have shown considerable variation, as a result of the new classification. In Cannanore there were only 4 towns in 1951 but there were 18 in 1961. But in Quilon, the number of towns has fallen from 9 in 1951 to 3 in 1961. The status of the towns in the different districts has also undergone changes through the decades. Table No. 2.5 in the Appendix gives the growth of cities and towns in the districts and State for the period between 1901 and 1961 while the total number of towns of the districts and the States is given in the following tables:--

TABLE 2.5 (1)

<i>Districts/State</i>	<i>Total No. of cities and towns</i>			
	1901	1921	1951	1961
(1)	(2)	(3)	(4)	(5)
Trivandrum	1	7	18	13
Quilon	1	4	9	3
Alleppey	2	7	9	8
Kottayam	2	5	13	7
Ernakulam	4	7	14	12
Trichur	3	4	10	7
Palghat	3	4	10	7
Kozhikode	2	3	7	17
Cannanore	2	3	4	18
Kerala	20	44	94	92

Table 2.5(1) contd

(1)	(2)	(3)	(4)	(5)
Madras	241	269	297	338
Mysore	252	267	289	230
India	1910	2050	3057	2690

Source: Census of India Paper No. 1 of 1962.

Urbanisation has been taking place in Kerala at a higher rate than that in India and in the adjacent States. During the decade between 1951 and 1961 the urban population has increased by 27 per cent in India, 22 per cent in Madras and 18 per cent in Mysore against 40 per cent in Kerala. But when compared to Kerala the proportion of the urban population to the total is greater in India, Mysore or Madras, according to 1961 census, as can be seen from the following table:

TABLE 2.5 (2)

State	<i>Proportion of rural and urban population to 1000 total population 1961</i>		
	Total	Rural	Urban
Kerala	1000	849	151
Madras	1000	733	267
Mysore	1000	777	223
India	1000	820	180

(Census of India IV Cities town group etc. page 165).

The higher rate of population growth and lack of industrialisation give so much pressure on land in the rural areas of the State.

The comparisons made above suffer from certain defects. The basis of classification of the urban areas has been changed or modified from census to census. The rural-urban figures for the census prior to 1961, can be utilised only after giving allowances for the conceptual differences accepted for classifying the population by rural and urban during each census and in each State or province.

At this stage a brief account of the changes in the definition of towns may not be out of place. As has already been pointed out the

classification of the population by rural and urban was attempted only in 1891 census. In 1891 a town denoted: (1) Every place that has been established as a Municipality or brought under some similar regulations for police or sanitary purposes (2) any place where the population of the trading and industrial population to the total is equal to or greater than that of the agricultural population and (3) every other continuous group of houses inhabited by not less than 5000 people. In 1901 it included every municipality of whatever size; (2) all civil lines not included within the municipal limits; (3) every cantonment; and (4) every other continuous collections of houses permanently inhabited by not less than 5000 persons which the provincial superintendent may decide to treat as a town for census purposes. The definition of the towns in 1911 was the same as in 1901, but a few places chiefly in the Native States, which do not satisfy the above requirement have been treated as towns for special purposes. In 1921, a town was defined as in 1911 and in 1901. During 1931 census the towns were classified into cities and towns and a city meant (1) every town containing not less than 1,00,000 inhabitants and (2) any other town which the provincial Superintendent under the sanction of the provincial Government may decide to treat as a city for census purposes. In 1941 also the town was defined as in 1931.

Certain modifications have been made for classifying the towns and a simple four-fold classification of towns was adopted as follows in 1951:—

(1) All towns with a population of one lakh and over to be treated as cities (2) those with population range of 20,000 to a lakh as major towns; (3) those with a population range of 5000 to 20,000 as minor towns; and (4) those with a population under 5000 as townships. The tests prescribed for distinguishing towns from villages in different States were based on ideas common to all States, but they were not identical nor had they been applied with meticulous uniformity. In the case of princely States, the definition of town was applied a little indiscriminately. Because of this, the places in British provinces which would never aspire to the status of a town would pass muster as towns in the princely States. With a view to applying a uniform test throughout the country for defining places which could be considered as towns certain modifications were made in the definition of a town, and the effect of the change on the number and size of urban population of the States and India have already been indicated. According to the criteria adopted, the urban area should have a population density of not less than 1000 persons per sq. mile, a population of atleast 5000, three fourth of its working population should be outside agriculture and it should have, according to the Census Superintendent of the State some pronounced urban

characteristics. All municipalities, cantonments and civil lines are automatically considered as towns.

Certain deviations have been, however, made from this criterion in 1961. Of the 92 places classified as urban, 69 places were either municipal corporations, municipal towns, cantonments or non-municipal towns satisfying the criteria set forth for the recognition of a place as a town. Of the remaining 23 towns, 17 were included in the list at the desire of the State Government on the ground that they were towns in 1951. Out of the remaining six, 3 satisfied all the conditions except that the population of 5000 was reached in 1961 instead of in 1951. Of the remaining three, one is a pilgrim centre, second is a fast growing centre with urban characteristics and the third a growing industrial centre. There were 16 other places which satisfied the criteria. They were not considered urban centres as they did not have urban characteristics.

As already pointed out, the discussion on the growth of towns has to be taken with reservation as the criteria for defining a place as urban differed from census to census.



## CHAPTER III

### DEMOGRAPHIC CHARACTERISTICS OF THE POPULATION

The age and sex composition of a population is an important factor affecting the growth of population. If males are in excess, the chances of marrying will be difficult for at least some males if polyandry is not allowed in the society. Similarly if females outnumber males several females may have to remain spinsters if polygamy is not practised. The age composition is also another important factor influencing the growth of economic development. If the population is composed of a very high percentage in the younger age groups, the burden of dependency on earners will be higher. So also the deficiency of people in the working age groups will adversely affect supply of labour force required for various economic activities. An analysis of the age and sex composition of the population is attempted in this chapter. The trends in the composition during the period 1901-61 will be discussed for the Districts and the State as far as data are available. A comparative study of the various States has also been made using 1961 census data.

#### 3.1 *Sex ratio:*

The sex ratio defined as the number of females per 1000 males is given in the table 3.1. Kerala is seen to have an excess of females during all the censuses 1901-1961. The excess itself has been increasing during 1901-51. During 1951-60 the sex-ratio has slightly declined from 1028 to 1022. Three main reasons for the higher sex-ratio may be the following:—

- (1) Higher proportion of females among children born.
- (2) Higher survival rate of females.
- (3) Migration of males to other places outside the State.

The higher survival rate for females is a predominant characteristic noticed in Kerala. From earlier decades the females of Kerala has been enjoying a longer life than males. The life tables of Kerala clearly show this characteristic. The other factors can be examined in more detail when sex-ratio by age-groups is considered for the State.

The rural sex-ratio exceeds 1000 during the different periods under study. The difference between State sex-ratio and rural sex-

ratio is less than or equal to six points in all these years. The urban areas have a sex-ratio less than 1000. The urban ratio had a more rapid increase during the period 1901-51. It has increased from 953 to 992 an increase of 39 points. The decline during 1951-60 was very low (from 992 to 991 only).

The trend in sex-ratio in the districts is not similar to that of the State pattern. In Trivandrum District the sex-ratio showed a declining trend during 1901 to 1921. The sex-ratio which has increased in 1931 and 1941 experienced a further decline in 1951 and 1961. In Quilon District the uniform increase in sex-ratio was interrupted by decline in 1921 and 1951. In Alleppey the sex-ratio was increasing uniformly from 1901 to 1961 but for the decline in 1921. The uniform increase in sex-ratio of Kottayam District is disturbed by decline during 1911-21 and 1961. The trend in Ernakulam District is the same as that in the State except for a decline in 1921. Trichur and Palghat Districts had uniform increase during 1901-51 and decline in 1961. Kozhikode and Cannanore had the same trend with decline in 1931, further increase in 1941 and decline thereafter. One peculiar feature noticed is the predominance of males in the erstwhile Travancore State comprising of Trivandrum, Quilon, Alleppey, Kottayam and part of Ernakulam District. In Trichur District and the Districts of the erstwhile Malabar region excess of females over males is seen from 1901 onwards. The excess of females is especially high for Palghat and Cannanore Districts.

These districts are economically backward. Hence it is likely that males in these districts might have gone to other places in search of employment. Urban areas in most of the Districts have more males than females. In this aspect also the Districts of Malabar region present an exception (vide table 3.1).

The sex ratio for the State is further analysed according to age group. The analysis reveals some interesting features. It is seen that in the older age-group of 60 years and above females out-number males to a considerable extent. But the sex-ratio showed a declining trend during 1901-41. In 1901 there were 1226 females for every 1000 males in this group. This has decreased to 1222 in 1911, 1181 in 1921, 1096 in 1931 and 1041 in 1941. The sex-ratio, however, showed an increasing trend during 1951-61. The higher sex-ratio in the above age group may be attributed to the fact that females live longer than males. Other age-groups in which females out-number males in all these years are 15-19 years and 20-39 years. Migration of males for employment to places outside Kerala may be the reason for the excess of females in these working age-groups.

### 3.2 Age composition:

The data for the study in this section are available from decennial censuses. The age data available in census are known to have

several limitations. The main short comings can be summarised as follows:

- (i) Ignorance of age
- (ii) Deliberate misstatement
- (iii) Omission in enumeration
- (iv) Failure to reckon precise age due to mis-understanding of the question.

Due to the ignorance of the exact age, the informants usually give round figures ending 0 or 5. The heavy concentration in these preferred digits can be seen in the census age returns. Among the States in India, Kerala has the lowest indices of concentration and preference.

### 3.3 *Marital Status pattern:*

In studies of fertility the marital status distribution of the population is of great significance. The number of births is dependent on the number of currently married persons. The distribution of the population according to marital status from 1901 to 1961 in various districts is given in Table 3.3 in the Appendix. Between districts there is no appreciable difference in marital status pattern. About 50 per cent persons were unmarried, 40 to 45% married and the remaining were widowed or divorced during 1901-31. After that there was a slight rise in the percentage of unmarried with a slight decline in the percentage of married. There was, however, not much change in the percentage of widowed, divorced, etc. In 1961, the percentage of unmarried persons was about 57, married persons about 35 and the rest widowed, divorced, etc. The percentages of married males and females were more or less equal. But the percentage of single females was about 11% less than that of single males. The percentage of widowed, divorced or separated females was about 10% higher than that of males. If the pattern is examined by Districts, more or less the same pattern is seen during 1901-61. In Trivandrum District the percentage of unmarried males and females has uniformly increased during 1901-61 but for the slight decline in 1921 and 1951. The uniform decrease in the percentage of married males and females is also interrupted by slight increase in 1921 and 1951. The possible explanation for this increase in the percentage of unmarried and decrease of married is that they remain single for a longer period. In Quilon and Alleppey also the uniform trend is interrupted in 1931 and 1951. In Kottayam the percentage of unmarried has increased from 46 to 58 with a slight decline in 1951. The decline in the percentage of married was from 46 to 37. The trend in Ernakulam District was disturbed only in 1911. Trichur district had a short range of variation. The percentage of unmarried has increased from 52 to 57 with a slight decline

in 1911. The decrease in the percentage of married from 39 to 35 was interrupted by increases in 1911 and 1951. In the Districts of the erstwhile Malabar region viz., Palghat, Kozhikode and Cannanore the increase in the percentage of unmarried is only about 2 per cent. There is a slight increase in the percentage of married in Palghat and Kozhikode Districts. In Cannanore a decrease of only one per cent is recorded. The percentage of unmarried ranges between 53 and 55 in the 3 districts. Percentage of married is 37 or 36 in the districts. According to 1961 census, 57% of the persons are unmarried, 36% are married and 7% are widowed and divorced in Kerala State. In 1901 the percentages are 51, 39 and 10 respectively.

An analysis of the marital status pattern by age groups reveals that in Trivandrum District before the age 25, 80% of the persons—72% males and 92% females—are married, widowed or divorced. Only less than 10 per cent are single after 29 years. In Quilon District also this pattern is observed without much variation. In Alleppey district the percentage of unmarried persons is less than that in Trivandrum and Quilon Districts in age groups 19 and above. In Kottayam District, the percentage of unmarried persons is much lower in older age groups. In Ernakulam and Trichur districts the percentage of unmarried persons is less than 14 in 25-29 age group and much less in the subsequent age groups. In the Districts of the erstwhile Malabar area, only 18% are unmarried in the age group 20-39 years. In the older age groups only less than 5% are unmarried. In the subsequent years the percentage of unmarried persons has increased in the early years which is an indication of late marriages. In 1901 about 50% in 15-24 years are unmarried but by 1951 the percentage has increased to about 70%.

The mean age at marriage has been worked out for Kerala by Dr. S. N. Agarwala. Kerala has the highest age at marriage among the Indian States. This is arrived at by finding out the mean duration of single life from the percentage of unmarried persons. The mean age at marriage worked out are given in Table 3.3.2. According to these estimates, there is an average increase of 3 years in the mean age at marriage of males and females during the 60 years 1901 to 1960. Mean age at marriage of males has increased from 23 to 26 years and that of females from 17 to 20. A slight decline in mean age at marriage is seen during 1921-30 in the case of males and in 1941-50 in the case of females. The age at marriage in Kerala is higher compared to other States in India from early times. The mean age in India in 1961 is less than that in Kerala during 1901-10. Child marriages were very rare in Kerala even in 1901.

A comparison of the distribution of the population of Kerala according to marital status with that of the other States in India

is attempted here using 1961 census data (vide table 3.3.1). The percentage of unmarried persons is highest in Assam among the Indian States. But the percentage of married persons is least in Kerala. In 8 States more than 45% persons are married. Only the States of Assam and Kerala have less than 40% married persons. The highest percentage of married persons, is found in Madhya Pradesh. In all the States the percentage of married females is greater than that of married males. Madhya Pradesh tops the list in the case of the percentage of married males and Uttar Pradesh in the case of married females. The percentage of widowed, divorced or separated females is much higher than males in this category in all States. Higher expectation of life for females may be one of the reasons.

Another reason which may be more important is that re-marriage among males is more common than among females after widowhood or divorce.

The marriage customs prevalent in the State differ from caste to caste. Marriage continues to be a most important ceremony with all castes. The various details connected with the ceremony are not observed rigidly now, as in olden days. The customs prevalent in various castes in Kerala are briefly described below\*:

#### *Malayala Brahmins:*

Before starting for the bride's house the bridegroom partakes in a grand feast known as Ayani Unu along with his relations and guests. At the bride's house he is received by the bride's father. He offers his daughter in marriage pronouncing certain sacred texts. The bridegroom bathes and dresses himself in the new dress given by the bride's father and takes his seat. At the auspicious hour, the 'tali' brought by the bridegroom is tied round the bride's neck by his father. The 'Panigrahanam' is accompanied by a recital of mantras and the usual benediction of assembled Bhramins. The next item of the ceremony is 'Mukhadarsanam' in which the pair are brought face to face with the chanting of Vedic Hymn. The next item is 'Udakapuranam' in which the bride's father pours a little water into the hands of the bridegroom through the hands of the bride accompanied by the words 'may you both tread the path of duty together'. The bride's father then gives the bride the dowry which she in turn hands over to the bridegroom.

In the matter of ceremonial observance there is not much difference between Nayars and Ezhavas, the two principal Communities of the State. Formal marriage which is marked by the tying of

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\*T. K. Velu Pillai—Travancore State Manual Vol. I, Government of Travancore 1940.  
37/796/MC.

a tali round the neck of the bride is performed before puberty. But the actual marriage takes place after the girl attains maturity. On the appointed day the bridegroom with his friends and relations goes to the bride's house. At the gate they are received by the bride's party and are conducted to the special seats provided for them. At the auspicious hour the bride is led out by her aunt or other elderly ladies and the bridegroom formally presents her with the costly wedding clothes. After receiving the clothes the bride makes obeisance to the bridegroom and the assembled elders. A sumptuous feast and the distribution of flowers and Pansupari are conducted then. The custom of formal marriage and actual marriage on different dates is not observed now. The tying of the tali is now common in Nayar marriages and is done in addition to the presentation of cloth.

Nadars observe betrothal as a formal ceremony. On the appointed day the bridegroom's party moves in procession to the bride's house. The bridegroom and the bride are seated on a plank and the former ties the tali. They then go round the marriage platform hand in hand. After the marriage feast, the couple starts in procession to the bridegroom's house.

The 'Parayas' attach no religious significance to marriage. The guests assemble, the priest sings songs with the accompaniment of music and some of the guests dance. At the auspicious moment the bridegroom ties the tali.

Among 'Pulayas' the bridegroom goes to the bride's house with his relatives on the appointed day. Before the bridegroom enters the Pandal the bride goes round it seven times with seven women carrying lighted lamps. After some preliminary ceremonies the sister of the bridegroom ties the tali. A present is given to the bridegroom's relatives. In the night the bride and bridegroom eat out of the same vessel. Early next morning the bride is taken to the bridegroom's house.

Among the christians the marriage is solemnised in the Church. The bridegroom ties a small golden ornament called 'minnu' round the bride's neck and presents a cloth to her. With certain denominations among christians like Pentecosts and followers of the Brother Mission, neither minnu nor ring is used.

Though the customs are not observed in different communities strictly now in all details, the customs followed are more or less those mentioned in the previous paragraphs.

## CHAPTER IV

### COMPONENTS OF POPULATION GROWTH

#### 4.1. *Mortality.*

The death rate in Kerala as estimated from the census data for 1961 is lowest among the Indian States. This low mortality rate has helped to increase the rate of population growth. During the decade 1951-60, the death rate in Kerala is estimated to be 16.1 while it is 22.8 for All India. The only source of information on this is the death registration figures. But due to under-registration the rates derived from these will be gross under-estimates. Actually the trend in registration is obtained and not the trend in death rates. The death rates are available for the various districts of Kerala from 1959 onwards.

#### *Registered figures:*

The death rate obtained from registration data has shown a uniform declining trend during 1959 to 1965 but for an increase during 1961. The rural rates also follow the same pattern. The State rates have declined from 7.8 to 5.3 and the rural rates from 7.4 to 4.5. The rates for the urban areas has decreased slightly in 1960 and decreased further in 1962 and 1963 after an increase in 1961. After 1963 the rates are increasing further. The decline in death rates noticed does not represent an actual decline in death rate. Only the trend in registration is obtained from the rates though a slight decline in death rate is possible for 1959-65.

An analysis of the rural and urban rates shows that in all the districts urban rates are much higher than the rural rates. This may not be actually due to higher death rates for the urban people. According to the present defacto system of registration deaths occurring in the hospitals in urban areas are registered as urban even if the deceased belongs to the rural area. The rates in all districts have shown a declining trend during the 7 years. Palghat district has uniformly the highest death rates and Trichur District has the lowest death rates. Uninterrupted decline is seen in Trivandrum and Cannanore districts. In the other districts, the trend of decline is interrupted by slight increase here and there. In urban areas an increasing trend is seen in most of the Districts. The Districts in the erstwhile Malabar area have a higher death rate. Since these districts are generally backward the high rates cannot naturally be due to the completeness of registration. On the other hand lack of proper medical

and public health facilities in these areas are likely to cause higher incidence of deaths. During the last 3 years the death rates in these districts are also becoming equal to those in the other districts. The increased attention given to these districts can be attributed as the reason for this decline.

The crude death rates calculated from vital statistics for the various decades are given below:—

<i>Decade</i>	<i>Death rate</i>
1901-10	18.6
1911-20	20.1
1921-30	14.5
1931-40	14.7
1941-50	12.7

According to these estimates a decline of about 6 per 1000 is noticed during the 50 years though the decline is not uniform. The death rate during 1951-60 is estimated to be 16.1 by the Registrar General. This suggests that during the decade 1951-60 there was an increase in death rate. This cannot be taken as fully reliable as the earlier figures from registration are under-estimates; the expectation of life which is also a measure of mortality has been increasing. Further discussion on expectation of life will be given in the subsequent paragraphs. There is a decline in death rate during the 60 years. In the absence of any reliable information for this period nothing can be said about the magnitude of decline.

#### *Age-Specific and cause-specific rates:*

The over all death rate cannot give a clear picture of the mortality situation. The age-specific death rates will help to locate the age-groups where the toll of mortality is high. The only data available on this topic are the registration figures. Due to under-registration these will not be fully reliable. If under-reporting is uniform in all age groups, the data can be used to study the age-specific death rates. But under-reporting is liable to be very large in the earlier age-groups. Deaths of children in very early ages will not be reported for registration. The age-specific death-rates for the years 1961-64 are given. Since the age-groups adopted for tabulation in 1965 were different, rates for 1965 are not comparable with previous years and hence are not given here. The rates for 1961-64 show a general decline in various age-groups. The death rate is above 10 in the age-group 0-4. It decreases to about 2 or 3 in 5-9 age-group and decreases further in 10-14 and 15-19 years. In the subsequent age-groups, the death rate increases gradually to more than 40 for persons of 60 years and above. This general trend is seen in 1961-63. In 1964 the increasing trend starts at 15-19 years.



Another noteworthy feature is that female death rates are greater than male death rates in age-groups below 40 years. After 40, the female death rate is much lower than the corresponding male death rates. Maternal deaths may be the reason for high female death rates in the re-productive age-groups. But the reasons for higher female death rates in the earlier age-groups are to be sought elsewhere. In spite of under-reporting in deaths, this trend in death rate is seen in all the years. This may be due to the fact that under-registration is uniform in all the age-groups.

An examination of the distribution of deaths in various age-groups show that proportionately higher percentage of deaths are of infants below 1 year of age. The percentage of infant deaths show a declining trend. The decline is not very appreciable. From 16.8 in 1959 it has decreased to 11.6 in 1965. The decrease is uniform but for a slight increase in 1961 and 1964. More than 25% deaths are of children below 5 years. There is not much difference between rural and urban areas in mortality pattern. Percentage of deaths of children below 1 year is greater in rural areas during 1959-65. Deaths of persons 60 years and above form about 1/3 in rural areas and about 1/4th in urban areas. Between the sexes there is not much difference in mortality pattern except for a slightly higher mortality rate for females in the child-bearing ages.

Cause of death statistics obtained from registration statistics are not very reliable. As the cause of death given to the registration authorities is not verified, the percentage of deaths due to the 16 specified causes is very low. More than 65% does not come under any of the specified causes. 'Fever' and 'respiratory diseases' account for more than 20% of the deaths in 1959 and 1960. In the subsequent years also, the percentage will be about 20 including pulmonary T. B. which was included in respiratory diseases in the previous years. The percentage of deaths due to small pox has decreased from 1.9 in 1959 to 0.1 in 1965. Percentage of deaths due to dysentery and diarrhoea has decreased from 6.3 to 2.7. Percentage of maternal deaths has also shown a decreasing trend.

Maternal death rate of the State has decreased from 2.46 in 1959 to 1.21 in 1965. Though the rate cannot be taken to be fully representative, the considerable decrease in maternal deaths is evident. The better medical facilities available in the State during recent years have helped very much in the reduction of maternal death rate. Infant mortality has also decreased considerably during 1959-65 according to registration figures in rural and urban areas.

#### *Life tables:*

The data of death registration do not represent the actual mortality pattern due to incompleteness in registration. The life tables constructed from age tables available from decennial censuses give an idea of the mortality pattern. Such life tables were constructed for the decades 1911-20 to 1951-60. The method of construction consisted of finding out the probability of survival for 10 years. This is found out from the number of persons living in a particular age group and the number of persons in the corresponding age group in the previous census. The infant mortality rates were estimated from available data. For the decade 1941-51 the infant mortality rate has been estimated as 160 for males and 145 for females. The infant mortality rates for the earlier decades have been estimated on the assumption that the reduction in infant mortality rate follows the same trend as in Madras State for which data are available. For the construction of life tables the age distribution of Kerala has been prepared from those of Travancore, Cochin and Malabar for periods prior to 1961. The age distribution has been smoothed for incorrectness in age reporting due to preference of certain digits etc.

The life tables constructed based on the above method shows certain salient features.

Expectation of life has increased considerably during the period 1911-20 to 1951-60 both for males and females. For males the expectation of life at birth has increased from 25 to 46 and in the case of females from 27 to 50. Females in Kerala had a higher expectation of life than males in all the decades. According to All India Life tables, males have a higher expectation of life. The life tables for the various decades are presented in the Appendix.

#### 4.2. Fertility:

The major contribution to population growth is due to births that occur in the area under study. Various rates are used to measure fertility. The measures commonly used are:

1. Birth rate
2. General fertility rate
3. Age-specific birth rate
4. Child-Woman ratio
5. Gross and net reproduction rates.

In analysing the trend in fertility in Kerala during 1901-61, our conclusions can be mainly based on crude birth rate and child-woman ratio. Crude birth rate is the number of births occurring to 1000 persons in the course of one year.

##### *Crude birth rate:*

One of the main sources of data on births is data available from birth and death registration. But due to the incompleteness in birth and death registration, the results obtained from this will not give a true picture of the situation. The trend obtained from this will be of improvement in registration. The birth and death rates have been computed for various decades. The birth rates derived from registered births, do not reveal any trend in birth rates. (Similarly the death rates also do not reveal any trend in increase or decline in mortality). The birth and death rates derived from census data for the decade 1951-60 are 38.9 and 16.1. The birth rates obtained from N. S. S., 15th round and sample registration also are more or less equal to this figure. But death rates obtained from the above sources vary very much from that obtained from census figures. However the following conclusions will not be incorrect. Birth rates have not shown considerable decline during the decades 1901-61. In the absence of any data regarding vital rates in rural and urban areas or Districts, nothing can be said about the trend in various districts.

