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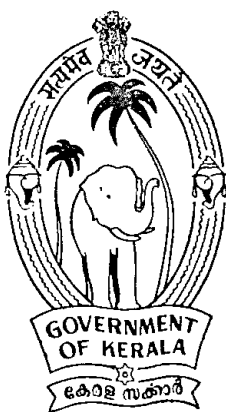
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KERALA IN MAPS

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THE DEPARTMENT OF STATISTICS
KERALA
1960

AUGUST 1960 / SRAVANA 1882

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Government of Kerala
Trivandrum

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PREFACE

This publication presents the important and basic statistics of Kerala State in the form of Maps and Diagrams. Altogether it contains 32 Maps and 2 Diagrams. As far as possible, the latest available statistics are incorporated. It is hoped that the publication will be of real value to students, research-workers and the public in general.

Trivandrum, }
1-8-1960. }

Director of Statistics

KERALA IN MAPS

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INTRODUCTORY NOTE

I. General

Maps representing the more important aspects of the socio-economic and agricultural conditions in the State are included in this publication.

The new Kerala State came into existence on 1st of November, 1956 consequent on the reorganisation of States. The State consists of the old Travancore-Cochin State excluding the taluks of Thovala, Agasteeswaram, Kalkulam, Vilavancode and a part of Shencottah Taluk transferred to the Madras State and the District of Malabar and Kasargod Taluk transferred from Madras State. The old Travancore-Cochin State was formed by the integration of the two princely States Travancore and Cochin in 1949.

The Kerala State is situated in the south-western corner of India. It lies between $8^{\circ} 18'$ and $12^{\circ} 48'$ north latitudes and between $74^{\circ} 52'$ and $77^{\circ} 22'$ east longitudes. It is elongated in shape. It is flanked on the eastern side by the Western Ghats which form almost a continuous barrier except for the Palghat gap towards the middle. On the western side the State is bounded by the Arabian Sea. The coastal line from south to north is nearly 360 miles. The breadth of the State varies from about 20 miles in the extreme north and south to about 80 miles in the middle. Both the Travancore-Cochin and Malabar regions possess scenic beauty of the most variegated nature.

II. Physical

The State can be divided into three natural regions viz. lowland, midland and highland. These regions form parallel belts, running across the length of the State.

The lowland (narrow coastal belt) with stretches of sand and numerous backwaters is suited for cultivation of paddy and coconut. Extensive paddy lands and numerous coconut plantations therefore vie with one another in this belt of land. Low cliffs occur in certain places along the palm fringed coast north of Kozhikode. The numerous backwaters along the coast are interconnected by a net work of canals affording cheap water communication from Trivandrum to Tirur (about 220 miles). The important backwaters are Veli and Kadinamkulam (Trivandrum District), Paravur and Ashtamudi (Quilon District) and Kayamkulam and Vembanad (Alleppey District), the last one being the biggest with an area of about 79 Sq. miles. Sasthamcottah in Quilon District and Enamackal, Manakudi and Muriyad in Trichur District are fresh water lakes.

The midland region with hills and valleys presents an undulating tract of laterite soil cut across by numerous rivers. In this region rice is the most common crop in the valleys while the hill-slopes and uplands are utilised for the cultivation of Tapioca, Cashew, Coconut, Ginger and Pepper.

The highland consists mainly of dense reserve forests. Forests form about 26% of the area of the State. The major forest produce are teak-wood, rose-wood and other kinds of hardwood and several varieties of soft-wood. The important cash crops of the State viz. Rubber, Tea and Cardamom are grown in this area on a plantation scale.

The Western Ghats has an elevation of 5000 ft. on the average, the height going up to about 8000 ft. in certain places. Some of the important

peaks in the Western Ghats are Anamudi (8837 ft.) Mukurti (8380 ft.), Nilgiris (8118 ft.) and Anginda (7828 ft.). Besides the Palghat gap referred to earlier, there are several other passes in the Western Ghats which though less important serve as channels of communication with the adjacent State of Madras.

The geological formations met with in Kerala are of the following three types viz. (i) recent deposits generally found along the coastal areas, (ii) old alluvium and laterite found in the interior and (iii) unclassified crystalline gneisses. Major portions of the State are of unclassified crystalline gneiss formations.

With the mountain ranges all along the eastern border precipitating heavy rains, the State has a good number of rivers originating in the ghats. There are 44 rivers running through the State. Out of these, 41 rivers are west flowing. The other three are east flowing and all of them are tributaries of the Cauveri river. The average length of the rivers is calculated as 40 miles with a catchment area of 200 sq. miles on the average. Bharatapuzha which flows through the middle of the State is the longest with a length of 156 miles. Most of the rivers abound in hydroelectric potential.

The lowland areas of the State are the most densely populated the density going as high as 5020 persons per sq. mile in that certain taluks, followed by the midland and highland in that order.

III. Area and Population

Kerala is the smallest State in India with an area of about 15000 sq. miles.

For administrative purposes the State is divided into nine Districts; Trivandrum, Quilon, Alleppey, Kottayam, Trichur, Ernakulam, Palghat, Kozhikode and Cannanore (Vide map no. 1). The biggest District in area is Kozhikode with an area of about 2554 sq. miles and the smallest District is Alleppey with an area of about 704 Sq. miles. The total number of taluks in the State is 55 and revenue villages number 1635.

The population of the State according to the 1951 Census was 135.52 lakhs, with a density of 904 persons per sq. mile. Kerala is thus the most densely populated State in India. The population of the State has been steadily increasing for the past few decades. The population increased by about 113.8% (ie. has more than doubled) during the course of the last 50 years. The rate of growth is considered to be one of the highest in the world. During the decade 1941 to 1951 the population of the State increased by 22.8%.

The distribution of taluks, villages and towns in the various Districts and the district-wise density of population are given in the subjoined table (vide also map no. 2).

DISTRICT	Area (in sq. miles)	Number of taluks	Number of revenue villages	Number of towns	Number of panchayats	Density of population per sq. mile (1951 Census)
Trivandrum	846.3	4	94	18	70	1569
Quilon	1981.9	6	99	9	87	745
Alleppey	703.9	7	99	10	93	2160
Kottayam	2000.0	8	101	13	76	664
Ernakulam	1558.5	7	112	14	94	982
Trichur	1147.0	5	244	10	78	1188
Palghat	1973.1	6	304	10	112	793
Kozhikode	2554.4	6	332	7	85	809
Cannanore	2226.5	6	250	4	197	618
TOTAL	14991.6	55	1635	95	892	904

The density of population is highest in Alleppey District with about 2160 persons per sq. mile and lowest in Cannanore District with about 620 persons per Sq. mile. According to the 1951 Census of population there were 1028 females for every 1000 males. Map no. 3 shows the district-wise position.

There are three towns in the State with a population of over 1 lakh. They are Trivandrum, Kozhikode and Alleppey.

Of the other 24 Municipal towns, 5 are in the population group between 50,000 to 1 lakh, 7 in the group 20,000 to 50,000, 10 in the group 10,000 to 20,000 and 2 in the group 5,000 to 10,000 (See map no. 5).

Of the total population of 135.52 lakhs in the State, 117.22 lakhs live in the villages and 18.30 live in the urban areas. Urban population thus forms 13.5% of the total population. The proportion of urban population is highest in Trivandrum District with 23.1% and lowest in Cannanore District with 9.1% (vide map. no. 4)

The age distribution of the population as per 1951 Census shows that about 38.5% of the population is below 15 years of age, 53.3% of the population is in the age group 15 to 54 and 8.2% above 54 years of age.

As regards religion 61.62% of the population are Hindus, 17.48% are Muslims and 20.87% are Christians. All other communities together constitute only 0.03% of the population (See map no. 6).

The total population of scheduled castes in the Kerala State (1951 Census) is 12.55 lakhs and the total population of scheduled tribes 73, 930.

The scheduled castes and scheduled tribes together constitute 9% of the total population. Scheduled castes are mostly found in Quilon and Palghat Districts and the scheduled tribes in Kozhikode and Cannanore Districts.

53.6% of the total population depend on agriculture for their livelihood. (See map no. 7). Agricultural labourers are the most numerous of the agricultural classes forming 39.3% of the total agricultural population (21.1% of the total population). Among those who depend on agriculture for their livelihood 17.5% have non-agricultural pursuits as subsidiary occupations. Similarly in the case of non-agricultural population 17.2% have agriculture as a subsidiary source of income.

The fact that 46.4% of the population is dependent on non-agricultural operations may give the impression that the State is highly industrialised. The situation is however far from it. There are only a few large scale industries in the State. The organised industrial sector absorb only about 1% of the total population. The non-agricultural operations relate to handicrafts, trade, small scale business and industry requiring only very low investment. Naturally, the return is bound to be poor.

The burden of dependency on the earners in the families is very great. The average size of a family is about 6. For the population as a whole, for every 100 persons 28 are self-supporting, 6 are earning dependents and 66 non-earning dependents. Among the males 43.0% are self-supporting persons, 4.8% are earning dependents and the remaining 52.2% are non-earning dependents. In the case of females, however, 12.5% are self-supporting, 7.1% are earning dependents and 80.4% are non-earning dependents. The burden of dependency is highest among the cultivators of unowned land (3.1) and is lowest among agricultural labourers (1.8).

Malayalam is the mother-tongue of 93.5% of the population. Tamil is the next important language spoken by 4.4% of the population. The remaining 2% speak other languages.

In respect of literacy Kerala stands foremost among the Indian States, 40.5% of the total population being literate according to the 1951 Census.

IV. Climate and Rainfall

Kerala has on the whole an equable climate. Mean temperature varies from 75° to 90° F. Diurnal range is only about 10° F. In the highland region the climate is cool and bracing. Annual rainfall ranges from 100 to 200 inches. The midland region also receives good rainfall varying

from 55 inches to 155 inches per annum. The rainfall in the coastal range varies from 35 inches in the south to 140 inches in the north. There is high percentage of humidity. In the coastal tract the percentage is as high as 93 during the months of July and August. Even during the dry weather of December and January the percentage humidity seldom goes below 60. Generally speaking, the percentage humidity and temperature shows a progressive decline as we advance to the foot of the Western Ghats.

There are no well defined seasons in Kerala. The summer and winter are practically controlled by the south-west and north-east monsoons respectively. The autumn and spring are indistinguishable in regard to climatic conditions.

The State receives copious rainfall both from the south-west monsoon (May to August) and north-east monsoon (October to December). South West monsoon brings in the greater part of the rainfall. Nearly two thirds of the annual rainfall are received during the period of May to September.

As regards the geographical distribution of rainfall it can generally be said that there is a progressive increase from the south to the north. There is a similar increase from Stations on the coast to the Stations at the foot of the Ghats (vide the rainfall map no. 8). Even though the State is in receipt of the benefit of both the monsoons this does not rule out the possibility of the seasonal distribution of rainfall being unfavourable to agriculturists. Heavy floods which do occur occasionally cause substantial damage to the crops in the basins and banks of the rivers.

V. Agriculture

Agriculture depends on climatic and soil conditions. Climatic conditions have been referred to earlier.

(1) *Soils: Map no. 9 depicts the distribution of soils in the State.*

Trivandrum District: The soil in the high land region is clay loam and rests on a bed of rocks. It is black in colour and is rich in organic matter, nitrogen and potash and is slightly acidic. In the midland the soil is clayloam of lateritic origin, with an admixture of gravel and sand. The valleys of the midland have loamy clay with high sand content. The coastal strip is sandy with laterite foundation.

Quilon & Alleppey Districts: The soil in the coastal tracts consists mainly of pure crystalline sands. The swamp paddy fields of the districts

contain clay soils of different depths, mixed with varying proportions of organic matter in different stages of decay. The soils in the valleys and deltas of rivers are alluvial in nature, and consists mainly of fine silt. The soils in the hills are loamy in nature with a great admixture of humus. The soils in this region are generally deficient in nitrogen and phosphorus while the sandy soils along the coast are deficient in potash also.

Kottayam District: Swamp peaty soil occurs generally in the low areas of the District. The soils in the hills are loamy with a great admixture of humus. The soils in this District are generally deficient in nitrogen, phosphorus and lime.

Ernakulam & Trichur Districts: In the low land the soil is arenaceous consisting mainly of recent deposits of sand, and mud due to river alluvium. In the midland region, the soil is lateritic varying in quality from rich loam to unculturable laterite. On the slopes of the Ghats there are in several places an overlying layer of black mould, formed of decayed vegetable matter.

Palghat, Kozhikode & Cannanore Districts: In the narrow coastal belt the soil is arenaceous. In the plains the soil is of the red ferruginous type composed of a mixture of clay and river sand. In the Ponnani Taluk (Palghat District) the clay content is high. In Chittur (Palghat District) a layer of black cotton soil is found in certain areas. The loamy soils of the table land are laterite in their origin. Laterite a form of decomposed gneiss, and in itself a soil rather than a rock is sensitive to weather conditions. The most valuable of these soils, from the point of view of fertility is the white or yellow clay which fills the tubular hollows that run through the laterite in every direction. This clay contains both iron and potash. In Wynad (highland) the soils are of red ferruginous series, the fertility varying with the quantity of carbonaceous matter formed by the decomposition of organic substances.

(2) Land Utilisation:

The total area of the State according to professional survey is 95,94,600 acres and according to village papers 94,11,900 acres. The classification of the land area for 1956-57 is as follows (vide also map no. 10).

About 26.1% of the total area is classified under forests. Barren and cultivable waste constitute 5.3% of the total area. Land put to non-agricultural uses form another 5.3%. Lands classified as permanent pastures and grazing lands occupy 1.3% of the

total area and land under miscellaneous tree crops 5.4%. The net area sown is 48.1% of the total. 8.5% of the total area is classified as cultivable land but not cultivated (including cultivable waste and fallows).

The pressure of population on the land is very great in the State. This has led to excessive fragmentation and sub-division of holdings. The census of land holdings and cultivation conducted in the former Travancore-Cochin State in 1955 revealed that 67% of the cultivators' holdings is below one acre. Though a third of the number of holdings exceeds one acre, only 5% is over 5 Acres (vide map no. 11). Conditions in the Malabar area also are not far different. The percentage of small holdings is comparatively more in the case of wet lands producing paddy than in the case of dry and garden lands.

(3) Irrigation

Almost all parts of the State receive rainfall for 8 months in an year, though the intensity varies considerably from place to place and from month to month. There are numerous rivers traversing the State from east to west. These aspects may lead one to the conclusion that provision of irrigation facilities is not of importance in the State. But the following aspects which are of particular importance in the case of seasonal crops like cereals are to be considered in this context.

(i) Month-wise distribution of rainfall may not always be favourable to agriculturists. Draining out of excess water is important in many parts of the State. Either or both the monsoons may fail.

(ii) For six months of the year the majority of the rivers have no flows.

(iii) Most of the rivers in the State are subjected to tidal action in their lower reaches between December and May, and this results in the saline water entering the paddy fields in the low land areas.

(iv) Of the total cropped area of 53.82 lakhs acres 29.12 lakhs acres are under cereals and other seasonal crops like sugarcane which require irrigation facilities, by controlled flow or lift or dewatering. Of this 18.83 lakhs acres are under paddy. Only a part of this area is in receipt of adequate supply of water. Until recently the State had no major irrigation system. No doubt, minor irrigation facilities were available in many parts of the State. In the recent past, after the production of electricity from hydroelectric projects, lift irrigation has become common in some parts of the State. Lift irrigation is dependent on the

water available in the rivers. But most of the rivers dry up in the non-monsoon months. It is therefore necessary to have storage reservoirs in the upstream reaches of the rivers. The following are the major irrigation schemes which have been completed in the recent past.

NAME OF SCHEME	Total cost (Rs. in lakhs)	Area benefitted (Acres)
1. Chalakkudy I Stage (Chalakkudy river)	153.35	28400
2. Peechi (Karuvannur river)	235.00	46000
3. Vazhani (Keecheri river)	107.57	12800
4. Malampuzha (Bharathapuzha river)	527.50	47600
5. Walayar (Bharathapuzha river)	116.66	8000
6. Thottappally Spill-way (Pamba riverflood control and de-watering)	57.65	(Vide item 5 below)

The major schemes under construction are the following:-

	Total cost (Rs. in lakhs)	Area to be benefitted (Acres)
1. Neyyar (I Stage) river. (II Stage)	210.00 105.00	37100 acres
2. Mangalam } Cheerakuzhy } (Bharatha- Pothundy } puzha Meenkara } river)	97.51 47.34 88.00 135.00	
3. Chalakkudy (II Stage)	60.00	20250
4. Kattampally (Valapattanam river)	28.63	4000
5. Construction of salt water barrier at Thanneermukkom across Vembanad lake	150.00	121000
6. Periyar valley	348.00	63300

One or two or three crops are raised during an agricultural year depending on the topography and availability of water. The first and second crops depend upon the south west and north-west monsoon respectively, while the third crop depends mainly on spring flows and occasional rains for irrigation needs.

(4) Crops:

The more important crops of the State are the following:-

(i) **Rice:** About 1/3 of the total cropped area in the State is under paddy. Rice is the staple food of the bulk of the population of the State. The State produces about 9 lakhs tons of rice which is only 42% of the requirements of the present population (at 16 oz. per adult per day).

According to the provisional estimates of area and production of paddy crop in Kerala State

for 1958-'59, the percentage acreage and production in the various Districts are as follows: (See map no. 12).

S. No.	DISTRICT	Area (in '00 acres)	Percentage to total	Production (in '00 tons)	Percentage to total
	STATE	18988	100	9395	100
1.	Trivandrum	891	4.69	526	5.60
2.	Quilon	1103	5.81	689	7.32
3.	Alleppey	1707	9.00	928	9.88
4.	Kottayam	1124	5.91	592	6.30
5.	Ernakulam	1853	9.76	852	9.08
6.	Trichur	2393	12.60	1044	11.11
7.	Palghat	4676	24.63	2745	29.22
8.	Kozhikode	2779	14.64	1052	11.19
9.	Cannanore	2462	12.96	967	10.30

(ii) **Tapioca** is a tuber crop. It is the next important food crop of the State from the point of view of crop acreage. About 9.6% of the total cropped area is under tapioca. The production for 1956-57 is estimated at 14.26 lakhs of tons. Tapioca (raw, boiled and dry) is an important cereal substitute especially for the lower classes. Tapioca flour is suitable for manufacture of starch and sago; at present only limited quantity of the production is used for these purposes. Starch is manufactured in the State mostly on a cottage industry basis. There are no registered factories manufacturing sago in the State on a cottage industry basis. There seems to be good possibility of developing sago industry in the State.

Map no. 13 shows the district-wise distribution of acreage and production of tapioca in the State. Travancore-Cochin area is more important for the crop compared to the Malabar and Kasargod areas. The maximum acreage and production is in the Quilon District closely followed by the Trivandrum District. Palghat District has the least acreage under the crop.

(iii) **Pepper:** In the group condiments and spices, Pepper is the most important crop. Kerala is famous for her pepper from time immemorial and is the chief producer of pepper in India. Black pepper is produced in the world mainly by India and Indonesia. During the post war period India is the largest producer of pepper in the world. Pepper is a rainfed crop and grows best in tropical regions where there is an average rainfall of about 80". The lower and upper limits of temperature in which the crop can flourish are 50° F and 140° F. It grows in places with altitude less than 3000 ft. The soil suitable for pepper cultivation are clay loam, red loam or sandy loam, the first being the most suitable. The crop is propagated vegetatively by means of cuttings. It is a wood climber and requires some support for growing. Jack and mango trees are commonly used as supports.

The area under pepper in the State for 1957-58 is estimated at 2,24,660 acres and production 260,20 tons (vide map no. 14). Pepper is one of the main dollar earning crops. U. S. A. is the foremost foreign buyer of pepper from the State. Of late, Russia and East European countries are also buying appreciable quantities. Cannanore, Kottayam, Kozhikode and Trivandrum Districts are the more important Districts for the crop. The important interior markets for pepper are Nedumangad in Trivandrum District, Ponkunnam and Palai in Kottayam District, Thodupuzha in Ernakulam District, Vaithiri in Kozhikode District and Taliparamba in Cannanore District. The commodity is exported from the sea ports of Cochin, Alleppey, Tellicherry and Badagara.

(iv) Ginger: Ginger is another crop of the spices group cultivated in the State. Kerala is the largest producer of ginger in India. The area under ginger during 1956-57 was estimated at 25,000 acres and production 10,700 tons. Jamaica and Sierra Leone are the two countries other than India who are producing Ginger. Ginger requires heavy rainfall, a warm humid climate and considerable shade. Well drained sandy, clayloam, red loam or laterite soil is suited for cultivation of the crop. Ginger is exported mainly to the other parts of India chiefly for use in medicinal preparations. Aden and U. S. A. are the foremost foreign buyers.

Ginger accounts for only about 0.47% of the total cropped area in the State. The annual production for 1958-59 is estimated at 7,660 tons. The taluks important for the crop are Meenachil in Kottayam District, Thodupuzha and Muvattupuzha in Ernakulam District and South Wynad and Kozhikode in Kozhikode District. The main assembling markets are Muvattupuzha, Ponkunnam, Palai and Kozhikode. The exporting centres are Cochin, Kozhikode and Alleppey.

(v) Cashew. Cashew is another important dollar earning crop of the State. The crop covers about 92,400 acres which accounts for about 1.72% of the total cropped area (1956-57). The annual production (1956-57) is estimated at 57,750 tons of raw nuts. The cashewnuts are processed into kernals in the State and the Kernals exported. Most of the factories are situated in or around Quilon, the District Headquarters of Quilon District.

The most important cashewnut growing taluks are Nedumangad and Chirayinkil in Trivandrum District, Kottarakkara, Pathanapuram, Pathanamthitta and Kunnathur in Quilon District, Thodupuzha, Muvattupuzha and Kunnathunad in Ernakulam District, Perinthalmanna and Ottappalam

in Palghat District and Ernad in Kozhikode District.

(vi) Cardamom: Cardamom is an important plantation crop of the State. India is the largest producer of cardamom in the world. Ceylon and Indo-China are the other important producers. Cardamom possesses aromatic odour and is commonly used for flavouring and in medicines. The best climate suitable for cardamom cultivation is a warm and humid atmosphere with a temperature ranging between 50° and 95° F. It is cultivated in the shades of huge forest trees. Cardamom plants require a fairly well-distributed annual rainfall of 60 to 80 inches. The best altitude for cardamom planting is between 2500 to 5000 ft. Deep rich loam soil is the most suitable. The highranges in the Devicolam, Udumbanchola, Thodupuzha and Peermade Taluks of the Kottayam District satisfy the above conditions and the cultivation of the crop in the State is mainly confined to this region.

The cardamom capsules are dried in the sun or in specially-built chambers by using artificial heat before marketing. The final product is green cardamom. Sometimes bleaching is done by exposure to sulphur. The product is white cardamom.

The total acreages under cardamom in the State is estimated at 70,000 acres and the production 1240 tons (1956-57) (vide map no. 15.)

Kerala is the most important producer of Cardamom in India. Next in importance is Mysore and Coorg.

Sweden and U. S. S. R., are two of the main foreign buyers for cardamom produced in the State.

(vii) Cotton, Groundnut and Coffee: Kerala is not very important in India for these non-food crops.

Cotton cultivation is mainly confined to the black cotton soil found in the Palghat District. The acreage under the crop (1957-58) is 21,490 acres and production 9630 bales (of 392 lbs. each).

Groundnut cultivation which covers about 33,800 acres (1957-58) is also mainly confined to the Palghat District which is the driest District in the State. The annual production (1957-58) is estimated as 10980 tons.

Tobacco is cultivated in the two northernmost taluks of the State viz. Kasargod and Hosdurg in Cannanore District. The acreage and production of tobacco during 1957-58 are 1260 acres and 685 tons respectively.

(viii) Cocoanut: Kerala owes its name to Cocoanut (Kera tree) and is rightly called the land

of cocoanut palms. Cocoanut cultivation is the backbone of the economy of the people. Cocoanut palms can be seen in almost all garden land plots in the State except in the higher altitudes. The total area under Cocoanut in the State is estimated at about 11.36 lakhs acres (1956-57) which is about 21.1% of the total cropped area.

Thus, from the point of view of acreage it stands second only to rice. The annual production of cocoanut (1956-57) is about 3182 million nuts.

Cocoanut (with the husk removed) and copra (dried kernel) are exported to other parts of India in appreciable quantity. Cocoanut oil extracted from the kernel is the most important cooking oil in the State. Cocoanut kernel (fresh) forms an important ingredient in curries in almost every Kerala household. Cocoanut husk forms the raw material for coir industry which is important in the economy of the State.

Map no. 16 shows the District-wise distribution of acreage and production of cocoanut in the State. All Districts except the Palghat District are important for cocoanut cultivation. Kozhikode District has the maximum acreage under cocoanut (22% of the total acreage) and the Palghat District the least (1% of the total acreage).

(ix) **Tea:** Plantation industry is perhaps the most important industry in the State and Tea occupies the foremost position among the plantation crops of the State.

Today, India is the largest producer of tea in the world. Indian production of tea accounts for about 52.1% of the world production of tea in 1958. Ceylon is the next important producer. Tea is one of the principal foreign exchange earners.

Kerala is the third largest producer of tea in India.

The best climate for tea plantation is hot moist climate the temperature varying from 55°F to 95°F and an annual rainfall ranging between 100-130 inches. These conditions are satisfied by the High Ranges of Kerala State. Tea is usually cultivated at altitudes ranging from 3000 ft. to 5000 ft. above sea-level. The best soil suitable for the cultivation of tea is light friable soil of good depth through which water percolates freely.

The area under Tea during 1956-57 in the State is estimated as 98600 acres and the production 34175 tons of cured tea. A major portion of the tea is exported to foreign countries. U. K. and U. S. A. are the principal foreign buyers. The other important countries are Canada, Egypt and Holland.

Kottayam District alone accounts for 64.2% of the production of Tea in the State. The next important District is Kozhikode which produces about 21.6% of the State production (vide map no. 17).

(x) **Coffee:** Coffee is another plantation crop of the State. India is not important in the world production of coffee. About 60% of the world production is from Brazil. The production in India is only about 1.5% of the world production. Mysore is the foremost State for Coffee cultivation in India.

Coffee is a tropical plant. There are two important varieties of coffee grown in India viz. Arabica and Robusta. Robusta flourishes at lower levels and has more powers of resistance against extremes of climates and pests and diseases. It is easily distinguishable from Arabica by the size of its leaves and appearance of the berries.

Coffee is successfully cultivated in places where the altitude ranges from 1500 ft. to 6000 ft. above sea level. The most suitable altitude is between 2500 ft. and 4500 ft. It needs a well distributed rainfall of about 60 to 80 inches per annum and a distinct rainy and dry season with a maximum average temperature of about 70° F. A good dry spell from about December to March with a few intermittent showers in March and April and a heavy rainfall in July and August constitute ideal conditions for the growth of the coffee plant. Coffee requires sandy soils or clay loam soils with a good sub-soil drainage system. The crop is grown from seed usually.

The total area under coffee in the State for 1956-57 is estimated at 36,900 acres and production 6610 tons. Kozhikode District alone accounts for about 70% of the production of coffee in the State. Next in importance is Palghat District which produces about 20% of the total production. The other Districts are not very important for the production of coffee. Map. no. 18 represents the position.

Foreign buyers of coffee are mainly European countries of which Germany and Italy are important. U. S. S. R. is a new entrant to the field.

(xi) **Rubber:** Rubber is an important plantation crop for which the State holds almost a monopoly in India. About 97% of the India's rubber is cultivated in Kerala State. India's place in the world acreage under rubber is comparatively low down. India's production comes to only about 1% of the total world output of rubber. The major rubber growing countries of the world are Indonesia, Malaya, Ceylon and Siam. Up to 1938 raw rubber was mainly exported to foreign countries.

In that year a tyre factory was established in India. Consumption of rubber in India has been rising steadily since then and now the production has begun to lag behind the demand.

Rubber is a plant usually grown in the tropical belt lying between 15°N and 10°S of the equator and usually at an altitude of 1000 ft. above sea level. A warm and humid climate is necessary. The annual rainfall should be between 80 - 120 inches and should be well distributed. A stiff alluvial soil which is neither too steep nor too swampy is suited for cultivating rubber.

The area under rubber during 1957 was about 2,46,800 acres and production 21,500 tons. The Travancore-Cochin area accounted for about 83.4% of the total production and the Malabar region 16.6%. (vide map no. 19).

(xii) Lemongrass Oil which is an important raw material for the perfumery, soap and cosmetic industries, is extracted by distilling the leaves of the grass *cymbopogon flexuosus*, Stapf. The important lemongrass growing areas of the world are Ceylon, Java, West Indies, Malaya, Guatemala and India. The last two countries are holding almost a monopoly in the world market. In India, Kerala is the important producer of the crop. The crop grows on the fertile hill slopes with hard laterite soils. The planting is done at the time of commencement of the south-west monsoon. The life of the plant is about 5 to 8 years. It is grown from seed usually.

The acreage under the crop during 1955-56 is about 37000 acres and production 1200 tons of oil.

The important lemongrass growing areas in the State are Kunnathunad, Alwaye, Thodupuzha and Muvattupuzha in Ernakulam District and Wynad and Taliparamba in Cannanore District. The lemongrass oil produced in the State is exported mainly to U. S. A. and U. K.

(xiii) Fruits & Vegetables. The important fruits grown in the State are Mango, Jack, Banana plantains and pine apple. Almost every house especially in the midland region has a few mango trees, jack trees, bananas, plantains and pine-apples. They are grown on plantation scale also, though such cultivation is confined to certain areas only. Area around Punalur in Quilon District is important for Pine-apple; and Taliparamba and Tellicherry in Cannanore District, South Wynad in Kozhikode District and Mukundapuram in Trichur District, Changancherry in Kottayam District and Pathanapuram in Quilon District are important for bananas and plantains.

(5) *Agricultural Research:*

The Department of Agriculture is taking keen interest in agricultural research with a view to evolving improved varieties of seeds, controlling pests and diseases, testing of soils, studying effects of various kinds of manures on different types of soils etc.

There are nine major research stations with manifold activities. They are located at Nileswar Taliparamba, Ambalavayal, Koothali, Nelliampathy, Pattambi, Kozha, Mannuthy and Vellayani (vide map no. 20).

The paddy farms at Trichur, Alwaye, Vyttila, Mancompu, Kayamkulam, Thottappalli, Kottarakkara and Karamana are mainly meant for intensive research on paddy crop. In addition to these, there are seed multiplication centres also in various parts of the State.

Special research centres and nurseries for important crops are also functioning in the State. The location of these also is given in the map.

(6) *Livestock, Poultry and Agricultural implements.*

Livestock plays an important part in the economic life of the State which is predominantly agricultural. The major part of the cattle wealth in the State belongs to nondescript breeds.

Statistics of livestock numbers are collected in quinquennial censuses, the last census being in 1956. The figures of important categories of livestock population and poultry are represented in map no. 22.

The total number of livestock in the State according to the 1956 census was 41.63 lakhs (as against 35.62 lakhs in 1951). Cattle formed the largest number being the order of 25.10 lakhs. They were followed by goats numbering about 9.56 lakhs and by buffaloes whose number was about 4.88 lakhs. The position of pigs was fourth and sheep fifth their numbers being nearly 1.14 lakhs and 0.98 lakhs respectively. Horses and ponies numbered 1690 and donkeys 1415. No camels were recorded.

The cattle population of the State (1956 census) formed about 1.6% of the cattle population of India. The buffalo population of the State accounted for about 1.1% of the population of buffaloes in India. As regards goat population it was about 1.7% of the total goat population of India.

Only the following more important categories of live-stock population have been represented in the map.

(1) Cattle over 3 years Males and females

- (2) Buffaloes over 3 years Males and females
(3) Sheep and goats over 1 year Males and females

Note:- Figures are available only for the Erstwhile Malabar District as a whole and hence the figures are given in the map for Malabar (including Kasargod) as a whole and Travancore-Cochin region as a whole:

The number of adult cows available per 1000 population was almost the same in the Travancore-Cochin region and Malabar, the ratio being slightly higher in the Malabar region. In the Travancore-Cochin region 70 cows were available per 1000 population while in the Malabar region it was 79. In respect of adult she-buffaloes the availability per 1000 of persons was 15 in Malabar region as against 7 in the Travancore-Cochin region. Considering the cows and she-buffaloes in milk alone the availability in the State per 1000 of population was 30. Most of the Indian States are much ahead of Kerala in this regard. As regards the female goat and sheep population the availability per 1000 of population was higher in the Travancore-Cochin region (43 per 1000) than in the Malabar region (39 per 1000).

Taking working bullocks and male buffaloes together the availability per 1000 acres of cropped area was 120 animals in the Travancore-Cochin region and 186 in the Malabar region. For the State as a whole the number was 146.

Map no. 23 shows the distribution of Veterinary institutions in the State.

The total number of poultry in the State as per the 1956 Census was about 67.95 lakhs of which 95.11% was fowls. The poultry population of the State was 7.2% of the all-India population. In the case of poultry the figures given in map no. 22 are for the adult fowls and ducks i.e. excluding chickens and ducklings. As in the case of livestock the figures are given for Travancore-Cochin region as a whole and the new Malabar and Kasargod region as a whole. In this connection it has to be noted that a good percentage of the ducks migrate from one region to another in accordance with the harvesting season for cereals.

The number of poultry in the State per 1000 of population was 461. Taking the case of adult fowls alone, 340 birds were available per 1000 of persons in the T-C region and 220 birds in the Malabar region.

Map no. 21 shows the availability of agricultural implements and machinery in the States as recorded in the Livestock Census, 1956. The total number of ploughs in the State as per the 1956 Census was 5,80,522 of which 10,225 were iron and the other wooden. The number of ploughs available per 100 acres of cropped area worked out to 10.6

i.e. there was one plough for every 9.4 acres of cropped area. The ratio was 11.8 in the T-C region and 7.3 in the Malabar area.

The number of sugarcane crushers in 1956 was 1385 as against 2292 in 1951. One of the reasons for the decrease may be the starting of the sugar factory in Thiruvalla in Alleppey District sometime back. 2504 oil Engines were enumerated in the 1956 census as against 1258 in the 1951 Census. The number of tractors increased from 59 to 187 during the quinquennium 1951 to 1956. Of these 57 were in the Malabar region. The number of ghanis recorded in the 1956 Census was 4224 of which 3841 were in the Travancore-Cochin region.

(7) Fisheries

Kerala with a coastline of over 300 miles has an important place in the fishery map of India. The important species are sardine, mackerel and prawns found near the shore. The fishing operations are done at the level of household industry. The operations are confined to a narrow belt of the sea, extending to a distance of about 5 to 10 miles from the shore. The fishermen of South Travancore use catamarans and those of Malabar have small dugout canoes operated with oars and sails. Several types of nets-boat seines, shore seines, large drift nets, gill nets, cast nets etc. are used.

Important shoaling areas are around Trivandrum, Quilon, Alleppey, Cochin, Ponnani and Kozhikode.

Mechanisation of fishing and introduction of modern methods of fish processing, especially with the assistance of Norwegian Government, are slowly transforming the lives of the Kerala fishermen.

(8) Community Development

This programme was initiated in the State in October 1952 with three Projects. The coverage has gradually expanded. At the end of 1958 there were 77 Development Blocks functioning in the State covering about 42.2% of the area of the State and about 59.3% of the rural population (vide map no. 24). Of these 77 Blocks 44 were N. E. S. (Stage I), 16 Post Intensive (Stage II), 9 Community Development and 8 pre-extension blocks.

The activities of Blocks related to distribution of improved seeds, fertilisers and agricultural implements, distribution of improved animals and birds, provision of veterinary services, imparting of education to adults and provision of reading facilities to the public, organisation of farmers' clubs, mahilasamities and village camps, construction of compost pits, rural latrines and drains, provision of good drinking water and improvement of communication facilities. In short it covered

all aspects of the village life and helped the villagers to participate in the various programmes for their betterment.

Rural areas of the State are mostly covered by Panchayats. The distribution of Panchayats in the various Districts is given in map no. 25. In addition to the municipalities shown in the map, there are two new municipalities viz. Moovattupuzha in Ernakulam District and Badagara in Kozhikode District.

(9) Power

With a high mountainous range all along the eastern border of the State, a relatively high rainfall and a good number of perennial rivers, the Kerala State is very rich in hydro-electric potential (vide map no. 26).

The former Travancore Government embarked on exploiting the hydro-electric resources in 1933. The Pallivasal Hydro-electric Project was the first to be taken up. This Scheme harnesses the water of Mudirapuzha river, a tributary of Periyar river. The total installed capacity of this Project is 37,500 K. W.

The other two Projects completed or nearing completion are the Poringalkuthu Scheme in Cochin area, and Shengulam Scheme in Travancore area with installed capacity of 32,000 K. W. and 48,000 K. W. respectively. The former harnesses the waters of Chalakkudy river. 3 out of the 4 generator sets have been commissioned. The other project utilises the tail race waters of the Pallivasal Power House and has been commissioned.

The generation of electricity in the State in 1957-58 from hydro-electric projects is 4412 lakhs K. W. Hrs. This works out to about 0.3 lakhs per sq. mile and per 1000 of persons. 335.2 lakhs K. W. Hrs. were purchased from Pykara (Madras). The consumption of electricity in the State in 1957-58 was 3632.9 lakhs K. W. Hrs. The annual percapita consumption was thus about 24 K. W. Hrs.

(10) Industries

(i) Large-scale Industries. Kerala is industrially backward especially in regard to organised industries. The total number of registered factories in Kerala in 1957 is about 1650. (vide map no. 27). It is estimated that these factories employ on an average 1.56 lakhs of persons daily. The maximum number of registered factories is in Cannanore District and the least in Trivandrum District.

The most important factory industries in the State are.

- (i) Cashew
- (ii) Coir
- (iii) Bricks and Tiles

- (iv) Wood industries
- (v) Cotton textiles

Cashew industry. The main producers of raw cashewnut in the world are India and East Africa. Almost the entire East African crop is exported as raw nut to India for the processing and manufacture of cashew kernels. The processing requires the services of special type of labour. It is estimated that over 90% of the world demand of cashew kernels is met by the Indian Industry. There were about 166 Cashew Factories in the State in 1957 which employed on an average 62500 persons daily. Out of the 166 factories, 90% were in the Quilon District concentrated round about Quilon.

Coir industry is basically a cottage industry. But there were about 124 registered coir factories in the State during 1957, the places of concentration being Alleppey, Shertallai and Fort Cochin. The average daily employment in the Coir Factories in 1957 was estimated at 13880 persons. Coconut is the raw material for the coir industry and Kerala holds almost a monopoly of the coconut production in India.

Bricks and Tiles industry is one of the important industries in the Kerala State and has been in existence for several years. The industrial units are concentrated near about Quilon, Alwaye, Trichur, Pudukkad and Feroke. Soil suitable for manufacture of Bricks and Tiles is found in abundant supply in these places. The number of ~~workers~~ registered tile and brick factories in the State for 1957 was 147. The average daily employment in these factories is placed at about 12,000.

Plywood industry is one of the important wood industries in the State which is fairly well established. Soft wood is available in plenty in the forest areas of the State. There are 14 registered plywood factories in the State, 7 in the Travancore Cochin area and 7 in the Malabar area. Punalur in the Travancore-Cochin area and Baliapattom in Malabar are the important centres. On an average 1470 persons are employed in these factories. During 1957, there were 65 factories in the State manufacturing splints and veneers for matches and employing on an average 3700 persons per day. Besides these there were 83 Saw mills which provided employment to 3600 persons on an average.

Textiles. The places of concentration in respect of Textile (cotton) industry are Trichur, Kozhikode, Cannanore and Pappinisseri. The total number of registered cotton mills (including knitting mills) during 1957 was 202 employing on an average about 18000 persons daily. Of these cotton mills only 27 factories have power-looms. The average

daily employment in such factories however comes to 11500.

(ii) **Small-scale industries.** Kerala has a large number of cottage and small-scale industries which give employment to a number of persons and provide subsidiary occupation to agriculturists.

Handloom weaving, oil crushing, pottery, carpentry, blacksmithy, coir industry, beedi-making etc. are some of the important small industries of the State. These industries are predominantly single proprietary. Among the workers, labour drawn from the households form a substantial number. The number of persons employed in most of the establishments is less than 6.

(11) Minerals.

The most important mineral wealth of the State is the mineral sands found along the sea coast. These rich deposits are mainly confined to the region from Quilon to Kayamkulam. The important mineral products obtained from these sands are Ilmenite, Rutile, Zircon and Monozite. Of these only Ilmenite is produced in appreciable quantity, at present. Four Companies are engaged in the mining and production work.

The total quantity of mineral sands exported during 1957-58 is given in the sub-joined table.

Item	Production during the year (Tons)	Exports during the year (Tons)
Ilmenite	276730	254430
Rutile	528	426
Zircon	12	12
Monozite	171	350

The other minerals of commercial value produced in the State are China-clay, Mica and Quartz sand. Production of China-clay is mainly confined to the Kundara region near Quilon and Mica to the Punalur region in the Pathanapuram taluk. Quartz sand from Shertallai coast is used for glass making. The Government Ceramic Concerns, Kundara produced 1940 tons of refined clay during 1957-58. The Punalur mica mines produced 23080 lbs. of waste rounds and 6725 lbs. of block mica.

(12) Transport, Communications and Tourism.

(i) **Roads:** In regard to road communication the Kerala State especially the Travancore-Cochin area is fairly high up among the States in India. The total mileage of extra-municipal roads under the Public Works Department and Panchayats was about 8440 miles (1956-57). The mileage of roads in urban areas was reported to be about 750. The total road mileage in the State was estimated at 10,740 miles (1955-56). Tarred and concrete roads under the Public Works Department and Panchayats was about 1380 miles (1956-57).

There are two important highways in the Travancore-Cochin area which connects Trivandrum and Alwaye (vide map no. 28). One passes through the midland region and touches Kottarakkara, Thiruvella, Kottayam and Muvattupuzha. The other traverses the coastal region and passes through Quilon, Kayamkulam, Alleppey, Shertallai and Ernakulam. Beyond Alwaye there is only one highway route up to the northern end of the State and this passes through the midland region till it reaches Kozhikode. It touches Trichur, Shoranur and Perinthalmanna. From Kozhikode the route lies along the coast and runs almost parallel to the railway line. The important places on the route are Badagara, Tellicherry, Cannanore, Nileswar, Kasargod and Manjeswar.

At the end of March 1959 there were 19345 motor vehicles registered in the State, of which 8420 were private cars, 899 taxi cars, 2869 buses, 4662 goods vehicles, 1358 motor cycles, 830 jeeps and 89 auto-rickshaws, remaining being other vehicles.

(ii) **Railways:** There is a railway line connecting Trivandrum (the capital of the State) in the South to the northern end of the State. The line is meter-gauge from Trivandrum to Ernakulam and beyond Ernakulam Broad-gauge. The two other railway lines in the State are those from Madras, one coming through the Palghat gap in the middle and the other through the Aryancavu gap in the south. The former is a broad-gauge line and the other meter-gauge. The total mileage of railways in the State (1958-59) was ~~343.75~~ ^{551.92} miles.

(iii) **Airways:** Ernakulam and Trivandrum are in the air map of India. There are two daily services between Madras and Trivandrum.

(iv) **Waterways:** The rivers of the State provide a good system of water routes. These rivers are interconnected by backwaters and canals. Water transport is a cheap mode of transport in the State and it has all along played an important role.

(v) **Posts & Telegraphs:** The State was served by about 2270 post offices (1956-57). Besides these, there were 5882 letter boxes. Telegraph facilities existed in 215 offices (1956-57) and number of Public Call offices was 191.

(vi) **Tourist Centres:** Kerala with its varied and resplendent natural scenery and equable climate is an ideal and must place for tourists. In centuries past this treasure land of east had attracted many a nation seeking market and empire. The Arabs, the Portuguese, the Dutch, the French and British landed on Kerala's sandy surf and the warm hospitality of the Kerala people and the Rulers enabled these nations to carry on a thriving trade in spices, ivory and other valuable

products. No-where-else in India have so many religions and faiths flourished side by side as in Kerala. Here can be found temples, churches and mosques jostling each other in the same locality.

There is a Department of Tourism in the State. The roads in the State are good and rest houses are provided at all important places in the State. The following are some of the important places of interest.

Trivandrum, the capital of the State is an ancient city of Palaces, Temples, Churches and Mosques. The Sree Padmanabhaswami temple located in the heart of the city is considered to be one of the most sacred temples in India. The Napier Museum in the capital is one of the best in India. There is an Art Gallery also. The city has a fine sandy beach. It is the seat of the Kerala University and is the abode of several colleges.

Kovalam, eight miles to the south of Trivandrum is an ideal spot for sea bathing.

Varkalai, 32 miles to the north of Trivandrum is a famous pilgrim centre renowned for its Janardhana Temple. High cliffs and mineral water springs are added attractions.

Ponmudi, a hill station, 38 miles from Trivandrum is a pleasant health resort and can be reached by road.

Munnar (3000 ft. above sea level) is a plantation centre situated about 86 miles from Cochin. It is a delightful hill station and health resort.

Peermade is another hill station, 46 miles from Kottayam. From Peermade a winding ghat road takes you along a 27 mile route to the Periyar lake surrounded by a game preserve. Cruising on the lake it is possible for visitors to watch wild life in its natural habitat.

Cochin, the harbour city has many places of interest; a unique jewish synagouge, the former Dutch Palace (with its ancient murals) and the modern harbour.

Calicut is famous in history as the capital of the Zamorins of Calicut. It was here that Vasco de Gama the intrepid Portuguese sailor first landed in 1498.

There are sites of irrigation and power projects viz. Peechi, Poringalkuthu and Malampuzha

where residential accommodation for tourists is available.