*Child-Woman ratio:*

This is defined as the number of children below 5 years per 1000 females in the reproductive age group 15-44 years. This is also an index of fertility. Since the children under 5 years are likely to be under-enumerated and due to larger incidence of mortality during the initial years of life, this cannot be claimed as a very reliable measure of fertility. Child-women ratio for the various districts are given below:—

<i>Year</i>	<i>Trivan- drum</i>	<i>Quilon</i>	<i>Alleppey</i>	<i>Kottayam</i>	<i>Erna- kulam</i>	<i>Trichur</i>	<i>Palghat</i>	<i>Kozhi- kode</i>	<i>Canna- nore</i>	<i>STATE</i>
1901	536	521	552	580	596	592	629	640	625	633
1911	673	622	643	657	705	693	628	541	625	651
1921	668	654	635	665	670	640	599	611	593	632
1931	879	883	865	931	852	781	732	749	733	811
1941	741	740	690	742	731	672	NA	NA	NA	NA
1951	683	662	652	675	623	572	538	557	546	606
1961	716	747	660	738	725	681	645	703	685	700

Child-women ratio for 1911, 1921, 1931 and 1941 are calculated as children below 5 years to 1000 women 15-39 years, since number of women 15-44 years is not available. For 1951 and 1961 women 15-44 years are considered. For 1901, females 15-39 years are considered for Palghat, Kozhikode, Cannanore and State. For other districts females 15-44 years are considered.

Since the child-women ratios are defined in two ways, the comparison can be made for the following periods separately:—

1. The three decades 1911-41
2. The two decades 1941-61

For the period mentioned first, (1911-1941) an increase is noticed in the child-women ratio, the highest ratio being in 1931, in all Districts. The correctness of the ratio depends on the correct enumeration of population in 0-4 years also.

But since the children below 5 years are likely to be omitted in many cases, the ratio cannot be claimed to be a true measure of fertility. Assuming that under enumeration is uniform in the various censuses, there is no evidence of any decline in fertility during 1911-41. Considering the figures of 1951 and 1961 it can be seen that there is an increase in child woman ratio in all the districts in 1961. But this cannot be taken an index of the increase in fertility since the birth rates computed show evidence of decline in fertility. The increase in the ratio may be due to more complete enumeration of children in 0-4 years or higher survival rate of children.

#### *The position in the Districts:*

The only source of data on births and deaths in various districts is the birth and death registration figures. Data are available in the present set up of districts from 1959 onwards. Due to incompleteness they represent only the trend in registration of births and deaths. In general there is a decline in birth rate in all the districts except Ernakulam. The rural areas of the Districts also reveal the same trend. In urban areas there is a rise in birth rate in most of the Districts. The only explanation that can be given is the following. The percentage of registration remains more or less the same and the birth rate also does not change substantially. More and more females go to the hospitals in towns for delivery. According to the defacto system of registration, these births are registered as urban births. This swells up the urban birth rate. The birth rates of above 50 in some districts is certainly due to this. There is a slight decline in birth rate during the period 1959-64. The rate has decreased from 26 in 1959 to 23 in 1964. When we consider variation among districts in birth rates, one fact is clearly seen. The rates in Trichur are uniformly the lowest and those of Cannanore are uniformly the highest. The growth rates of districts do not show this pattern. The rate of registration alone can account for the variation observed in birth rates. Trivandrum, Quilon and Alleppey districts have birth rates near about 25. The rates of Kottayam District are a little higher than 25 but less than 30. The birth rates in Ernakulam district range between 21 and 25. Trichur district has the lowest rates ranging between 16 and 18. The range of variation in rates of Palghat district is wider being 20 and 25. In Kozhikode the birth rates vary between 22 and 27. Cannanore district has the highest rates ranging between 26 and 33.

#### *Age-specific fertility rate:*

Birth rate is a very rough measure of fertility. The change in age and sex composition of the State is not taken into consideration here. Age specific fertility rate, defined as the number of

births to 1000 females in a particular age group shows a better measure of fertility. The sources of information on this topic are ad-hoc surveys conducted. The N. S. S. and the sample census 1961 contain this information. The available information is presented below:

<i>Age group</i>	<i>Age specific</i>	<i>fertility rate</i>	<i>N. S. S. 14th round.</i>
	<i>Kerala (Rural)</i>	<i>Madras (Rural)</i>	<i>Mysore (Rural)</i>
15—19	83	144	205
20—24	227	246	274
25—29	278	208	257
30—34	195	128	160
35—39	154	80	109
40—44	45	21	32

The age specific fertility rates of Kerala and the neighbouring States of Madras and Mysore reveal very striking difference. In Kerala fertility starts at a very low level in 15-19 age group increases in 20-24 age-group and attains a maximum in 25-29 age-group. Thereafter the rate decreases and it is not too low even in 40-44 age group. On the other hand in Madras and Mysore fertility starts in 15-19 year age-group at a fairly high level and is maximum in 20-24 age-group. From 25-29 age-group fertility rate decreases and is very low in 40-44 age-group. The higher age at marriage in Kerala may be the reason for this. The fertility rates in Kerala are higher compared to the neighbouring States in the age groups above 25 years.

For the 1961 sample census, a different age classification was adopted. The age specific fertility rates are given below:

<i>Age group</i>	<i>Age specific fertility rate.</i>
Under 18 years	86.30
18—22	241.94
23—27	283.62
28—32	215.18
33—37	182.14
38—42	99.27
43—47	30.35
48 and above	3.58

The birth rate calculated from these data is only 30. Hence there is every possibility of under-enumeration of births. The trend in age-specific fertility rate noticed earlier holds good here also. The rates start at a low level in the early age-group becomes maximum in 23-27 age group and declines thereafter. After 42 years the rate is very low.

Compared to other Indian States the age at marriage in Kerala is higher, and hence the rates will be naturally lower in earlier age-groups. But the fertility rates in older age-groups are higher and therefore the birth-rate for the State will be higher.

#### *Birth order statistics:*

In countries having high birth-rates, the proportion of higher order births will be higher naturally. In Kerala the percentage of births below the 4th order is about 50. Data about this is readily available only for towns with population 1 lakh and over from birth and death registration. The available information is given below:

**Percentage of births of each order**

<i>Year</i>	1	2	3	4	5 and above
1961	20.9	16.8	14.1	12.8	35.4
1962	22.6	16.5	14.1	12.6	34.2
1963	23.7	17.8	14.3	12.8	31.4
1964	23.8	17.0	13.9	12.6	32.7
1965	24.9	18.0	14.1	12.4	30.6

*Source:* Vital Statistics Bulletins, Bureau of Economics and Statistics.

For 1961, Trivandrum, Alleppey and Kozhikode are considered. From 1962 onwards, Ernakulam also is considered.

Near about 50% of the births are 3rd or lower order births during all these years. About 1/3 of the births in all these years are 5th or higher order births. If a child birth ceiling of 3 is fixed about 1/2 of the present births will not take place. In countries with lower birth rate, the percentage of higher order births will be very low. In countries like U. K. and U. S. A. the percentage is less than even 10.

The sample census 1961 has shown that in rural areas 18.7% are first order births, 18.1% are 2nd order births, 16.3% are 3rd

order births, 13.6% are 4th order births and 33.3% are 5th or higher order births. In urban areas the percentage of 1st, 2nd, 3rd, 4th order births are 19.3, 17.6, 16.8 and 12.4 respectively. The percentage of 5th and higher order births is 33.9. The data from both these sources show that nearly 1/3 of births are 5th or higher order births. In all the States in India this pattern is seen without much change.

Only very few studies were conducted in Kerala on differential fertility. In the 1941 census of Travancore the fertility was studied according to castes. The average number of children born to married females of principal communities is given below:

<i>Community</i>	<i>Average No. of Children</i>	<i>Community</i>	<i>Average No. of Children</i>
Brahmin	3.13	Ezhava	3.84
Kammala	3.88	Kurava	3.13
Nadar	3.64	Nayar	3.63
Paraya	3.23	Pulaya	3.43
Vellala	3.43	Syrian Christian	3.79
Muslim	3.71		

Among Hindus information regarding the principal castes have been given. Only Ezhavas and Kammalas have average number of children greater than that of Syrian christians and Muslims. The general average of Hindus will be a little less than that for Muslims and Christians. However the variation in the average number is very small.

Surveys conducted by the Bureau of Economics and Statistics during 1958-59 in 10 towns of Kerala to study the attitude of couples to family planning collected data on differential fertility according to income and occupation. The study has not revealed any significant difference in fertility rates between income groups and occupation groups. The reason for this may be the fact that the various occupation or income groups in Kerala are not very distinct as to cause difference in fertility.

The fertility surveys conducted along with the 1961 census had studied variation in fertility according to Husbands' or Wives' education. The study has revealed that in general, education upto elementary level has no effect in reducing the fertility. Some reduction is however achieved at the High School level which is more marked in the case of wives' education than husbands' education. The reduction cannot be considered as due to family planning consciousness among the educated and by the purposive limitation of family



size. The reduction may be largely due to later marriages by educated women and consequent reduction in effective fertility period.

#### 4.3. Migration:

Migration is also a major factor which affects population growth. While immigration helps to increase population; outmigration helps to reduce the population pressure. The data available on this are mainly from information on place of birth in decennial censuses. But these data cannot be fully utilised due to frequent changes in the boundaries of States. Travancore and Cochin were separate princely States from 1901-41. By the time of 1951 census these States were integrated into a single State. For the period 1901-51 the migration from and to Travancore-Cochin can be studied ignoring migration from Travancore to Cochin and vice versa. Migration from and to Kerala can be studied for the decade 1951-61 only. Travancore-Cochin had net gains of population upto 1931. The loss of population began only from 1941. In the 1961 census 618000 persons born in Kerala were enumerated in other States and 233000 persons born outside Kerala were enumerated in Kerala. Thus Kerala had a net loss of 385000 persons. For this study in-migration consists of only migration from places within India. Out-migration does not include migration to places out-side India. This does not impair the accuracy of the estimates of migration considerably since the volume of such migration is small. The components of population growth for the various decades are given below:

TABLE 4.3  
Components of population growth, Travancore-Cochin  
1901-51, Kerala 1951-61.

Area and period	Males			Females		
	Total	N. I.	N. M.	Total	N. I.	N. M.
<b>TRAVANCORE-COCHIN</b>						
1901-11	293711	290559	3152	289947	282557	7390
1911-21	326940	319829	7111	311463	299700	11763
1921-31	639742	606532	33210	676953	642206	34747
1931-41	587340	598762	-8422	604962	601567	3395
1941-51	875386	935477	-60091	904982	935632	-30650
<b>KERALA</b>						
1951-61	1680026	1879562	-199536	1674571	1760088	-85517

N. I.—Natural increase, N.M.—Net migrants

TABLE 4.3 (1)  
Rate per 100 average population.

Area and period	Males			Females		
	Total	N. I.	N. M.	Total	N. I.	N. M.
<b>TRAVANCORE-COCHIN</b>						
1901—11	14.37	14.21	0.16	14.38	14.01	+0.37
1911—21	13.88	13.58	0.30	13.44	12.93	+0.51
1921—31	22.54	21.37	1.17	24.08	22.84	+1.24
1931—41	17.02	17.26	-0.24	17.52	17.43	0.09
1941—51	20.93	22.36	-1.43	21.51	22.24	-0.77
<b>KERALA</b>						
1951—61	22.34	24.99	-2.65	21.73	22.84	-1.11

N. I.—Natural increase N. M.—Net migrants.

The effect of migration on population growth was considerable only during 1951-61. But for the net out-migration of 385000 persons, the growth rate would have been 1.9% higher. The loss of males due to migration is very much higher than that of females.

When we analyse the origin of in-migrants and destination of out-migrants it can be seen that most of the in-migrants are born in the neighbouring states of Madras, Mysore, Maharashtra and Gujarat. The destination of out-migrants is also limited to the neighbouring States. The distribution of migrants according to origin of in-migration and destination of out-migrants is given below:

TABLE 4.3 (2)

State of origin or destination	Males.				
	State of birth of In-migrants	Percentage	State of enumeration of Out-migrants	Percentage	Net migrants
(1)	(2)	(3)	(4)	(5)	(6)
Andhra Pradesh	1105	0.9	17513	4.3	-16408
Assam	69	0.0	1807	0.4	-1738
Bihar	224	0.2	4170	1.0	-3946
Gujarat	2367	1.9	5812	1.4	-3445
Jammu & Kashmir	78	0.1	145	0.0	-67
Madhya Pradesh	337	0.3	14386	3.6	-14009

(1)	(2)	(3)	(4)	(5)	(6)
Madras	101031	82.2	162331	40.1	-61300
Maharashtra	3383	2.7	71325	17.6	-67942
Mysore	9654	7.9	90780	22.5	-81126
Orissa	105	0.1	3641	0.9	-3536
Punjab	847	0.7	4618	1.2	-3771
Rajasthan	150	0.1	1348	0.3	-1198
Uttar Pradesh	726	0.6	4328	1.1	-3602
West Bengal	580	0.5	90.63	2.2	-8483
Union Territories	2221	1.8	13877	3.4	-11656
Total	122877	100.0	405144	100.0	-282227

TABLE 4.3 (3)

<i>State of origin or destination</i>	<i>Females</i>				
	<i>State of birth of In-migrants</i>	<i>percentage</i>	<i>State of enumeration of Out-migrants</i>	<i>Percentage</i>	<i>Net migrants</i>
Andhra Pradesh	857	0.8	7385	3.4	-6528
Assam	46	0.0	375	0.2	-329
Bihar	174	0.1	2965	1.3	-2791
Gujarat	776	0.7	2037	0.9	-1261
Jammu & Kashmir	35	0.0	49	0.0	-14
Madhya Pradesh	309	0.3	3862	1.8	-3553
Madras	91256	82.6	114187	52.1	-22931
Maharashtra	2309	2.1	26769	12.2	-24460
Mysore	11732	10.6	46440	21.2	-34708
Orissa	55	0.0	621	0.3	-566
Punjab	305	0.3	1030	0.5	-725
Rajasthan	75	0.1	649	0.3	-574
Uttar Pradesh	300	0.3	1345	0.6	-1045
West Bengal	304	0.3	3356	1.5	-3052
Union Territories	2006	1.8	8230	3.7	-6224
Total	110539	100.0	219300	100.0	-108761

82% of the male in-migrants are from the neighbouring State of Madras. 93% of the migrations are from the three States of Madras, Mysore and Maharashtra. Out-migration of males is also mainly to the three States of Madras, Mysore and Maharashtra which account for more than 80% of the out-migrants. In the case of females also the above pattern holds good with greater concentration on the three States. 95% in-migrations and 87% out-migrations are restricted to the three States.

Persons from all the States are found in Kerala. So also Keralites have not excluded any State in India for out-migration Jammu and Kashmir and Orissa are the two States least affected by migration to or from Kerala. The area of in-migration is more restricted than out-migration. The volume of in and out migration from various States to Travancore-Cochin for 1901-51 is given below:

TABLE 4.3 (4)

**In-migrants**

<i>State of Origin</i>	<i>Sex</i>	1901	1911	1921	1931	1941	1951
MADRAS	Males	37698	40159	41293	78082	80314	88513
	Females	36006	39849	43372	80883	87618	100003
MYSORE	Males	200	244	228	201	257	876
	Females	114	147	165	316	206	473
BOMBAY	Males	3465	818	567	976	824	1087
	Females	1503	458	471	563	384	831
OTHERS	Males	1532	392	402	475	534	1907
	Females	518	159	156	126	440	416
TOTAL	Males	42895	41613	42490	79734	81929	92383
	Females	38141	40613	44164	81888	88648	101723

**Out-migrants.**

<i>State of destination</i>	<i>Sex</i>	1901	1911	1921	1931	1941	1951
MADRAS	Males	8425	10974	10667	18594	..	93546
	Females	7619	9115	7750	12982	..	76578
MYSORE	Males	88	271	500	751	1409	8277
	Females	38	152	271	309	777	3514
BOMBAY	Males	..	352	459	1188	..	11531
	Females	..	174	168	2503	..	3741
OTHERS	Males	2	192	789	1931	..	7133
	Females	..	77	269	2782	..	2632
TOTAL	Males	8515	11789	12415	22464	..	120487
	Females	7657	9518	8458	18576	..	86465

More than 90% of the immigration to Travancore-Cochin State is from Madras State alone. The sphere of outmigration is a little wider. But except in 1931 and 1941, more than 80% out-migrations are to Madras State alone.

Males outnumber females in the case of outmigrants in all the years. But in the case of immigrants the excess of males is found only in 1901, 1911 and 1961.

TABLE 4.3 (5)

**Sex-ratio (females per 1000 males) of immigrants and out migrants**

<i>Area and year</i>	<i>Sex ratio of immigrants</i>	<i>Sex ratio of outmigrants</i>
<b>TRAVANCORE-COCHIN:</b>		
1901	899	899
1911	976	807
1921	1039	681
1931	1027	827
1941	1032	..
1951	1193	718
<b>KERALA:</b>		
1961	900	541

Inmigrants have a more balanced sex-ratio than outmigrants. A general declining trend is noticed in the sex-ratio of outmigrants. The excess of males over females is seen to have increased during the years. Among outmigrants in 1961 there were only 541 females per 1000 males. In 1901 this was 899. The excess of females among immigrants may be due to the fact that a certain percentage of cases arises after marriage.

In addition to out-migrants to places outside the State and immigrations from places outside the State there is migration within the State i. e., between the different districts of the State. It will be interesting to analyse the pattern of migration within the State among the Districts. The following table gives the percentage distribution of immigrants in the various districts.

<i>Districts</i>	<i>Total</i>	<i>Rural</i>	<i>Urban</i>
Cannanore	14.39	16.43	7.15
Kozhikode	17.31	18.57	12.87
Palghat	5.33	5.24	5.64
Trichur	8.04	8.34	6.97
Ernakulam	12.71	9.84	22.98
Kottayam	15.79	17.18	10.85
Alleppey	9.24	8.50	11.87
Quilon	12.08	13.48	7.12
Trivandrum	5.11	2.43	14.62
STATE:	100.00	100.00	100.00

Kozhikode District has the largest population. The highest percentage of immigrants is also in Kozhikode District. The Districts having disproportionately large percentage of migration are Cannanore, Kottayam and Ernakulam. In the case of rural areas, Kottayam has comparatively larger percentage of migrants.

This is evidently due to employment opportunities available in the plantations in the District. This attracts many people from various parts of the State. The encroachers in the forest land in the District also may contribute a substantial percentage. The industrial development of the urban areas of Ernakulam District naturally attract many job seekers in this area. The high proportion of migrants in the urban areas of Ernakulam District can be attributed to this. Trivandrum District is also the destination of a large percentage of urban immigrants. This may be due to the fact that many people migrate to the capital for employment.

The analysis of the sex-ratio of inter-district immigrants reveals differentials among the districts.

<i>Districts</i>	<i>Sex ratio</i>	
	<i>Rural</i>	<i>Urban</i>
Cannanore	843	641
Kozhikode	924	830
Palghat	1464	958
Trichur	1194	1032
Ernakulam	1296	831
Kottayam	1022	1005
Alleppey	2200	1292
Quilon	1079	883
Trivandrum	908	682

Females exceed males in the case of rural immigrants in all the Districts except Cannanore, Kozhikode and Trivandrum. Migrations necessitated by marriages contributed to a large extent. In

the rural areas of Alleppey District females exceed male immigrants very much. Many of the females may have come to the district for employment in agriculture. Among the urban immigrants males are seen to exceed females in 6 districts. Only in Trichur, Kottayam and Alleppey districts females are in excess among immigrants. The main reason (that can be attributed to the excess of males) is that males migrate to the towns for employment leaving their families in their homes. The excess of male students in colleges in the towns may be another reason.

*Limitations of available data:*

The only source of information on migration is the place of birth data in the census. Due to the changes in boundaries of the States from time to time, the data will not be of much use for studying migration between the States. If an area in a State is transferred to another State, movements from the transferred area cease to be migrations to that State. In some other cases movements which are to be considered migrations may not be considered migrations.

The question on place of birth is easily understood by the entire population. But there are possibilities of error in these data also. The head of the household gives information on the place of birth of the members of the household. The head of the household may not know the place of birth of all the members. The place of birth of persons who are residing at the place of enumeration for a long time is liable to be reported as the same as place of enumeration. Errors are also likely to occur due to boundary changes. All people may not be aware of boundary changes. They may say that they were born in a particular State because the place was part of that State formerly. But they may not be aware of subsequent boundary changes. However, the effects of these factors on the estimates cannot be considered very significant. According to customs prevalent in India, females go to their parents' home for first delivery. If the place happens to be in another district or State, the child will be considered as a migrant in the place. Such cases of spurious migrations reported are not very rare.

The analysis of migration from place of birth data is subject to the above limitations.

## CHAPTER V

### ECONOMIC & SOCIAL CHARACTERISTICS OF THE POPULATION

#### 5.1. *Literacy and level of education by States, rural-urban and districts:*

Kerala stands foremost in the matter of education among the various States in India. Kerala's place in the field of education was unique from early times especially in the matter of education of women. From very early times the rulers of Travancore-Cochin and Malabar have paid great attention to education. In its early stages education was free so as to attract increasing numbers to the schools. As a result of the liberal and progressive policy pursued by the Government, various educational institutions were started in different parts of the State. These institutions attracted large numbers to the schools. Consequently, the place of the State in the matter of education was in the forefront from earlier periods. Due to the variation in the standard fixed for defining literacy in the different censuses, a study of the progress in literacy is not possible. In 1921 the standard prescribed in Travancore and Cochin for defining a literate was 'ability to write a letter to a friend and read the reply'. In 1931, the instruction was 'to treat a person as literate if he or she had passed the 4th 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. In 1961 the test of literacy was satisfied if a person above the age of four could with understanding both read and write. Thus the figures about literacy given in various censuses are not strictly comparable. However, a broad indication regarding the progress of literacy can be had from the census figures. The percentage of literates sex-wise in various classifications in urban and rural areas in 1961 is given in the Table <sup>8.1(a)</sup> ~~8.1(b)~~. The percentage of literates in rural areas is highest in Kerala (45.4%). The percentage is higher than 20, in 7 States viz., Assam, Gujarat, Kerala, Madras, Maharashtra, Orissa and West Bengal. The percentage in all these states except Kerala is below 25. This is mainly due to low literacy level of females. Most of the States have percentage of literacy below 10 for females. Only 4 States viz., Assam, Gujarat, Kerala and Madras have percentage above 10 and of these only Kerala has a rate higher than 14-35



In the case of urban areas all the States enjoy a better position regarding educational status. In all States except Jammu and Kashmir more than 50% of the males are literate. In the case of females also more than 25% are literate. Kerala leads all other States in the matter of female literacy in urban areas.

When the population of the rural and urban areas are considered together, Kerala leads all other States in the matter of literacy. In Jammu and Kashmir only 11% of the population is literate. Other States which have percentage of literacy below 20 are Bihar, Madhya Pradesh, Rajasthan and Uttar Pradesh. Besides Kerala, Gujarat and Madras have also above 30 per cent literacy. Female literacy is comparatively very poor in all the States. All States other than Kerala have only less than 20% female literates.

All the above percentages are including children below 5 years also who cannot be expected to be literate. Therefore the effective rate of literacy will be still higher. But the relative position regarding literacy will be the same.

The position of Kerala in the educational field will be further discussed on the basis of the data from 1961 census. The educational attainments of literates are classified into the following broad categories:—

1. Literates without educational standard.
2. Primary or Junior Basic.
3. Matriculates and above.

This will be considered separately for males and females in each District.

55% males and 39% females are literate in Kerala. Only 4% males and 2% females have qualifications matric or above. Most of the literates have no educational qualification. The urban areas have a very high percentage of literates and those having higher qualifications compared to rural areas. This rural-urban differential is seen in all the Districts of the State. The Districts of the erstwhile Travancore-Cochin State are at a higher level in educational attainment compared to Malabar region. The illiterates form 40% or even less among males in T. C. region but near about 50% in Malabar area. In the case of females the percentage reaches 60 and 70 in the two regions. These percentages are much less than those in other States.

5.2. *Economically active population—Participation rates for Districts, rural, urban and by sex:*

The classification of the population according to economic activity is different in the various censuses. In 1961 census, the entire population has been classified as workers and non-workers. The concept of a worker in the 1961 census revolves around the question whether the person is participating in the production of economic goods or services either for consumption, sale or exchange. In the censuses 1931 to 1951 the question was whether one is self-supporting, earning dependant or non-earning dependant. The concept in 1901 to 1921 was somewhat similar to the 1961 concept. Unpaid family workers who participate in the production of economic goods or services come within the category of workers. One difference is that non-workers who had income were treated as workers in 1901-1921 whereas in 1961 they were treated as non-workers. Due to these differences in concept through the years, it is difficult to compare the composition of working force during 1901-61. Comparable figures are worked out on the basis of the 1961 census classification of workers. A comparison with the previous censuses show that there is a steady decline in work participation rate from 1901 to 1961. The change in concepts as mentioned above also is responsible for this. The decline is seen in the case of Kerala and All India. The decline in female participation rate is more in Kerala while it is slow in India as a whole.

TABLE 5.2  
Work participation rate

Year	Kerala			All India		
	Persons	Male	Female	Persons	Male	Female
1901	44.36	56.18	32.60	46.6	61.1	31.7
1911	41.17	53.82	28.62	48.1	61.9	33.7
1921	37.56	51.01	24.25	46.9	60.5	32.7
1931	34.76	49.37	20.49	43.3	58.3	27.6
1951	32.29	46.66	18.28	39.1	54.1	23.3
1961	33.31	47.20	19.71	43.6	57.1	28.0

Detailed analysis will be confined to 1961 census figures. Table 5.2.4 gives the percentage distribution of the population

according to the type of work district-wise, rural and urban. The percentage of workers among males is between 46 and 48 in all the Districts except Palghat. In Palghat the percentage is 51. In the case of females the variation between Districts is more. The percentage varies between 16 and 23 in the 7 Districts except Palghat and Kozhikode. Kozhikode has the least percentage (14) and Palghat has the highest percentage (27). Thus in Palghat District the participation is highest in the case of males and females. A comparatively higher percentage of agricultural labourers in the District accounts for this.

Participation rates are lower in the urban areas in all Districts except Cannanore District. In Cannanore also the participation rate of females is lower in urban area. The higher percentages of cultivators and agricultural labourers in rural areas account for the high participation rate. Regarding females it can be seen that only less than 20 per cent are workers. The major field of employment for females is agricultural labour and household industry.

Quilon District has the highest percentage of cultivators. In other Districts the percentage of cultivators is near about 10. Palghat District which is famous for rice production has the largest percentage of agricultural labourers. Kottayam District which has large areas under plantation crops has the highest percentage of workers in the third category (mining, quarrying, plantations, etc.).

It would be worthwhile to examine the pattern of employment in broad age-groups. The younger age-group of 0-14 years accounts for only a very low percentage of workers. The following table gives the distribution of population in the various industrial categories.

TABLE 5.2 (1)

Age Group	Percentage distribution									
	I		II		III		IV		V	
	M	F	M	F	M	F	M	F	M	F
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
0-14	0.2	0.1	0.4	0.3	0.4	0.1	0.2	0.6	0.3	0.2
15-34	14.1	4.3	10.9	9.4	7.4	1.9	3.6	5.6	8.9	3.2
35-59	22.8	7.3	11.6	10.3	9.7	1.8	4.2	6.3	8.4	2.4
60 +	30.9	4.9	6.4	3.0	6.4	0.6	3.3	2.8	3.1	0.5
ALL	10.8	3.2	6.2	5.4	4.8	1.0	2.2	3.5	4.7	1.6

Age Group	Percentage distribution									
	VI		VII		VIII		IX		Non-workers	
	M	F	M	F	M	F	M	F	M	F
(1)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
0-14	..	..	0.1	..	..	..	0.6	0.6	97.8	98.1
15-34	1.4	0.1	5.9	0.3	3.0	0.2	21.3	7.6	23.5	67.4
35-39	1.6	..	7.6	0.7	3.8	0.1	24.7	8.4	45.6	62.7
60 +	0.7	..	3.3	0.4	0.8	..	10.7	2.6	34.4	85.2
ALL	0.8	..	3.6	0.3	1.7	0.1	12.4	4.6	52.8	80.3

About 2% of the children below 15 years are classified as workers. The maximum percentage of workers is in the age group 15-34 years, among males. Among females the maximum percentage of workers is in the age group 35-59 years. There are proportionately more cultivators in the older age group of 60 years and above. Proportionately more agricultural labourers are found in the age group 35-59 years. Though the State is not much advanced in the matter of industry, the dependance for livelihood on agriculture is comparatively low. This is due to the lack of employment opportunities in agriculture. Only 11% of the male workers are cultivators. This is less than the percentage in all other States in India. A comparative distribution of the population in the various States of India can be had from the following table.

Here the Codes I to IX stand for the following:

- I Cultivator.
- II Agricultural Labourer.
- III Mining, Quarrying, Livestock, Forestry, Fishing, Hunting and Plantations, orchards and allied activities.
- IV Household Industry.
- V Manufacturing other than Household Industry.
- VI Construction.
- VII Trade and Commerce.
- VIII Transport, Storage and Communications.
- IX Other Services.

TABLE 5.2.2.

## Percentage distribution of population in the various States of India

State	Sex	Percentage distribution									Non-workers
		Workers									
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Andhra Pradesh	Total	20.8	14.8	1.6	5.0	1.3	0.6	2.2	0.7	4.8	48.1
	Male	25.6	13.5	2.6	6.3	2.1	1.0	3.3	1.3	6.5	37.8
	Female	15.9	16.2	0.5	3.7	0.5	0.3	1.2	0.0	3.0	58.7
Assam	Total	28.0	1.6	4.3	2.4	0.9	0.3	1.6	0.6	3.6	56.7
	Male	34.6	2.5	4.6	0.4	1.4	0.6	2.8	1.2	6.0	45.9
	Female	20.5	0.5	4.1	4.6	0.2	0.0	0.2	0.0	0.8	69.1
Bihar	Total	22.3	9.5	1.4	2.3	0.9	0.2	1.1	0.5	3.2	58.6
	Male	29.7	11.1	2.3	2.6	1.7	0.4	1.9	1.0	4.9	44.4
	Female	14.8	8.0	0.5	2.0	0.2	0.0	0.3	0.0	1.3	72.9
Gujarat	Total	21.9	6.1	0.5	2.7	2.6	0.4	2.0	0.8	4.1	58.9
	Male	26.5	6.4	0.7	3.2	4.7	0.7	3.6	1.5	6.2	46.5
	Female	17.0	5.7	0.3	2.1	0.4	0.2	0.3	0.0	1.9	72.1
Jammu & Kashmir	Total	32.4	0.5	0.7	2.7	0.9	0.3	0.9	0.4	4.0	57.2
	Male	42.1	0.9	1.0	2.3	1.6	0.4	1.7	0.7	7.1	42.2
	Female	21.3	0.1	0.4	3.2	0.1	..	..	..	0.1	74.4
Kerala	Total	7.0	5.8	2.9	2.9	3.1	0.4	1.9	0.9	8.4	66.7
	Male	10.8	6.2	4.8	2.2	4.7	0.8	3.6	1.7	12.4	52.8
	Female	3.2	5.4	1.0	3.5	1.6	0.0	0.3	0.1	4.6	80.3
Madhya Pradesh	Total	32.8	8.7	1.5	2.6	1.0	0.5	1.2	0.5	3.4	47.7
	Male	35.8	8.4	2.3	3.2	1.8	0.9	2.1	0.9	4.8	39.8
	Female	29.6	9.9	0.7	2.0	0.2	0.2	0.3	0.0	2.0	56.0

TABLE 5. 2. 2—(Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Madras	Total	19.2	8.4	1.3	3.6	2.5	0.6	2.3	0.7	7.0	54.4
	Male	25.0	8.6	1.9	4.0	4.4	1.0	3.9	1.5	9.4	40.3
	Female	13.3	8.2	0.6	3.1	0.6	0.2	0.6	0.3	4.4	68.7
Maharashtra	Total	22.1	11.4	1.1	2.1	3.3	0.6	2.2	1.1	4.1	52.1
	Male	23.2	10.3	1.7	2.8	5.8	1.0	3.8	2.1	6.4	42.9
	Female	20.9	12.5	0.3	1.4	0.6	0.2	0.4	0.1	1.6	61.9
Mysore	Total	24.6	7.5	1.4	3.0	1.8	0.8	1.7	0.5	4.2	54.5
	Male	31.2	7.4	2.0	3.7	3.0	1.3	2.7	0.9	6.2	41.6
	Female	17.8	7.6	0.8	2.2	0.5	0.3	0.6	0.0	2.2	68.0
Orissa	Total	24.8	7.4	0.8	3.0	0.5	0.2	0.8	0.3	5.9	56.3
	Male	36.3	9.2	1.1	3.3	0.8	0.3	1.3	0.6	7.9	39.2
	Female	13.3	5.7	0.4	2.8	0.2	0.0	0.4	..	3.8	73.4
Punjab	Total	19.7	2.7	0.3	2.7	1.7	0.7	1.9	0.7	4.6	65.0
	Male	27.5	4.4	0.5	3.9	3.1	1.2	3.5	1.3	7.5	47.1
	Female	10.7	0.6	0.1	1.3	0.1	0.1	0.1	0.1	0.0	85.8
Rajasthan	Total	35.0	1.9	0.8	3.0	0.9	0.5	1.4	0.6	3.4	52.5
	Male	39.8	2.2	1.2	3.8	1.4	0.9	2.6	1.1	5.2	41.9
	Female	29.7	1.7	0.5	2.1	0.2	0.1	0.2	0.0	1.4	64.1
Uttar Pradesh	Total	25.0	4.4	0.2	2.5	1.1	0.3	1.4	0.5	3.7	60.9
	Male	37.0	5.3	0.4	3.4	2.0	0.5	2.6	1.0	6.0	41.8
	Female	11.7	3.5	0.1	1.4	0.1	0.0	0.2	0.0	1.1	81.9
West Bengal	Total	12.8	5.1	1.7	1.4	3.8	0.4	2.5	1.1	4.4	66.8
	Male	20.9	7.8	2.4	1.6	6.7	0.8	4.5	2.1	7.2	46.0
	Female	3.5	2.0	0.9	1.1	0.5	0.0	0.2	0.0	1.2	90.6

The percentage of total workers is least in Kerala and highest in Madhya Pradesh. Considering the males and females separately, it can be seen that the participation rate in labour force for males is least in Kerala and highest in Andhra Pradesh. The participation rate among females is least in West Bengal and highest in Madhya Pradesh. While in Kerala, only about one third of the population are workers, more than 50% in Madhya Pradesh are workers. About 60% males in most of the States are workers. While only about 10% females in West Bengal are workers, 44% females in Madhya Pradesh are engaged in one or other of the occupations. Most of these females are engaged in agriculture. In the States where a high participation rate is observed the percentage engaged in agriculture is also high. The labour force find employment mostly in the agricultural sector. In States where the opportunities for employment in agriculture are limited the percentage of workers is also seen to be low. Since agriculture cannot provide employment for the whole of the year, most of the persons reported to be employed in agriculture may be under-employed.

Of the total population of 169.04 lakhs in Kerala, 66.69% are non-workers. This consists of 20.03% full-time students, 16.85% engaged in household duties, 27.96% dependants, infants and disabled, 0.53% retired persons or rentiers, 0.25% beggars, vagrants etc., 0.05% inmates of penal, mental and charitable institutions and 1.02% employment seekers. The total No. of employment seekers is 1,72,541. This is 1.90% of the population in the age group 15-59 years. The number of employment seekers in 15-59 years is 1,65,481. Among the various States in India, Kerala has the highest percentage of employment seekers in 15-59 years. Considering the total population, one can see that West Bengal has the highest percentage of employment seekers. In addition to employment seekers there will be 3.10 lakh employable dependants in 15-59 age group. It is also necessary to find out employment for the under-employed persons. In this context it will be relevant to examine the figures available from the surveys conducted by the Bureau of Economics and Statistics. According to the survey conducted in 1962, 7.60 lakhs unemployed persons are available for employment. The difference in the census figure and survey figure can be explained by the difference in concept adopted. In the census, persons employed for at least one hour during the reference period of 15 days was considered employed. In the case



of seasonal work, persons employed for at least one hour a day during the greater part of the working season is considered as employed. In the unemployment survey the reference period was one week. Due to the above conceptual difference seasonal workers considered as employed in the census may be classified as unemployed in the survey. In the case of casual workers also there is a greater chance of their being classified as workers adopting a 15 day reference period than a 7 day reference period. According to the survey conducted in 1965 there were 5.5 lakh persons unemployed. The concept used for the survey is that a person engaged in any gainful work during the preceding week is considered as employed. The figures of 1962 and 1965 surveys of the Bureau show a declining trend in unemployment.

The distribution of non-workers in broad age-groups is given in the following table.

TABLE 5.2.3.

State	Age Group	Percentage distribution of non-workers								
		Full time students	Household duties	Dependants, infants, disabled	Retired Rentier etc.	Beggars, vagrants, etc.	Inmates of penal, mental, charitable institution	Employment seekers.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)		
Kerala	30 14	Male 44.0	3.2	55.8	..	0.1	..	0.1		
		Female 38.2		58.5	..	0.1	..	..		
	15—34	Male 53.5	..	24.1	0.9	1.3	0.5	19.7		
		Female 9.2	83.0	5.4	0.3	0.2	..	1.9		
	35—59	Male 0.2	..	50.8	23.0	7.8	2.6	15.6		
		Female ..	92.4	5.7	1.2	0.6	0.1	..		
60	Male ..	..	46.0	74.6	20.6	3.8	0.3	0.7		
	Female ..	..	..	50.1	2.5	1.3	0.1	..		
Age not stated	Male 30.2	..	44.7	64.7	0.5	1.8	0.2	2.6		
	Female 14.7	..	..	38.8	0.4	1.1	..	0.3		
All	Male 42.7	..	41.5	52.2	1.4	0.5	0.1	3.1		
	Female 21.9	..	..	35.3	0.4	0.3	..	0.6		
Rural	0—14	Male 43.6	..	56.2	..	0.1	..	0.1		
		Female 37.4	3.4	59.1	..	0.1	..	..		
15—34	Male 52.7	..	84.0	26.0	0.9	1.3	0.3	18.8		
	Female 8.5	..	..	5.3	0.3	0.2	..	1.7		

TABLE 5.2.3—(contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
Rural	35—59	Male	0.1	55.3	21.2	8.1	1.9	13.4	
		Female	..	5.8	1.1	0.5	0.1	..	
	60 ..	Male	..	78.5	17.0	3.8	0.2	0.5	
		Female	..	51.0	2.2	1.4	..	..	
	Age not stated	Male	30.5	..	0.5	1.3	0.1	2.6	
		Female	14.9	45.2	0.4	0.9	..	0.3	
	All	Male	42.3	..	53.2	1.1	0.5	0.1	
		Female	21.7	40.9	0.4	0.3	..	0.4	
	Urban	0—14	Male	46.5	53.1	..	0.2	..	0.2
			Female	42.8	54.7	..	0.1	..	..
15—34		Male	56.3	..	0.7	1.2	1.3	23.5	
		Female	12.3	78.6	0.3	0.3	0.2	2.4	
35—59		Male	0.3	..	28.4	7.0	4.8	22.4	
		Female	..	91.9	1.6	0.7	0.2	0.1	
60 ..		Male	..	..	35.5	3.9	0.6	1.5	
		Female	..	48.9	4.0	1.3	0.2	..	
Age not stated		Male	15.8	..	..	26.3	5.3	..	
		Female	6.2	21.9	3.1	9.4	..	..	
All	Male	44.6	..	2.7	0.8	0.4	5.2		
	Female	23.1	44.8	0.6	0.3	0.1	0.6		

Among the male non-workers in the State, about 95% are either students or dependants, infants or disabled. Students are mostly in the age groups 0-14 and 15-34 years. 40% of the female non-workers are engaged in household duties. Much difference is not noticed between rural and urban areas of the State. The percentage of employment seekers is, however, much higher in the urban areas. Percentage of retired persons and rentiers are also comparatively greater in urban areas. Employment seekers are mainly in the age groups 15-34 and 35-59 years. Children below the age of 15 years also are found to be employment seekers though rarely. In rural areas, a small per cent of those aged 60 and above are also seen to be employment seekers.

TABLE 5.2.4.  
Percentage distribution of population among the industrial categories 1961.

District	Sex	Percentage distribution										
		Workers										
		I	II	III	IV	V	VI	VII	VIII	IX	Non-workers	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Trivandrum	Rural	M	14.1	9.0	2.4	2.9	2.8	0.7	2.3	0.8	11.4	53.6
		F	3.0	2.7	0.2	5.0	1.7	..	0.8	0.1	3.6	82.9
	Urban	M	2.1	1.2	4.4	2.3	5.0	1.1	5.5	2.5	21.0	54.9
	F	0.7	0.3	0.1	2.1	0.9	..	1.4	0.2	7.3	87.0	
Total	M	11.0	7.0	2.9	2.8	3.3	0.8	3.1	3.1	1.3	13.9	53.9
	F	2.4	2.1	0.2	4.3	1.5	..	0.9	0.1	4.5	84.0	
	Rural	M	18.6	6.6	3.4	1.8	4.3	0.5	2.5	1.2	7.0	54.1
	F	3.4	2.9	0.6	4.2	6.1	..	0.2	..	2.0	80.6	
Quilon	Urban	M	2.6	1.0	3.8	0.8	10.9	0.9	6.6	3.9	14.1	55.4
		F	0.3	0.1	0.1	1.7	9.5	..	0.3	0.1	4.6	83.3
	Total	M	17.4	6.2	3.4	1.7	4.8	0.6	2.8	1.4	7.5	54.2
	F	3.2	2.7	0.6	4.0	6.3	..	0.2	..	2.2	80.8	
Alleppey	Rural	M	11.8	7.9	4.0	2.6	4.2	0.6	3.1	1.5	10.4	53.9
		F	2.1	7.0	0.2	9.6	1.3	..	0.2	0.1	2.9	76.6
	Urban	M	3.1	1.8	2.2	1.5	8.5	1.0	7.5	3.9	14.0	56.5
	F	0.7	1.8	0.1	6.0	1.6	..	0.4	0.2	4.9	84.3	
Total	M	10.3	6.8	3.7	2.4	4.9	0.7	3.9	1.9	11.0	54.4	
	F	1.9	6.1	0.2	9.0	1.3	..	0.2	0.1	3.3	77.9	

TABLE 5.2.4.—(Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
Kottayam	Rural	M F	6.6 3.8	11.7 6.1	1.3 1.7	3.4 0.3	1.0 ..	2.5 0.2	1.9 ..	9.1 3.0	51.3 83.2	
	Urban	M	2.2	2.5	1.3	5.6	1.2	8.4	3.5	16.8	54.8	
		F	0.6	1.2	0.2	1.4	0.3	..	0.6	0.1	6.6	89.0
Ernakulam	Total	M F	11.3 1.6	10.8 5.5	1.3 1.7	3.6 0.3	1.0 ..	3.1 0.2	1.2 ..	9.9 3.8	51.6 83.8	
	Rural	M F	12.0 4.9	4.5 0.5	2.6 3.6	5.4 1.4	1.1 ..	2.9 0.3	1.7 0.1	11.6 4.7	52.9 78.3	
	Urban	M F	1.2 0.5	0.6 0.1	1.5 0.8	8.2 1.2	1.2 0.1	7.6 0.5	7.5 0.2	18.2 6.4	53.2 89.7	
Trichur	Total	M F	9.7 4.0	4.3 5.0	1.8 3.8	2.2 3.0	6.0 1.4	1.1 ..	3.9 0.3	13.0 5.1	53.0 80.7	
	Rural	M F	9.0 3.2	4.9 6.1	4.8 0.6	2.8 4.0	4.7 1.3	0.9 ..	3.5 0.2	1.6 0.2	13.5 7.1	54.3 77.3
	Urban	M F	2.9 1.1	1.2 1.7	2.6 0.4	1.7 1.2	7.1 1.3	1.1 0.1	8.2 0.4	3.4 0.2	16.0 9.0	55.8 84.6
Total	M	8.3	4.4	4.6	2.7	5.0	0.9	4.0	1.8	13.8	54.5	
	F	3.0	5.6	0.6	3.7	1.3	..	0.2	0.2	7.3	78.1	

TABLE 5.2.4.—(Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Palghat	Rural	12.5	12.1	3.4	3.3	3.6	1.1	2.6	1.1	12.1	48.2
	F	4.9	14.2	0.6	2.2	0.4	0.1	0.2	..	5.6	71.8
	Urban	2.7	2.7	4.3	2.2	7.4	1.3	8.2	5.2	16.2	51.8
Kozhikode	Urban	1.2	4.6	..	2.0	1.7	0.2	0.3	0.1	7.1	82.8
	Total	11.5	11.2	3.3	3.2	3.9	1.2	3.1	1.6	12.5	48.5
	F	4.6	13.2	0.5	2.2	0.6	0.1	0.2	..	5.7	72.9
Cannanore	Rural	9.3	5.7	6.2	1.8	3.1	0.5	3.3	1.5	15.8	52.9
	Urban	2.2	4.4	1.2	2.4	0.7	..	..	0.1	4.3	84.7
	Total	0.9	0.5	5.0	1.3	9.9	0.8	7.6	4.8	15.8	53.4
Cannanore	Urban	0.3	0.6	0.1	1.9	2.0	..	0.2	0.1	4.4	90.4
	Total	7.9	4.9	6.0	1.7	4.2	0.6	4.0	2.0	15.8	52.9
	F	1.9	3.8	1.0	2.3	0.9	..	0.1	0.1	4.3	85.6
Cannanore	Rural	12.2	6.4	4.0	2.8	4.7	0.6	3.3	0.9	13.0	52.1
	Urban	7.7	7.9	0.8	2.0	0.6	..	0.2	0.1	5.6	75.1
	Total	2.2	0.8	3.4	2.0	16.0	1.0	7.2	3.2	13.0	51.2
Cannanore	Urban	1.8	1.9	0.1	1.8	1.8	0.1	0.8	0.1	5.4	86.2
	Total	10.5	5.4	3.9	2.7	6.6	0.7	4.0	1.3	13.0	51.9
	F	6.7	6.9	0.7	2.0	0.8	..	0.3	0.1	5.6	76.9

## CHAPTER VI

### POPULATION PROJECTIONS FOR KERALA 1966-81

6.1. The expert committee set up by the Planning Commission has made population projections for the various States in India and for All India. They made the projections on three sets of assumptions regarding fertility and one assumption regarding mortality. The 3 sets of assumptions regarding fertility differ in the phasing of decline in fertility. These 3 assumptions regarding fertility phase relate to the percentage decline in General Fertility as follows:

<i>Assumption</i>	1966-70	1971-75	1976-80
I	0	5	15
II	5	10	20
III	10	15	25

The general fertility rate is assumed to be constant till 1966. Regarding mortality the assumption is that the expectation of life at birth may be taken to increase by 0.9 year per annum upto 1960 and 0.75 per annum during 1971-80. The second assumption regarding fertility is preferred being more probable.

For making population projections for the States also similar assumptions are made. The 2nd assumption regarding fertility decline is taken for the various States also. Regarding mortality decline, the States are grouped into three and separate assumptions are made. The grouping has been based on the present level of expectation of life. States which have at present higher expectation of life are assumed to have lower gain in expectation of life in future years. The group of States including Kerala is assumed to have a gain of 0.8 year per annum during 1956-70 and a gain 0.65 year per annum during 1971-80 in expectation of life. The male and female expectation of life are worked out on the basis of zonal life tables from the expectation of life for both sexes. The projections were made on the basis of U. N. Model life tables and zonal life tables. Migration was not taken into account in the projections.

The population projections for Kerala can be further improved by using the life table for Kerala and by making suitable changes in the assumptions.



*Fertility:*

Upto the end of 1965, 106597 sterilisations and 23062 IUCD insertions were conducted in Kerala. The birth rate calculated from the sample registration pilot study is 35 in 1964. But this does not give conclusive evidence of fertility decline. In some of the sample villages the birth rate is found to be lower than 30. Whether complete enumeration of births has been done in these villages is doubtful. Hence the assumption of the expert committee can be accepted for the period 1961-66. For the period 1966-70, a reduction of 25% and during 1971-75 a reduction of 25% is envisaged in birth rate by family planning programme. It can be assumed that these reductions will be achieved by sterilisations and IUCD insertions targeted. For the period 1976-80 no reduction is assumed since the birth rate will be very low by this time.

*Mortality:*

The assumptions of the expert committee regarding gain in expectation of life can be taken to be valid. The gain in expectation of life during 1941-50 to 1951-60 is about 8 years in the case of males and females. This is roughly a gain of 0.8 years in expectation of life. This can be assumed to continue during 1966-70 also. There will not be any unprecedented growth in public health and sanitary conditions. After 1970 the gain in expectation of life will be smaller since the expectation of life will be above 55 years by 1971. The expert committee's assumption can be accepted for 1971-80.

*Migration:*

The effect of migration is not taken into account for the projection due to absence of information on the same.

*Method adopted:*

The survival rates for each quinquennium was taken from the U. N. model life tables corresponding to the level of expectation of life assumed.

<i>Period</i>	<i>Expectation of life</i>	
	<i>Males</i>	<i>Females</i>
1961-65	50-17	54-00
1966-70	54-17	58-00
1971-75	57-49	61-25
1976-80	60-67	64-50

The number of births during each quinquennium is calculated by applying the general fertility rate to the number of females in the reproductive age group at the beginning and end of the quinquennium. The sex-ratio of 105 males per 100 females is assumed for births.

## MALES

(Figures in '00s)

Age	Population in 1961	Survival Ratio	Population in 1966	Survival Ratio	Population in 1971	Survival Ratio	Population in 1976	Survival Ratio	Population in 1981
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0-4	13561	(0.84186)	15134	(0.8655)	19236	(0.8865)	11410	(0.9089)	13324
5-9	11442	0.9342	12815	0.9562	14471	0.9644	12745	0.9713	11083
10-14	9802	0.9828	11261	0.9869	12647	0.9892	14915	0.9910	12650
15-19	8422	0.9743	9633	0.9789	11104	0.9822	12499	0.9850	14173
20-24	7283	0.9691	8206	0.9747	9430	0.9787	10906	0.9822	12312
25-29	6268	0.9676	7058	0.9736	7998	0.9779	9229	0.9814	10712
30-34	5437	0.9647	6065	0.9712	6872	0.9758	7821	0.9795	9057
35-39	4756	0.9583	5245	0.9657	5890	0.9708	6706	0.9749	7661
40-44	4022	0.9471	4558	0.9558	5065	0.9614	5718	0.9662	6338
45-49	3352	0.9298	3809	0.9399	4357	0.9466	4869	0.9520	5525
50-54	2754	0.9050	3117	0.9166	3580	0.9246	4124	0.9311	4635
55-59	2198	0.8684	2492	0.8820	2857	0.8914	3310	0.8991	3840
60-64	1676	0.8148	1909	0.8307	2198	0.8417	2547	0.8509	2976
65-69	1185	0.7375	1366	0.7561	1586	0.7691	1850	0.7802	2167
70-74	805	0.6343	874	0.6553	1033	0.6700	1120	0.6826	1443
75-79	516	0.5059	511	0.5282	573	0.5441	692	0.5576	833
80 +	140	0.2995	303	0.3154	365	0.3266	431	0.3359	531
Total	83619		94336		103262		110412		119460
Total Population	169037		191392		209536		224976		243713
Sex Ratio	1022		1229		1034		1086		1040
Growth rate (percentage quinquennial variation)			13.23		9.48		7.37		8.33
B. R.			39		39		23		24
D. R.			13		12		9		7

## FEMALES

(Figures in '00s)

Age	Population in 1961	Survival Ratio	Population in 1966	Survival Ratio	Population in 1971	Survival Ratio	Population in 1976	Survival Ratio	Population in 1981
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
0-4	18142	(0.8825)	15115	(0.9050)	13180	(0.9260)	11350	(0.9458)	13205
5-9	11254	0.9865	12589	0.9897	14625	0.9919	12849	0.9940	11142
10-14	10077	0.9856	11102	0.9889	12459	0.9912	14506	0.9933	12772
15-19	8951	0.9797	9932	0.9842	10979	0.9873	12349	0.9902	14409
20-24	7822	0.9757	8769	0.9812	9775	0.9848	10840	0.9882	12228
25-29	6734	0.9741	7632	0.9797	8604	0.9836	9626	0.9871	10712
30-34	5757	0.9723	6560	0.9782	7477	0.9820	8463	0.9855	9502
35-39	4811	0.9694	5598	0.9754	6417	0.9792	7342	0.9827	8340
40-44	3950	0.9632	4664	0.9696	5460	0.9737	6284	0.9774	7215
45-49	3290	0.9523	3805	0.9595	4522	0.9642	5316	0.9684	6142
50-54	2763	0.9353	3133	0.9440	3651	0.9496	4360	0.9549	5148
55-59	2254	0.9074	2584	0.9182	2958	0.9256	3467	0.9324	4163
60-64	1761	0.8615	2043	0.8753	2373	0.8849	2738	0.8937	3233
65-69	1338	0.7902	1517	0.8074	1790	0.8191	2100	0.8292	2447
70-74	900	0.6886	1057	0.7091	1223	0.7233	1466	0.7369	1741
75-79	567	0.5612	620	0.5838	750	0.5995	886	0.6146	1080
80 +	47	0.3369	334	0.3507	479	0.3599	622	0.3686	774
Total	85418		97056		106724		114564		124253

Year	Total Females 15-44 Years		G. F.R.		Total		Births		M	
	1961	1966	1962-65	1966-70	(Figures in hundreds)	(Figures in hundreds)	F	F	(Figures in hundreds)	M
1961	38025	43155	173	(1962-65)	35110	17127	17983			
1966	48712	54904	130	(1966-70)	29857	14564	15293			
1971	63127		97	(1971-75)	25127	12257	12870			
1976			77	(1976-80)	28622	13962	14660			
1981				..	..	..	..			