Ivory and wood-carving, metal inlay, handloom weaving, screwpine works and bell-metal castings are some of the important handicrafts seen dispensed in various parts of the State.

Kerala is noted for Kathakali and such other visual arts which would leave a lasting impression on those witnessing the performances.

(13) Social Services

(i) Medical and Public Health: There were, in all, 365 medical institutions in the State on 31-3-1957 (excluding private institutions which received no aid from Government)—see map no. 29. These institutions provided a total number of 10880 beds. Thus one institution was available for every 41,000 persons and per 41 sq. miles of area. One bed was available for every 1400 persons.

Of the above 365 institutions, 62 are Government hospitals with 8132 beds. Trivandrum District has the maximum number of Government hospitals, the number being 13 (with 2100 beds). The Medical College hospital and the Avittam Thirunal Women and Children's Hospital are two modern hospitals in the Capital. There were three T. B. Sanatoriums, three Mental hospitals and five leprosy hospitals in the State. Government dispensaries in the State on 31-3-1957 numbered 153, the number of beds available being 632. The maximum number of dispensaries was in Ernakulam District. 62 Public Health Centres, 31 grant-in-aid institutions, 34 local fund institutions, and 23 subsidised rural dispensaries were also functioning in the State on 31-3-1957. The local fund institutions and subsidised rural dispensaries were confined to the Palghat, Kozhikode and Cannanore Districts.

There are two Medical Colleges in the State, one at Trivandrum and the other at Kozhikode.

(ii) Education: Kerala stands foremost among the Indian States in respect of literacy. 40.5% of the total population was literate as per the 1951 Census (See map no. 30). Kottayam District stands first in this regard closely followed by Alleppey District. Palghat District comes last.

The number of schools for general education at the beginning of 1958 (as per the list of schools

furnished by the Officers of the Education Department) was about 9600 of which 91.4% were Upper Primary and Lower Primary Schools (including Basic Schools) taken together and the rest High Schools (See map no. 31). The total number of scholars in the schools for general education at the end of the year 1957-58 was about 28.3 lakhs of which 12.5 lakhs were girls and the rest boys. The total number of teachers in the schools for general education was about 84000 of which 61% were men and the rest women.

At the end of 1957-58, there were 44 Arts and Science Colleges in the State, 2 Engineering Colleges, 2 Medical Colleges, 1 Ayurveda College, 2 Law Colleges, 1 Veterinary College, 1 Agricultural College, 2 Colleges for Physical Education, 12 Training Colleges and 1 Co-operative College, (vide map no. 32). There were also ten institutions for higher education in oriental subjects and 13 Polytechnics (including technical schools). The Arts and Science Colleges provided facilities for education to about 34000 scholars.

(14) Planning

The actual outlay under the First Five Year Plan of the State was Rs. 3372.30 lakhs of which 66.1% was on irrigation and power, 13.2% on social services, 11.9% on transport and communications, 6.9% on agriculture and community Development and 1.9% on industry and mining (vide Diagram no. 33).

The plan outlay under the Second Five Year is Rs. 8700.71 lakhs. Of this 36.9% is on irrigation and power, 27.4% on Social Services, 6.4% on transport and communications, 18.2% on Agriculture and Community Development, 7.8% on Industry and Mining and 3.3% on Miscellaneous items.

Diagram no. 34 shows the progress of expenditure under the Second Five Year Plan.

(15) Trade

(i) **Seaborne trade:** Kerala has a long maritime coastline. The State therefore depends substantially on her maritime ports for export and import of goods. The major Ports in the State are Cochin, Kozhikode and Alleppey. There are a few minor ports also viz. Trivandrum, Quilon, Koilthottam, Ponnani, Badagara, Tellicherry and Cannanore.

Cochin is one of the finest harbours in India and is also a naval base. This port handles about 85% of the total maritime trade of the State. The more important commodities exported through the Kozhikode Port are bricks and tiles, cocoanuts, tea, coir and coir products, pepper, ginger and timber. Alleppey is important for the export of Coir and Coir products, pepper, ginger, turmeric and tapioca powder. Quilon is important only for the export of cashew kernels and Koilthottam for mineral sands. The main exports from Ponnani are cocoanuts, Coir Yarn and provisions. Badagara handles mainly cocoanuts, copra, ginger, pepper and betelnuts. So far as Tellicherry is concerned the more important exports are cocoanuts, coffee and pepper. In Cannanore cocoanuts and rice form the most important items of exports. The trade at Ponnani, Badagara, Tellicherry and Cannanore is mainly coastal.

The total value of imports by sea into Kerala State for 1954-55, and 1955-56 was Rs. 55.86 crores and Rs. 59.31 crores respectively. The important commodities of import are coal, coke and other fuels, cotton raw and manufactured, raw cashew-nuts, machinery and millworks, kerosene oil, metals and ores, motor spirit and grains.

Tea, pepper, lemongrass oil, ginger, coir and coir products, cashew kernels, cardamom and timber are the most important commodities exported by sea from Kerala. The total value of exports by sea from Kerala State for the year 1954-55, 1955-56 and 1958-59 were Rs. 78.96 crores, Rs. 83.76 crores and Rs. 93.76 crores respectively. The percentage contribution of some of the important commodities towards the annual export value is given in the sub-joined table;

COMMODITY	Year						
	1951-52	'52-53	'53-54	'54-55	'55-56	'57-58	'58-59
Tea	20	19	25	30	26	27	25
Pepper	26	22	15	9	7	5	4
Cashew Kernels	12	14	11	13	15	18	15
Coir & Coir products	13	11	12	12	12	10	14
Others	29	34	37	36	40	40	42
TOTAL	100	100	100	100	100	100	100

[Figures for the year 1956-57 is not available.]

The following table shows the percentage of the currency-wise Contribution towards the annual export value during the period 1951-52 to 1955-56,

Currency area	Year				
	1951-52	'52-53	'53-54	'54-55	'55-56
Sterling (coastal)	28	30	28	25	30
Sterling (non-coastal)	30	28	21	38	32
Hard	27	32	25	28	23
Soft	15	10	16	9	15
TOTAL	100	100	100	100	100

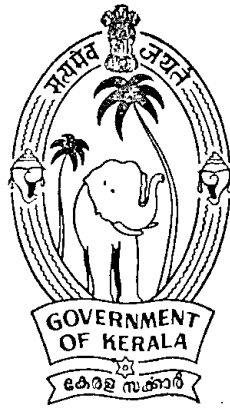
Sterling area (noncoastal) remained the largest consumer of Indian tea during the period. Cashew kernels, cashewnut shell liquid, pepper and turmeric largely found their market in the hard currency area. Soft currency areas showed the highest demand for cardamom, coir and coir products, lemongrass oil and coffee, betelnuts, coconuts, coconut oil, copra, ginger, rubber and timber were mainly exported to other Ports of India which exports have been classified under sterling (coastal).

(ii) Air-borne, Rail-borne and Road-borne Trade Reliable data on goods moved by air, rail and road are lacking at present.

(16) *Electoral Constituencies*

The total strength of the State Assembly is 127 of which 126 members are elected and one nominated (as representative of Anglo-Indians). These 126 members are elected from 114 constituencies of which 102 are single-member constituencies and the others two-member. In 110 of the two-member constituencies one seat each is reserved for scheduled castes' candidates. ~~In one of the other two member constituencies two seats are reserved for scheduled caste candidates and~~ In the remaining constituency one seat is reserved for scheduled tribe candidates. There is only one house for the State Legislature.

The number of Parliamentary constituencies is 16 of which 14 are single-member and the other two, two-member. In the two-member constituencies one seat each is reserved for scheduled caste candidates.



KERALA IN MAPS

KERALA STATE

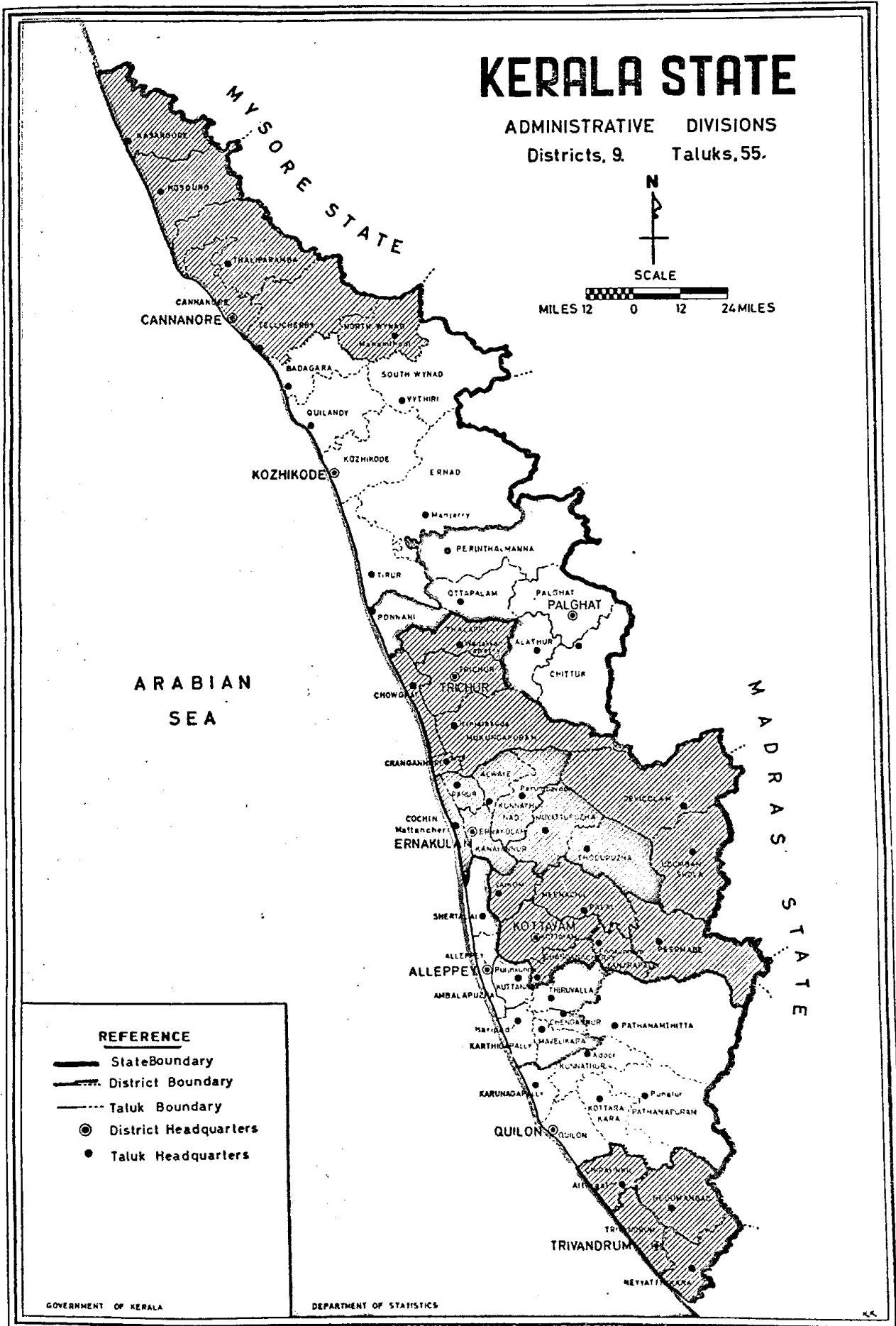
ADMINISTRATIVE DIVISIONS
Districts, 9. Taluks, 55.

N



SCALE

MILES 12 0 12 24 MILES



REFERENCE

- State Boundary
- - - District Boundary
- - - Taluk Boundary
- ⊙ District Headquarters
- Taluk Headquarters

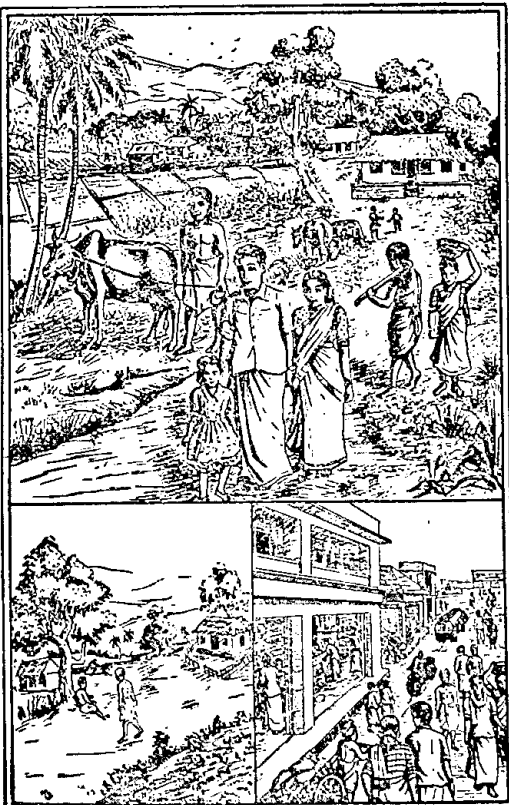
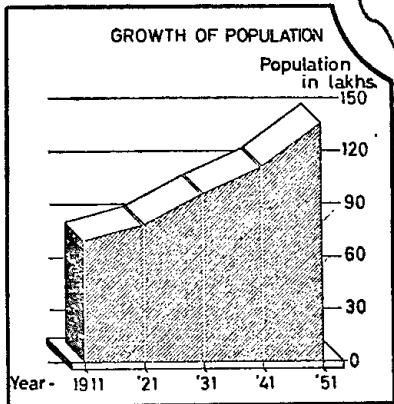
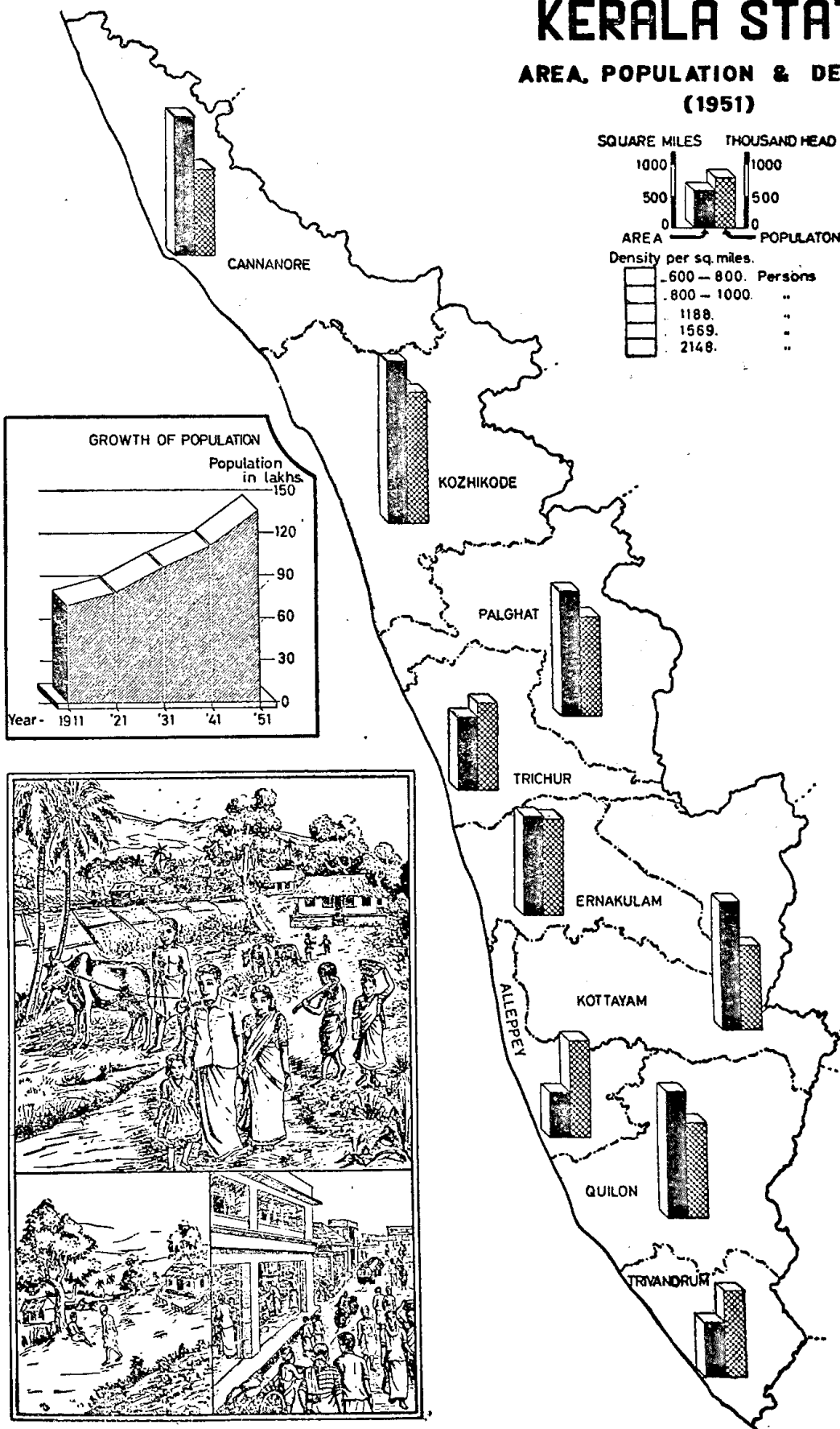
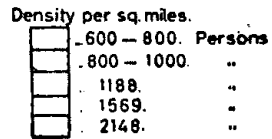
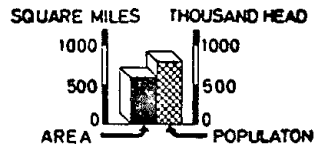
GOVERNMENT OF KERALA

DEPARTMENT OF STATISTICS

BLOCK ANTOEY'S

KERALA STATE

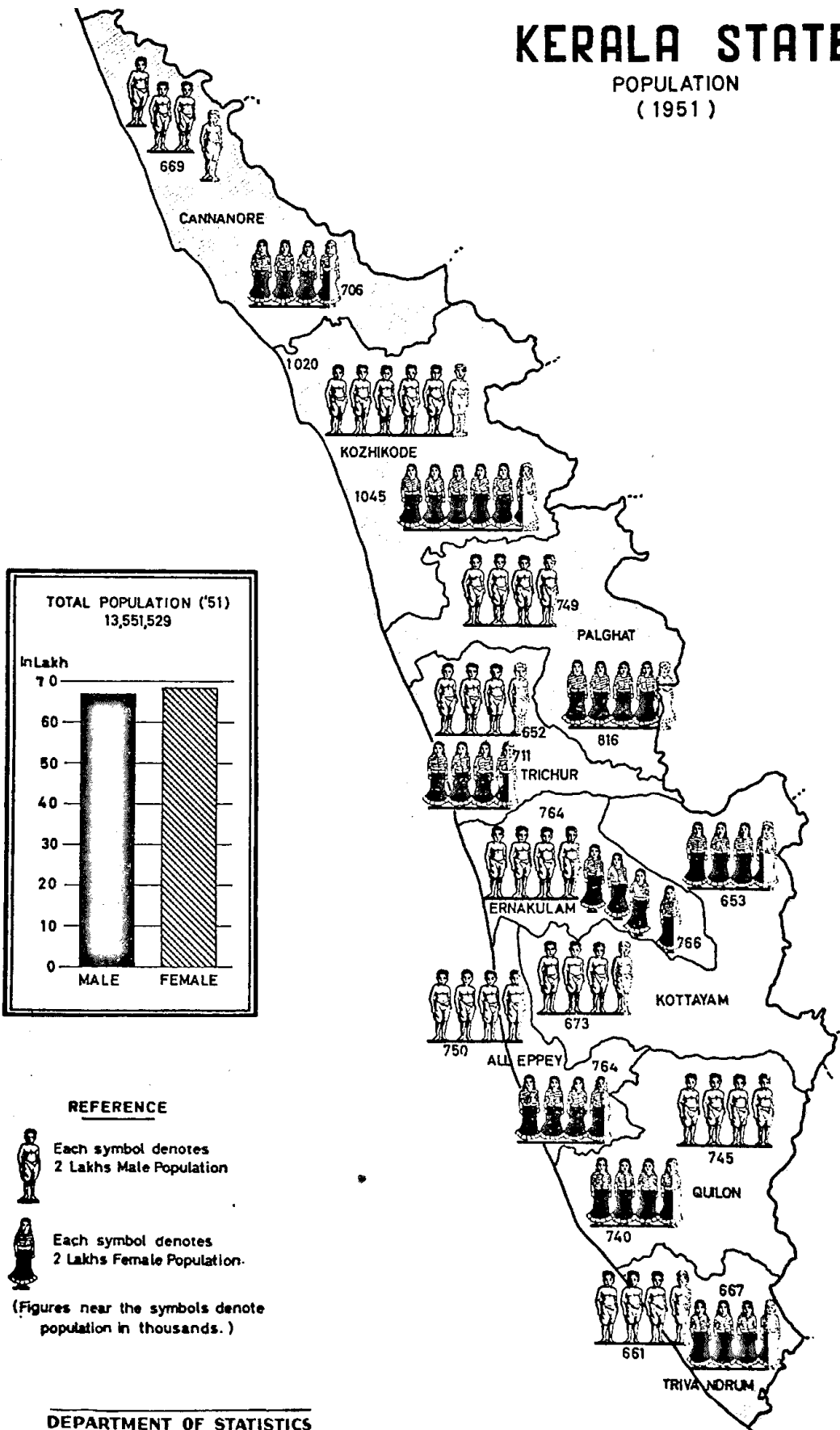
AREA, POPULATION & DENSITY (1951)



GOVERNMENT OF KERALA DEPARTMENT OF STATISTICS

KERALA STATE

POPULATION
(1951)

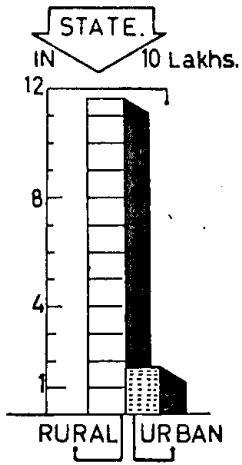
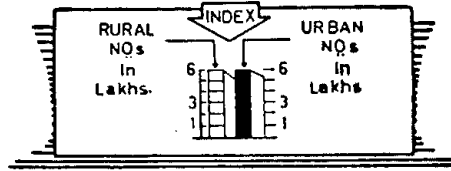


DEPARTMENT OF STATISTICS

BLOCK ANTOINE'S

Kerala State

RURAL & URBAN POPULATION (YEAR '51)



CANNANORE

KOZHIKODE

PALGHAT

TRICHUR

ERNAKULAM

KOTTAYAM

ALLEPPEY

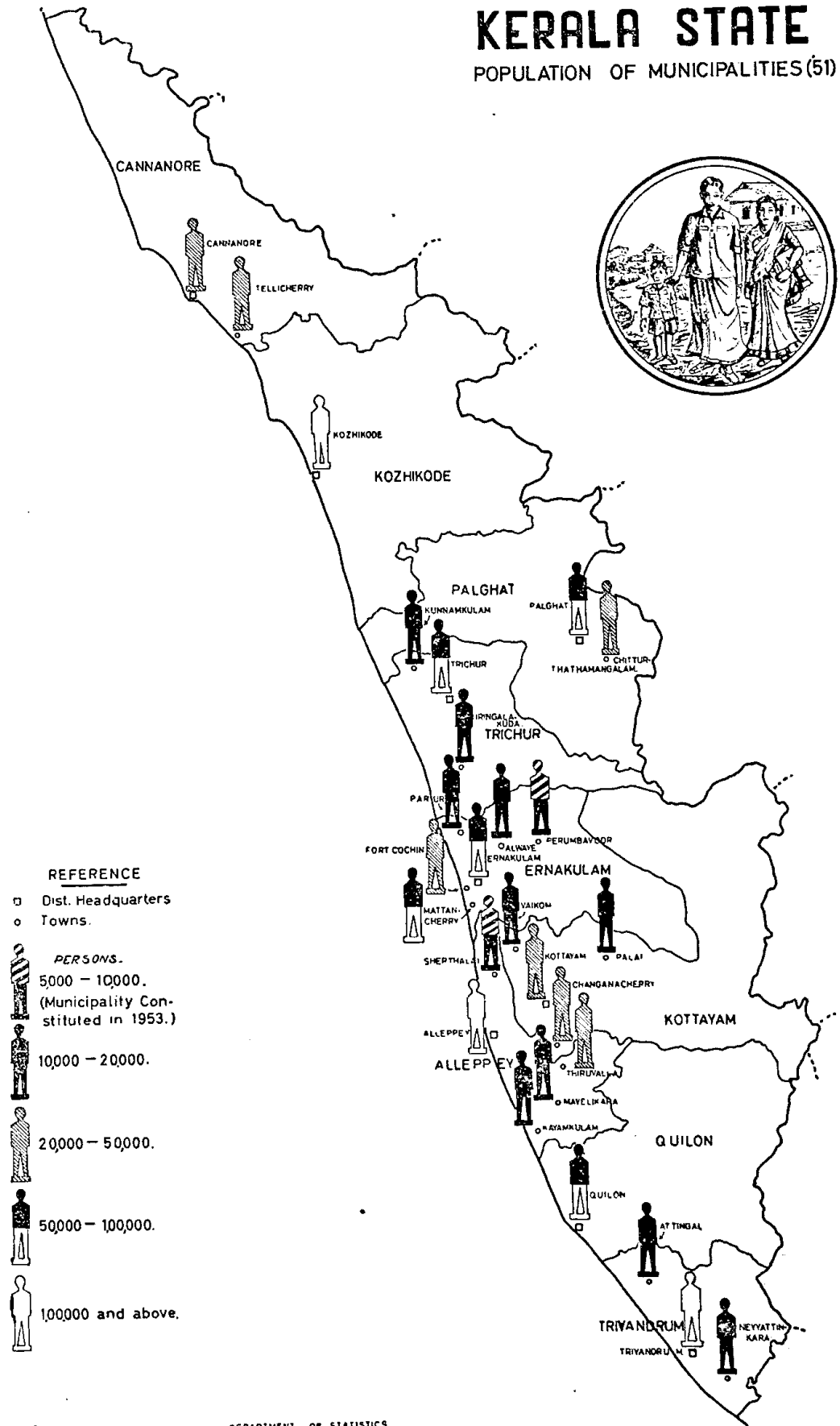
QUILON

TRIVANDRUM

DEPT. OF STATISTICS.

KERALA STATE

POPULATION OF MUNICIPALITIES (51)

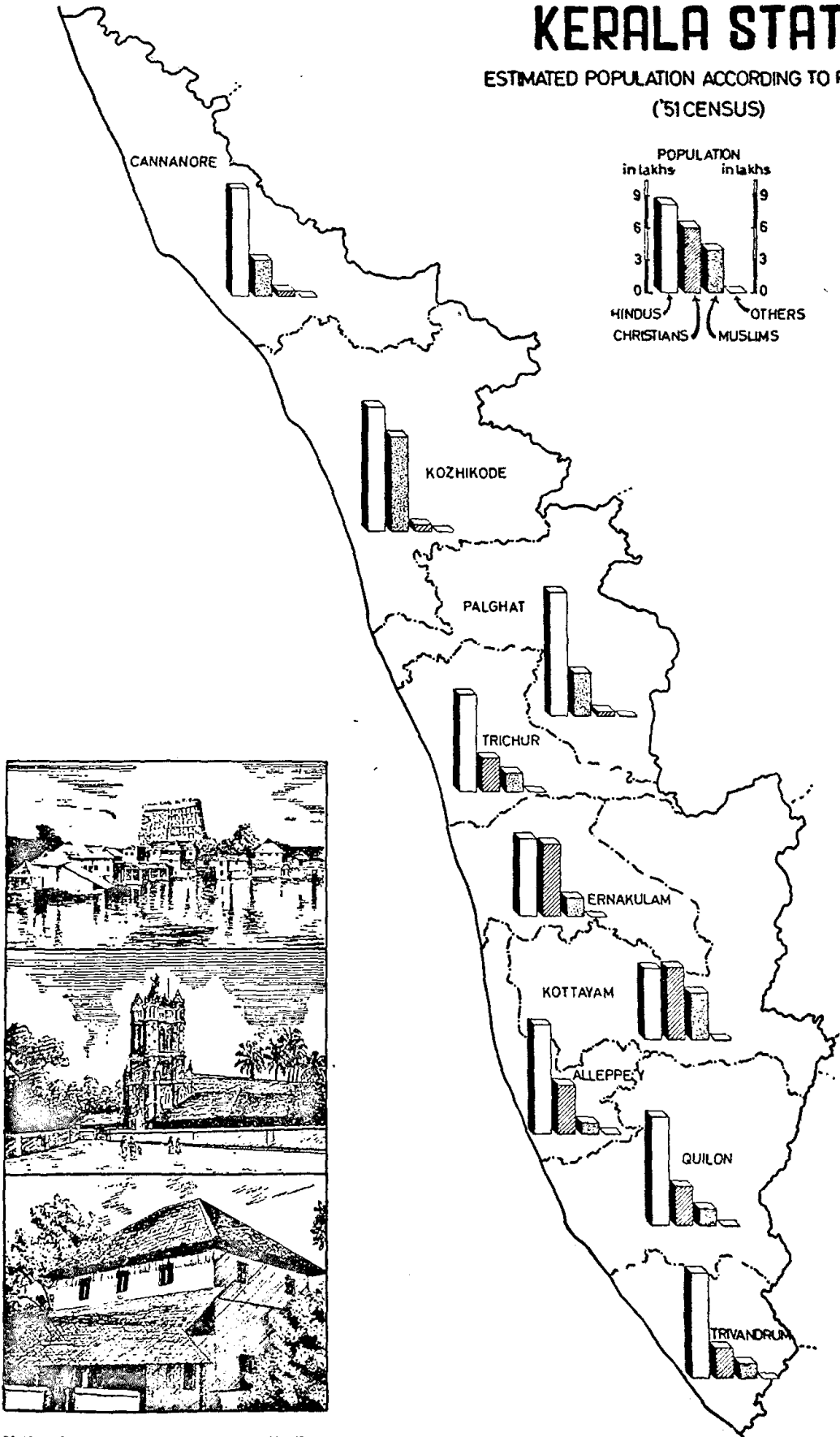


GOVERNMENT OF KERALA DEPARTMENT OF STATISTICS

BLOCK ANTOINE'S

KERALA STATE

ESTIMATED POPULATION ACCORDING TO RELIGION
(1951 CENSUS)



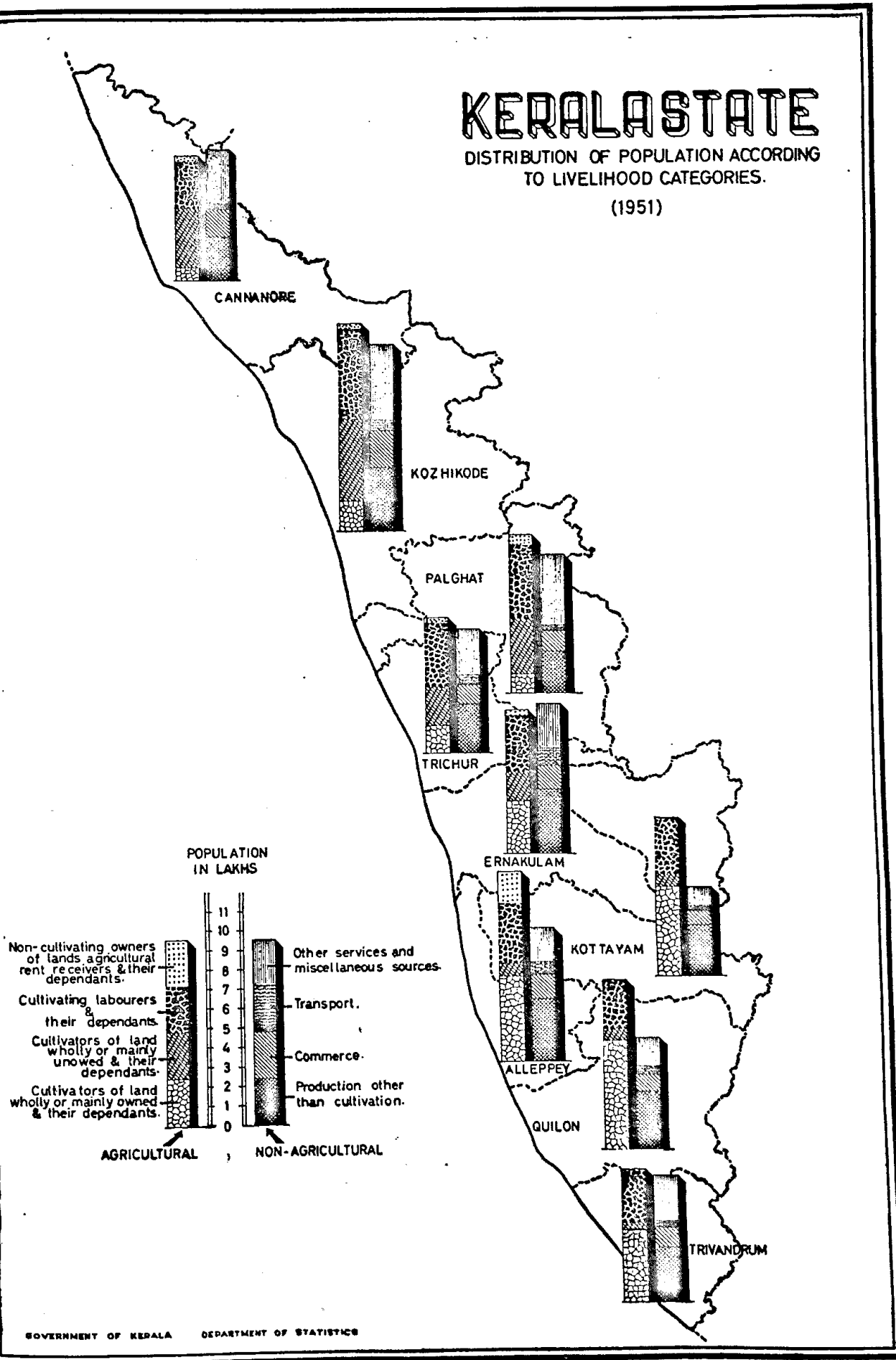
GOVERNMENT OF KERALA DEPARTMENT OF STATISTICS

KR

KERALA STATE

DISTRIBUTION OF POPULATION ACCORDING TO LIVELIHOOD CATEGORIES.

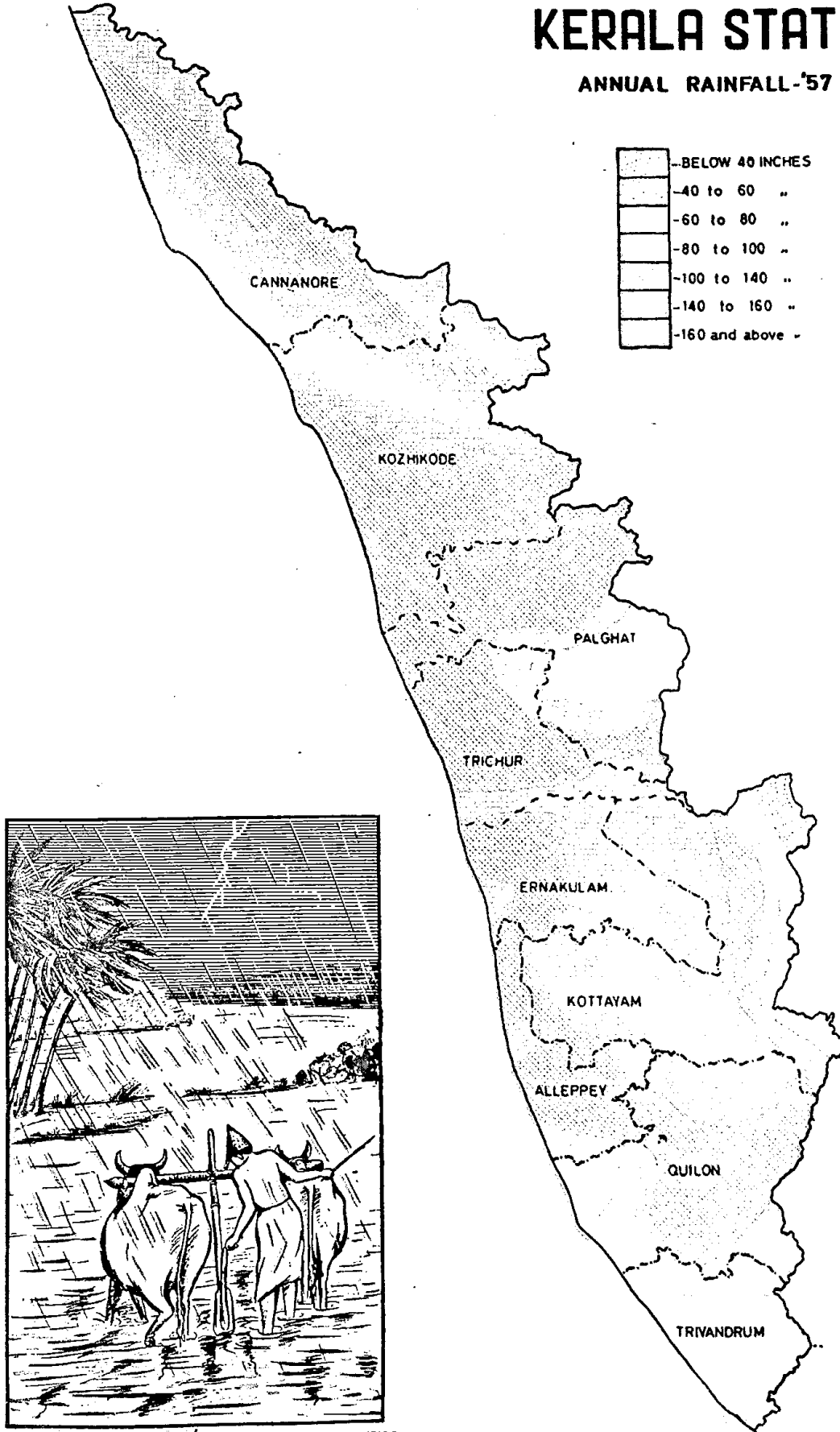
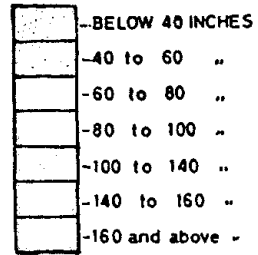
(1951)



GOVERNMENT OF KERALA DEPARTMENT OF STATISTICS

KERALA STATE

ANNUAL RAINFALL-'57

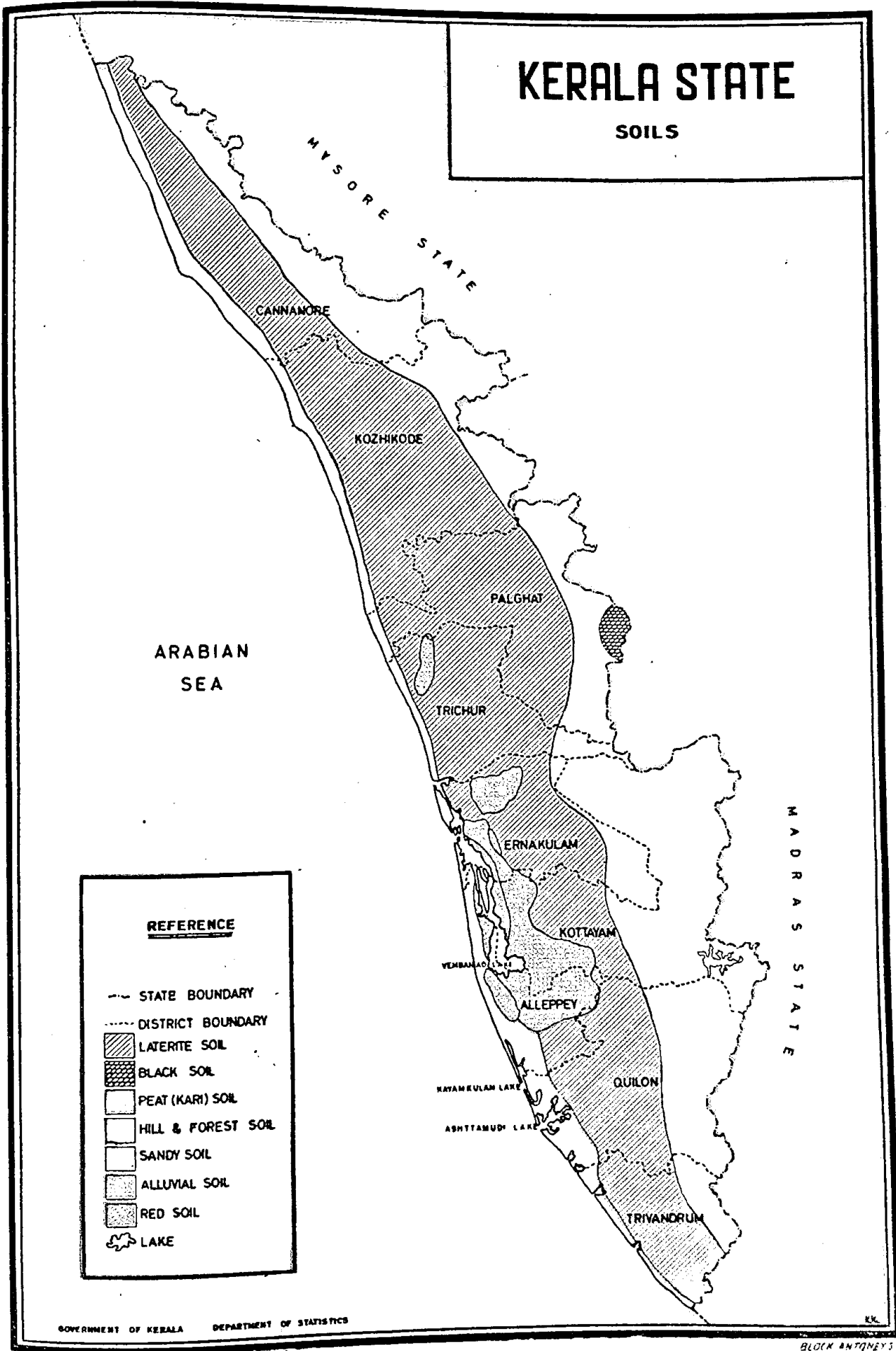


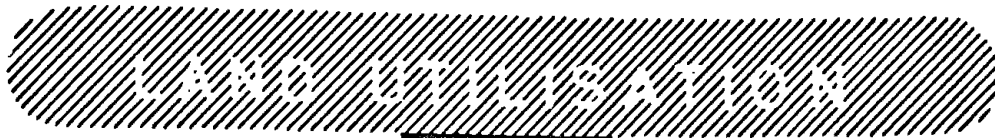
GOVERNMENT OF KERALA & DEPARTMENT OF STATISTICS

BLOCK ANTONYS

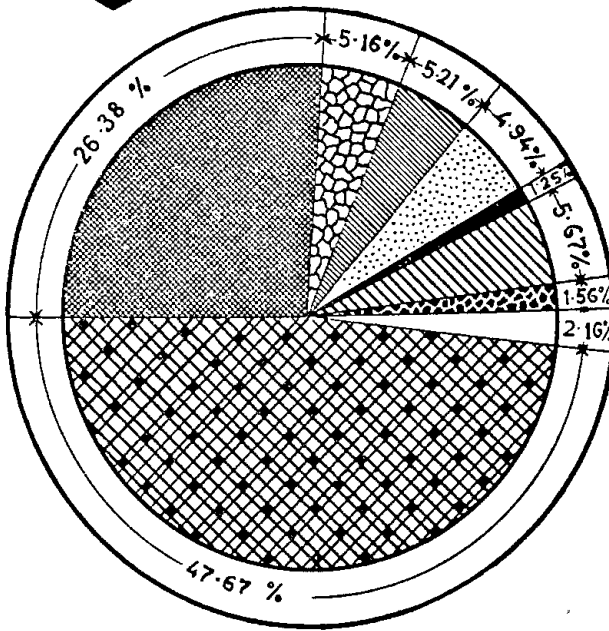
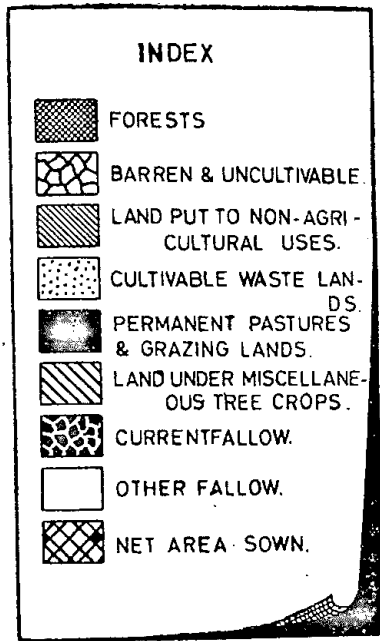
KERALA STATE