## 62. Population policy for the State and progress of Family Planning movement:

Population is considered as a strategic variable in economic development. Rapid population growth retards the pace of economic development. The rise in national income will not be reflected in per capita income. Large amounts have to be spent to provide public health and educational facilities for the population. In the context of limited resources, population control is recognised as the only alternative. Growth of population can be controlled by effecting appropriate change in the factors which affect population growth. The factors are:

(1) fertility, (2) mortality and (3) migration. Population control can be achieved either by birth control or by appropriate re-distribution of population.

The scope for re-distribution of the population within the State is very limited. Kottayam District has the least density among the Districts. Even this is very much higher than the All India density. The per capita availability of land is less than one acre here also. Another question which deserves consideration is that of redistribution between the States. The States of Madhya Pradesh and Rajasthan have densities much less than that for Kerala. These States have less than 200 persons per sq. mile compared to 1127 in Kerala. As an immediate measure, the possibility of migrating some families to these States can be considered. But as a long term measure this will not be feasible.

The only alternative remaining is birth control. Top priority has therefore been given to family planning by the Government. The programme had its official beginning in 1955 when 11 clinics were started. The movement gained momentum only during the second plan period. 70 clinics were started during the plan period. The constitution of the State family planning Board and granting of incentive are some of the measures adopted for the promotion of family planning.

Much progress has been made in family planning during the Third Five Year Plan. For the efficient and speedy implementation of the programme, District level officers were appointed. Incentives for promoters of sterilisation operation was also introduced. From April 1964 the family planning organisation was reorganised on the lines of Government of India directive. Under this set up there are four important units.

1. State Family Planning Bureau.
2. District Family Planning Bureau.

3. Urban Family Planning Centres.
4. Rural Family Planning Units.

The Family Planning activities in the State are controlled by the State Bureau. The District Bureau under the District Family Planning Officer exercises control over the activities in the District. The urban centres function in the hospitals in towns with more than 50,000 population. The clinics in the rural areas function on the primary Health Centre basis. One Auxiliary Nurse Midwife is appointed for every 10000 population and Family Planning field worker for every 20000 population. From July 1965 a simple and easy method is also being propagated. The IUCD method with its easiness has promising prospects for the State. Much progress has been made in this field during the short period. The No. of sterilisations and IUCD insertions done is given in the following table.

<i>Year</i>	<i>Vasectomies</i>	<i>P. P. S.</i>	<i>Total sterilisations</i>	<i>I.U.C.D.</i>
1957	521	158	679	..
1958	1653	1507	3160	..
1959	4132	2236	6368	..
1960	3079	1953	5032	..
1961	3578	2939	6517	..
1962	4182	2916	7098	..
1963	10396	2830	13226	..
1964	17938	3966	21904	..
1965	36102	6532	42634	23062
1966 (Up to the end of October)	21721	4835	26556	29762

The use of contraceptives is also prevalent in the State. Condom is the most common device adopted. Foam tablets is also widely accepted. Diaphragm and jelly is the method next in order of importance. According to the estimates of the Health Services Department more than 2½ lakh couples adopt one or other of the family planning methods. The number of couples who have recognised the need for family planning and adopting methods of birth control is increasing through the years.

The Health Services Department has fixed the target of 13 lakhs sterilisations during the next 10 years. If the target of sterilisations are not achieved its equivalent can be achieved by IUCD insertions or other methods of contraception. With the increased awareness created among the people about family planning, in recent years, it may not be difficult to achieve the target.

## SUMMARY AND CONCLUSIONS

### *Historical and geographical background:*

The historical and geographical factors play a vital role in the growth of population of the State. The geographical factors make the State highly habitable and provide ample scope for diversified activities, such as agriculture, fishing trade etc. Kerala has attracted migrants from very early times.

### *Population size and growth:*

The population of the State has increased from 64 lakhs in 1901 to 169 lakhs in 1961, registering a growth of 164.27%. The Districts in the erstwhile Travancore-Cochin Region show a higher rate of variation compared to those in the Malabar region. The lowland region in the State is densely populated and the high land region is sparsely populated.

### *Urbanisation:*

The difference in the concept of urban areas adopted in various censuses makes the study of urbanisation difficult. According to the concepts adopted in each census, the rural population has increased by 142% and urban population has increased by 461%. The percentage of urban population has increased from 7 in 1901 to 15 in 1961.

### *Sex Ratio:*

Kerala has an excess of females over males from 1901 onwards. The sex-ratio (defined as females per 1000 males) has shown a steadily increasing trend from 1901-51 and a slight decline in 1961. The sex-ratio was 1004 in 1901, 1028 in 1951 and 1022 in 1961.

### *Age composition:*

Like other developing countries and States therein, Kerala has an age distribution with a heavy base. During all censuses from 1901 to 61, near about 40% of the persons are below 15 years according to unadjusted age-data. In 1901, it was 39 and in 1961 it increased to 43. There is a slight increase from 4% in 1901 to 6% in 1961 in the percentage of persons aged 60 and above. The percentage of females aged 15-44 years has shown only minor fluctuations during the period 1901-61.

*Marital status:*

About 50% persons were unmarried, 40 to 45% married and the remaining were widowed or divorced during 1901-31. After 1931 the percentage of unmarried has increased slightly reaching 57 in 1961. The percentage of married has decreased correspondingly, the figure for 1961 being 35. Among the States in India, Kerala has the lowest percentage of married persons according to 1961 census.

*Fertility and mortality.*

Of the vital rates of the State the birth rate has shown only very slight change during 1901-61. But the death rate has shown considerable decline during the period as seen from the expectation of life at birth. The expectation of life has increased from 25 to 46 in the case of males and from 27 to 50 in the case of females during 1911-60. The higher expectation of life for females is a unique feature of Kerala among the States in India.

*Migration:*

The only source of information on migration is the place of birth data in the census. The data are subject to various limitations due to boundary changes of States. The available evidence shows that Kerala has been a net in-migrating State till 1931 and net out-migrating State after 1931. According to 1961 census, 618000 persons born in Kerala were enumerated in other States in India and 233000 persons born in other States were enumerated in Kerala.

*Literacy level:*

Kerala has a foremost place in the case of literacy. According to 1961 census, 55% males and 39% females are literates. The percentage of literates excluding children below 5 years is 55 in Kerala according to 1961 census—65 for males and 46 for females. The percentage for males has increased from 22 in 1901 and that for females from 4 in 1901.

*Economic status:*

The percentage of workers according to 1961 census definition is 33.31 in Kerala and 43.6 in All-India. The percentage of workers has been less in Kerala compared to the All-India figure for various decades. In Kerala the percentage has shown a declining trend from 1901. The decrease is from 44 in 1901 to 33 in 1961. The percentage of workers in the agricultural sector is low in Kerala compared to other States in India.

## KERALA DEMOGRAPHIC REPORT

## Addendum giving 1971 Census data

In the foregoing Chapters, the growth of population in Kerala during the sixty year period 1901-1961 and the salient features of its composition and characteristics have been discussed. Since then, the results of the 1971 Census have become available at least in part. The changes in population, size and characteristics, during the decade 1961-71, in the light of the available 1971 Census results are discussed in this addendum. Items like, size and rate of growth, distribution and density, sex-ratio, religion, literacy, occupation and vital rates are covered in the following paragraphs, but items like age and marital status are not touched upon, as the results of the 1971 Census, relating to these are not yet available.

*Size and rate of growth of population:*

The size of the population increased from 169.04 lakhs on 1st March 1961 to 213.47 lakhs on 1st April 1971, thus adding 44.43 lakhs persons during the decade and one month. The decennial percentage variation of population of 26.29, is slightly more than that of the previous decade (24.76%). The annual geometric rate of growth for the decade works out to 2.26%.

In the matter of growth rates, there is considerable variation among the Districts. During the decade 1961-71, the northern Districts except Palghat District, show a higher growth rate than the southern Districts, as may be seen from the following table.

TABLE I

<i>Name of District</i>	<i>Decennial variation (%)</i>
Cannanore	32.85
Kozhikode	32.60
Malappuram	33.80
Palghat	23.06
Trichur	26.09
Ernakulam	27.69
Kottayam	20.78
Alleppey	17.73
Quilon	23.93
Trivandrum	26.03



*Distribution and Density of Population:*

According to the 1971 Census results, 83.72% of the population (178.81 lakhs) live in rural areas as against 84.9% in 1961 and 16.28% (34.66 lakhs) live in urban areas, as against 15.1% in 1961. During the decade under consideration, the urban population grew from 25.54 lakhs to 31.06 lakhs (35.7%), as against the rural population which grew from 143.5 lakhs to 178.8 lakhs (24.6%).

According to 1971 Census, there are 88 towns of which 32 are Municipal towns (including 3 Corporations). In 1961 there were 92 towns of which 29 were Municipalities (including 2 Corporations). The above change between the two Censuses is the result of de-classifying 15 towns of 1961 as rural, merging 17 towns wholly or partly with the existing or new towns of 1971, and creating 22 new towns.

In 1971, the density of population in the State, is 549 persons per sq. km. This was only 435 in 1961. In the matter of density the differences among the districts is marked as can be seen from Table II.

TABLE II

<i>Name of the District</i>	<i>Density per Sq. K. M.</i>
Cannanore	415
Kozhikode	565
Malappuram	510
Palghat	383
Trichur	702
Ernakulam	729
Kottayam	326
Alleppey	1128
Quilon	522
Trivandrum	1003

Five districts have higher density, as compared to the State. The density in Alleppey District is more than double when compared to the State density. The density in the three natural regions of the State also vary much with 172 persons per sq. km. in the highland areas, 778 in the mid-land and 1385 in the low-land.

The villages are in general large in size with 63.72% of them having a population of 10000 and above.

*Sex Ratio:*

The predominance of females in the population continue as in earlier censuses though the number of females per 1000 males has come down to 1016 in 1971, from 1022 in 1961. There are 105.88 lakhs males and 107.59 lakhs females. The range of variation in sex ratio among the Districts is from 976 in Kottayam to 1081 in Frichur. The population of the Districts, with the male and female break-up and the sex-ratio are given below:

TABLE III  
Total Male and Female Population of Districts (in lakhs) and  
Sex-ratio of Districts

<i>Name of District</i>	<i>Total population</i>	<i>Males</i>	<i>Females</i>	<i>No. of females per 1000 males</i>
Cannanore	23.65	11.72	11.93	1017
Kozhikode	21.06	10.58	10.48	991
Malappuram	18.56	9.09	9.47	1041
Palghat	16.85	8.19	8.66	1056
Trichur	21.29	10.23	11.06	1081
Ernakulam	23.83	12.02	11.81	983
Kottayam	20.85	10.55	10.30	976
Alleppey	21.26	10.48	10.78	1028
Quilon	24.13	12.06	12.07	1001
Trivandrum	21.99	10.95	11.04	1008
Total (State)	213.47	105.87	107.60	1016

*Religion:*

According to the 1971 Census results, 59.41% of the population are Hindus, 21.05% Christians, 19.5% Muslims and 0.04% "other religions". The trend shows that the population of Hindus has been gradually decreasing while those of Christians and Muslims has been rising.

*Literacy:*

The rate of literacy has risen to 60% from 46.85% in 1961. The male literacy rate is 66.54% while that of females is 53.9%.

Among the Districts, Alleppey is leading with 70.44% literacy, while the lowest rate is for Palghat 46.69%.

#### Occupation:

There is no strict comparability between the data for 1961 and 1971, due to changes in the definition of worker and the grouping of industrial categories. Subject to this limitation, the changes during the decade are mentioned here. During 1961-71, there is a reversal of trend in the percentage of agricultural labourers, as against a decrease in the previous decade. The slight decrease in the percentage of cultivators during the earlier decade is continuing during 1961-71. The percentage under "other services" has come down to 3.95% in 1971 from 8.4% in 1961. Also, there is a decline in the percentage of population under the category "manufacturing". The following table shows the distribution and percentage of population by industrial categories.

TABLE IV  
Distribution of Population by industrial category of workers and non-workers, 1971.

Category	Persons	Percentage	Corresponding percentage in 1961
Total Population	21347375	100.00	100.00
Total workers	6216459	29.12	33.30
I. Cultivators	1106663	5.18	7.00
II. Agricultural Labourers	1908114	8.94	5.80
III. Livestock, forestry, fishing, hunting & plantations, orchards and allied activities	434829	2.04	2.90
IV. Mining and quarrying	29886	0.14	..
V. Manufacturing processing servicing and repairs:			
(a) Household industry	265892	1.25	2.90
(b) Other than household industry	711962	3.34	3.10
VI. Construction	107449	0.50	0.40
VII. Trade and Commerce	565648	2.65	1.90
VIII. Transport, storage and communication	242089	1.13	0.90
IX. Other services	843927	3.95	8.40
X. Non-workers	15130916	70.88	66.70

*Vital rates:*

The Sample Registration (Rural) estimates of vital rates during latter half of the decade 1961-71 are given below:

TABLE V

**Birth and death rates in Kerala (Sample Registration—rural estimates)**

<i>Year</i>	<i>Birth rate</i>	<i>Death rate</i>
1965—66	37.9	10.1
1966—67	37.2	10.4
1967—68	35.4	10.1
1969—70	33.5	9.2
1970—71	31.9	9.2

Compared to the intercensal estimate of birth rate during 1951-60 which was 38.9 per 1000 the above figures show that a gradual declining trend in birth rate has set in. But the decline in death rate during the years is faster, compared to the census estimate of 16.1 per 1000 during 1951-60. It may be remarked here that the birth and death rates in Kerala are the lowest among the Indian States. The provisional estimate of birth rate in 1975 is 28 and death rate 8. The expectation of life at birth based on the sample Registration (rural) estimates of age specific death rates for 1971, works out to 60.8.

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TABLE-2.1  
District-wise population and percentage variation from 1901 to 1961

District	1901		1911		1921	
	(1)	(2)	(3)	(4)	(5)	(6)
Trivandrum	Population	484493	569472	666393	Population	666393
	Percentage variation	17.54	17.02	28.58	Percentage variation	28.58
Quilon	Population	523401	600570	712206	Population	712206
	Percentage variation	14.74	18.59	27.89	Percentage variation	27.89
Alleppey	Population	668388	767239	909555	Population	909555
	Percentage variation	14.79	18.55	24.32	Percentage variation	24.32
Kottayam	Population	475427	559989	649768	Population	649768
	Percentage variation	17.79	16.03	36.92	Percentage variation	36.92
Ernakulam	Population	669135	762953	833849	Population	833849
	Percentage variation	14.02	9.29	26.63	Percentage variation	26.63
Trichur	Population	658873	742707	786564	Population	786564
	Percentage variation	12.72	5.91	22.30	Percentage variation	22.30
Palghat	Population	977212	1051224	1092723	Population	1092723
	Percentage variation	7.57	3.95	11.03	Percentage variation	11.03
Kozhikode	Population	1151981	1251737	1285622	Population	1285622
	Percentage variation	8.66	2.71	15.96	Percentage variation	15.96
Cannanore	Population	787352	841782	865447	Population	865447
	Percentage variation	6.91	2.81	15.21	Percentage variation	15.21
State	Population	6396262	7147673	7802127	Population	7802127
	Percentage variation	11.75	9.16	21.85	Percentage variation	21.85

Source: Computed from the Census of India 1961 paper No. 1 of 1962.

TABLE-2.1—(Contd.)

District	1931	1941	1951	1961
(1)	(5)	(6)	(7)	(8)
Trivandrum	856851	1015057	1327812	1744531
Population	18.46	30.81	31.38	
Percentage variation				
Quilon	910806	1142054	1473095	1941228
Population	25.39	29.07	31.70	
Percentage variation				
Alleppey	1130715	1274029	1521303	1811252
Population	12.67	19.41	19.06	
Percentage variation				
Kottayam	889664	1083329	1327668	1732880
Population	21.77	22.55	30.52	
Percentage variation				
Ernakulam	1055941	1276323	1530143	185913
Population	20.87	19.89	21.55	
Percentage variation				
Trichur	961965	1119565	1362665	1639862
Population	16.38	21.71	20.34	
Percentage variation				
Palghat	1213281	1326140	1565167	1776566
Population	9.30	18.02	13.51	
Percentage variation				
Kozhikode	1490770	1671990	2065284	2617189
Population	12.16	23.52	26.72	
Percentage variation				
Cannanore	997057	1123054	1375081	1780294
Population	12.64	22.44	29.47	
Percentage variation				
State	9507050	11031541	13549118	16903715
Population	16.04	22.82	24.76	
Percentage variation				

Source: Computed from the Census of India 1961 paper No. 1 of 1962.

TABLE—2.2  
Variation in population since 1901

Year	India	Kerala	Madras	Mysore
Total population in each census				
1901	236281245	6396262	19252630	13054754
1911	252122410	7147673	20902616	13523251
1921	251352261	7802127	21628518	13377599
1931	279015498	9507050	23472099	14632992
1941	318701012	11031541	26267507	16255368
1951	361129622	13549118	30119047	19401956
1961	439235082	16903715	33686953	23586772
Percentage variation				
1901—11	+ 5.73	+ 11.75	+ 8.57	+ 3.60
1911—21	— 0.31	+ 9.16	+ 3.47	— 1.09
1921—31	+ 11.01	+ 21.85	+ 8.52	+ 9.38
1931—41	+ 14.22	+ 16.04	+ 11.91	+ 11.09
1941—51	+ 13.31	+ 22.82	+ 14.66	+ 19.36
1951—61	+ 21.50	+ 24.76	+ 11.85	+ 21.57

Source: Paper No. 1 of 1962.



TABLE—2.3 I.

## Area, Population and Density of Population in the Districts

Name of District	1901		1911		1921		1931		1941		1951		1961		
	Area Sq. K.M.	Population	Area Sq. K.M.	Population	Area Sq. K.M.	Population	Area Sq. K.M.	Population	Area Sq. K.M.	Population	Area Sq. K.M.	Population	Area Sq. K.M.	Population	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Tiruvandrum	2186	484493	222	569472	261	666393	305	856851	392	1015057	464	1327812	607	1744531	798
Quilon	4733	523401	111	600570	127	712206	151	910806	192	1142054	241	1473995	311	1941228	410
Alleppey	1834	668388	364	767239	418	909355	496	1130715	617	1274029	695	1521303	830	1811252	988
Kottayam	6360	475427	75	559989	88	649768	102	889664	140	1083329	170	1327668	209	1732880	272
Ernakulam	3340	669135	200	762953	228	833849	250	1055941	316	1276323	382	1530143	458	1859913	557
Trichur	2945	658873	224	742707	282	786564	267	961965	327	1119565	380	1362665	463	1639862	557
Palghat	5127	977212	191	1051224	205	1092723	213	1213281	237	1326140	259	1565167	305	1776566	347
Kozhikode	6657	1151981	173	1251737	188	1285622	193	1490770	224	1671990	251	2065284	310	2617189	393
Cannanore	5675	787352	139	841782	148	865447	153	997057	176	1123054	198	1375081	242	1780294	314
STATE	38857	6396262	165	7147673	184	7802127	201	9507050	245	11031541	284	13549118	349	16903715	435

Source: Statistical Handbook of Kerala 1964 by Bureau of Economics and Statistics, Government of Kerala and Census of India paper No. 1 of 1962.

TABLE—2.4.]

## Rural—Urban and sex composition during 1901-1961

District	1901			1911			1921			1931					
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
	Rural	Urban	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Trivandrum	Rural	212700	213911	426611	253904	252007	505911	284020	230439	564459	359506	363338	723044		
	Urban	29992	27890	57882	32292	31269	63561	52458	49576	101934	68253	65354	133807		
	Total	242692	241801	484493	286196	283276	569472	336378	330015	666393	427759	429092	856851		
Quilon	Rural	255354	252356	507720	393487	289244	581731	338577	332295	670872	426071	426852	852923		
	Urban	8095	7596	15691	9649	9190	18839	21457	19877	41394	29827	28056	57883		
	Total	263449	259952	523401	302136	298434	600570	360034	352172	712206	453898	454908	910806		
Alleppey	Rural	320856	316869	637725	367697	362078	727775	414127	407428	821555	504915	505125	1010040		
	Urban	15664	14999	30663	20410	19054	39464	45363	42437	88000	62569	58106	120675		
	Total	336520	331868	668388	386107	381132	767239	459690	449865	909555	567484	563231	1130715		
Kottayam	Rural	227417	216194	443611	270824	256782	527606	306445	286463	592908	417519	393856	811375		
	Urban	16313	15303	31816	16689	15694	32383	29677	27183	56860	40947	37342	78289		
	Total	243730	231697	475427	287513	272476	559989	336122	313646	649768	458466	431198	889664		
Ernakulam	Rural	297099	297838	594937	336580	339020	675600	372474	364883	737337	450273	451634	901907		
	Urban	30998	34200	74198	47205	40148	87353	51684	44808	96492	80681	73353	154034		
	Total	337097	332038	669135	383785	379168	762953	424158	409691	833849	530954	524987	1055941		

Source: Census of India 1951 Volume XIII, Travancore-Cochin Part II Tables.  
 1951 census Hand Book Malabar Districts 1953.  
 1951 census Hand Book south Kanara District 1953.

TABLE 2. 4. 1—(Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Trichur	Rural	313305	314369	627674	349244	352854	702098	358011	376877	794888	420081	453447	873528
	Urban	15623	15376	31199	20555	20054	40609	23483	26193	51676	43626	44811	88437
	Total	328928	329945	658873	349799	372908	742707	383494	403070	786564	463707	498258	961965
Palghat	Rural	445625	462531	908156	474449	498808	973257	489077	521966	1011043	539881	583698	1123529
	Urban	33828	35228	69056	38046	39921	77967	40054	41626	81680	43782	45920	89702
	Total	479453	497759	977212	512495	538729	1051224	529131	563592	1092723	583663	629618	1213281
Kozhikode	Rural	529695	533986	1063681	572326	581436	1153762	584084	601209	1185293	673175	697846	1371021
	Urban	45872	42428	88300	50585	47390	97975	51544	48785	100329	61205	58544	119749
	Total	575567	576414	1151981	622911	628826	1251737	635628	649994	1285622	734380	756390	1490770
Cannanore	Rural	356662	374996	731658	375814	399458	775272	384819	418033	802852	444884	478419	923303
	Urban	27368	28326	55694	32669	33841	66510	30004	32591	62595	35756	37998	73754
	Total	384030	403322	787352	408483	433299	841782	414823	450624	865447	480640	516417	997057
State	Rural	2958713	2983050	5941763	3291325	3331687	6623012	3531634	3589593	7121227	4236305	4354415	8590720
	Urban	292753	221746	454499	268100	256561	524661	347824	333076	680900	466646	449684	916330
	Total	3191466	3204796	6396262	3559425	3588248	7147673	3879458	3922669	7802127	4702951	4804099	9507050

Computed from the Census books.