SOILS

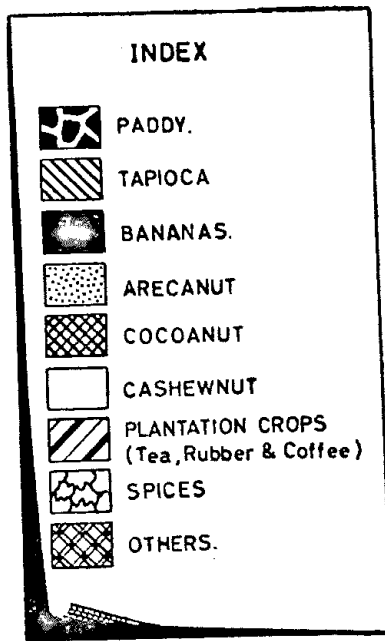
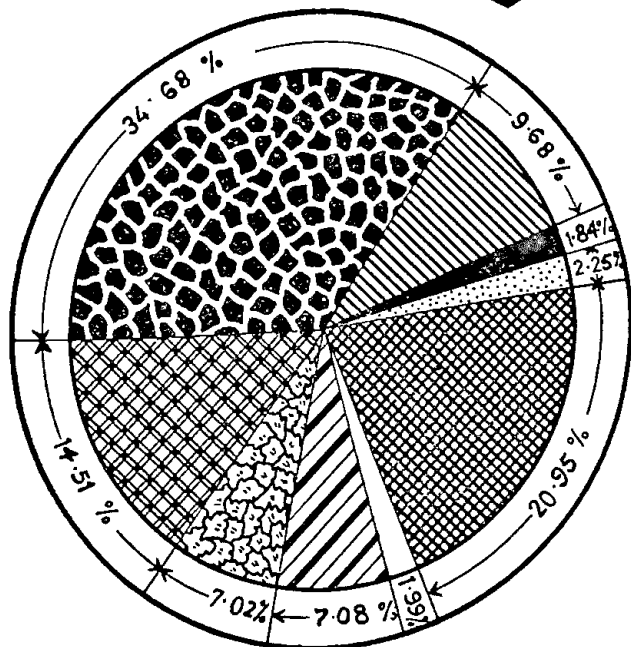




57-58

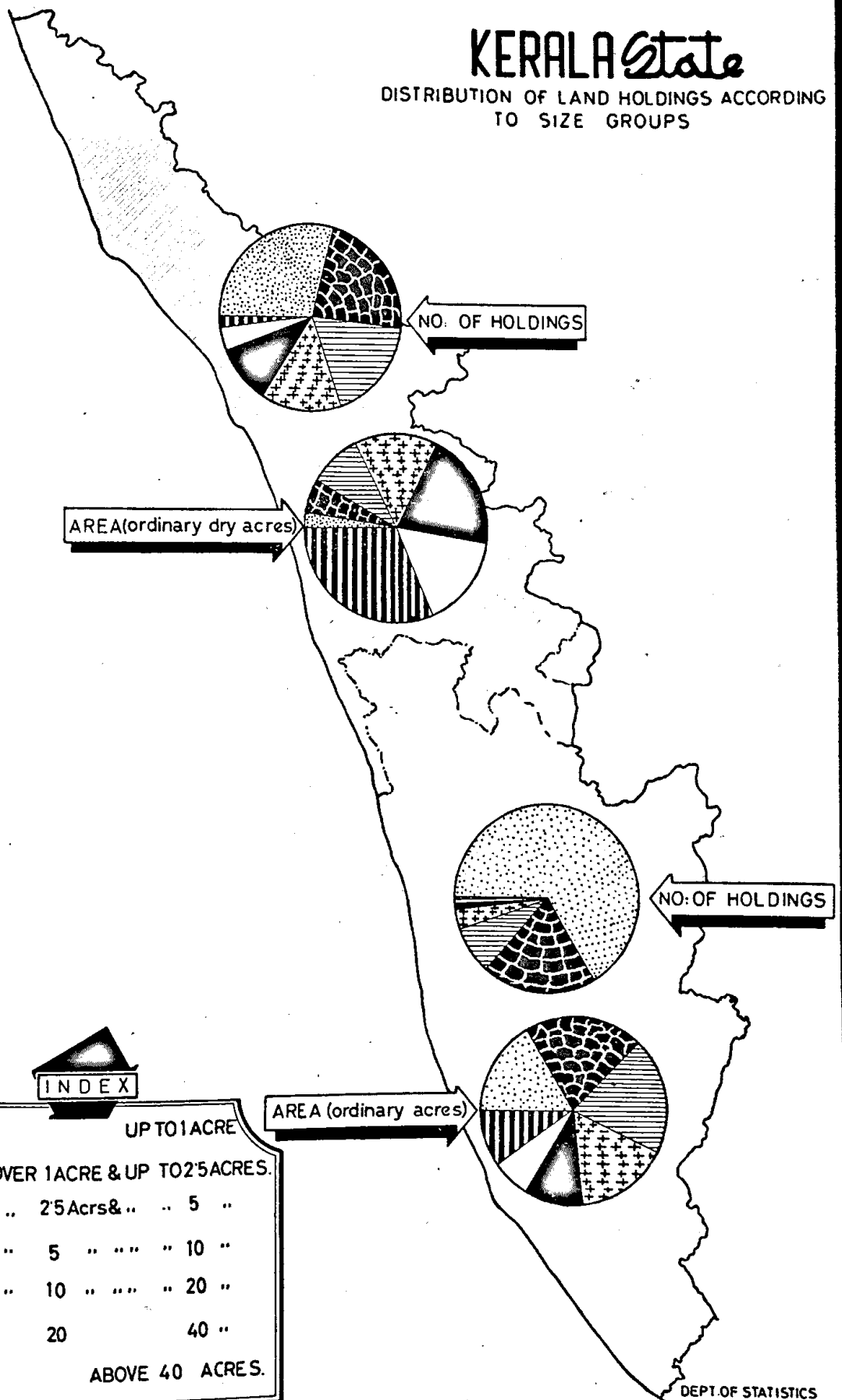


57-58



KERALA State

DISTRIBUTION OF LAND HOLDINGS ACCORDING TO SIZE GROUPS



INDEX


	UP TO 1 ACRE
	OVER 1 ACRE & UP TO 2.5 ACRES.
	.. 2.5 Acs & .. 5 ..
	.. 5 .. " " 10 ..
	.. 10 .. " " 20 ..
	20 40 ..
	ABOVE 40 ACRES.


DEPT. OF STATISTICS

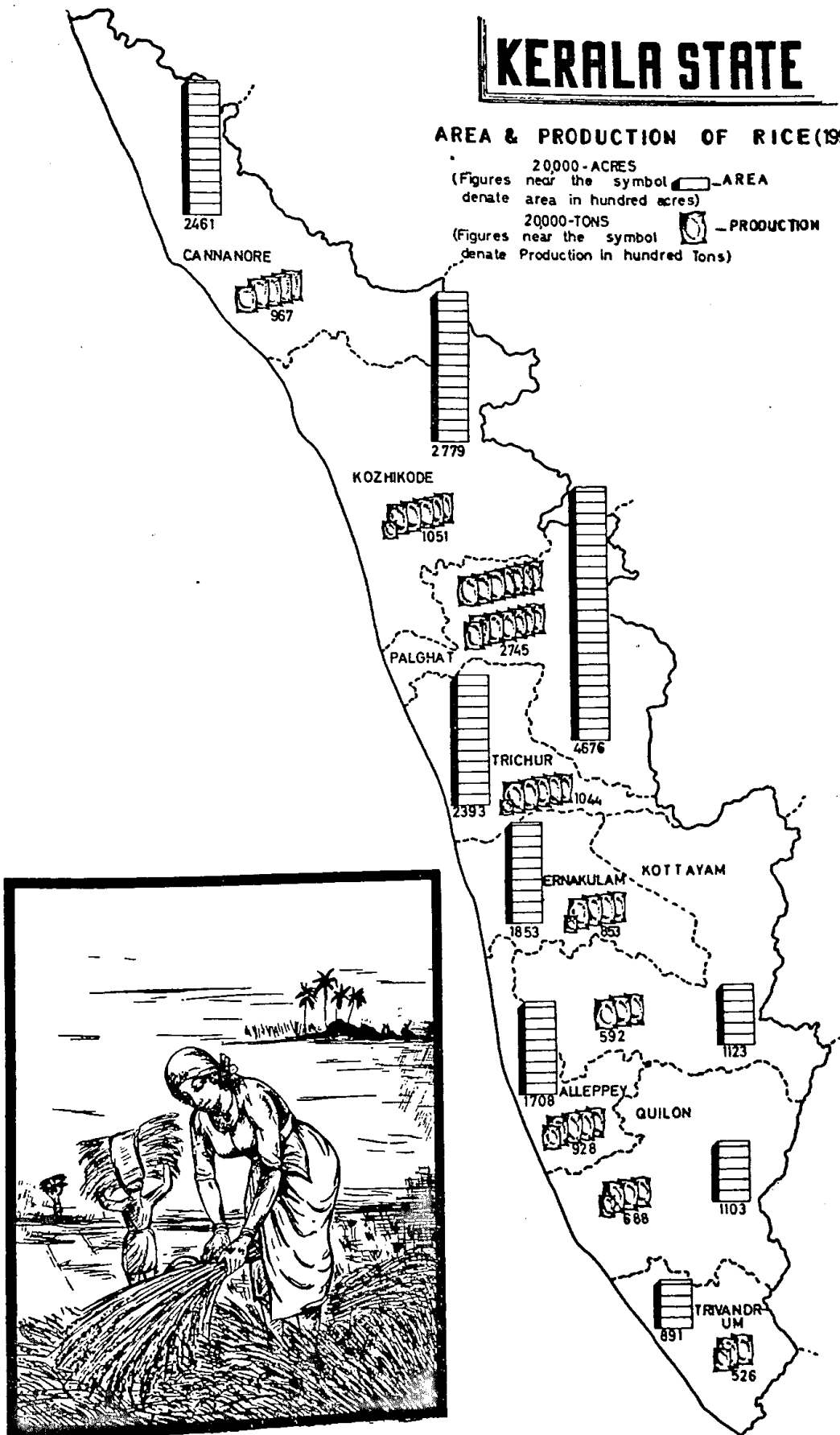
BLOCK ANTONEY'S

KERALA STATE

AREA & PRODUCTION OF RICE (1958-59)

20000-ACRES
(Figures near the symbol  - AREA denote area in hundred acres)

20000-TONS
(Figures near the symbol  - PRODUCTION denote Production in hundred Tons)





DEPT. OF STATISTICS.

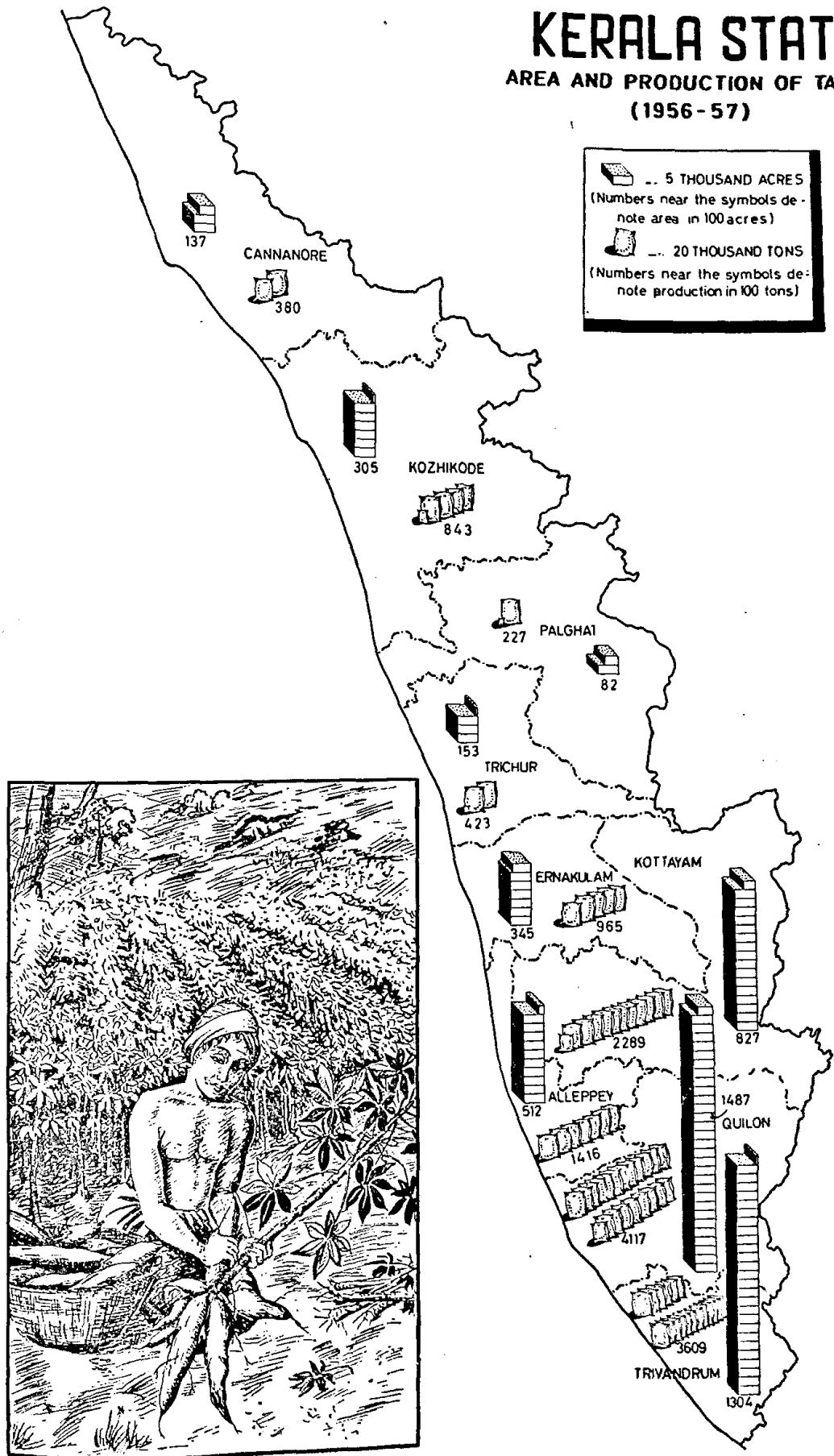
BLOCK ANTONEY'S

KERALA STATE

AREA AND PRODUCTION OF TAPIOCA (1956-57)

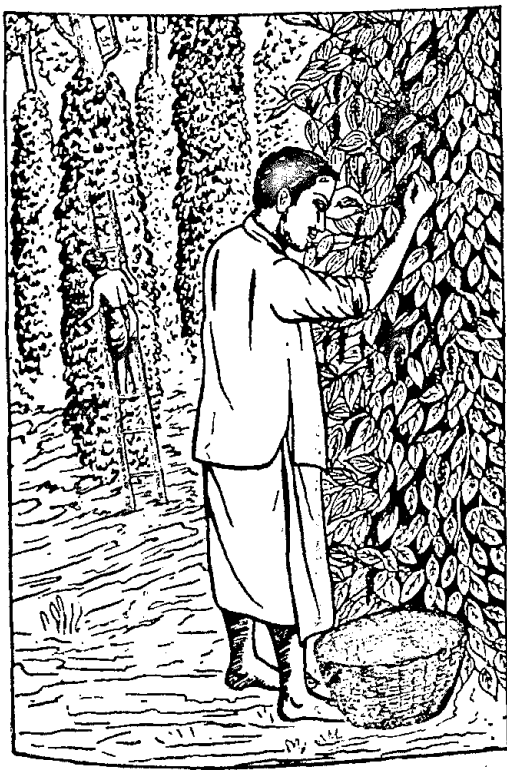
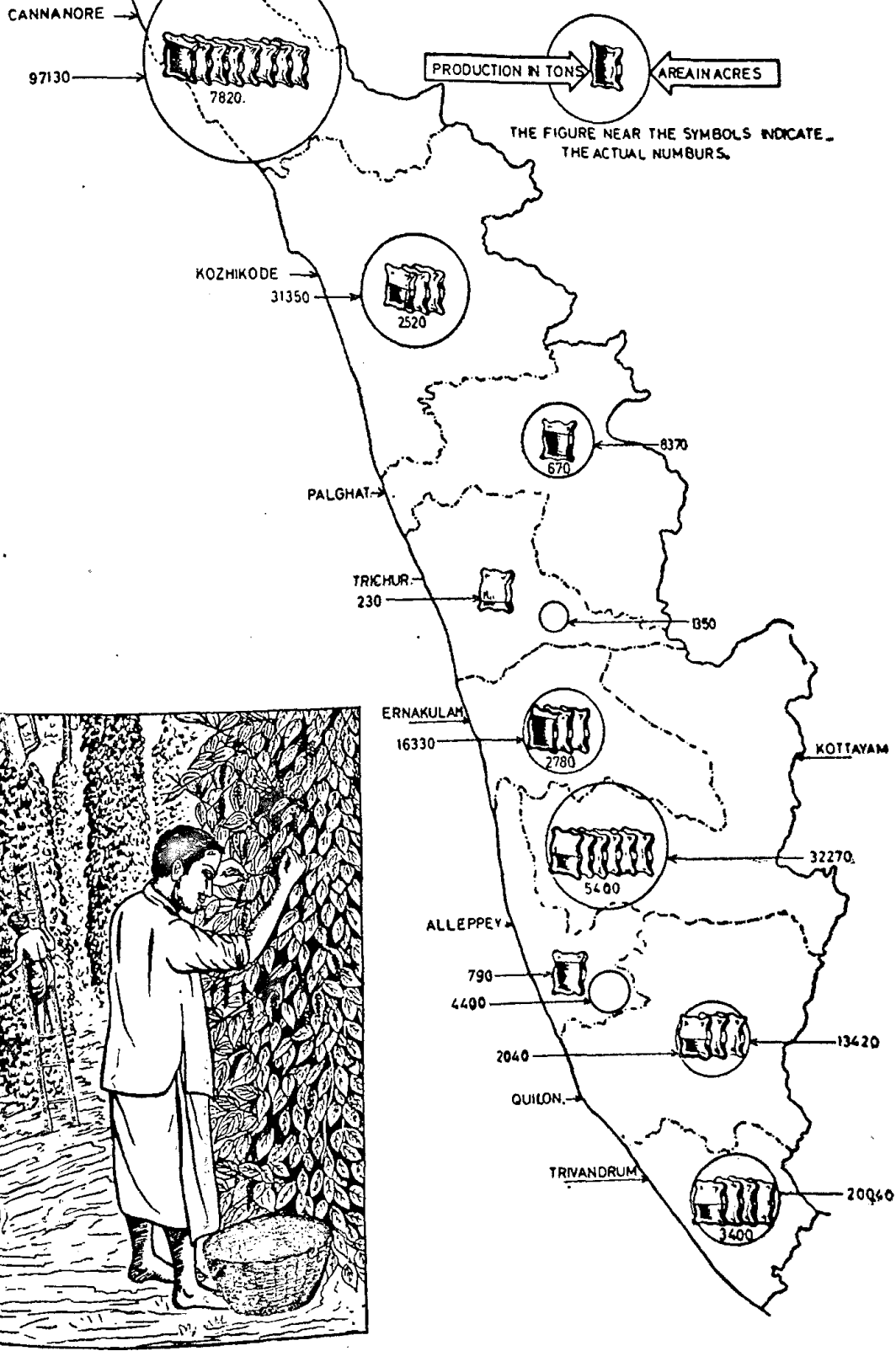
 ... 5 THOUSAND ACRES
 (Numbers near the symbols de-
 note area in 100 acres)

 ... 20 THOUSAND TONS
 (Numbers near the symbols de-
 note production in 100 tons)



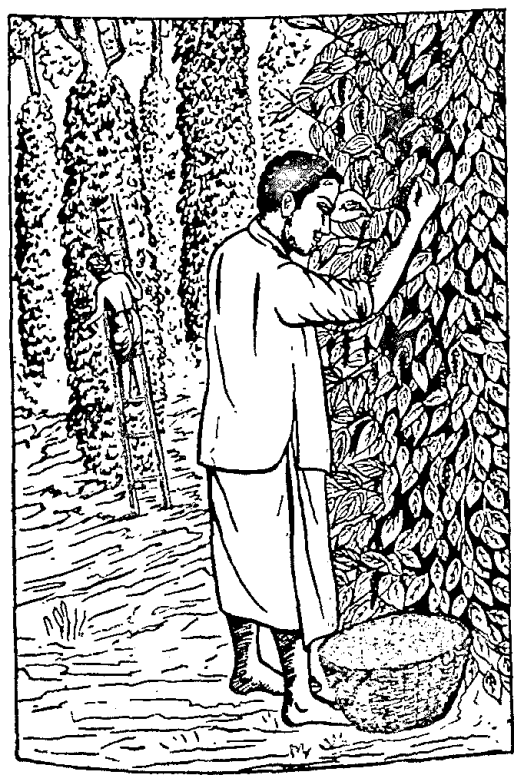
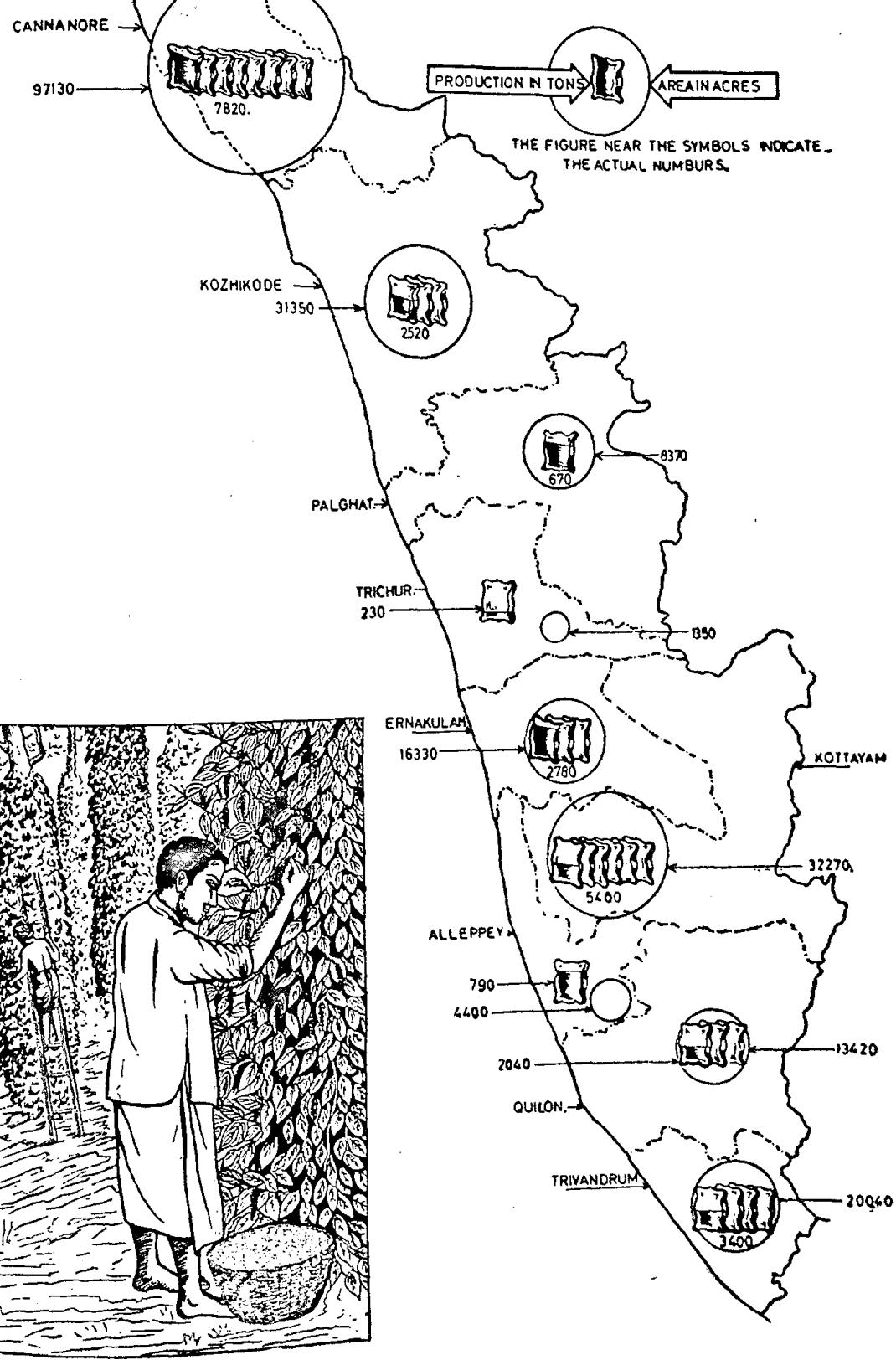
KERALA STATE

AREA AND PRODUCTION OF PEPPER, 1957-58.



KERALA STATE

AREA AND PRODUCTION OF PEPPER, 1957-58.



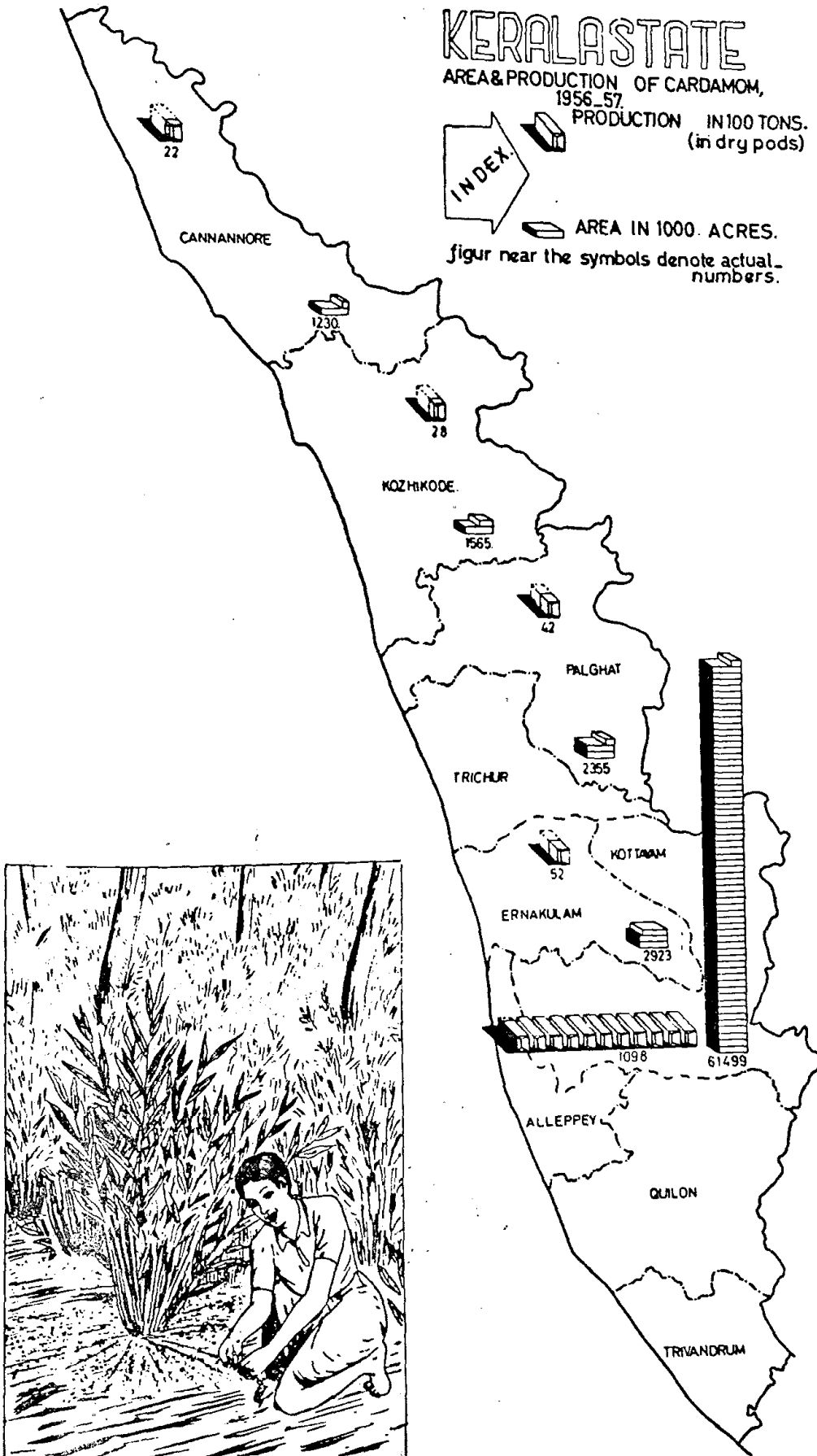
KERALA STATE

AREA & PRODUCTION OF CARDAMOM,
1956-57
PRODUCTION IN 100 TONS.
(in dry pods)

INDEX





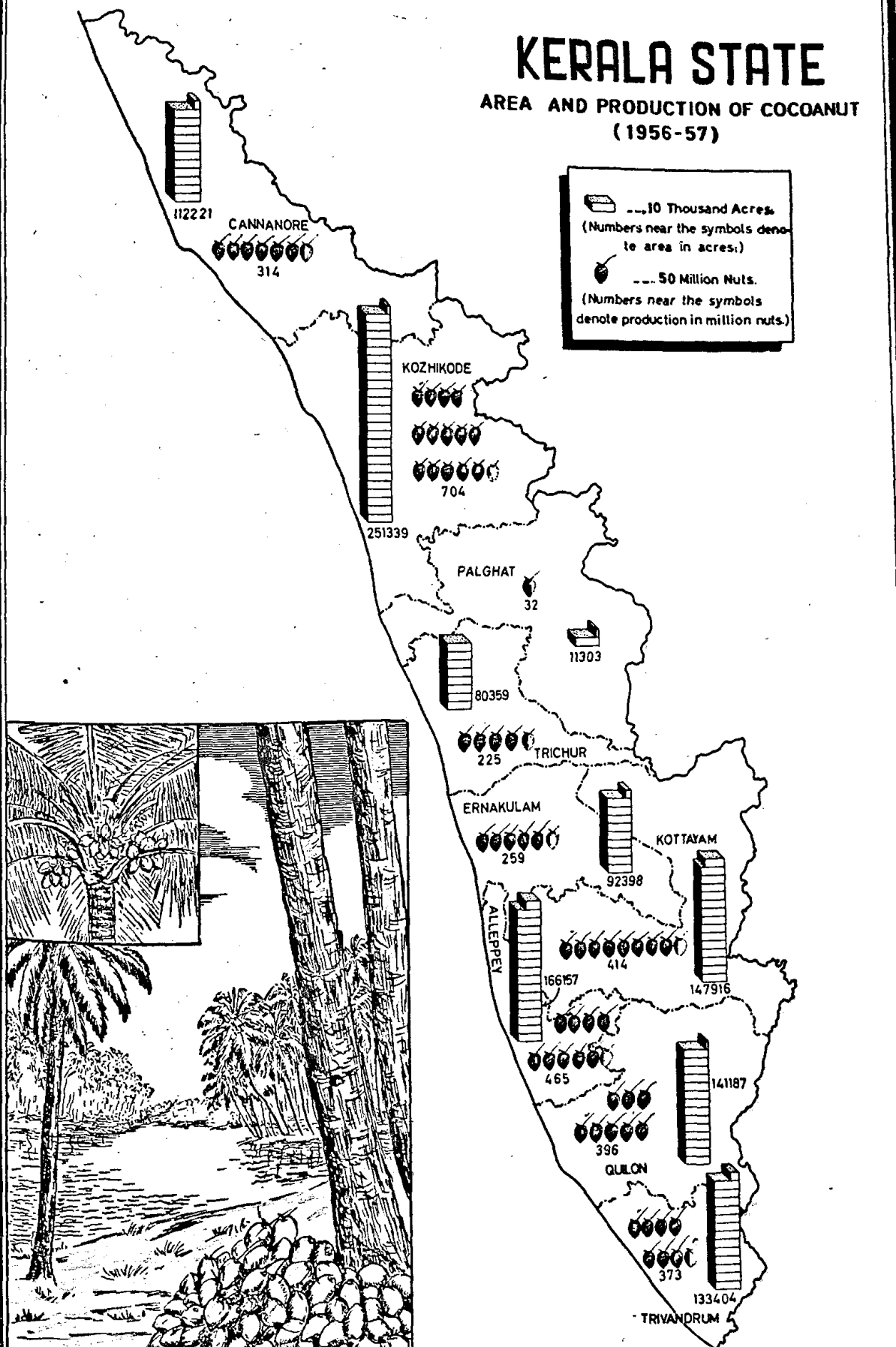
AREA IN 1000. ACRES.
figures near the symbols denote actual numbers.



KERALA STATE

AREA AND PRODUCTION OF COCOANUT (1956-57)

 ... 10 Thousand Acres.
 (Numbers near the symbols denote area in acres.)
 ... 50 Million Nuts.
 (Numbers near the symbols denote production in million nuts.)





GOVERNMENT OF KERALA
DEPARTMENT OF STATISTICS

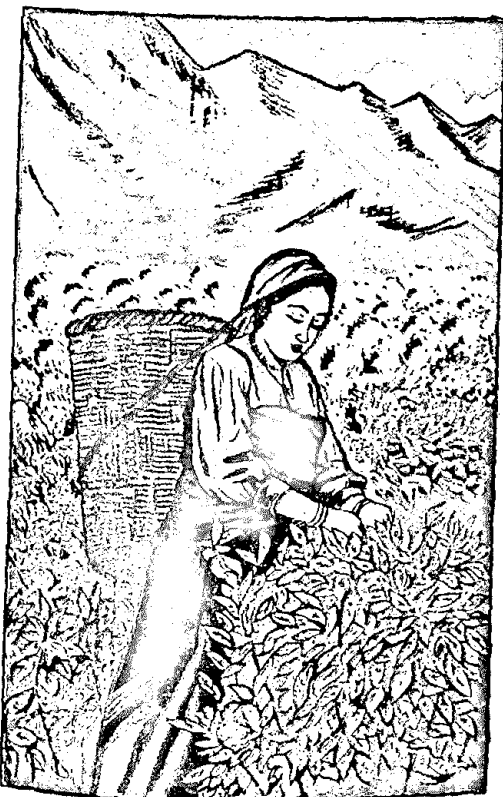
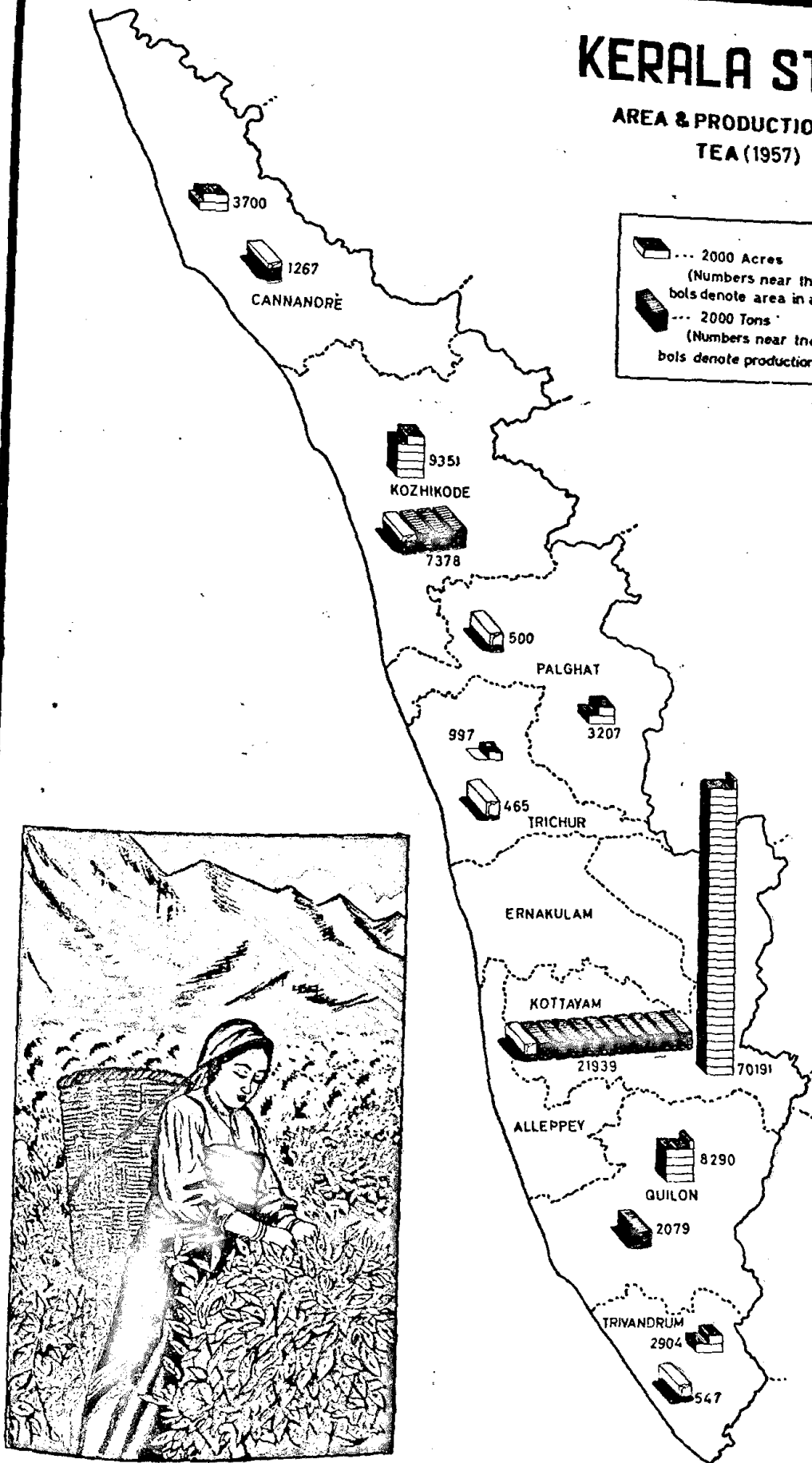
KE

BLOCK ANTONEXS

KERALA STATE

AREA & PRODUCTION OF TEA (1957)

 ... 2000 Acres
 (Numbers near the symbols denote area in acres)
 ... 2000 Tons
 (Numbers near the symbols denote production in tons)



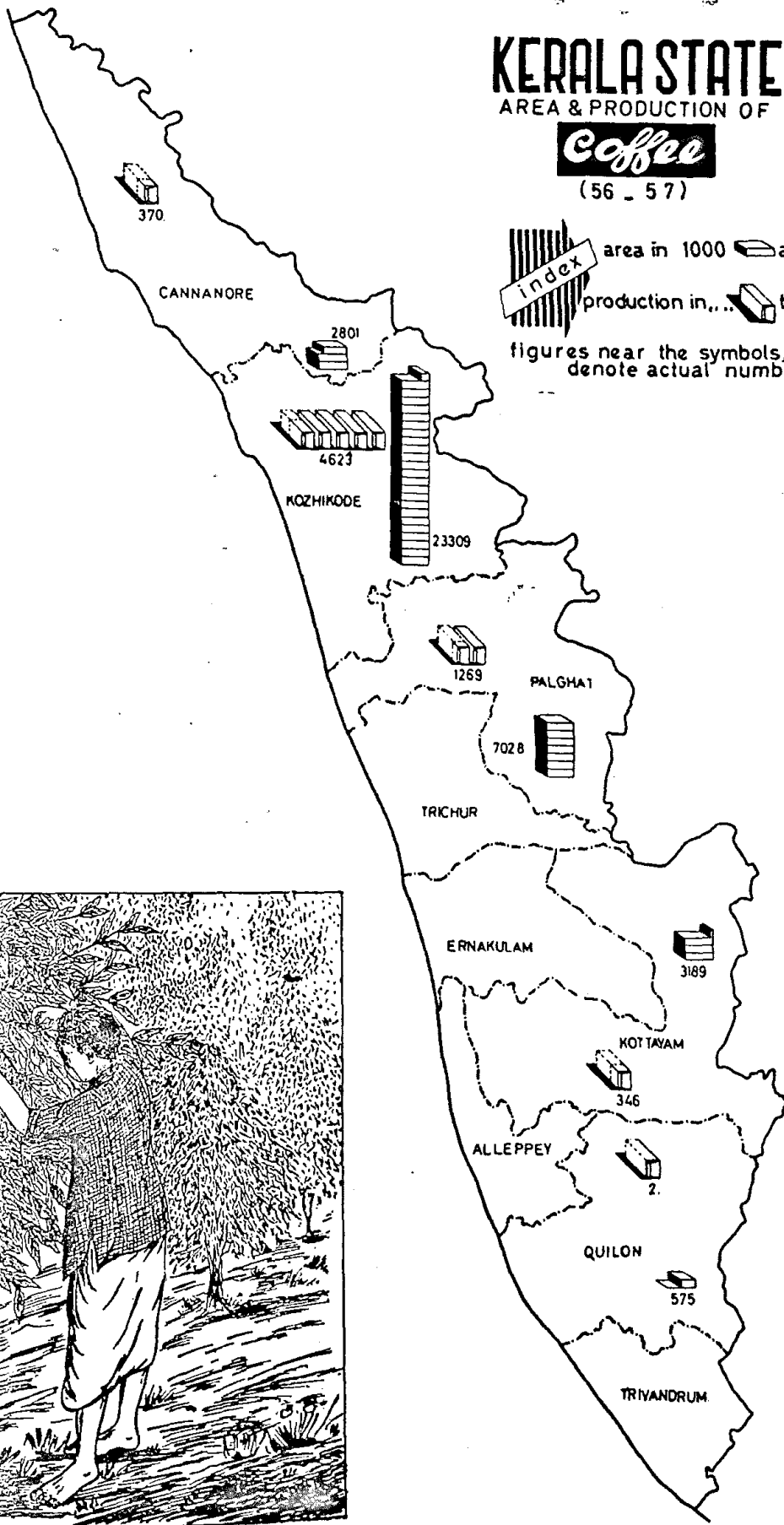
KERALA STATE

AREA & PRODUCTION OF

Coffee

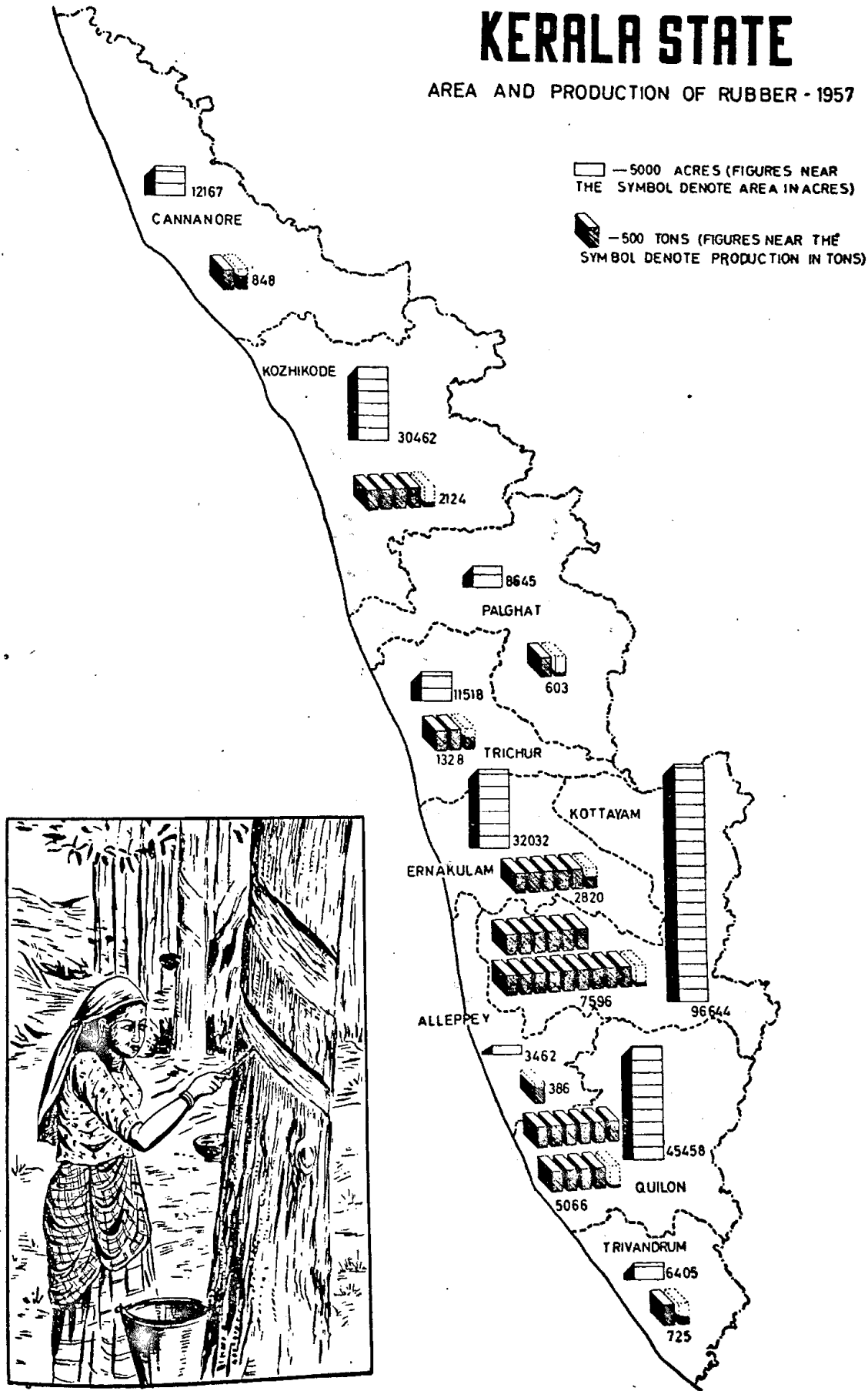
(56 - 57)

index
 area in 1000 acres.
 production in... tons.
 figures near the symbols,
 denote actual numbers.