TABLE-2.4.1  
Rural-Urban and sex composition during 1901-1961

Districts	1941			1951			1961			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
		Male	Female	Total	Male	Female	Total	Male	Female	Total
Trivandrum	Rural	413186	423822	837008	505926	514753	1020679	643845	652117	1295962
	Urban	90145	87904	178049	154738	152395	307133	226039	222530	448569
	Total	503331	511726	1015057	660664	667148	1327812	869884	874647	1744531
Quilon	Rural	528671	538415	1062086	665462	665098	1330560	898746	898246	1796992
	Urban	40951	39017	79968	73790	69645	143435	73911	70325	144236
	Total	569622	572432	1142054	739252	734743	1473995	972657	968571	1941228
Alleppey	Rural	564681	567722	1131803	641669	657586	1299255	739248	761573	1500821
	Urban	72829	69406	142226	111883	110165	222048	154187	156244	310431
	Total	636901	637128	1274029	753582	767751	1521303	893435	917817	1811252
Kottayam	Rural	507969	481172	989141	592232	576568	1168800	798454	768957	1567411
	Urban	45615	45573	94188	81829	77039	158868	84126	81343	165469
	Total	556384	526745	1083329	674061	653607	1327668	882580	850300	1732880
Ernakulam	Rural	540200	542142	1082342	626671	636408	1263079	727922	736681	1464603
	Urban	100797	93184	193981	137134	129930	267064	203326	191984	395310
	Total	640997	635326	1276323	763805	766338	1530143	931248	928665	1859913

TABLE-2.4.1—(Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Trichur	Rural	479246	520622	999868	568614	629869	1198483	694821	759389	1454210
	Urban	58695	61002	119697	79534	84628	164182	89915	95737	185652
	Total	537941	581624	1119565	648168	714497	1362665	784736	855126	1639862
Palghat	Rural	580007	628871	1208878	666524	728247	1394771	767251	837465	1604716
	Urban	57020	60242	117262	83083	87313	170396	84495	87355	171850
	Total	637027	689113	1326140	749607	815560	1565167	851746	924820	1776566
Kozhikode	Rural	726402	757944	1484346	890283	906779	1797062	1083556	1101126	2184682
	Urban	94042	93602	187644	134023	134199	268222	217418	215089	433507
	Total	820444	851546	1671990	1024306	1040978	2065284	1300974	1316215	2617189
Cannanore	Rural	499404	541115	1040519	607849	642748	1250597	725325	754852	1480177
	Urban	41045	41490	82535	60637	63847	124484	149342	150775	300117
	Total	540449	582605	1123054	668486	706595	1375081	874667	905627	1780294
STATE	Rural	4839166	4996825	9835991	5765230	5958056	11723286	7079168	7270406	14349574
	Urban	604130	591420	1195550	916671	909161	1825832	1282759	1271382	2554141
	Total	5443296	5588245	11031541	6681901	6867217	13549118	8361927	8541788	16903715

TABLE—2.5

Growth of cities and towns by size classes during the period 1901-61

<i>District</i>	<i>Class</i>	1901	1911	1921	1931	1941	1951	1961
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	I	..	..	..	..	..	..	..
	II	1	1	1	1	1	1	1
	III	..	..	..	..	..	..	..
	IV	..	..	1	1	2	3	5
	V	..	..	1	2	1	7	4
	VI	..	..	4	4	4	7	3
	Total		1	1	7	8	8	18
Quilon	I	..	..	..	..	..	..	..
	II	..	..	..	..	..	..	..
	III	..	..	1	1	1	1	1
	IV	1	1	..	..	1	..	2
	V	..	..	2	3	2	5	..
	VI	..	..	1	1	1	..	..
	Total		1	1	4	5	5	9
Alleppey	I	..	..	..	..	..	1	1
	II	..	..	..	..	1	..	..
	III	1	1	1	1	..	1	5
	IV	..	..	2	6	6	5	2
	V	1	2	3	1	1	2	..
	VI	..	..	1	..	..	..	..
	Total		2	3	7	8	8	9
Kottayam	I	..	..	..	..	..	..	..
	II	..	..	..	..	..	..	1
	III	..	..	..	2	2	2	1
	IV	2	2	3	1	1	3	4
	V	..	..	1	1	2	3	1
	VI	..	..	1	2	1	5	..
	Total		2	2	5	6	6	13
Ernakulam	I	..	..	..	..	..	..	1
	II	..	..	..	..	1	2	1
	III	2	3	3	3	2	1	5
	IV	2	1	1	2	2	4	4
	V	..	..	1	4	4	6	1
	VI	..	2	2	1	1	1	..
	Total		4	6	7	10	10	14

TABLE—2.5—(Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trichur	II	..	..	..	..	1	1	1
	III	..	1	1	1	..	..	2
	IV	1	..	..	2	3	5	4
	V	2	2	3	3	2	3	..
	VI	..	..	..	..	2	1	..
	Total	3	3	4	6	8	10	7
Palghat	II	..	..	..	..	1	1	1
	III	1	1	1	1	1	3	2
	IV	2	2	2	2	1	1	3
	V	..	..	..	1	3	1	1
	VI	..	1	1	..	..	4	..
	Total	3	4	4	4	6	10	7
Kozhikode	I	..	..	..	..	1	1	1
	II	1	1	1	1	..	..	..
	III	..	..	..	..	..	2	3
	IV	1	1	..	1	2	4	6
	V	..	1	2	1	4	..	7
	Total	2	3	3	3	7	7	17
Cannanore	III	2	2	2	2	2	3	6
	IV	..	..	..	..	1	1	6
	V	..	1	1	1	..	..	5
	VI	..	..	..	..	..	..	1
	Total	2	3	3	3	3	4	18
	STATE	I	..	..	..	..	2	3
II		2	2	2	2	4	5	5
III		6	8	9	11	8	12	31
IV		9	7	9	15	19	29	33
V		3	6	14	17	19	27	18
VI		..	3	10	8	9	18	1
Total	20	26	44	53	61	94	92	

No. of towns as specified in each census.

Class I Population 1 lakh and above

Class II Population 50000—99999

Class III Population 20000—49999

Class IV Population 10000—19999

Class V Population 5000— 9999

Class VI Below 5000

TABLE—3.1

Sex ratio for the State, Rural, Urban and Districts (Females per 1000 Males)

<i>District</i>		1901	1911	1921	1931	1941	1951	1961
(1)		(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Trivandrum	R	1006	992	987	1011	1026	1017	1013
	U	930	968	947	960	975	985	984
	P	996	990	981	1003	1017	1010	1005
2. Quilon	R	988	989	981	1002	1009	999	999
	U	938	952	926	941	953	944	951
	P	987	988	978	998	1005	994	996
3. Alleppey	R	988	990	984	1000	1006	1025	1030
	U	958	934	931	929	953	985	1013
	P	986	987	979	993	1000	1019	1027
4. Kottayam	R	951	948	935	943	947	974	963
	U	950	940	916	912	937	941	967
	P	951	948	933	941	946	970	963
5. Ernakulam	R	1002	1007	980	1003	1004	1016	1012
	U	855	851	867	909	924	947	944
	P	985	988	966	989	991	1003	997
6. Trichur	R	1003	1010	1053	1079	1086	1108	1093
	U	997	976	1028	1027	1039	1064	1065
	P	1003	1008	1051	1075	1081	1102	1090
7. Palghat	R	1038	1051	1067	1081	1084	1093	1092
	U	1041	1049	1039	1049	1057	1051	1034
	P	1038	1051	1065	1079	1082	1088	1086
8. Kozhikode	R	1008	1016	1029	1037	1043	1019	1016
	U	925	937	946	957	995	1001	989
	P	1001	1009	1023	1030	1038	1016	1012
9. Cannanore	R	1051	1063	1086	1075	1084	1057	1041
	U	1035	1036	1086	1063	1011	1053	1010
	P	1050	1061	1086	1074	1078	1057	1035
STATE	R	1008	1012	1016	1028	1032	1033	1027
	U	953	957	957	964	979	992	991
	P	1004	1008	1011	1022	1027	1028	1022



TABLE—3.1.1

Sex ratio in Kerala according to age group, 1901-61

<i>Age group</i>	1901	1911	1921	1931	1941	1951*	1961
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0—4	1033	1012	997	988	984	977	976 (0-4)
5—9	970	976	971	961	994	979 (5-14)	968 (5-9)
10—14	920	929	944	965	984	1091 (15-24) 1082 (25-34)	983 (10-14) 1077 (15-19) 1113 (20-24)
15—19	1035	1051	1045	1095	1028	1020 (35-44) 1011 (45-54)	1137 (25-29) 1055 (30-34) 992 (35-39)
20—39	1027	1030	1054	1092	1038	1039 (55-64) 1091 (65 +)	980 (40-44) 978 (45-49)
40—59	958	971	965	954	970	..	1009 (50-54) 1012 (55-59)
60 and above	1226	1222	1181	1096	1041	..	1071 (60-64) 1060 (65-69) 1129 (70 +)
ALL	1004	1008	1011	1022	1027	1028	1022

\*Based on the figures of 6 Districts only. Data for the Malabar region not available.



TABLE-3.2—(Contd.)

Age Group	1941*						1961					
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)	Male (20)	Female (21)	Total (22)
(1)												
0—4	14.50	14.19	14.35	14.67	13.80	14.23	15.29	14.62	14.95			
5—9	13.83	13.67	13.75	..	..	..	14.85	14.07	14.46			
10—14	13.00	12.72	12.86	24.82	23.64	24.22	13.48	12.97	13.22			
15—19	10.21	10.43	10.32	..	..	..	8.25	8.70	8.48			
20—24	..	..	..	19.96	21.18	20.58	8.11	8.84	8.48			
25—29	16.01	16.85	16.43	..	..	..	7.23	8.05	7.64			
30—34	..	..	..	13.75	14.48	14.12	6.25	6.45	6.35			
35—39	12.51	12.57	12.54	..	..	..	6.07	5.89	5.98			
40—44	..	..	..	10.73	10.65	10.69	4.55	4.36	4.45			
45—49	9.17	8.87	9.02	..	..	..	4.31	4.12	4.21			
50—54	..	..	..	8.07	7.95	8.01	3.33	3.29	3.31			
55—59	6.06	5.82	5.93	..	..	..	2.63	2.61	2.62			
60 and above	4.71	4.88	4.80	8.00	8.30	8.15	5.65	6.03	5.85			
<b>Total:</b>	100	100	100	100	100	100	100	100	100			

\* Excluding the population figures of Palghat, Kozhikode and Cannanore Districts.

TABLE-3.2.1

## Percentage distribution of population by age and sex—Kerala—Rural Population

Age Group	1901			1911*			1921*			1931		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0—4	13.28	13.60	13.44	13.76	13.73	13.74	13.50	13.24	13.37	17.40	16.70	17.04
5—9	13.65	13.15	13.40	13.39	12.90	13.14	13.53	13.23	13.38	13.81	12.91	13.36
10—14	13.26	12.15	12.70	12.81	11.73	12.27	13.17	12.17	12.67	12.95	12.17	12.55
15—19	9.45	9.76	9.61	9.72	10.24	9.98	9.47	9.93	9.70	9.34	10.13	9.74
20—24	..	..	..	..	..	..	..	..	..	..	..	..
25—29	..	..	..	..	..	..	16.66	18.73	17.70	15.55	17.82	16.70
30—34	..	..	..	..	..	..	..	..	..	..	..	..
35—39	31.47	32.32	31.89	31.32	32.15	31.74	14.06	13.42	13.74	12.76	12.82	12.79
40—44	..	..	..	..	..	..	..	..	..	..	..	..
45—49	..	..	..	..	..	..	9.63	9.08	9.35	8.91	8.23	8.57
50—54	..	..	..	..	..	..	..	..	..	..	..	..
55—59	15.01	14.30	14.66	15.04	14.46	14.75	5.79	5.66	5.72	5.45	5.13	5.29
60 and above	3.88	4.72	4.30	3.96	4.79	4.38	4.19	4.54	4.37	3.83	4.09	3.96
<b>Total:</b>	100	100	100	100	100	100	100	100	100	100	100	100

\*Excluding the population figures of Ennakulam and Trichur districts.

Age Group	1941*			1951			1961		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
(1)									
0-4	14.71	14.32	14.51	11.93	10.97	11.44	15.51	14.77	15.14
5-9	14.05	13.78	13.91	..	..	..	15.04	14.20	14.62
10-14	13.10	12.77	12.94	25.07	23.73	24.40	13.55	12.99	13.27
15-19	10.07	10.37	10.22	..	..	..	8.14	8.62	8.38
20-24	..	..	..	19.80	21.16	20.49	7.96	8.80	8.38
25-29	15.68	16.73	16.21	..	..	..	7.12	8.02	7.57
30-34	..	..	..	13.57	14.40	13.99	6.16	6.42	6.29
35-39	12.36	12.51	12.44	..	..	..	6.01	5.87	5.94
40-44	..	..	..	10.65	10.65	10.65	4.50	4.33	4.41
45-49	9.15	8.84	8.99	..	..	..	4.28	4.10	4.19
50-54	..	..	..	8.05	7.95	8.00	3.32	3.27	3.29
55-59	6.09	5.79	5.94	10.93	11.14	11.03	2.65	2.60	2.62
60 and above	4.79	4.89	4.84	..	..	..	5.76	6.01	5.90
TOTAL	100	100	100	100	100	100	100	100	100

\*Excluding the population figures of Palghat, Kozhikode and Cannanore districts.

TABLE—3.2.2 ■

## Percentage distribution of population by age and sex—Kerala—Urban population

Age Group	1901			1911*			1921*			1931		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0—4	12.11	13.14	12.62	12.42	13.31	12.86	12.27	12.76	12.51	14.07	14.66	14.36
5—9	11.89	11.88	11.88	10.91	11.25	11.08	11.59	11.68	11.63	12.12	12.14	12.13
10—14	12.84	11.71	12.28	11.30	10.48	10.90	11.87	11.86	11.87	11.67	11.53	11.60
15—19	10.61	10.77	10.69	10.81	11.07	10.94	10.69	10.37	10.53	10.65	10.34	10.50
20—24	..	..	..	..	..	..	..	..	..	..	..	..
25—29	..	..	..	..	..	..	18.91	19.05	18.98	18.46	18.86	18.65
30—34	..	..	..	..	..	..	..	..	..	..	..	..
35—39	34.08	33.42	33.76	35.13	34.47	34.80	14.89	14.40	14.65	14.03	13.41	13.73
40—44	..	..	..	..	..	..	..	..	..	..	..	..
45—49	..	..	..	..	..	..	10.15	9.47	9.81	9.61	9.13	9.37
50—54	..	..	..	..	..	..	..	..	..	..	..	..
55—59	15.01	14.59	14.80	15.88	15.06	15.47	5.70	5.70	5.70	5.64	5.73	5.69
60 and above	3.46	4.49	3.97	3.55	4.36	3.95	3.93	4.71	4.32	3.75	4.20	3.97
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

\*Excluding the population figures of Ernakulam and Trichur districts.

Age Group	1941*			1951			1961		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)
0-4	13.01	13.23	13.12	11.03	11.00	11.01	14.08	13.74	13.91
5-9	12.26	12.78	12.52	..	..	..	13.79	13.35	13.57
10-14	12.26	12.28	12.27	23.26	23.10	23.18	13.09	12.87	12.98
15-19	11.18	10.88	11.03	..	..	..	8.89	9.15	9.02
20-24	..	..	..	20.99	21.33	21.16	8.97	9.11	9.04
25-29	18.40	17.80	18.10	..	..	..	7.82	8.20	8.01
30-34	..	..	..	14.90	15.02	14.96	6.72	6.67	6.70
35-39	13.60	13.06	13.33	..	..	..	6.38	6.04	6.21
40-44	..	..	..	11.25	10.63	10.94	4.79	4.52	4.65
45-49	9.29	9.10	9.20	..	..	..	4.45	4.24	4.35
50-54	..	..	..	8.22	7.93	8.08	3.41	3.42	3.41
55-59	5.81	5.99	5.90	10.35	10.99	10.67	2.53	2.65	2.59
60 and above	4.19	4.88	4.53	..	..	..	5.08	6.04	5.56
TOTAL:	100	100	100	100	100	100	100	100	100

\*Excluding the population figures of Ernakulam and Trichur districts.













TABLE-3.2 (5)-(Contd.)

Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0-4	15.76	14.96	15.35	15.76	15.35	15.56	15.94	15.27	15.60
5-9	14.55	14.21	14.37	12.92	12.96	12.94	15.58	15.22	15.40
10-14	13.47	13.05	13.25	12.77	12.40	12.58	13.74	13.57	13.65
15-19	9.98	10.47	10.23	10.16	10.86	10.51	8.66	9.29	8.98
20-24	8.10	9.05	8.58	9.06	9.08	9.07	8.21	8.77	8.49
25-29	7.32	7.99	7.66	7.52	7.81	7.67	7.48	7.91	7.70
30-34	6.57	6.74	6.65	5.90	6.06	5.99	6.08	6.07	6.07
35-39	5.76	5.67	5.72	6.02	5.84	5.93	5.91	5.69	5.80
40-44	4.71	4.60	4.65	4.66	4.51	4.58	4.10	4.02	4.06
45-49	3.94	3.78	3.86	4.64	4.35	4.50	4.10	3.94	4.02
50-54	3.18	2.89	3.03	3.30	3.33	3.31	2.94	2.82	2.88
55-59	2.46	2.26	2.38	2.59	2.55	2.57	2.52	2.43	2.48
60 and above	4.20	4.33	4.27	4.70	4.90	4.79	4.74	5.00	4.87
TOTAL	100	100	100	100	100	100	100	100	100













TABLE-3.2 (8)-(Contd.)

Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0-4	15.08	14.76	14.92	15.17	14.61	14.89	15.72	15.94	15.53
5-9	14.10	13.93	14.02	12.48	12.19	12.30	15.37	15.02	15.19
10-14	13.08	12.78	12.93	12.40	12.29	12.38	13.61	13.35	13.48
15-19	9.97	10.38	10.18	10.19	10.86	10.52	8.24	8.90	8.57
20-24	8.21	8.95	8.58	9.35	9.91	9.63	8.00	8.66	8.33
25-29	7.33	7.76	7.55	7.87	8.20	8.04	7.20	7.85	7.57
30-34	6.52	6.70	6.61	6.03	5.81	5.92	6.25	6.17	6.21
35-39	5.95	5.87	5.91	5.88	5.85	5.87	6.12	5.75	5.93
40-44	4.94	4.72	4.83	4.53	4.32	4.43	4.15	4.01	4.08
45-49	4.22	3.94	4.07	4.66	4.54	4.60	4.35	4.02	4.14
50-54	3.38	3.08	3.23	3.38	3.21	3.30	3.03	2.96	3.00
55-59	2.64	2.49	2.56	2.86	2.83	2.84	2.70	2.63	2.67
60 and above	4.58	4.64	4.61	5.20	5.38	5.28	5.26	5.34	5.30
<b>Total:</b>	100	100	100	100	100	100	100	100	100



Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0-4	13.89	13.48	13.69	15.14	14.56	14.85	14.40	13.49	13.93
5-9	13.51	13.37	13.44	12.34	12.11	12.23	14.98	14.14	14.56
10-14	12.79	12.56	12.67	12.30	12.18	12.24	13.72	13.22	13.47
15-19	10.24	10.38	10.31	10.14	10.90	10.52	7.97	8.47	8.22
20-24	8.44	8.76	8.60	9.39	9.91	9.65	7.61	8.42	8.02
25-29	7.44	7.70	7.57	7.96	8.30	8.13	6.77	7.80	7.29
30-34	6.65	6.79	6.72	6.13	5.88	6.00	6.09	6.39	6.24
35-39	6.02	6.05	6.04	6.00	5.79	5.90	4.41	6.32	6.41
40-44	5.13	5.07	5.10	4.62	4.38	4.49	6.51	4.24	4.33
45-49	4.40	4.36	4.37	4.67	4.51	4.59	4.75	4.57	4.66
50-54	3.54	3.43	3.49	3.38	3.23	3.30	3.49	3.39	3.44
55-59	2.88	2.82	2.85	2.83	2.85	2.84	3.05	3.10	3.07
60 and above	5.07	5.23	5.15	5.10	5.40	5.26	6.25	6.45	6.36
TOTAL	100	100	100	100	100	100	100	100	100















TABLE—3.2 (13)  
 Percentage distribution of population by age and sex

DISTRICT: KOITAYAM

Age Group	1901			1911			1921			1931		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0—4	13.63	14.61	14.11	12.92	14.18	13.53	13.09	14.83	13.59	15.86	16.89	16.35
5—9	12.20	13.33	12.79	13.13	14.08	13.61	12.78	13.30	13.03	12.70	13.10	12.89
10—14	13.66	12.40	13.04	12.58	11.86	12.23	12.50	12.69	12.59	12.21	12.01	12.12
15—19	11.61	9.74	10.70	10.43	9.50	9.98	10.89	9.57	10.25	10.75	9.77	10.28
20—24	9.18	9.32	9.25				9.77	9.58	9.68	9.77	9.24	9.51
25—29	8.10	8.47	8.29				8.16	8.20	8.18	7.50	7.45	7.48
30—34	6.30	6.95	6.61	31.78	30.92	31.34	6.91	6.84	6.88	7.00	6.72	6.87
35—39	6.43	5.84	6.14				6.60	6.16	6.39	5.60	5.41	5.51
40—44	4.93	4.79	4.86				5.16	4.90	5.03	4.79	4.88	4.83
45—49	4.53	3.84	4.20				4.30	4.05	4.18	3.96	3.96	3.96
50—54	3.19	3.63	3.41	15.41	14.91	15.17	3.44	3.38	3.41	3.49	3.40	3.45
55—59	2.28	2.38	2.33				2.39	2.19	2.29	2.39	2.53	2.46
60 and above	3.87	4.70	4.27	3.75	4.55	4.14	4.01	5.01	4.50	3.98	4.64	4.29
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100

TABLE-3.2 (13—(Contd.))

Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0—4	12.80	13.55	13.17	14.06	13.48	13.78	14.08	14.00	14.04
5—9	12.92	13.61	13.25	11.35	11.70	11.52	13.93	13.91	13.92
10—14	13.06	12.93	13.00	11.62	12.93	12.25	12.76	13.24	13.00
15—19	11.70	10.97	11.35	11.58	11.85	11.72	9.53	10.07	9.80
20—24	9.31	8.76	9.05	11.37	10.45	10.93	9.09	9.31	9.20
25—29	7.56	7.48	7.52	8.25	7.91	8.09	7.94	8.18	8.06
30—34	6.59	6.66	6.62	6.12	5.79	5.96	6.76	6.00	6.39
35—39	5.88	5.69	5.79	5.73	5.67	5.70	6.26	5.63	5.95
40—44	5.02	4.72	4.87	4.70	4.04	4.39	4.15	3.94	4.04
45—49	4.18	4.10	4.14	4.10	4.40	4.24	4.22	3.98	4.10
50—54	3.31	3.29	3.30	3.41	3.34	3.38	3.09	3.12	3.11
55—59	2.72	2.82	2.76	2.82	2.72	2.77	2.68	2.75	2.71
60 and above	4.95	5.42	5.18	4.89	5.72	5.27	5.51	5.87	5.68
Total:	100	100	100	100	100	100	100	100	100











TABLE—3.2 (16)

Percentage distribution of population by age and sex  
Urban

Age Group	1901			1911			1921			1931		
	Male (2)	Female (3)	Total (4)	Male (5)	Female (6)	Total (7)	Male (8)	Female (9)	Total (10)	Male (11)	Female (12)	Total (13)
0—4	12.96	13.99	13.43	..	..	..	..	..	..	14.56	15.33	14.92
5—9	12.77	12.67	12.72	..	..	..	..	..	..	12.31	12.57	12.43
10—14	12.82	11.58	12.25	..	..	..	..	..	..	11.96	11.82	11.89
15—19	10.80	10.10	10.48	..	..	..	..	..	..	10.83	10.16	10.51
20—24	9.67	10.01	9.83	..	..	..	..	..	..	10.05	9.79	9.92
25—29	8.95	9.10	9.02	..	..	..	..	..	..	7.83	8.13	7.97
30—34	7.40	7.27	7.34	..	..	..	..	..	..	7.20	7.38	7.29
35—39	6.42	5.86	6.17	..	..	..	..	..	..	6.10	5.83	5.97
40—44	5.37	5.28	5.33	..	..	..	..	..	..	5.54	5.09	5.34
45—49	4.06	3.64	3.87	..	..	..	..	..	..	4.15	3.92	4.04
50—54	3.30	3.57	3.42	..	..	..	..	..	..	3.43	3.25	3.35
55—59	1.90	2.04	1.96	..	..	..	..	..	..	2.26	2.38	2.32
60 and above	3.58	4.89	4.18	..	..	..	..	..	..	3.78	4.35	4.05
<b>TOTAL:</b>	100	100	100	..	..	..	..	..	..	100	100	100



TABLE—3.2 (17)

DISTRICT: ERNAKULAM  
 Percentage distribution of population by age and sex  
 Rural

Age Group	1901			1911			1921			1931		
	Male (2)	Female (3)	Total (4)	Male (5)	Female (6)	Total (7)	Male (8)	Female (9)	Total (10)	Male (11)	Female (12)	Total (13)
0—4	13.44	14.21	13.82	..	..	..	..	..	..	17.64	16.91	17.27
5—9	13.97	13.73	13.85	..	..	..	..	..	..	13.54	12.66	13.10
10—14	13.02	12.25	12.63	..	..	..	..	..	..	12.70	11.96	12.33
15—19	9.34	9.59	9.47	..	..	..	..	..	..	9.07	9.82	9.44
20—24	8.59	9.66	9.17	..	..	..	..	..	..	8.05	9.31	8.68
25—29	8.76	9.18	8.97	..	..	..	..	..	..	7.12	7.90	7.51
30—34	7.53	7.20	7.35	..	..	..	..	..	..	6.81	7.11	6.96
35—39	6.66	5.68	6.17	..	..	..	..	..	..	5.87	5.59	5.73
40—44	5.55	5.16	5.35	..	..	..	..	..	..	5.16	4.86	5.01
45—49	3.86	3.56	3.70	..	..	..	..	..	..	3.98	3.79	3.89
50—54	3.50	3.54	3.52	..	..	..	..	..	..	3.45	3.26	3.35
55—59	1.98	1.83	1.90	..	..	..	..	..	..	2.45	2.38	2.42
60 and above	3.80	4.41	4.10	..	..	..	..	..	..	4.16	4.45	4.31
<b>Total:</b>	100	100	100	..	..	..	..	..	..	100	100	100

TABLE-3.2 (17)-(Contd.)

Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0-4	14.62	14.47	14.54	14.97	14.23	14.59	15.58	15.02	15.29
5-9	14.10	14.06	14.08	12.34	11.67	12.00	15.26	14.40	14.82
10-14	12.95	12.79	12.87	12.69	12.20	12.45	13.13	12.85	12.99
15-19	9.83	10.11	9.97	10.34	11.12	10.73	7.80	8.36	8.08
20-24	15.58	16.33	15.95	9.64	10.28	9.96	8.20	8.85	8.53
25-29				7.83	7.97	7.90	7.07	7.79	7.44
30-34				5.92	6.09	6.01	6.12	6.16	6.14
35-39	12.35	12.38	12.36	5.92	5.91	5.92	6.11	5.94	6.02
40-44				4.57	4.51	4.54	4.38	4.09	4.24
45-49	9.32	8.90	9.12	4.43	4.29	4.36	4.34	4.20	4.27
50-54				3.35	3.36	3.36	3.23	3.18	3.21
55-59	6.24	5.96	6.10	2.72	2.75	2.73	2.73	2.80	2.77
60 and above	5.01	5.00	5.01	5.28	5.62	5.45	6.05	6.36	6.20
TOTAL:	100	100	100	100	100	100	100	100	100





TABLE—3.2 (19)

**DISTRICT: TRICHUR**      **Percentage distribution of population by age and sex**

Age Group	1901			1911			1921			1931		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0—4	12.70	13.96	13.33	..	..	..	..	..	..	14.35	14.92	14.67
5—9	12.61	12.54	12.58	..	..	..	..	..	..	12.19	12.42	12.31
10—14	12.80	11.63	12.22	..	..	..	..	..	..	11.86	11.71	11.78
15—19	10.94	10.36	10.65	..	..	..	..	..	..	10.77	10.25	10.51
20—24	9.83	10.15	9.99	..	..	..	..	..	..	10.02	9.97	9.99
25—29	8.99	9.19	9.10	..	..	..	..	..	..	7.95	8.22	8.09
30—34	7.48	7.36	7.42	..	..	..	..	..	..	7.35	7.45	7.40
35—39	6.42	5.89	6.15	..	..	..	..	..	..	6.17	5.88	6.02
40—44	5.41	5.30	5.34	..	..	..	..	..	..	5.59	5.10	5.34
45—49	4.05	3.01	3.53	..	..	..	..	..	..	4.20	3.94	4.07
50—54	3.29	3.64	3.47	..	..	..	..	..	..	3.45	3.30	3.37
55—59	1.88	2.03	1.96	..	..	..	..	..	..	2.27	2.39	2.33
60 and above	3.60	4.94	4.26	..	..	..	..	..	..	3.83	4.39	4.12
TOTAL:	100	100	100	..	..	..	..	..	..	100	100	100

Urban





TABLE—3.2 (20)  
 Percentage distribution of population by age and sex

DISTRICT: TRICHUR

Age Group	1901			1911			1921			1931		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0—4	13.71	14.04	13.88	..	..	..	..	..	..	17.12	16.14	16.61
5—9	13.92	13.44	13.68	..	..	..	..	..	..	13.56	12.54	13.03
10—14	13.24	12.29	12.76	..	..	..	..	..	..	12.78	11.93	12.34
15—19	9.64	9.77	9.70	..	..	..	..	..	..	9.36	10.05	9.72
20—24	8.81	9.73	9.27	..	..	..	..	..	..	8.27	9.55	8.95
25—29	8.64	9.10	8.87	..	..	..	..	..	..	7.06	8.01	7.53
30—34	7.47	7.18	7.33	..	..	..	..	..	..	6.73	7.20	6.98
35—39	6.39	5.53	5.96	..	..	..	..	..	..	5.86	5.68	5.77
40—44	5.49	5.33	5.41	..	..	..	..	..	..	5.18	4.94	5.06
45—49	3.62	3.47	3.54	..	..	..	..	..	..	4.01	3.83	3.91
50—54	3.39	3.70	3.54	..	..	..	..	..	..	3.47	3.27	3.37
55—59	1.93	1.82	1.86	..	..	..	..	..	..	2.47	2.40	2.43
60 and above	3.75	4.60	4.18	..	..	..	..	..	..	4.13	4.46	4.30
TOTAL:	100	100	100	..	..	..	..	..	..	100	100	100

Rural





Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0-4	..	..	..	14.10	12.74	13.39	15.29	14.04	14.64
5-9	..	..	..	..	..	..	13.92	12.46	13.16
10-14	..	..	..	24.83	22.71	2.373	13.60	12.50	13.03
15-19	..	..	..	..	..	..	8.82	9.20	9.02
20-24	..	..	..	19.99	21.42	20.74	7.97	8.93	8.47
25-29	..	..	..	..	..	..	6.85	8.03	7.46
30-34	..	..	..	13.43	15.18	14.33	5.95	6.59	6.28
35-39	..	..	..	..	..	..	5.86	5.90	5.88
40-44	..	..	..	11.00	11.22	11.12	5.02	4.96	5.00
45-49	..	..	..	..	..	..	4.26	4.14	4.20
50-54	..	..	..	8.36	8.34	8.35	3.66	3.82	3.73
55-59	..	..	..	..	..	..	2.63	2.63	2.64
60 and above	..	..	..	8.29	8.39	8.34	6.17	6.80	6.49
TOTAL	..	..	..	100	100	100	100	100	100





TABLE—3.2 (23)

## Percentage distribution of population by age and sex

DISTRICT: PALGHAT

Rural

Age Group	1901			1911			1921			1931		
	Male (2)	Female (3)	Total (4)	Male (5)	Female (6)	Total (7)	Male (8)	Female (9)	Total (10)	Male (11)	Female (12)	Total (13)
(1)												
0—4	13.67	13.34	13.51	14.29	13.63	13.95	13.76	12.95	13.34	17.21	15.96	16.56
5—9	14.09	13.02	13.54	13.34	12.30	12.81	13.56	12.31	12.93	14.29	12.72	13.48
10—14	14.10	12.71	13.39	12.89	11.57	12.21	13.16	11.69	12.40	13.73	12.34	13.00
15—19	9.79	9.85	9.82	10.18	10.46	10.32	9.48	9.64	9.56	9.56	10.45	10.02
20—24												
25—29	30.45	31.88	31.18	31.11	32.46	31.80	16.12	19.02	17.61	15.28	18.72	17.07
30—34							14.41	14.01	14.21	12.80	13.45	13.14
35—39												
40—44												
45—49												
50—54	14.14	14.27	14.21	14.36	14.65	14.51	9.54	9.31	9.42	8.78	7.98	8.37
55—59												
60 and above	3.76	4.93	4.35	3.83	4.93	4.40	4.19	5.12	4.67	3.39	3.75	3.57
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100



Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0—4				14.27	12.69	13.45	15.48	14.18	14.80
5—9							13.08	12.47	13.19
10—14				25.05	22.75	23.85	13.62	12.49	13.03
15—19							8.75	9.15	8.96
20—24				19.95	21.48	20.75	7.88	8.92	8.42
25—29							6.80	8.02	7.44
30—34				13.25	15.02	14.18	5.90	6.58	6.25
35—39							5.84	5.89	5.87
40—44				10.91	11.20	11.06	5.01	4.96	4.99
45—49							4.24	4.14	4.18
50—54				8.30	8.39	8.34	3.66	3.80	3.74
55—59							2.65	2.62	2.63
60 and above	..	..	..	8.27	8.47	8.37	6.19	6.78	6.50
TOTAL	..	..	..	100	100	100	100	100	100



Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0-4	..	..	..	..	..	..	15.33	14.81	15.07
5-9				14.10	12.74	13.41	14.61	13.79	14.20
10-14							14.03	13.21	13.62
15-19				24.83	22.71	23.76	8.15	6.49	8.32
20-24				20.00	21.42	20.72	8.03	8.72	8.38
25-29							7.12	8.18	7.65
30-34				13.43	15.15	14.30	6.34	6.75	6.55
35-39							5.88	5.80	5.84
40-44				11.00	11.22	11.11	5.04	4.70	4.86
45-49							4.16	3.87	4.02
50-54				8.36	8.34	8.35	3.49	3.39	3.44
55-59							2.35	2.26	2.30
60 and above	..	..	..	8.28	8.42	8.35	5.47	6.03	5.75
Total	..	..	..	100	100	100	100	100	100



TABLE—3.2 (25)—(Contd.)

Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0—4				12.72	13.12	12.92	13.92	13.50	13.71
5—9							13.73	12.89	13.31
10—14				23.08	22.36	22.72	13.81	13.08	13.45
15—19							8.86	9.05	8.95
20—24				20.36	20.94	20.65	8.67	8.86	8.77
25—29							7.39	8.05	7.72
30—34				14.83	16.24	15.54	6.71	7.04	6.87
35—39							6.12	6.15	6.14
40—44				11.76	11.44	11.60	5.27	4.98	5.13
45—49							4.30	4.12	4.21
50—54				8.84	7.97	8.40	3.73	3.65	3.69
55—59							2.38	2.47	2.42
60 and above	..	..	..	8.41	7.93	8.17	5.11	6.16	5.63
TOTAL:	..	..	..	100	100	100	100	100	100



TABLE-3.2 (26) —Contd.)

Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0—4				14.31	12.10	13.20	15.61	15.06	15.34
5—9							14.79	13.97	14.38
10—14				25.10	22.91	24.00	14.08	13.23	13.65
15—19							8.01	8.39	8.20
20—24				19.94	21.64	20.79	7.90	8.70	8.30
25—29							7.06	8.20	7.64
30—34				13.22	15.09	14.16	6.27	6.70	6.48
35—39							5.83	5.73	5.78
40—44				10.88	11.27	11.08	4.98	4.64	4.81
45—49							4.14	3.82	3.98
50—54				8.29	8.45	8.37	3.44	3.34	3.39
55—59							2.35	2.22	2.28
60 and above				8.26	8.54	8.40	5.54	6.00	5.77
<b>Total:</b>	..	..	..	100	100	100	100	100	100





TABLE—3.2 (27)—(Contd.)

Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0—4							15.20	14.39	14.79
5—9				14.10	12.74	13.40	15.25	14.05	14.63
10—14							13.35	12.65	12.99
15—19				24.83	22.71	23.74	7.91	8.09	8.01
20—24							7.85	8.75	8.31
25—29				20.00	21.42	20.73	7.36	8.45	7.91
30—34							6.41	6.79	6.60
35—39				13.43	15.15	14.31	5.77	5.74	5.76
40—44							4.59	4.61	4.60
45—49				11.00	11.22	11.12	4.16	4.08	4.12
50—54							3.41	3.57	3.49
55—59				8.36	8.34	8.35	2.52	2.47	2.50
60 and above				8.28	8.42	8.35	6.22	6.36	6.29
TOTAL:	..	..	..	100	100	100	100	100	100



TABLE—3.2 (28)—(Contd.)

Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0—4							13.59	12.97	13.28
5—9				12.72	13.12	12.92	13.67	12.77	13.22
10—14							13.67	12.82	13.24
15—19				23.08	22.36	22.71	8.64	8.60	8.62
20—24							8.61	8.88	8.74
25—29				20.36	20.94	20.66	7.96	8.39	8.18
30—34							6.76	7.11	6.93
35—39				14.83	16.25	15.56	6.08	6.11	6.10
40—44							4.90	4.93	4.91
45—49				11.76	11.44	11.60	4.39	4.37	4.38
50—54							3.55	3.85	3.70
55—59				8.84	7.97	8.39	2.42	2.63	2.53
60 and above	..	..	..	8.41	7.92	8.16	5.76	6.57	6.17
TOTAL:	..	..	..	100	100	100	100	100	100



Age Group	1941			1951			1961		
	Male (14)	Female (15)	Total (16)	Male (17)	Female (18)	Total (19)	Male (20)	Female (21)	Total (22)
0-4					12.70	13.45	15.54	14.67	15.10
5-9				14.24		13.45	15.57	14.30	14.92
10-14				25.01	22.69	23.84	13.28	12.61	12.94
15-19							7.76	7.99	7.88
20-24				19.96	21.52	20.74	7.70	8.73	8.23
25-29							7.23	8.46	7.86
30-34				13.29	15.05	14.19	6.34	6.73	6.54
35-39							5.71	5.66	5.68
40-44				10.92	11.20	11.07	4.53	4.54	4.53
45-49							4.12	4.02	4.06
50-54				8.32	8.38	8.35	3.38	3.52	3.45
55-59							2.53	2.45	2.49
60 and above	..	..	..	8.26	8.46	8.36	6.31	6.32	6.32
TOTAL	..	..	..	100	100	100	100	100	100

TABLE—3.3  
Percentage distribution of population according to civil condition (sex-wise)

District	Year	Unmarried			Married			Widowed or divorced		
		Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Trivandrum	1901	50.11	55.38	44.75	40.58	40.78	49.29	9.31	3.84	14.86
	1911	52.89	59.02	46.66	37.83	37.60	33.07	9.28	3.38	15.27
	1921	57.25	62.81	51.58	35.18	34.57	35.80	7.57	2.62	12.62
	1931	56.24	62.66	49.84	36.36	35.39	37.32	7.40	1.95	12.84
	1941	57.36	64.14	50.58	35.35	33.86	37.82	7.29	2.00	12.60
	1951	56.65	62.78	50.51	36.12	34.88	37.36	7.23	2.34	12.13
	1961	59.97	65.83	54.14	33.09	32.39	33.78	6.94	1.78	12.08
Quilon	1901	43.90	52.81	44.95	41.68	42.92	40.43	9.42	4.27	14.62
	1911	50.93	55.41	46.47	39.86	40.56	39.17	9.21	4.03	14.36
	1921	54.75	59.03	50.38	38.01	38.00	38.01	7.24	2.97	11.61
	1931	54.05	59.40	48.71	38.90	38.14	39.66	7.04	2.46	11.63
	1941	55.55	61.06	50.05	37.68	36.53	38.82	6.77	2.41	11.15
	1951	54.94	60.47	49.43	38.08	37.02	39.14	6.98	2.51	11.43
	1961	58.43	63.44	53.39	34.99	34.34	35.64	6.58	2.22	10.97
Alleppey	1901	46.91	51.35	42.40	43.38	43.53	43.23	9.71	5.12	14.37
	1911	47.92	52.70	43.02	42.75	42.74	42.76	9.33	4.56	14.22
	1921	52.49	57.36	47.52	38.91	38.55	39.29	8.60	4.09	13.19
	1931	52.38	58.20	46.52	39.74	38.71	40.78	7.88	3.09	12.70
	1941	54.85	60.63	49.07	37.80	36.55	39.05	7.35	2.82	11.88
	1951	57.27	62.58	52.10	35.31	34.90	35.71	7.42	2.52	12.19
	1961	57.27	62.58	52.10	35.31	34.90	35.71	7.42	2.52	12.19
Kottayam	1901	45.78	49.36	41.96	46.31	46.02	46.63	7.91	4.62	11.41
	1911	47.52	51.08	43.73	44.54	44.48	44.60	7.94	4.44	11.67
	1921	50.49	54.20	46.51	43.03	42.08	44.06	6.48	3.72	9.43
	1931	51.50	56.15	46.85	42.29	40.64	43.78	6.30	3.21	9.37
	1941	54.25	57.98	50.30	40.15	39.07	41.30	5.60	2.95	8.40
	1951	54.03	57.97	50.00	39.99	38.99	41.01	5.98	3.04	8.99
	1961	57.66	61.04	54.15	36.96	36.37	37.58	5.38	2.59	8.27

Ernakulam	1901	50.47	55.72	45.19	40.26	40.16	40.35	9.27	4.12	14.46
	1911	49.06	54.69	43.44	41.50	41.25	41.74	9.44	4.06	14.82
	1921	51.08	56.57	45.64	39.71	39.27	40.14	9.21	4.16	14.22
	1931	51.96	57.53	46.55	39.63	39.07	40.19	8.41	3.40	13.26
	1941	..	..	..	..	..	..	..	..	..
	1951	..	..	..	..	..	..	..	..	..
1961	57.64	62.10	53.18	35.70	35.41	35.99	6.66	2.49	10.83	
Trichur (Old Cochin State)	1901	51.74	57.88	45.61	38.51	38.35	38.67	9.75	3.77	15.72
	1911	49.82	56.20	43.49	40.35	40.02	40.66	9.83	3.78	15.85
	1921	51.37	57.84	45.22	38.53	38.04	38.99	10.10	4.12	15.79
	1931	52.50	58.72	46.70	38.32	37.88	38.74	9.18	3.40	14.56
	1941	60.64	64.68	48.96	36.61	36.03	37.16	8.71	3.33	13.88
	1951	55.05	61.15	49.22	37.09	36.24	37.90	7.86	2.61	12.88
	1961	57.40	63.16	52.12	35.03	34.53	35.49	7.57	2.31	12.39
	1961	52.56	59.83	45.57	37.01	36.85	37.16	10.43	3.32	17.27
Palghat (Matabar)	1911	49.69	57.98	41.80	38.38	38.07	38.67	11.93	3.95	19.53
	1921	49.76	57.87	42.14	38.28	38.11	38.45	11.96	4.02	19.41
	1931	52.34	60.75	44.56	38.11	36.82	39.30	9.55	2.43	16.14
	1941	..	..	..	..	..	..	..	..	..
	1951	52.63	59.82	45.83	38.92	37.63	40.14	8.45	2.55	14.03
	1961	53.60	60.36	46.75	37.60	37.06	38.39	8.80	2.58	14.86
Kozhikode	1901	52.69	59.83	45.37	37.01	36.85	37.16	10.30	3.32	17.27
	1911	49.85	57.98	41.80	38.37	38.07	38.67	11.78	3.95	19.53
	1921	49.91	57.87	42.14	38.28	38.11	38.45	11.81	4.02	19.41
	1931	52.53	60.75	44.55	38.08	36.82	39.30	9.39	2.43	16.15
	1941	..	..	..	..	..	..	..	..	..
	1951	..	..	..	..	..	..	..	..	..
1961	54.47	59.79	47.85	37.29	35.59	38.16	8.24	4.62	13.99	

TABLE 3.3—(Concl'd.)

District	Year	Unmarried			Married			Widowed or divorced		
		Persons	Male	Female	Persons	Male	Female	Persons	Male	Female
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Cannanore	1901	52.52	59.83	45.57	37.01	36.85	37.16	10.47	3.32	17.27
	1911	49.65	57.97	41.80	38.38	38.07	38.67	11.97	3.96	19.53
	1921	49.68	57.87	42.14	38.29	38.11	38.45	12.03	4.02	19.41
	1931	52.36	60.75	44.55	38.11	36.82	39.30	9.53	2.43	16.15
	1941	..	..	..	..	..	..	..	..	..
	1951	..	..	..	..	..	..	..	..	..
1961	54.86	62.60	47.40	35.92	34.79	37.02	9.22	2.61	15.58	
Kerala	1901	50.69	56.58	44.82	39.51	39.56	39.46	9.80	3.86	15.72
	1911	49.66	56.17	43.20	40.16	39.81	40.51	10.18	4.02	16.29
	1921	51.55	57.88	45.29	38.64	38.31	38.97	9.81	3.81	15.74
	1931	52.75	59.38	46.26	38.74	37.76	39.70	8.51	2.86	14.04
	1941	..	..	..	..	..	..	..	..	..
	1951	54.11	60.24	48.15	38.25	37.14	39.33	7.64	2.62	12.52
1961	56.67	62.41	51.05	35.84	35.19	36.47	7.49	2.40	12.48	



TABLE 3.3 (1)  
Percentage distribution of persons in various states according to marital status 1961.

State	Unmarried			Married			Widowed or divorced		
	Persons (2)	Male (3)	Female (4)	Persons (5)	Male (6)	Female (7)	Persons (8)	Male (9)	Female (10)
Andhra Pradesh	45.65	51.79	39.39	45.11	44.16	46.08	9.24	4.05	14.53
Assam	57.12	60.19	53.62	38.56	37.11	40.21	4.32	2.70	6.17
Bihar	44.68	49.78	39.57	47.57	45.93	49.22	7.75	4.29	11.21
Gujarat	50.67	55.14	45.92	42.92	41.42	44.52	6.41	3.44	9.56
Jammu & Kashmir	49.29	53.87	44.07	43.71	40.52	47.33	7.00	5.61	8.60
Kerala	56.67	62.41	51.05	35.84	35.19	36.47	7.49	2.40	12.48
Madhya Pradesh	43.19	47.67	38.50	48.79	47.70	49.93	8.02	4.63	11.57
Madras	49.39	55.42	43.34	42.00	40.98	43.03	8.61	3.60	13.63
Maharashtra	47.93	53.32	42.19	44.34	43.10	45.67	7.73	3.58	12.14
Mysore	51.43	57.58	45.02	40.45	38.92	42.04	8.12	3.50	12.94
Orissa	45.95	50.76	41.15	46.08	45.88	46.28	7.97	3.36	12.57
Punjab	53.34	57.61	48.40	40.71	37.58	44.33	5.95	4.81	7.27
Rajasthan	46.13	51.15	40.59	47.08	44.67	49.74	6.79	4.18	9.67
Uttar Pradesh	44.26	49.21	38.81	48.00	44.97	51.45	7.74	5.82	9.74
West Bengal	50.20	55.32	44.36	42.17	41.66	42.76	7.63	3.02	12.88
All India	47.79	52.92	42.34	44.56	42.96	46.28	7.65	4.12	11.38

TABLE—3.3 (2.)

## Mean age at marriage in Kerala during the various decades

Decade	Mean age at marriage	
	Males	Females
(1)	(2)	(3)
1901—1910	23.33	17.13
1911—1920	23.87	17.35 (a)
1921—1930	23.31	17.80
1931—1940	25.63	19.66
1941—1950	25.69	19.35 (a)
1951—1960	26.33	19.85

(a) Computed upto the age of 35 only.

SOURCE: Agarwala, S. N. Dr., Age at marriage in Kerala paper submitted for the Seminar on the implications of the growth of population of Kerala 19—20, August 1964.

TABLE—4.1

## Crude death rates in various Districts from registration figures

District	Rural/ Urban	Years						
		1959	1960	1961	1962	1963	1964	1965
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	Rural	5.43	4.94	4.56	4.03	3.83	3.55	3.23
	Urban	12.17	11.45	12.59	12.88	10.54	13.05	10.35
	Total	6.56	6.02	5.86	5.56	4.92	5.09	4.38
Quilon	Rural	4.98	5.26	5.36	4.72	4.75	4.92	4.55
	Urban	10.89	8.36	9.49	8.64	8.52	9.13	13.92
	Total	5.26	5.40	5.55	4.91	4.92	5.12	4.99
Alleppey	Rural	6.20	6.02	5.58	5.96	5.71	5.88	5.41
	Urban	7.33	7.85	6.92	7.45	6.37	7.56	8.14
	Total	6.36	6.29	6.63	6.17	5.80	6.12	5.80
Kottayam	Rural	7.00	6.75	6.68	5.60	5.41	5.13	4.66
	Urban	8.20	7.32	9.26	8.24	8.26	11.34	11.10
	Total	7.10	6.71	6.87	5.79	5.61	5.59	5.13

TABLE—4.1—(Concl'd)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Ernakulam	Rural	5.12	4.53	5.31	4.48	4.67	4.26	4.23
	Urban	8.58	7.48	8.45	9.50	7.98	7.93	8.52
	Total	5.72	5.05	5.85	5.34	5.23	3.88	4.96
Trichur	Rural	4.98	4.20	4.28	3.33	3.45	3.28	2.70
	Urban	8.37	7.74	9.13	8.57	8.64	8.94	13.56
	Total	5.24	4.47	4.61	3.68	3.77	3.66	3.44
Palghat	Rural	11.62	8.94	10.38	8.67	7.53	6.46	5.37
	Urban	18.06	12.99	14.50	13.11	13.25	12.03	13.56
	Total	12.00	9.18	10.62	8.93	7.86	6.78	5.85
Kozhikode	Rural	9.14	7.89	8.50	7.16	6.29	6.29	4.32
	Urban	19.87	18.69	16.70	13.28	17.78	17.79	18.28
	Total	10.07	8.83	9.24	7.71	7.33	7.32	5.59
Cannanore	Rural	10.84	9.69	8.86	8.10	7.43	6.78	6.27
	Urban	14.36	12.39	13.01	13.87	14.03	17.43	17.87
	Total	11.04	9.85	9.08	8.40	7.77	7.32	6.85
State	Rural	7.36	6.56	6.86	5.90	5.53	5.40	4.55
	Urban	11.95	10.38	10.93	10.59	10.38	11.41	11.90
	Total	7.80	6.94	7.25	6.35	5.99	5.85	5.25

SOURCE: Vital Statistics Bulletins No. 14, 18, 22, 26, 27, 28, 29.

TABLE—4.1 (1)

## Maternal death rate and infant death rate from registration data

Year	Infant death rate			Maternal death rate		
	Rural	Urban	State	Rural	Urban	State
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1959	50.94	43.40	49.77	2.52	2.12	2.46
1960	41.39	31.80	39.79	2.12	1.92	2.09
1961	43.43	33.77	41.82	2.41	2.24	2.38
1962	36.05	28.46	34.62	1.77	1.81	1.78
1963	33.23	26.92	32.02	1.93	1.57	1.86
1964	28.78	26.63	28.36	1.51	1.07	1.42
1965	28.29	24.18	27.28	1.37	0.72	1.21

SOURCE: Vital Statistics Bulletins No. 14, 18, 22, 26, 27, 28, 29.



TABLE-4.1(2)—(Contd.)