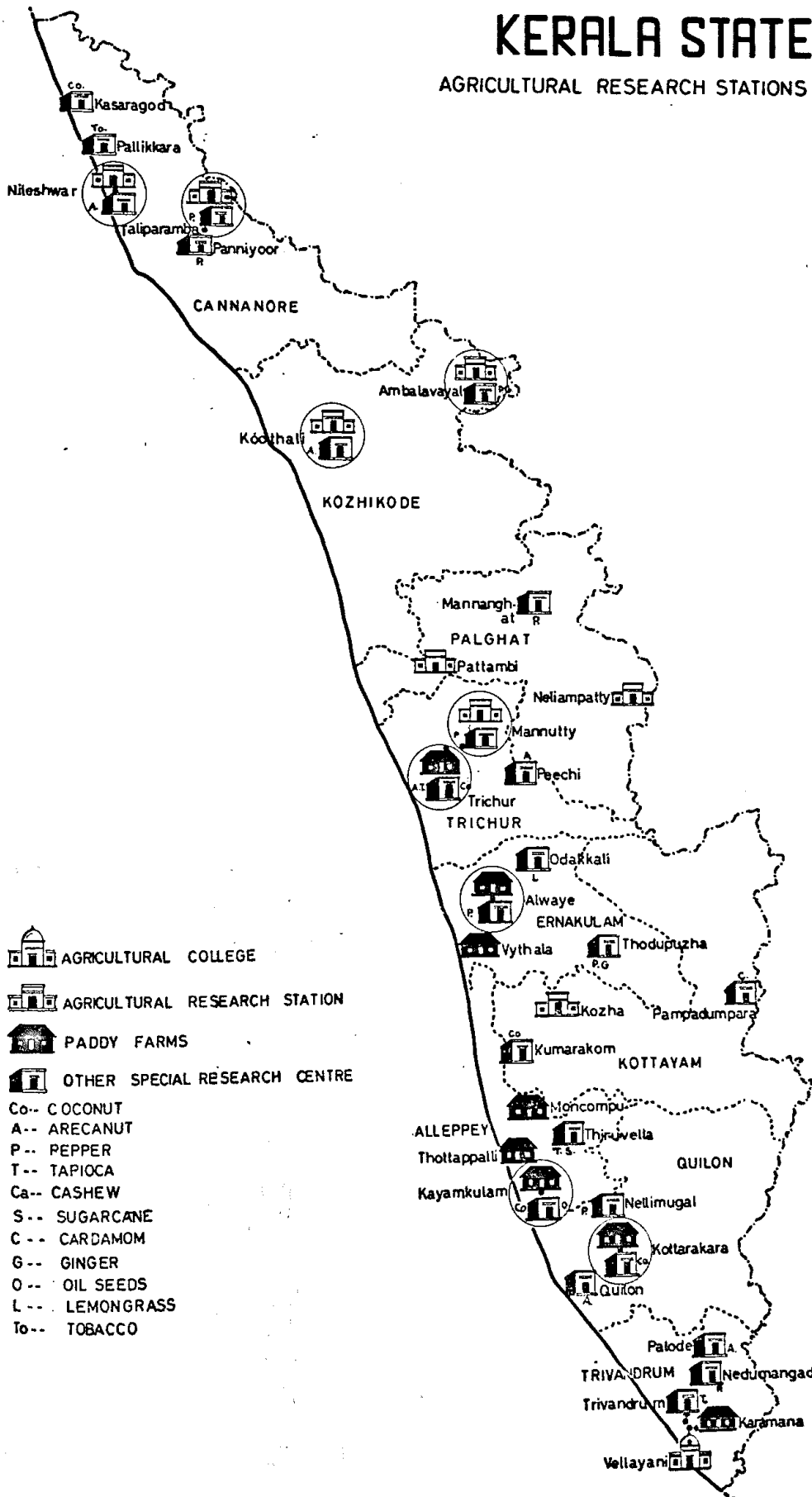
KERALA STATE





AREA AND PRODUCTION OF RUBBER - 1957



KERALA STATE

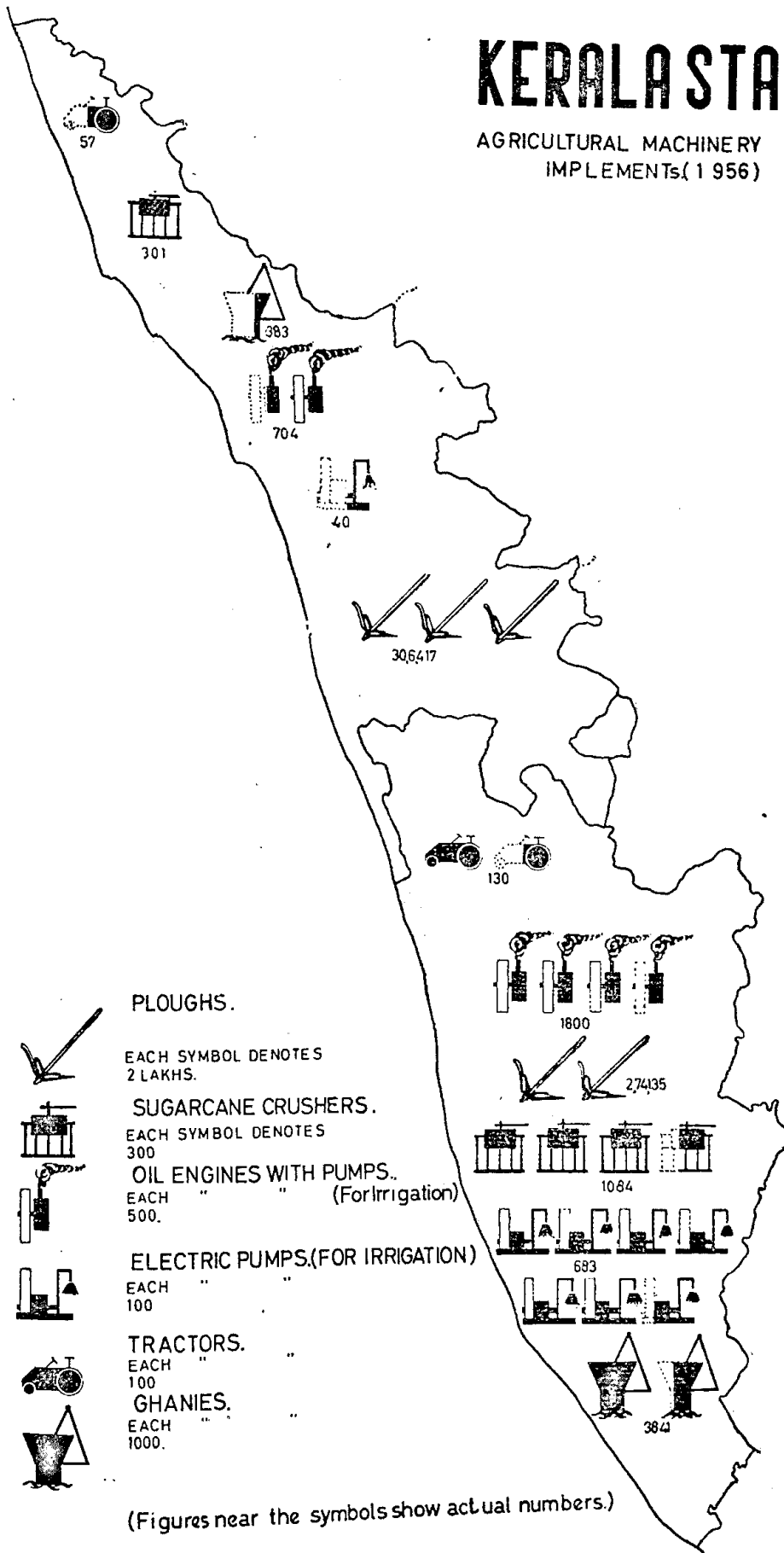
AGRICULTURAL RESEARCH STATIONS









-  AGRICULTURAL COLLEGE
-  AGRICULTURAL RESEARCH STATION
-  PADDY FARMS
-  OTHER SPECIAL RESEARCH CENTRE
- Co-- COCONUT
- A-- ARECANUT
- P-- PEPPER
- T-- TAPIOCA
- Ca-- CASHEW
- S-- SUGARCANE
- C-- CARDAMOM
- G-- GINGER
- O-- OIL SEEDS
- L-- LEMONGRASS
- To-- TOBACCO

KERALA STATE

AGRICULTURAL MACHINERY AND
IMPLEMENTS (1956)

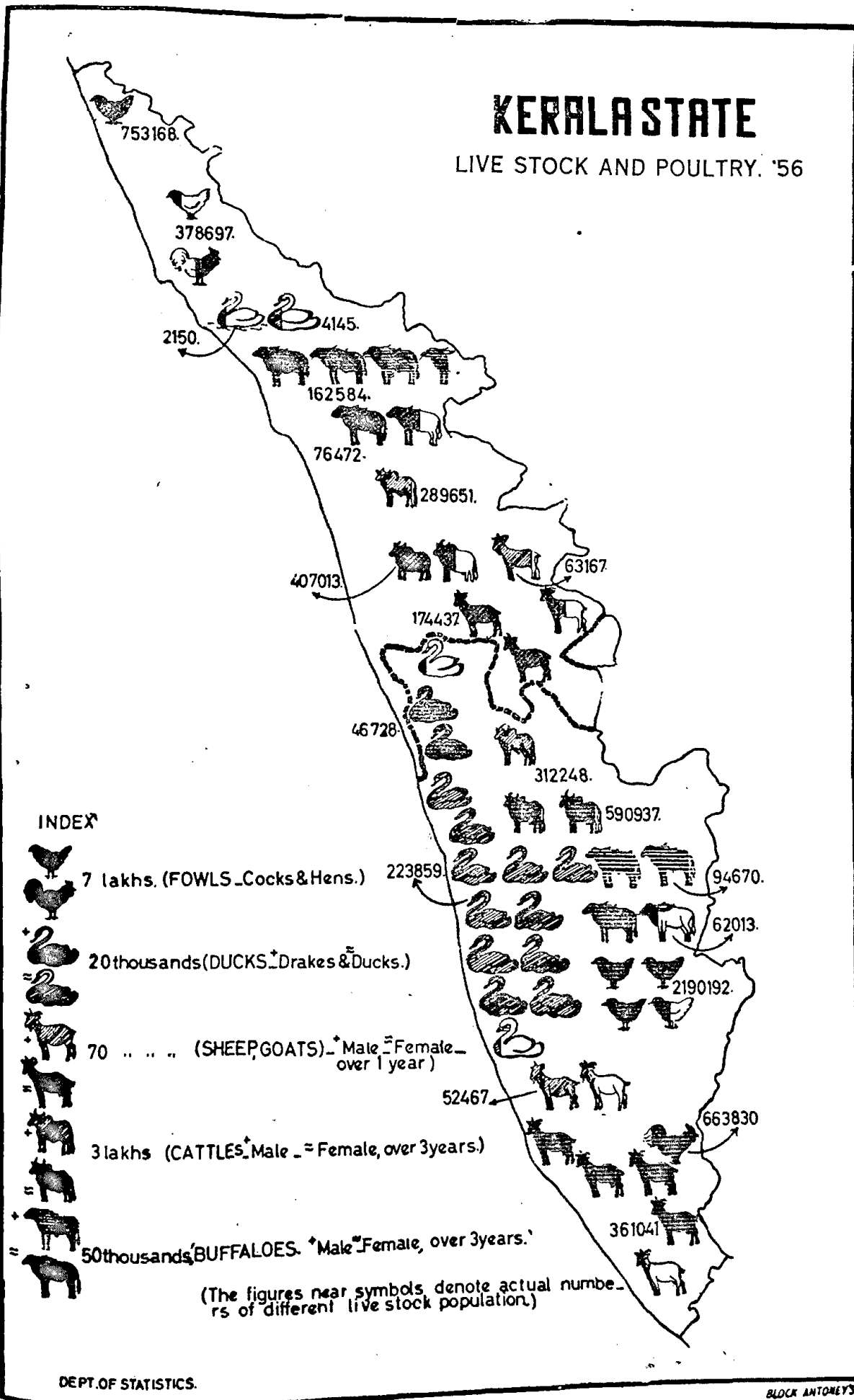


-  **PLOUGHS.**
EACH SYMBOL DENOTES
2 LAKHS.
-  **SUGARCANE CRUSHERS.**
EACH SYMBOL DENOTES
300
-  **OIL ENGINES WITH PUMPS.**
EACH " " (For Irrigation)
500.
-  **ELECTRIC PUMPS.(FOR IRRIGATION)**
EACH " "
100
-  **TRACTORS.**
EACH " "
100
-  **GHANIES.**
EACH " "
1000.






(Figures near the symbols show actual numbers.)

KERALA STATE

LIVE STOCK AND POULTRY. '56



INDEX

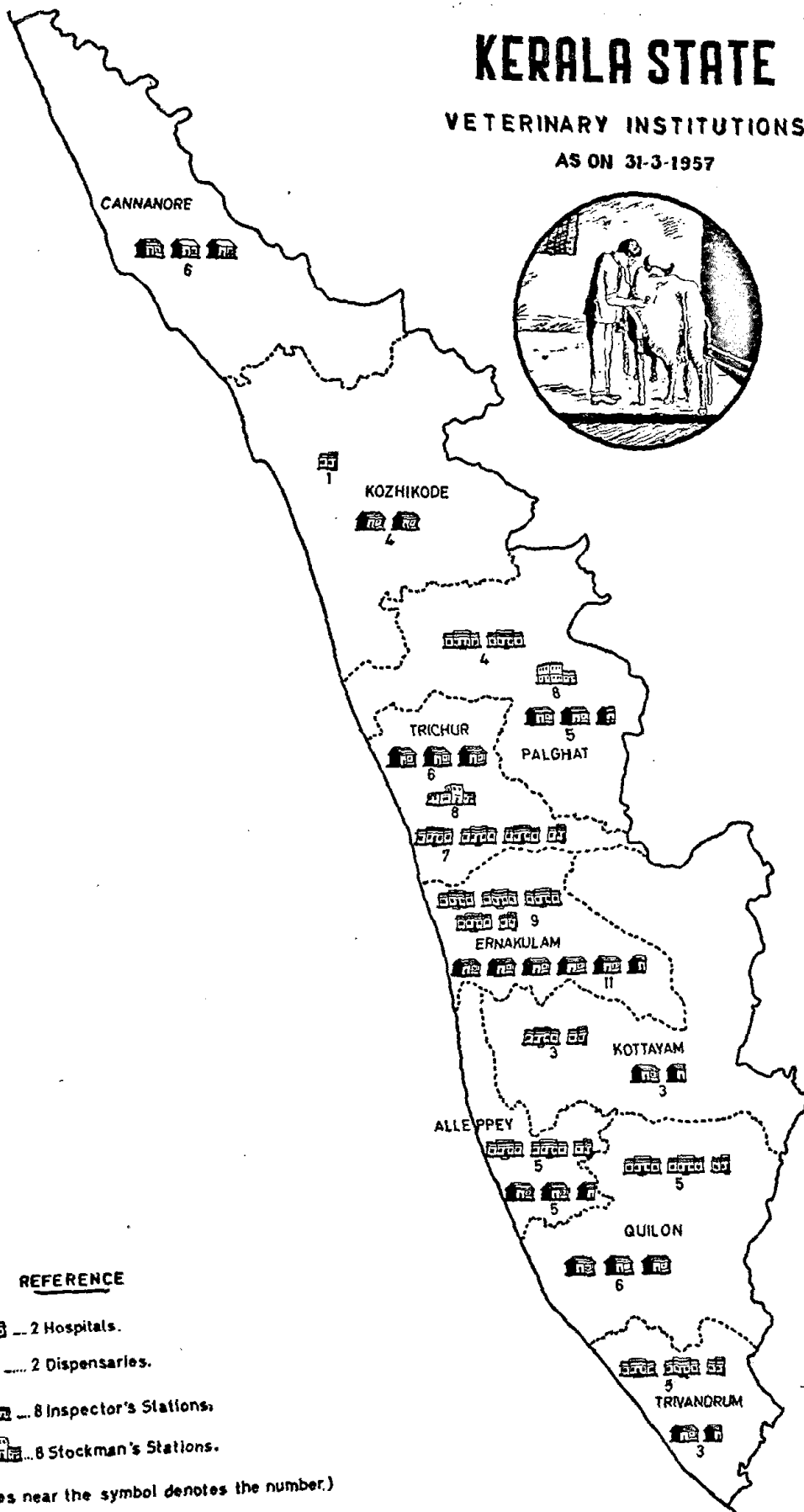
-  7 lakhs. (FOWLS - Cocks & Hens.)
-  20 thousands (DUCKS - Drakes & Ducks.)
-  70 (SHEEP, GOATS) - *Male = Female - over 1 year)
-  3 lakhs (CATTLE - *Male = Female, over 3 years.)
-  50 thousands (BUFFALOES. *Male = Female, over 3 years.)

(The figures near symbols denote actual numbers of different live stock populations.)

KERALA STATE

VETERINARY INSTITUTIONS

AS ON 31-3-1957



REFERENCE

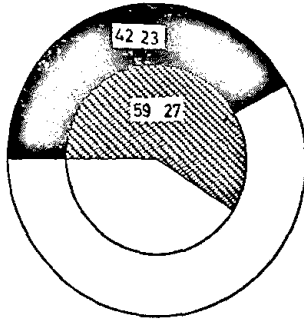
- ... 2 Hospitals.
- ... 2 Dispensaries.
- ... 8 Inspector's Stations.
- ... 8 Stockman's Stations.

(Figures near the symbol denotes the number.)

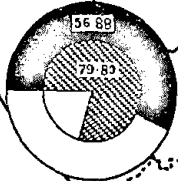
KERALA STATE

COMMUNITY-DEVELOPMENT PROGRAMME
Percentage of Area and Population Covered as on 31-3-1958.

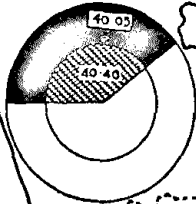
STATE



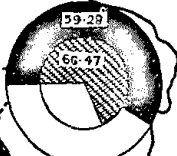
CANNANORE





KOZHIKODE

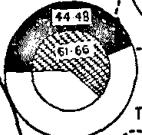


PALGHAT

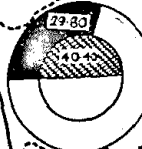


REFERENCE

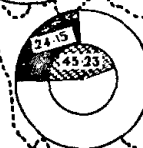
-  AREA COVERED
-  POPULATION "



TRICHUR



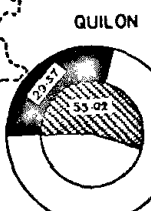
ERNAKULAM



KOTTAYAM



ALLEPPEY



QUILON

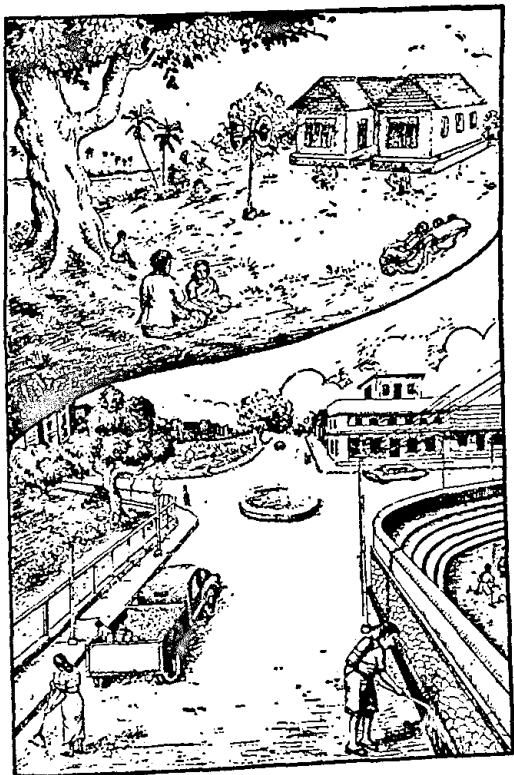
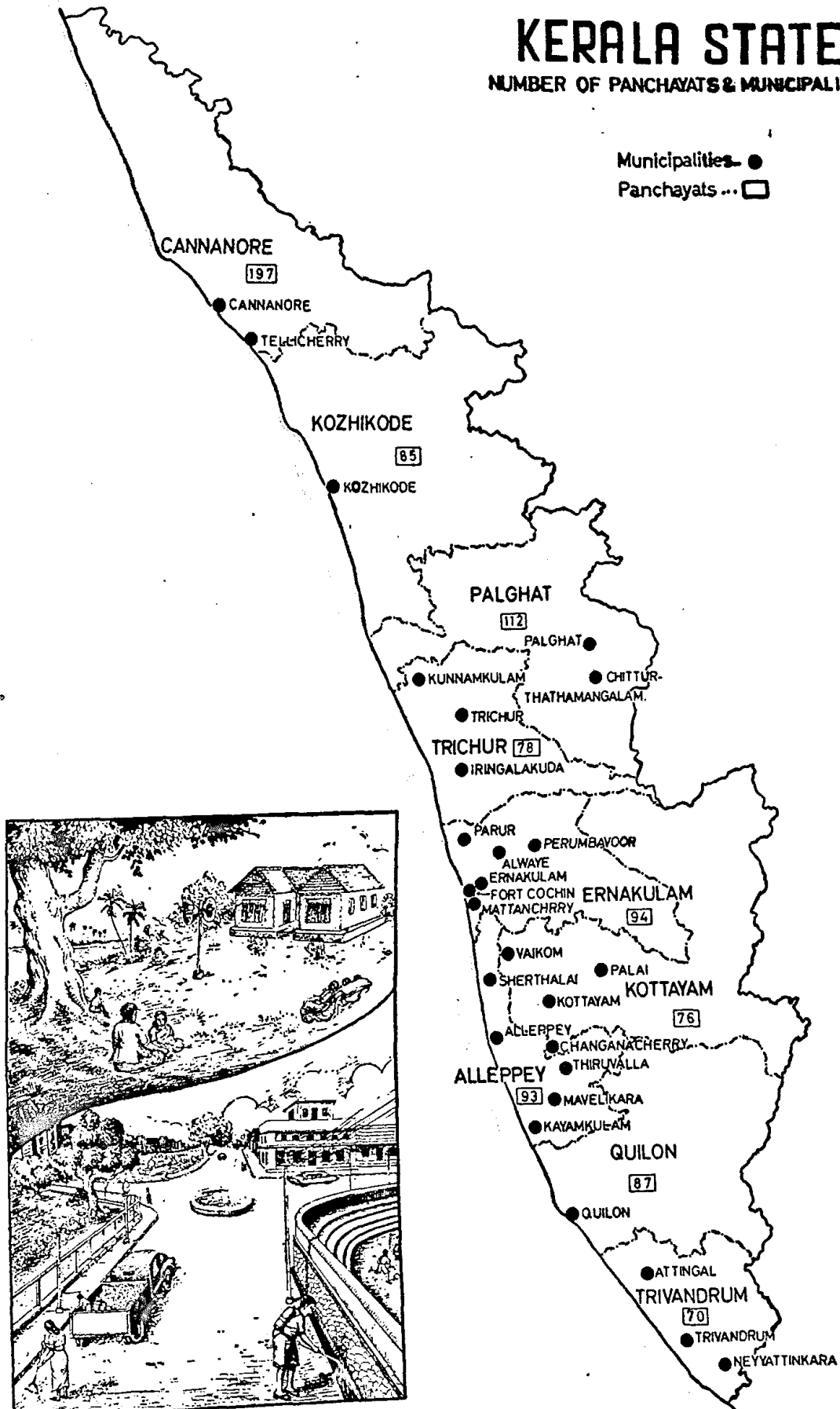
TRIVANDRUM



KERALA STATE

NUMBER OF PANCHAYATS & MUNICIPALITIES.