Cause of death	1963			1964			1965		
	Rural (14)	Urban (15)	Total (16)	Rural (17)	Urban (18)	Total (19)	Rural (20)	Urban (21)	Total (22)
(1)									
Cholera	0.0	0.0	..	0.0	..	0.0	0.2	0.3	0.2
Smallpox	0.6	1.2	0.7	0.2	0.0	0.2	0.2	0.0	0.1
Plague	..	..	..	..	..	..	..	..	..
Dysentery & Diarrhoea	4.4	3.3	4.3	4.6	3.3	4.4	2.9	2.3	2.7
Respiratory diseases	10.4	10.1	10.3	9.5	10.6	9.7	7.2	5.7	6.9
Fevers	9.3	5.9	8.7	8.6	5.5	8.0	7.1	3.7	6.4
Accidents & injury	1.6	2.7	1.8	1.0	2.9	1.3	1.1	1.5	1.2
Pulmonary T.B.	2.1	1.7	2.1	2.1	2.1	2.1	4.4	3.4	4.2
Malaria	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diphtheria	0.1	0.8	0.2	0.1	0.8	0.2	0.1	0.3	0.1
Whooping cough	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Maternal deaths	0.7	0.7	0.7	0.6	0.4	0.6	0.6	0.4	0.5
Suicide	..	..	..	..	..	..	..	..	..
Snake bite	..	..	..	..	..	..	..	..	..
Killed by beast	..	..	..	..	..	..	..	..	..
Drowning	..	..	..	..	..	..	..	..	..
Other causes	70.7	73.4	71.1	73.1	74.2	73.3	76.0	82.2	77.5
TOTAL:	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Vital Statistics Bulletins Nos. 14, 18, 22, 26, 27, 28 and 29

TABLE—4.1 (3)

## Age specific death rates

Age	1961			1962			1963			1964		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0—4	14.60	14.93	14.76	11.73	12.00	11.86	10.25	10.48	10.36	9.61	10.18	9.89
5—9	2.82	3.22	3.02	2.22	2.42	2.27	1.83	2.08	1.95	1.98	2.16	2.06
10—14	1.39	1.41	1.40	1.11	1.08	1.10	0.97	0.99	0.98	0.98	1.05	1.02
15—19	1.08	1.27	1.18	0.96	1.01	0.99	0.82	0.97	0.90	1.04	0.99	1.02
20—29	1.71	2.11	1.92	1.55	1.78	1.67	1.31	1.68	1.50	1.33	1.70	1.49
30—39	3.03	3.31	3.17	2.81	2.95	2.89	2.68	2.91	2.81	2.65	2.68	2.67
40—49	5.87	4.37	5.13	5.24	3.32	4.54	5.12	3.75	4.44	4.90	3.44	4.17
50—	11.96	7.94	9.93	10.81	7.09	8.94	10.42	6.56	8.49	10.21	6.20	8.21
60 and above	49.86	44.01	46.84	46.51	42.02	44.19	46.79	41.60	44.11	46.06	40.41	68.6
Total:	7.48	7.01	7.24	6.53	6.10	6.31	6.15	5.74	5.60	6.02	5.57	5.79

Source: Vital Statistics Bulletins Nos. 14, 18, 22, 26, 27, 28 and 29









Age Group	Rural			Urban			State		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1965									
Under 1 year	12.2	11.0	11.6	11.0	12.2	11.5	11.9	11.3	11.6
1-4	13.4	16.4	14.8	13.0	16.5	14.6	13.3	16.4	14.8
5-10	6.6	7.8	7.2	7.9	10.0	8.9	6.9	8.2	7.5
15-24	3.4	4.4	3.9	6.1	8.2	7.1	4.0	5.2	4.6
25-34	3.8	4.8	4.3	6.9	7.9	7.3	4.5	5.4	4.9
35-54	11.6	9.4	10.5	16.2	10.6	13.7	12.6	9.6	11.2
55-64	11.5	8.2	9.9	14.0	7.9	11.2	12.0	8.2	10.2
65 and over	37.3	37.7	37.5	24.3	26.0	25.1	34.4	35.3	34.8
N. R.	0.2	0.3	0.3	0.6	0.7	0.6	0.4	0.4	0.4
TOTAL:	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Vital Statistics Bulletins Nos. 14, 18, 22, 26, 27, 28 and 29

TABLE—4.1 (5)

Abridged Life Table for Kerala for the decade 1911-20

## MALES

$x$	$P_x$	$q_x$	$l_x$	$\sum_{c=0} l_{x+c}$	$T_x$	$^{\circ}e_x$
0	0.75600	0.24400	100000	..	2548882	25.49
1	0.93446	0.06554	75600	..	2466548	32.63
2—4	0.91732	0.08268	70645	..	2400936	33.99
5—9	0.91288	0.08712	64804	..	2199179	33.94
10—14	0.91676	0.08324	59158	..	1890853	31.96
15—19	0.93117	0.06883	54234	349032	1607771	29.64
20—24	0.93981	0.06019	50501	294798	1346326	26.66
25—29	0.91869	0.08131	47461	244297	1101395	23.21
30—34	0.88561	0.11439	43602	196836	873332	20.03
35—39	0.86028	0.13972	38614	153234	667296	17.28
40—44	0.83847	0.16153	32377	114620	489769	15.13
45—49	0.79020	0.20980	27147	82243	341071	12.56
50—54	0.70178	0.29822	21452	55096	219331	10.22
55—59	0.64211	0.35789	15055	33644	128127	8.51
60—64	0.55461	0.44539	9667	18589	66758	6.91
65—69	0.45637	0.54363	5361	8922	29703	5.54
70—74	0.35207	0.64793	2447	3561	10750	4.39
75—79	0.24928	0.75072	862	1114	..	..
80—84	0.15745	0.84255	215	252	..	..
85—89	0.07819	0.92181	34	37	..	..
90—94	0.07208	0.92792	3	3	..	..
95+	0.00000	1.00000	..	..	..	..

TABLE—4.1 (5.1)

## Abridged Life Table for Kerala for the decade 1911-20

## FEMALES

$x$	$P_x$	$q_x$	$l_x$	$\sum_{c=0} l_{x+c}$	$T_x$	$\frac{T_x}{l_x}$
0	0.76000	0.24000	100000	..	2741194	27.41
1	0.95066	0.04934	76000	..	2658570	34.98
2—4	0.93430	0.06561	72250	..	2584782	35.78
5—9	0.94217	0.05783	67510	..	2376374	35.20
10—14	0.94743	0.05257	63606	..	2049700	32.22
15—19	0.93582	0.06418	60262	378439	1740038	28.87
20—24	0.90952	0.09048	56394	318177	1448031	25.68
25—29	0.87836	0.12164	51291	261783	1178325	22.97
30—34	0.85987	0.14013	45052	210492	937215	20.80
35—39	0.85333	0.14667	38739	165440	727854	18.79
40—44	0.84399	0.15601	33057	126701	548604	16.60
45—49	0.81440	0.18560	27900	93644	366317	14.20
50—54	0.74620	0.25380	22722	65744	269635	11.87
55—59	0.69289	0.30711	16955	43022	170436	10.05
60—64	0.62678	0.37322	11748	26067	98967	8.42
65—69	0.55165	0.44835	7363	14319	51586	7.01
70—74	0.46887	0.53113	4062	6956	23488	5.78
75—79	0.38119	0.61881	1905	2894	..	..
80—84	0.29285	0.70715	726	989	..	..
85—89	0.20935	0.79065	213	263	..	..
90—94	0.13653	0.86347	45	50	..	..
95+	0.00000	1.00000	5	5	..	..

TABLE—4.1.5.2

## Abridged Life Table for Kerala for the decade 1921-30

## MALES

$x$	$P_x$	$q_x$	$l_x$	$\sum_{c=0}^{\infty} l_{x+c}$	$T_x$	$e_x^0$
0	0.78000	0.22000	100000	..	2953651	29.54
1	0.93533	0.06467	78000	..	2869579	36.79
2—4	0.91877	0.08123	72596	..	2794555	38.30
5—9	0.92068	0.07932	67030	..	2585956	38.58
10—14	0.94207	0.05793	61713	..	2265585	36.71
15—19	0.95787	0.04213	58138	422631	1966555	33.83
20—24	0.96503	0.03497	55689	364493	1682327	30.21
25—29	0.94188	0.05812	53742	308804	1408609	26.21
30—34	0.90910	0.09090	50619	253062	1147153	22.66
35—39	0.88122	0.11878	46018	204443	905073	19.67
40—44	0.84944	0.15056	40552	158425	688334	16.97
45—49	0.81657	0.18343	34446	117873	500662	14.53
50—54	0.75942	0.24058	28128	83427	345405	12.28
55—59	0.70583	0.29417	21361	53299	220374	10.32
60—64	0.63792	0.36208	15077	33938	129551	8.59
65—69	0.55985	0.44015	9618	18861	68241	7.10
70—74	0.47305	0.52695	5385	9243	31279	5.81
75—79	0.38063	0.61937	2547	3858	..	..
80—84	0.28753	0.71247	969	1311	..	..
85—89	0.20021	0.79979	279	342	..	..
90—94	0.12549	0.87451	56	63	..	..
90+	0.00000	1.00000	7	7	..	..

TABLE—4.1.5.3

Abridged Life Table for Kerala for the decade 1921-30

## FEMALES

$x$	$P_x$	$q_x$	$l_x$	$\sum_{c=0}^{\infty} l_{x+c}$	$T_x$	$ex^{\circ}$
0	0.80000	0.20000	100000	..	3270243	32.70
1	0.95158	0.04842	80000	..	3186171	39.82
2—4	0.93546	0.06454	76126	..	3111147	40.87
5—9	0.95287	0.04713	71213	..	2902548	40.76
10—14	0.97038	0.02962	67857	..	2555835	37.67
15—19	0.96991	0.03009	65847	477462	2221861	33.74
20—24	0.95088	0.04912	63866	411615	1897344	29.71
25—29	0.92122	0.07878	60729	347749	1585272	26.10
30—34	0.89653	0.10347	55945	287020	1293035	23.11
35—39	0.88535	0.11465	50156	231075	1027581	20.49
40—44	0.86717	0.13283	44406	180919	791153	17.82
45—49	0.82910	0.17090	38508	136513	583695	15.16
50—54	0.76985	0.23015	31927	98005	407306	12.76
55—59	0.72289	0.27711	24579	66078	265993	10.82
60—64	0.65739	0.34261	17768	41499	160387	9.03
65—69	0.58142	0.41858	11681	23731	87166	7.46
70—74	0.49608	0.50392	6792	12050	41538	6.12
75—79	0.40405	0.59595	3369	5258	..	..
80—84	0.30991	0.69009	1361	1889	..	..
85—89	0.21995	0.78005	422	528	..	..
90—94	0.14119	0.85881	93	106	..	..
95..	0.00000	1.00000	13	13	..	..

TABLE-4.1 (5.4)

## Life Table (1931-40)

## MALES

<i>x</i>	<i>l<sub>x</sub></i>	<i>dx</i>	<i>q<sub>x</sub></i>	<i>P<sub>x</sub></i>	<i>L<sub>x</sub></i>	<i>T<sub>x</sub></i>	<i>e<sub>x</sub><sup>o</sup></i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0	139086	25592	0.18400	0.81600	119667	4616356	33.19
1	113494	5696	0.05019	0.94981	110249	4496689	39.62
2	107798	3324	0.03084	0.96916	106013	4386440	40.69
3	104474	2312	0.02213	0.97787	103264	4280427	40.97
4	102162	2162	0.02116	0.97884	101206	4177163	40.88
5	100000	1559	0.01559	0.98441	99221	4075957	40.76
6	98441	1157	0.01541	0.98459	97883	3976736	40.40
7	96924	1456	0.01502	0.98498	96196	3879053	40.02
8	95468	1380	0.01446	0.98554	94778	3782857	39.62
9	94088	1295	0.01376	0.98624	93441	3688079	39.20
10	92793	1202	0.01295	0.98705	92192	3594638	38.74
11	91591	1106	0.01208	0.98792	91038	3502446	38.24
12	90485	1011	0.01117	0.98883	89980	3411408	37.70
13	89474	919	0.01027	0.98973	89015	3321428	37.12
14	88555	831	0.00938	0.99062	88140	3232413	36.50
15	87724	747	0.00852	0.99148	87351	3144273	35.84
16	86977	678	0.00780	0.99220	86638	3056922	35.15
17	86299	635	0.00736	0.99264	85982	2970284	34.42
18	85664	619	0.00723	0.99277	85354	2884302	33.67
19	85045	617	0.00726	0.99274	84737	2798948	32.91
20	84428	619	0.00733	0.99267	84119	2714211	32.14
21	83809	634	0.00757	0.99243	83492	2630092	31.38
22	83175	680	0.00818	0.99182	82835	2546600	30.62
23	82495	753	0.00913	0.99087	82119	2463765	29.87
24	81742	836	0.01023	0.98977	81324	2381646	29.14
25	80906	922	0.01140	0.98860	80445	2300322	28.43
26	79984	1000	0.01250	0.98750	79481	2219877	27.75
27	78984	1050	0.01329	0.98671	78459	2140393	27.10
28	77934	1073	0.01377	0.98623	77398	2061934	26.46
29	76861	1090	0.01418	0.98582	76316	1984536	25.82
30	75771	1109	0.01464	0.98536	75217	1908220	25.18
31	74662	1127	0.01509	0.98491	74099	1833003	24.55
32	73535	1140	0.01550	0.98450	72965	1758904	23.92
33	72395	1150	0.01588	0.98412	71820	1685939	23.29
34	71245	1158	0.01626	0.98374	70666	1614119	22.66
35	70087	1168	0.01667	0.98333	69503	1543453	22.03
36	68919	1181	0.01713	0.98287	68329	1473950	21.39
37	67738	1202	0.01774	0.98226	67137	1405621	20.75
38	66536	1232	0.01851	0.98149	65920	1338484	20.12
39	65304	1269	0.01943	0.98057	64670	1272564	19.49
40	64035	1313	0.02050	0.97950	63379	1207894	18.86
41	62722	1359	0.02160	0.97840	62045	1144515	18.25
42	61367	1380	0.02248	0.97752	60677	1082470	17.64
43	59987	1389	0.02316	0.97684	59293	1021793	17.03
44	58598	1406	0.02399	0.97601	57895	962500	16.43
45	57192	1442	0.02521	0.97479	56471	904605	15.82

TABLE—4.1 (5.4)—(Contd.)

$x$	$lx$	$dx$	$qx$	$Px$	$Lx$	$Tx$	$ex^2$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
46	55750	1494	0.02680	0.97320	55003	848134	15.21
47	54256	1564	0.02882	0.97118	53474	793131	14.62
48	52692	1650	0.03132	0.96868	51867	739657	14.04
49	51032	1755	0.03438	0.96562	50164	687790	13.47
50	49287	1860	0.03774	0.96226	48357	637626	12.94
51	47427	1898	0.04002	0.95998	46478	589269	12.42
52	45529	1947	0.04277	0.95723	44556	542791	11.92
53	43582	1993	0.04572	0.95428	42586	498235	11.43
54	41589	2032	0.04885	0.95115	40573	455649	10.95
55	39557	2065	0.05220	0.94780	38525	415076	10.49
56	37492	2091	0.05577	0.94423	36447	376551	10.04
57	35401	2109	0.05957	0.94043	34347	340104	9.61
58	33292	2118	0.06363	0.93637	32233	305757	9.18
59	31174	2119	0.06796	0.93204	30115	273524	8.77
60	29055	2108	0.07256	0.92744	28001	243409	8.38
61	26947	2087	0.07746	0.92254	25904	215408	7.99
62	24860	2056	0.08269	0.91731	23832	189504	7.62
63	22804	2012	0.08824	0.91176	21798	165672	7.27
64	20792	1958	0.09415	0.90585	19813	143874	6.92
65	18834	1891	0.10043	0.89957	17889	124061	6.59
66	16943	8115	0.10711	0.89289	16036	106172	6.27
67	15128	1728	0.11420	0.88580	14264	90136	5.96
68	13400	1631	0.12172	0.87828	12585	75872	5.66
69	11769	1528	0.12981	0.87019	11003	63287	5.38
70	10241	1415	0.13818	0.86182	9534	52282	5.11
71	8826	1299	0.14715	0.85285	8177	42748	4.84
72	7527	1179	0.15666	0.84334	6938	34571	4.59
73	6348	1058	0.16671	0.83329	5819	27633	4.35
74	5290	938	0.17734	0.82266	4821	21814	4.12
75	4352	821	0.18856	0.81144	3942	16993	3.90
76	3531	708	0.20041	0.79959	3177	13051	3.70
77	2823	601	0.21289	0.78711	2523	9874	3.50
78	2222	502	0.22604	0.77396	1971	7351	3.31
79	1720	412	0.23940	0.76060	1514	5380	3.13
80	1308	333	0.25441	0.74559	1142	3866	2.96
81	975	263	0.27019	0.73981	844	2724	2.79
82	712	203	0.28563	0.71437	611	1880	2.64
83	509	154	0.30235	0.69765	432	1269	2.49
84	355	114	0.31981	0.68019	298	837	2.36
85	241	81	0.33801	0.66199	201	539	2.24
86	160	57	0.35695	0.64305	132	338	2.11
87	103	39	0.37662	0.62338	84	206	2.00
88	64	25	0.39702	0.60298	52	122	1.91
89	39	16	0.41811	0.58189	31	70	1.79
90	23	10	0.43915	0.56085	18	39	1.70
91	13	6	0.46226	0.53774	10	21	1.62
92	7	5	0.48445	0.51555	6	11	1.57
93	4	2	0.50874	0.49126	3	5	1.25
94	2	1	0.53271	0.46729	2	2	1.00
95	1	..	..	..	..	..	..



TABLE—4.1 (5.5)  
Life Table (1931-40)

## FEMALES

<i>x</i>	<i>l<sub>x</sub></i>	<i>dx</i>	<i>q<sub>x</sub></i>	<i>p<sub>x</sub></i>	<i>L<sub>x</sub></i>	<i>T<sub>x</sub></i>	<i>e<sub>x</sub><sup>o</sup></i>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0	133670	21654	0.16200	0.83800	117526	4678611	35.00
1	112016	5283	0.04716	0.95284	109101	4561085	40.72
2	106733	3035	0.02844	0.97156	105096	4451984	41.71
3	103698	2022	0.01950	0.98050	102631	4346888	41.92
4	101676	1676	0.01649	0.98351	100877	4244257	41.74
5	100000	1304	0.01306	0.98696	99348	4143380	41.43
6	98696	1204	0.01220	0.98780	98094	4044032	40.97
7	97492	1114	0.01143	0.98857	96935	3945938	40.47
8	96378	1035	0.01074	0.98926	95861	3849003	39.94
9	95343	972	0.01019	0.98981	94857	3753143	39.36
10	94371	920	0.00975	0.99025	93911	3658285	38.76
11	93451	878	0.00940	0.99060	93012	3564374	38.14
12	92573	849	0.00917	0.99083	92149	3471362	37.50
13	91724	831	0.00906	0.99094	91309	3379213	36.84
14	90893	823	0.00905	0.99095	90482	3287904	36.17
15	90070	822	0.00913	0.99087	89659	3197422	35.50
16	89248	829	0.00929	0.99071	88834	3107763	34.82
17	88419	844	0.00955	0.99045	87997	3018929	34.14
18	87575	878	0.01002	0.98998	87136	2930932	33.47
19	86697	926	0.01068	0.98932	86234	2843796	32.80
20	85771	985	0.01148	0.98852	85279	2757562	32.15
21	84786	1035	0.01221	0.98779	84269	2672283	31.52
22	83751	1087	0.01298	0.98702	83208	2588014	30.90
23	82664	1028	0.01365	0.98635	82100	2504806	30.30
24	81536	1159	0.01421	0.98579	80957	2422706	29.71
25	80377	1185	0.01474	0.98526	79785	2341749	29.13
26	79192	1208	0.01526	0.98474	78588	2261964	28.56
27	77984	1229	0.01576	0.98424	77370	2183376	28.00
28	76755	1240	0.01615	0.98385	76135	2106006	27.44
29	75516	1242	0.01645	0.98355	74894	2029871	26.88
30	74273	1242	0.01672	0.98328	73652	1954977	26.32
31	73031	1240	0.01698	0.98302	72411	1881325	25.76
32	71791	1236	0.01721	0.98279	71173	1808914	25.20
33	70555	1226	0.01738	0.98262	69942	1737741	24.63
34	69329	1213	0.01750	0.98250	68723	1667799	24.06
35	68116	1200	0.01762	0.98238	67516	1599076	23.48
36	66916	1188	0.01775	0.98225	66322	153156	22.89
37	65728	1179	0.01793	0.98207	65139	1465238	22.29
38	64549	1174	0.01818	0.98182	63962	1400099	21.69
39	63375	1175	0.01854	0.98146	62788	1336137	21.08
40	62200	1181	0.01899	0.98101	61610	1273349	20.47
41	61019	1194	0.01957	0.98043	60422	1211739	19.86
42	39825	1210	0.02022	0.97978	59220	1151317	19.24
43	58615	1215	0.02073	0.97927	58008	1092097	18.63
44	57400	1214	0.02115	0.97885	56793	1034089	18.02
45	56186	1221	0.02174	0.97826	55576	977296	17.39
46	54965	1244	0.02263	0.97737	54343	921720	16.77
47	53721	1280	0.02383	0.97617	53081	867377	16.15
48	52441	1331	0.02538	0.97462	51776	814296	15.53

TABLE—4.1 (5.5)—Contd.

$x$	$lx$	$dx$	$qx$	$px$	$Lx$	$Tx$	$ex^o$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
49	51110	1397	0.02734	0.97266	50412	762520	14.92
50	49713	1476	0.02975	0.97025	48974	712108	14.32
51	48234	1576	0.03267	0.96733	47446	663134	13.75
52	46658	1687	0.03615	0.96385	45815	615688	13.20
53	44971	1790	0.03981	0.96019	44076	569873	12.67
54	43181	1832	0.04243	0.95757	42265	525797	12.18
55	41349	1869	0.04521	0.95479	40515	483532	11.69
56	39480	1898	0.04807	0.95193	38531	443117	17.22
57	37582	1929	0.05134	0.94866	36618	404586	10.77
58	35653	1950	0.05469	0.94531	34678	367968	10.32
59	33703	1964	0.05827	0.94173	32721	333290	9.89
60	31739	1970	0.06206	0.93794	30754	300569	9.47
61	29769	1968	0.06610	0.93390	28785	269815	9.06
62	27801	1967	0.07038	0.92962	26823	241030	8.67
63	25844	1937	0.07494	0.92506	24876	214207	8.29
64	23907	1907	0.07978	0.92022	22954	189331	7.92
65	22000	1868	0.08491	0.91509	21066	166377	7.56
66	20132	1819	0.09035	0.90965	19223	145311	7.22
67	18313	1760	0.09613	0.90387	17433	126088	6.89
68	16553	1603	0.10225	0.89774	15707	108655	6.56
69	14860	1616	0.10875	0.89125	14052	92948	6.25
70	13244	1531	0.11563	0.88437	12479	78896	5.96
71	11713	1440	0.12291	0.87709	10993	66417	5.67
72	10273	1342	0.13061	0.86934	9602	55424	5.40
73	8931	1239	0.13876	0.86124	8312	45822	5.13
74	7692	1134	0.14738	0.85262	7125	37510	4.88
75	6558	1026	0.15648	0.84352	6045	30385	4.63
76	5532	919	0.16608	0.83392	5073	24340	4.40
77	4613	813	0.17620	0.82380	4207	19267	4.18
78	3800	710	0.18683	0.81312	3445	15060	3.96
79	3090	612	0.19812	0.80188	2784	11615	3.76
80	2478	520	0.20994	0.79006	2218	8831	3.56
81	1958	435	0.22237	0.77763	1741	6613	3.38
82	1523	369	0.23542	0.76458	1344	4872	3.20
83	1164	290	0.24910	0.75090	1019	3528	3.03
84	874	230	0.26344	0.73656	759	2509	2.87
85	644	179	0.27844	0.72156	554	1750	2.72
86	465	137	0.29411	0.70589	397	1196	2.57
87	328	102	0.31105	0.68895	277	799	2.44
88	226	74	0.32749	0.67251	180	522	2.31
89	152	52	0.34521	0.65479	126	333	2.19
90	100	36	0.36360	0.63640	82	207	2.07
91	64	24	0.38266	0.61734	52	125	1.95
92	40	16	0.40237	0.59763	32	73	1.82
93	24	10	0.42271	0.57729	19	41	1.71
94	14	6	0.44366	0.55634	11	22	1.57
95	8	4	0.46518	0.53482	6	11	1.37
96	4	2	0.48733	0.51267	3	5	1.25
97	2	1	0.50977	0.49023	2	2	1.00
98	1	1	0.53273	0.46727	..	..	..
99	..	..	0.55605	0.44395	..	..	..
100	..	..	0.57965	0.42035	..	..	..

TABLE—4.1 (5.6)

Life Table (1941-50)

## MALES

$x$	$l_x$	$d_x$	$q_x$	$p_x$	$L_x$	$T_x$	$e_x^0$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0	132401	21184	0.16000	0.84000	116943	5281999	39.89
1	111217	5350	0.04819	0.95181	108220	5165056	46.44
2	105858	2822	0.02666	0.97334	104312	5056836	47.77
3	103036	1711	0.01661	0.98339	101140	4952524	48.07
4	101325	1325	0.01308	0.98692	100692	4851384	47.88
5	100000	970	0.00970	0.99030	99515	4750692	47.51
6	99030	873	0.00882	0.99118	98594	4651177	46.97
7	98157	783	0.00798	0.99202	97766	4552583	46.38
8	97374	704	0.00723	0.99277	97022	4454817	45.75
9	96670	634	0.00656	0.99344	96353	4357795	45.08
10	96036	574	0.00598	0.99402	95749	4261442	44.37
11	95462	523	0.00548	0.99452	95201	4165693	43.64
12	94939	480	0.00506	0.99494	94699	4070492	42.87
13	94459	447	0.00473	0.99527	94236	3975793	42.09
14	94012	422	0.00449	0.99551	93801	3881557	41.29
15	93590	404	0.00432	0.99568	93388	3787756	40.47
16	93186	395	0.00424	0.99576	92989	3694368	39.65
17	92791	392	0.00423	0.99577	92596	3601379	38.81
18	92399	405	0.0048	0.99562	92197	3508783	37.97
19	91994	429	0.00466	0.99534	91780	3416586	37.14
20	91565	461	0.00503	0.99497	91335	3324806	36.31
21	91104	497	0.00545	0.99455	90856	3233471	35.49
22	90607	534	0.00589	0.99411	90340	3142615	34.68
23	90073	570	0.00633	0.99367	89788	3052275	33.89
24	89503	604	0.00675	0.99325	89201	2962487	33.10
25	88899	639	0.00719	0.99281	88580	2873286	32.32
26	88260	677	0.00767	0.99233	87922	2784706	31.55
27	87583	716	0.00818	0.99182	87225	2696784	30.79
28	86867	756	0.00870	0.99130	86489	2609559	30.04
29	86111	797	0.00926	0.99074	85713	2523070	29.30
30	85314	839	0.00983	0.99017	84895	2437357	28.57
31	84475	882	0.01044	0.98956	84034	2352462	27.85
32	83593	925	0.01106	0.98894	83131	2268428	27.14
33	82698	963	0.01165	0.98835	82187	2185297	26.43
34	81705	999	0.01223	0.98777	81206	2103110	25.74
35	80706	1035	0.01283	0.98717	80189	2021904	25.05
36	79671	1073	0.01347	0.98653	79135	1941715	24.37
37	78598	1115	0.01418	0.98582	78041	1862580	23.70
38	77483	1152	0.01487	0.98513	76907	1784539	23.03
39	76331	1194	0.01564	0.98436	75734	1707632	22.37
40	75137	1238	0.01647	0.98353	74518	1631898	21.72
41	73899	1283	0.01736	0.98264	73258	1557380	21.07
42	72616	1330	0.01832	0.98168	71951	1484122	20.44
43	71286	1382	0.01938	0.98062	70595	1412171	19.81
44	69904	1437	0.02055	0.97954	69186	1341576	19.19
45	68467	1493	0.02181	0.97819	67721	1272390	18.58
46	66974	1552	0.02317	0.97683	66198	1204669	17.99
47	65422	1609	0.02460	0.97540	64618	1138471	17.40
48	63813	1668	0.02614	0.97386	62979	1073853	16.83
49	62145	1726	0.02777	0.97223	61282	1010874	16.27

TABLE—4.1 (5.6)—Contd.

$x$	$l_x$	$dx$	$qx$	$P_x$	$L_x$	$T_x$	$ex^o$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
50	60419	1782	0.02950	0.97050	59528	949592	15.72
51	58637	1837	0.03133	0.96867	57719	890064	15.18
52	56800	1889	0.03326	0.96674	55856	832345	14.65
53	54911	1939	0.03531	0.96469	53942	776489	14.14
54	52972	1984	0.03746	0.96254	51980	722547	13.64
55	50988	2022	0.03966	0.96034	49977	670567	14.15
56	48966	2052	0.04191	0.95809	47940	620590	12.67
57	46914	2084	0.04443	0.95557	45872	572650	12.21
58	44830	2111	0.04709	0.95291	43775	526778	11.75
59	42719	2132	0.04991	0.95009	41653	483003	11.31
60	40587	2147	0.05289	0.94711	39514	441350	10.87
61	38440	2154	0.05604	0.94396	37363	401836	10.45
62	36286	2155	0.05938	0.94062	35209	364473	10.04
63	34131	2147	0.06291	0.93709	33058	329264	9.65
64	31984	2131	0.06664	0.93336	30919	296206	9.26
65	29853	2107	0.07058	0.92942	28800	265287	8.89
66	27746	2074	0.07474	0.92526	26709	236487	8.52
67	25672	1987	0.07741	0.92259	24679	209778	8.17
68	23685	1985	0.08379	0.91621	22693	185099	7.82
69	21700	1925	0.08870	0.91130	20738	162406	7.48
70	19775	1856	0.09388	0.90612	18847	141668	7.16
71	17919	1780	0.9934	0.90066	17029	122821	6.85
72	16139	1696	0.10510	0.89490	14291	105792	6.56
73	14443	1606	0.11118	0.88882	13640	90501	6.27
74	12837	1510	0.11759	0.88241	12082	76861	5.99
75	11327	1408	0.12434	0.87566	10623	64779	5.72
76	9919	1304	0.13144	0.86856	9267	54156	5.46
77	8615	1197	0.13892	0.86108	8017	44889	5.21
78	7418	1089	0.14679	0.85321	6874	36872	4.97
79	6329	981	0.15506	0.84494	5839	29998	4.74
80	5348	876	0.16376	0.83624	4910	24159	4.52
81	4472	773	0.17288	0.82712	4086	19249	4.30
82	3699	675	0.18246	0.81754	3362	15163	4.10
83	3024	582	0.19250	0.80750	2733	11801	3.90
84	2442	496	0.20303	0.79697	2194	9068	3.71
85	1946	417	0.21405	0.78595	1738	6874	3.53
86	1529	345	0.22559	0.77441	1357	5136	3.36
87	1184	281	0.23764	0.76236	1044	3779	3.19
88	903	226	0.25022	0.74978	790	2735	3.03
89	677	178	0.26336	0.73664	588	1945	2.87
90	499	138	0.27704	0.72296	430	1357	2.72
91	361	106	0.29130	0.70870	308	927	2.57
92	255	79	0.30612	0.69388	216	619	2.43
93	176	57	0.32151	0.67849	148	403	2.29
94	119	41	0.33747	0.66253	99	255	2.14
95	78	28	0.35400	0.64600	64	156	2.00
96	50	19	0.37108	0.62892	41	92	1.84
97	31	13	0.38873	0.61127	25	51	1.65
98	18	8	0.40692	0.59308	14	26	1.44
99	10	5	0.42564	0.57436	7	12	1.20
100	5	3	0.44485	0.55515	4	5	1.00
101	2	1	0.46455	0.53345	1	1	0.50
102	1	..	0.48470	0.51530	..	..	..

TABLE—4.1.5.7

## Life Table (1941-50)

## FEMALES

$x$	$l_x$	$dx$	$qx$	$\beta x$	$L_x$	$T_x$	$e^p x$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
0	128100	18574	0.14500	0.85500	111725	5423143	42.34
1	109526	4473	0.04084	0.95916	106440	5311418	48.49
2	105053	2128	0.02026	0.97974	103807	5204978	49.55
3	102925	1530	0.01487	0.98513	102048	5101171	49.56
4	101395	1395	0.01376	0.98624	100693	4999123	49.30
5	100000	1092	0.01092	0.98908	99454	4898430	48.98
6	98908	1035	0.01046	0.98954	98391	4798976	48.52
7	97873	971	0.00992	0.99008	97388	4700585	48.03
8	96902	898	0.00927	0.99073	96453	4603197	47.50
9	96004	819	0.00853	0.99147	95555	4506744	46.94
10	95185	735	0.00772	0.99228	94818	4411149	46.34
11	94450	651	0.00689	0.99311	94125	4316331	45.70
12	93799	568	0.00606	0.99394	93515	4222206	45.01
13	93231	489	0.00524	0.99476	92987	4128691	44.28
14	92742	415	0.00448	0.99552	92535	4035704	43.52
15	92327	347	0.00376	0.99624	92154	3943169	42.71
16	91980	283	0.00308	0.99692	91839	3851015	41.87
17	91697	234	0.00255	0.99745	91580	3759176	41.00
18	91463	218	0.00238	0.99762	91444	3667596	40.10
19	91245	234	0.00257	0.99743	91128	3576152	39.19
20	91011	267	0.00293	0.99707	90878	3485024	38.29
21	90744	302	0.00333	0.99667	90593	3394146	37.40
22	90442	344	0.00380	0.99620	90270	3303553	36.53
23	90098	390	0.00433	0.99567	89903	3213283	35.66
24	89708	439	0.00489	0.99511	89489	3123380	34.82
25	89269	491	0.00550	0.99450	89024	3033891	33.99
26	88778	550	0.00619	0.99381	88503	2944867	33.17
27	88228	605	0.00686	0.99314	87926	2856364	32.37
28	87623	647	0.00738	0.99262	87300	2768438	31.59
29	86976	674	0.00775	0.99225	86639	2681138	30.83
30	86302	699	0.00810	0.99190	85953	2594499	30.06
31	85603	725	0.00847	0.99153	85241	2508546	29.30
32	84878	754	0.00888	0.99112	84501	2423305	28.55
33	84124	792	0.00941	0.99059	83728	2338804	27.80
34	83332	837	0.01004	0.98996	82914	2255076	27.06
35	82495	884	0.01072	0.98928	82053	2172162	26.33
36	81611	931	0.01141	0.98859	81146	2090109	25.61
37	80680	978	0.01212	0.98788	80191	2008963	24.90
38	79702	1024	0.01285	0.98715	79190	1928772	24.20
39	78678	1070	0.01360	0.98640	78143	1849582	23.51
40	77608	1118	0.01440	0.98560	77049	1771439	22.83
41	76490	1168	0.01527	0.98473	75906	1694390	22.15
42	75322	1217	0.01616	0.98384	74714	1618484	21.49
43	74105	1254	0.01692	0.98308	73478	1543770	20.83
44	72851	1276	0.01752	0.98248	72213	1470292	20.18
45	71575	1303	0.01820	0.98180	70924	1398079	19.53
46	70272	1339	0.01905	0.98095	69603	1327155	18.89
47	68933	1383	0.02007	0.97993	68242	1257552	18.24
48	67550	1437	0.02128	0.97872	66832	1189310	17.61
49	66113	1501	0.02271	0.97729	65363	1122478	16.98
50	64612	1577	0.02440	0.97560	63824	1057115	16.36

$x$	$lx$	$dx$	$qx$	$px$	$Lx$	$Tx$	$e^p x$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
51	63035	1663	0.02639	0.97361	62204	993291	15.76
52	61372	1762	0.02871	0.97129	60491	931087	15.17
53	59610	1872	0.93140	0.96860	58674	870596	14.60
54	57738	1991	0.03449	0.96551	56743	811922	14.06
55	55757	2107	0.03779	0.96221	54694	755179	13.55
56	53640	2044	0.03810	0.96190	52618	700485	13.06
57	51596	2094	0.04059	0.95941	50549	647867	12.56
58	49502	2140	0.04324	0.95676	48432	597318	12.07
59	47362	2181	0.04606	0.95394	46272	548886	11.59
60	45181	2216	0.04905	0.95095	44073	502614	11.12
61	42965	2244	0.05224	0.94776	41843	458541	10.67
62	40721	2265	0.05562	0.94438	39589	416698	10.23
63	38456	2277	0.05922	0.94078	37318	377109	9.81
64	36179	2281	0.06304	0.93696	35039	339791	9.39
65	33898	2275	0.06710	0.93290	32761	304752	8.99
66	31623	2259	0.07142	0.92858	30494	271991	8.60
67	29364	2231	0.07599	0.92401	28249	241497	8.22
68	27133	2194	0.08085	0.91915	26036	213248	7.86
69	24939	2145	0.08681	0.91399	23867	187212	7.51
70	22794	2085	0.09147	0.90923	21752	163345	7.17
71	20709	2014	0.09727	0.90273	19702	141593	6.84
72	18695	1933	0.10341	0.89659	17729	121891	6.52
73	16762	1842	0.10991	0.89009	15841	104162	6.21
74	14920	1743	0.11680	0.88320	14049	89321	5.92
75	13177	1635	0.12408	0.87592	12360	74272	5.64
76	11542	1521	0.13179	0.86821	10782	61912	5.36
77	10021	1402	0.13993	0.86007	9320	51130	5.10
78	8619	1280	0.14854	0.85146	7979	41810	4.85
79	7339	1157	0.15762	0.84238	6761	33831	4.61
80	6182	1034	0.16721	0.83279	5665	27070	4.38
81	5148	913	0.17731	0.82269	4692	21405	4.16
82	4235	796	0.18795	0.81205	3837	16713	3.95
83	3439	685	0.19914	0.80086	3097	12876	3.74
84	2754	581	0.21092	0.78908	2464	9779	3.55
85	2173	485	0.22329	0.77671	1931	7315	3.37
86	1688	399	0.23627	0.76373	1489	5384	3.19
87	1289	322	0.24988	0.75012	1128	3895	3.02
88	967	255	0.26413	0.73587	840	2767	2.86
89	712	199	0.27903	0.72097	613	1927	2.71
90	513	151	0.29459	0.70541	438	1314	2.56
91	362	113	0.31082	0.68918	306	876	2.42
92	249	82	0.32772	0.67228	208	570	2.29
93	167	58	0.34529	0.65471	138	362	2.17
94	109	40	0.36419	0.63581	89	224	2.06
95	69	26	0.38242	0.61758	56	135	1.96
96	43	17	0.40196	0.59804	35	79	1.84
97	26	11	0.42212	0.57788	21	44	1.69
98	15	7	0.44288	0.55712	12	23	1.53
99	8	4	0.46419	0.53581	6	11	1.38
100	4	2	0.48604	0.51396	3	5	1.25
101	2	1	0.50835	0.49165	2	2	1.00
102	1	..	0.53109	0.46891	..	..	..

TABLE--4.1 (5.8)

## Abridged life Table for Kerala for the decade 1951-60

## MALES

$x$	$px$	$qx$	$lx$	$lx+c$	$T_x$	$e^o_x$
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0	0.88000	0.12000	100000	..	4617123	46.17
1	0.96978	0.03022	88000	—	4525811	51.43
2—4	0.96602	0.03398	85341	—	4439380	52.02
5—9	0.97180	0.02820	92441	—	4188413	50.80
10—14	0.98260	0.01740	80116	—	3782680	47.22
15—19	0.98639	0.01361	78722	716633	3385846	43.01
20—24	0.98055	0.01945	77651	657911	2861494	36.85
25—29	0.97177	0.02823	76141	560260	2610185	34.28
30—34	0.96438	0.03562	73992	484119	2234618	30.20
35—39	0.94984	0.05016	71356	410127	1870950	26.22
40—44	0.92483	0.07517	67777	338771	1522605	22.47
45—49	0.89394	0.10606	62682	270994	1195819	19.08
50—54	0.85809	0.14191	56034	208312	898433	16.05
55—59	0.79902	0.20098	48082	152278	637517	13.26
60—64	0.73884	0.26116	38418	104196	420832	10.95
65—69	0.66479	0.33521	28385	65778	253855	8.94
70—74	0.57651	0.42349	18870	37393	136143	7.22
75—79	0.47570	0.52430	10879	18523	..	..
80—84	0.36705	0.63295	5175	7644	..	..
85—89	0.25873	0.74127	1899	2469	..	..
90—94	0.16142	0.83858	491	570	..	..
95+	0.00000	1.00000	79	79	..	..

TABLE—4.1 5,9

## Abridged life table for Kerala for the decade 1951-60

## FEMALES

$x$	$px$	$qx$	$lx$	$lx+c$	$T_x$	$e^o_x$
(1)	(2)	(3)	(4)	(5)	(6)	(7)
0	0.88000	0.12000	100000	..	5000287	50.00
1	0.97017	0.02983	88000	..	4908975	55.78
2—4	0.96762	0.03238	85375	..	4822524	56.49
5—9	0.97662	0.02338	82611	..	4571231	55.33
10—14	0.99001	0.00999	80680	..	4163560	51.60
15—19	0.99312	0.00688	79874	792486	3762463	47.11
20—24	0.98258	0.01742	79324	712612	3364348	42.41
25—29	0.97467	0.02533	77942	633288	2970886	38.11
30—34	0.96955	0.03045	75968	555346	2585917	34.04
35—39	0.95434	0.04566	73655	479378	2211570	30.03
40—44	0.93672	0.06328	70292	405723	1851258	26.34
45—49	0.91729	0.08271	65844	335431	1510484	22.94
50—54	0.88683	0.11317	60398	269587	1194381	19.78
55—59	0.85892	0.14108	53563	209189	909039	16.97
60—64	0.81715	0.18285	46006	155626	659788	14.34
65—69	0.76482	0.23518	37594	109620	450521	11.98
70—74	0.70048	0.29952	28753	72026	284611	9.90
75—79	0.62333	0.37667	20141	43273	..	..
80—84	0.53386	0.46614	12554	23132	..	..
85—89	0.43460	0.56540	6702	10578	..	..
90—94	0.33072	0.66928	2913	3876	..	..
95+	0.00000	1.00000	963	963	..	..



TABLE-4.2

Crude birth rates in various years from registration figures

District	Rural/ Urban	Years						
		1959	1960	1961	1962	1963	1964	1965
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	Rural	22.95	19.82	18.94	16.87	14.83	17.52	13.74
	Urban	50.93	54.42	50.31	63.54	50.16	63.81	54.02
	Total	27.63	25.59	24.01	24.43	20.55	25.01	20.26
Quilon	Rural	25.49	23.27	22.91	22.27	21.66	23.12	20.66
	Urban	69.28	59.47	68.21	65.59	62.04	65.31	98.46
	Total	27.54	24.96	25.05	24.30	23.55	25.10	24.31
Alleppey	Rural	23.27	20.60	22.80	21.07	19.98	20.56	18.37
	Urban	36.86	30.77	31.47	32.09	36.27	36.67	40.89
	Total	25.20	22.06	24.04	22.64	22.30	22.85	21.57
Kottayam	Rural	28.97	27.55	25.81	23.30	23.90	24.58	23.00
	Urban	39.98	33.90	39.59	34.19	40.81	40.08	45.16
	Total	29.88	28.07	26.83	24.11	25.14	25.73	24.63
Ernakulam	Rural	20.55	18.66	20.45	18.72	20.36	20.50	19.75
	Urban	32.53	33.46	39.96	39.71	44.55	39.14	49.11
	Total	22.61	21.24	23.76	22.30	24.15	23.68	24.76
Trichur	Rural	17.03	15.03	15.55	13.34	14.41	14.69	12.65
	Urban	32.39	42.50	50.61	47.89	51.16	43.64	71.79
	Total	18.21	17.14	17.91	15.69	16.91	16.66	16.67
Palghat	Rural	24.20	22.15	24.55	19.27	19.71	18.70	16.70
	Urban	35.84	34.99	36.41	37.52	32.35	36.11	44.02
	Total	24.90	22.92	25.24	20.33	20.45	19.72	18.30
Kozhikode	Rural	25.39	22.42	24.99	20.86	17.18	20.99	17.04
	Urban	45.14	43.51	45.08	42.86	50.92	47.25	74.35
	Total	27.11	24.26	26.80	22.84	22.05	23.37	22.21
Cannanore	Rural	33.24	29.42	29.32	26.37	25.11	25.83	25.50
	Urban	36.97	34.84	43.75	42.83	40.36	51.05	64.42
	Total	33.44	29.75	30.07	27.23	25.89	27.12	27.49
State	Rural	24.50	22.12	23.05	20.40	20.00	21.38	18.65
	Urban	42.50	40.09	43.43	44.73	44.87	46.56	56.90
	Total	26.23	23.92	25.00	22.73	22.38	23.32	22.32

SOURCE: Vital Statistics Bulletins, 14, 18, 22, 26, 27, 28, 29.

TABLE—5.1

Percentage distribution of the population in the various District by Educational levels—1961.

District	Rural Urban Total	Males				Females			
		Illiterate	Literate without or educational level	Primary Junior Basic	Matriculates & above	Illiterate	Literate without educational level	Primary or Junior Basic	Matriculates & above
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Trivandrum	Rural	49.4	35.7	11.4	3.5	65.7	25.3	7.5	1.5
	Urban	38.8	31.9	16.5	12.8	53.6	26.4	14.0	6.0
	Total	46.7	34.7	12.7	5.9	62.6	25.6	9.2	2.6
Quilon	Rural	42.8	39.0	14.6	3.6	57.3	30.7	10.4	1.6
	Urban	35.2	36.0	18.9	9.9	50.0	30.5	14.8	4.7
	Total	42.2	38.8	14.9	4.1	56.8	30.7	10.7	1.8
Alleppey	Rural	36.6	44.8	14.6	4.0	50.1	36.6	11.2	2.1
	Urban	34.4	39.5	18.3	7.8	48.9	32.8	14.1	4.2
	Total	36.2	43.9	15.2	4.7	49.9	35.9	11.6	2.5
Kottayam	Rural	38.5	39.0	18.6	3.9	50.7	33.7	13.9	1.7
	Urban	28.8	36.1	24.1	11.0	37.9	34.2	21.0	6.9
	Total	37.6	38.7	19.1	4.6	49.5	33.7	14.6	2.2
Ernakulam	Rural	44.6	39.0	12.8	3.6	58.7	29.8	9.6	1.9
	Urban	33.8	35.1	18.8	12.3	48.9	29.9	15.2	6.0
	Total	42.2	38.2	14.1	5.5	56.7	29.9	10.7	2.7
Trichur	Rural	46.0	37.9	12.6	3.5	59.1	28.3	10.6	2.0
	Urban	35.6	28.6	23.8	12.0	46.7	24.3	22.0	7.0
	Total	44.8	36.8	13.9	4.5	57.7	27.9	11.9	2.5
Palghat	Rural	59.1	30.7	7.7	2.5	74.3	19.7	5.2	0.8
	Urban	46.8	31.5	10.9	10.8	64.6	22.7	8.5	4.2
	Total	57.9	30.8	8.0	3.3	73.4	20.0	5.5	1.1
Kozhikode	Rural	50.7	34.7	12.9	1.7	71.8	20.3	7.5	0.4
	Urban	39.5	38.0	15.7	6.8	59.4	26.4	11.5	2.7
	Total	48.9	35.3	13.3	2.5	69.8	21.3	8.1	0.8
Cannanore	Rural	49.6	34.7	13.6	2.1	71.0	20.2	8.3	0.5
	Urban	40.2	35.7	17.6	6.5	59.1	25.0	13.4	2.5
	Total	48.0	34.8	14.3	2.9	69.0	21.0	9.2	0.7
State	Rural	46.4	37.2	13.3	3.1	62.5	26.9	9.3	1.3
	Urban	37.2	35.1	17.9	9.8	53.0	27.9	14.4	4.7
	Total	45.0	36.9	14.0	4.1	61.1	27.0	10.1	1.8

TABLE—5.1.1

Percentage of literates in each District during 1901-61  
excluding children below 5 years

<i>District</i>		1901	1911	1921	1931	1951	1961
(1)		(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	Male	22.67	27.68	36.74	38.10	45.69	63.05
	Females	3.63	5.53	17.18	14.07	54.05	43.91
	Total	13.21	16.70	27.07	26.05	49.90	53.43
Quilon	Male	19.01	23.24	37.26	38.59	64.16	68.48
	Female	2.03	3.60	13.11	13.53	42.62	51.00
	Total	10.62	13.51	25.34	26.08	53.38	59.74
Alleppey	Male	30.07	32.85	44.97	48.48	72.79	74.52
	Female	4.32	6.85	20.84	22.91	51.36	57.93
	Total	17.36	19.99	33.04	35.73	61.94	66.07
Kottayam	Male	31.78	34.72	42.45	47.86	70.51	73.44
	Female	5.32	7.96	23.19	23.86	54.57	59.56
	Total	19.03	21.80	33.20	36.29	62.66	66.64
Ernakulam	Male	23.51	25.22	33.38	41.82	65.28	68.19
	Female	4.58	5.64	14.36	17.98	43.10	50.89
	Total	14.21	15.56	24.06	29.98	54.12	59.53
Trichur	Male	22.66	28.49	31.70	44.74	59.11	65.74
	Female	4.86	7.10	11.48	21.89	38.52	49.41
	Total	13.76	17.74	21.32	32.85	48.24	57.15
Palghat	Male	16.54	20.52	22.32	23.80	39.69	49.73
	Female	2.82	4.01	5.74	7.30	21.58	30.96
	Total	9.54	12.03	13.74	15.19	30.18	39.89
Kozhikode	Male	19.20	21.50	23.71	26.58	47.90	60.41
	Female	3.34	3.71	4.97	6.03	19.84	35.49
	Total	11.25	12.53	14.20	16.09	33.65	47.83
Cannanore	Male	19.77	24.70	26.35	31.58	52.52	61.28
	Female	2.91	4.15	5.74	8.35	28.65	36.19
	Total	11.12	14.09	15.58	19.47	40.15	48.45
State	Male	22.05	25.82	32.20	37.14	57.15	64.89
	Female	3.65	5.15	11.84	14.33	37.95	45.56
	Total	12.85	15.45	21.95	25.58	47.37	55.08

SOURCE: 1961 Census General Report.

TABLE—5.1 (2)

## Percentage of literates in various States in 1961

State	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Andhra Pradesh	25.1	8.4	16.8	53.6	29.3	41.8	30.2	12.0	21.2
Assam	34.8	13.8	24.9	64.1	47.0	57.2	37.3	16.0	27.4
Bihar	27.2	5.2	16.1	55.5	28.0	43.2	29.8	6.9	18.4
Gujarat	34.5	13.2	24.1	59.6	36.7	48.8	41.1	19.1	30.5
Jammu and Kashmir	12.9	1.6	7.6	36.8	18.1	28.3	17.0	4.3	11.0
Kerala	53.5	37.5	45.4	62.8	47.2	54.9	55.0	38.9	46.8
Madhya Pradesh	21.8	3.4	12.7	56.5	28.3	43.5	27.0	6.7	17.1
Madras	37.8	11.6	24.7	62.7	36.7	49.9	44.5	18.2	31.4
Maharashtra	33.5	9.3	21.5	61.6	37.9	51.1	42.0	16.8	29.8
Mysore	30.5	9.2	20.0	55.2	32.2	44.2	36.1	14.2	25.4
Orissa	33.0	7.5	20.1	57.5	27.6	44.2	34.7	8.6	21.7
Punjab	26.8	8.7	18.4	56.4	36.4	47.4	33.0	14.1	24.2
Rajasthan	18.3	2.7	10.9	50.9	22.5	37.6	23.7	5.8	15.2
Uttar Pradesh	23.7	4.2	14.3	50.0	27.8	40.1	27.3	7.0	17.6
West Bengal	32.9	9.7	21.6	59.6	43.3	52.9	40.1	17.0	29.3
All India	29.1	8.5	19.0	57.5	34.5	47.0	34.4	12.9	24.0

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