Municipalities ●
Panchayats □



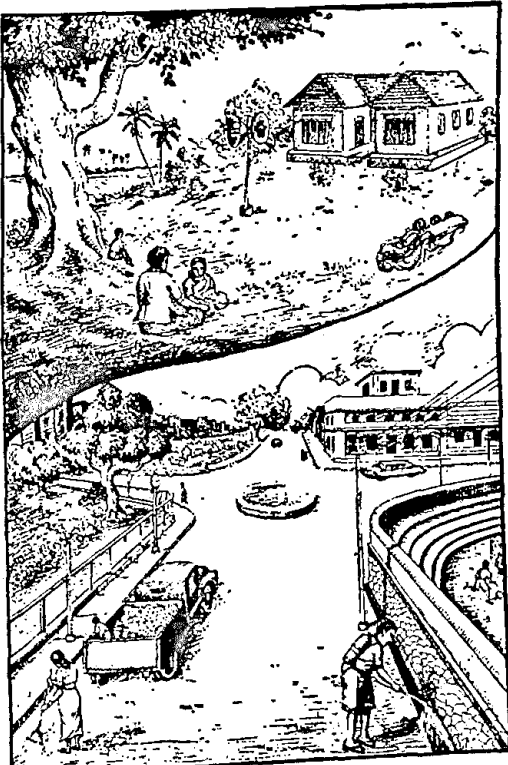
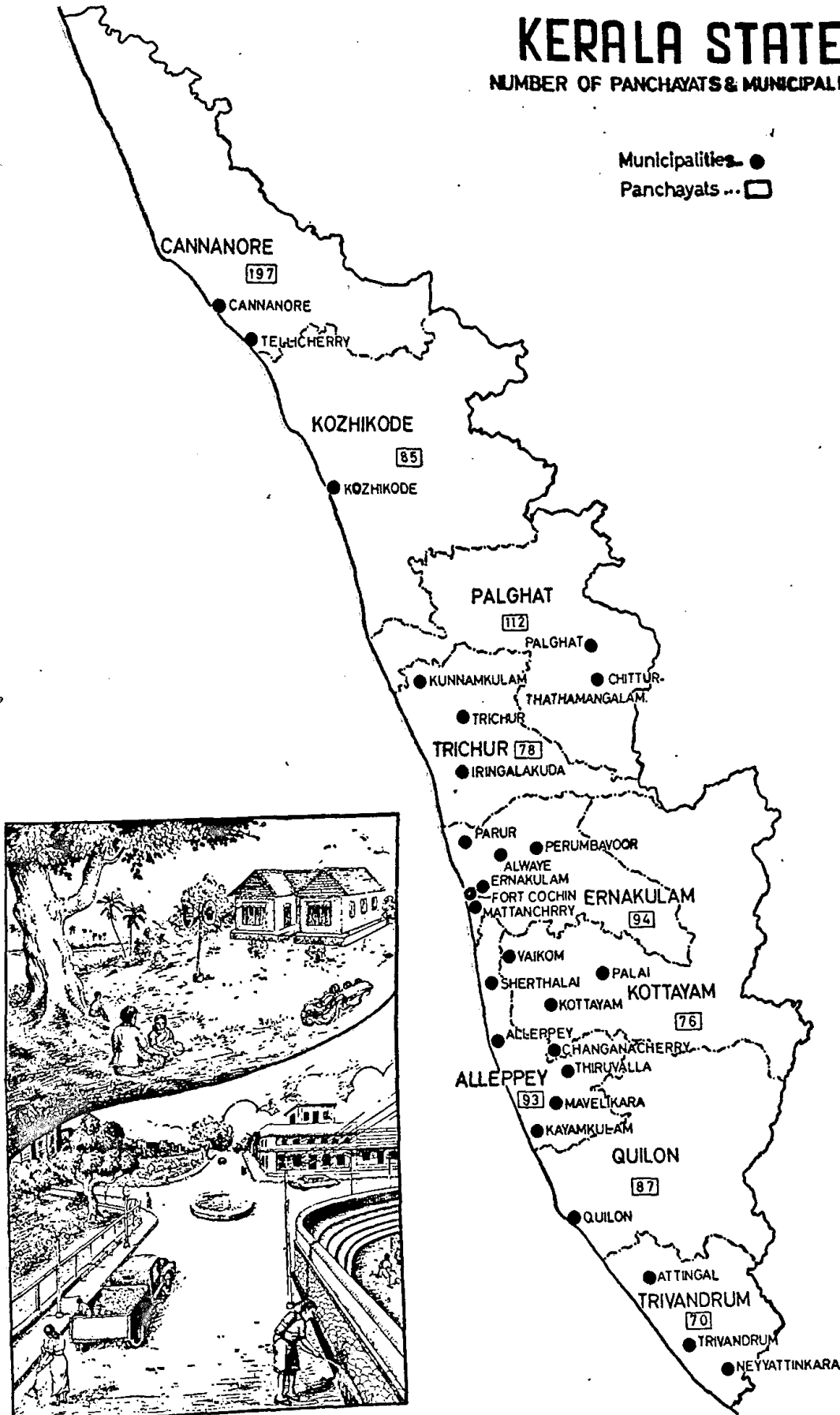
GOVERNMENT OF KERALA DEPARTMENT OF STATISTICS

BOCCA ANTONY'S

KERALA STATE

NUMBER OF PANCHAYATS & MUNICIPALITIES.

Municipalities ●
Panchayats □

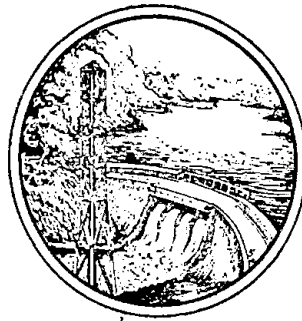


GOVERNMENT OF KERALA DEPARTMENT OF STATISTICS

BROCK ANTHONY'S

KERALA STATE

IRRIGATION & POWER



ARABIAN
SEA

REFERENCE

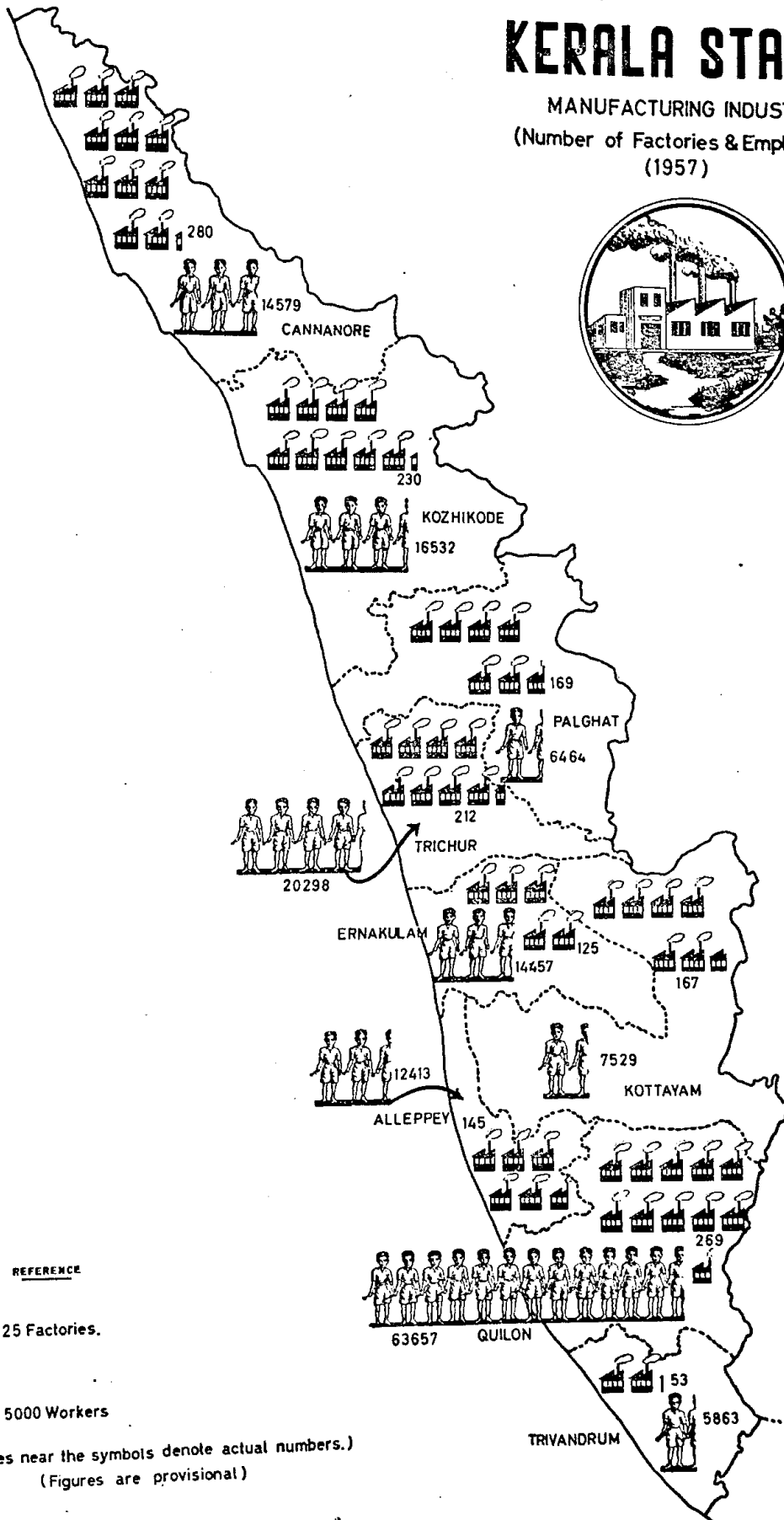
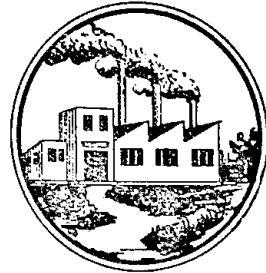
1. Manjeshwar.
 2. Uppala.
 3. Shiriya.
 4. Kumbala.
 5. Mogral.
 6. Kalnad.
 7. Bekal.
 8. Chittari.
 9. Kavvayi.
 10. Peruvamba.
 11. Ramapuram.
 12. Kallayi.
 13. Purappamba.
 14. Tirur.
 15. Chalakudy.
- Irrigation Scheme.
 - Hydro-Electric Scheme.
 - District Boundary
 - Lake & Canal
 - (U.C.) - Under Construction

GOVERNMENT OF KERALA

DEPARTMENT OF STATISTICS.

KERALA STATE

MANUFACTURING INDUSTRIES
(Number of Factories & Employment)
(1957)



REFERENCE

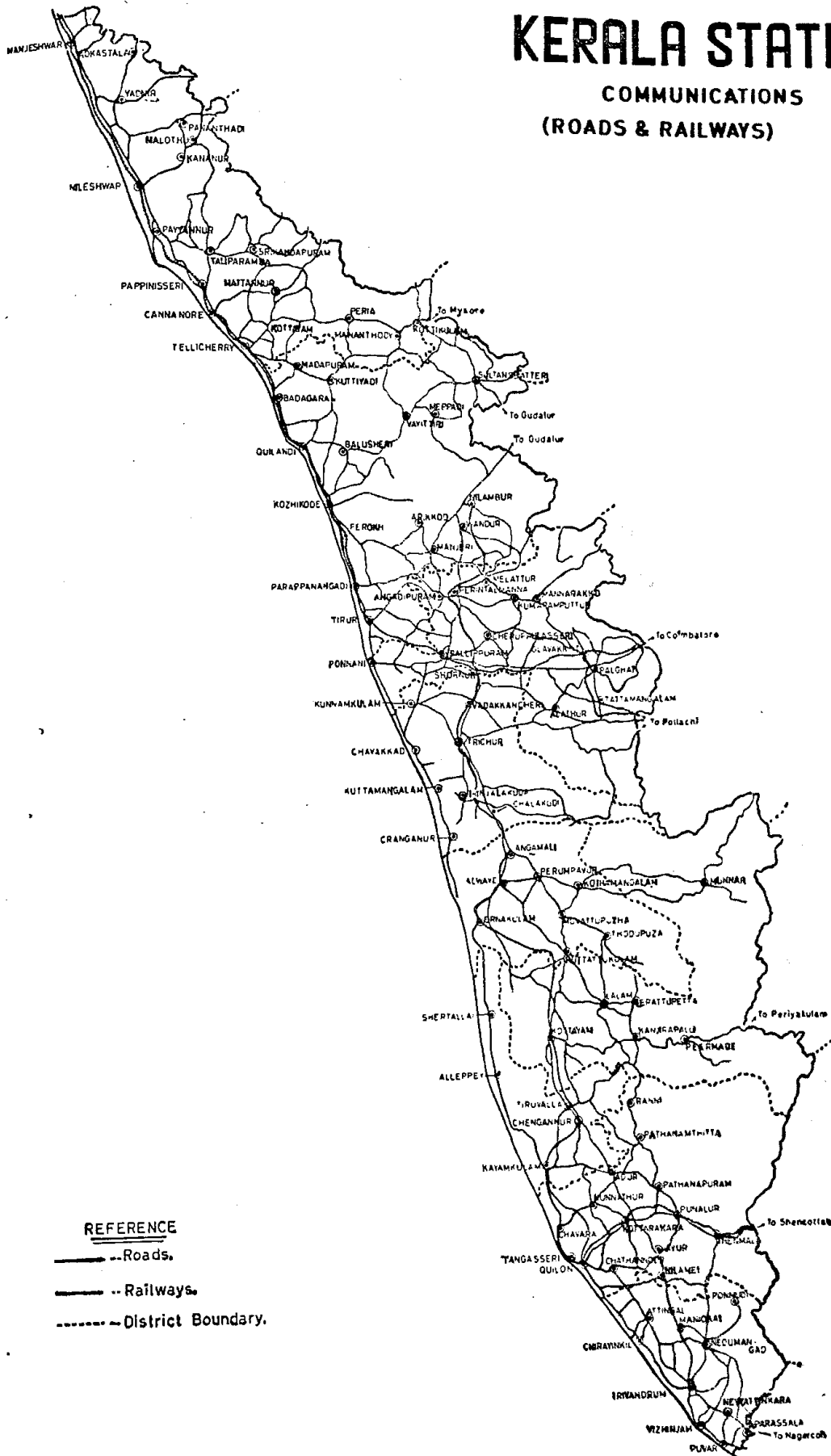
... 25 Factories.

... 5000 Workers

(Figures near the symbols denote actual numbers.)
(Figures are provisional)

KERALA STATE

COMMUNICATIONS (ROADS & RAILWAYS)



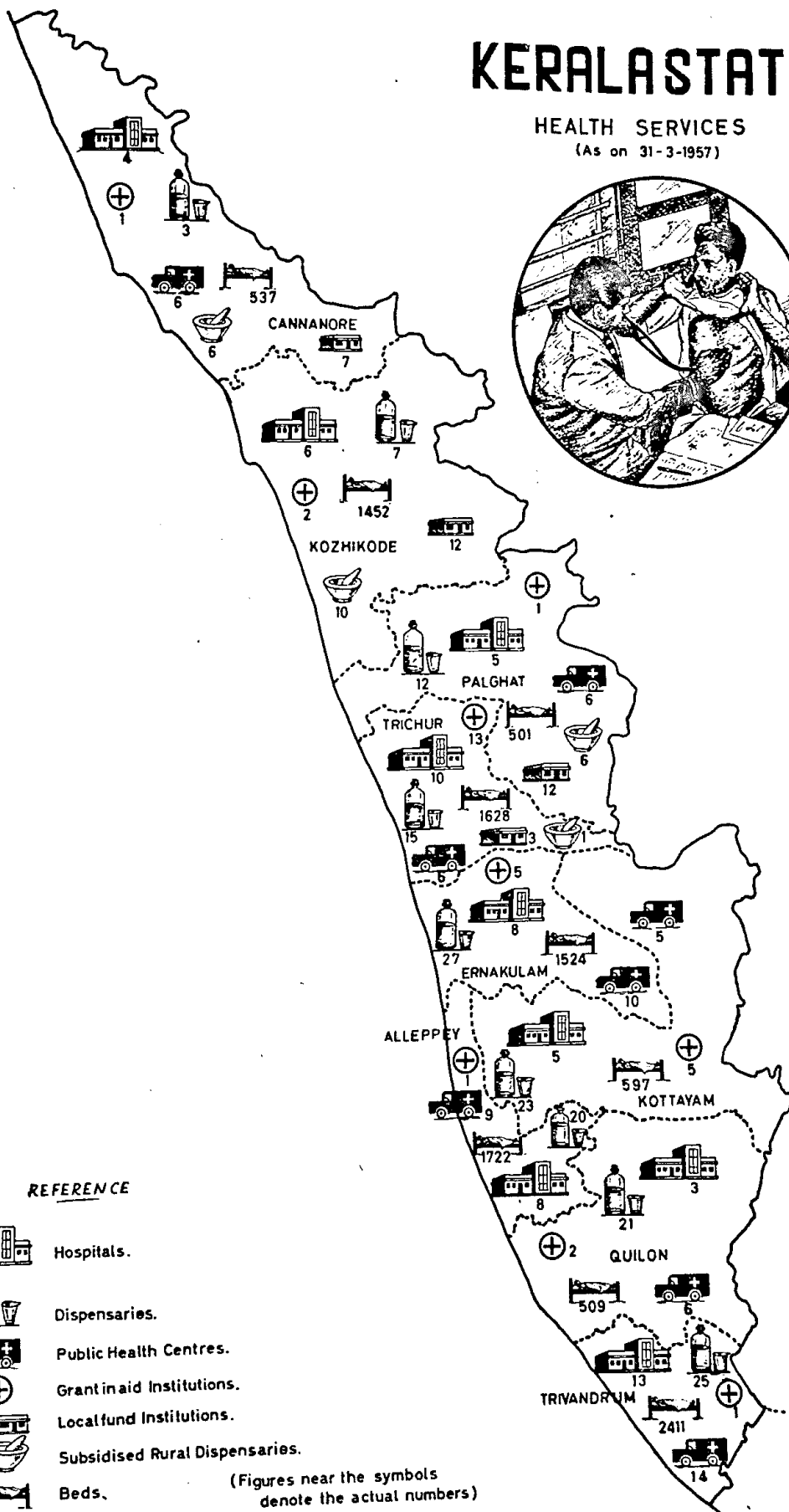
GOVERNMENT OF KERALA

DEPARTMENT OF STATISTICS

BLOCK ANTOINE'S

KERALASTATE

HEALTH SERVICES
(As on 31-3-1957)



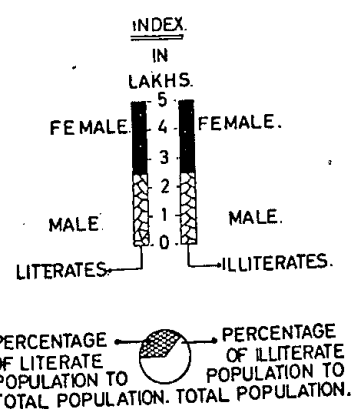
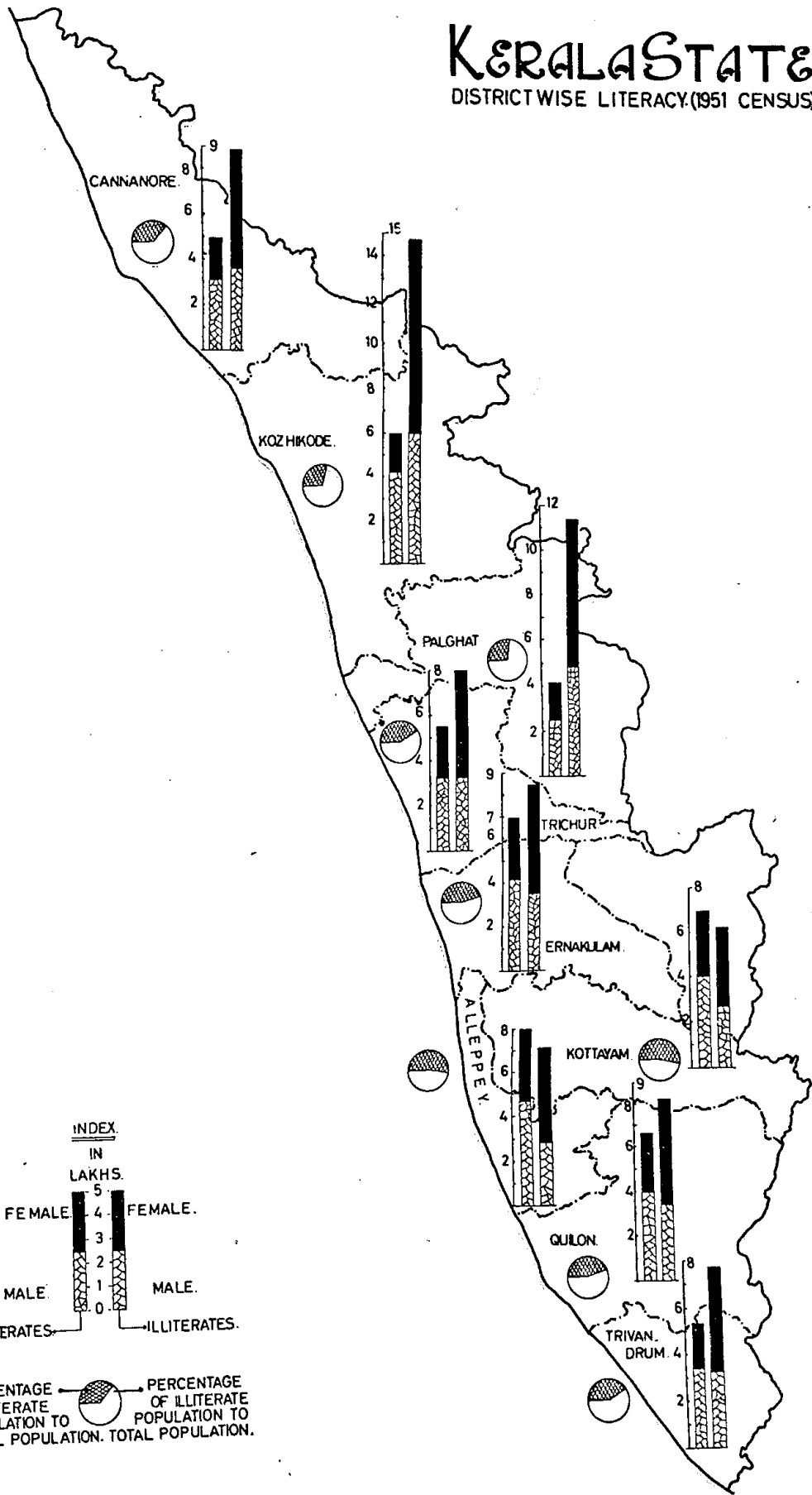
REFERENCE

- Hospitals.
- Dispensaries.
- Public Health Centres.
- Grant in aid Institutions.
- Local fund Institutions.
- Subsidised Rural Dispensaries.
- Beds.

(Figures near the symbols denote the actual numbers)

KERALA STATE

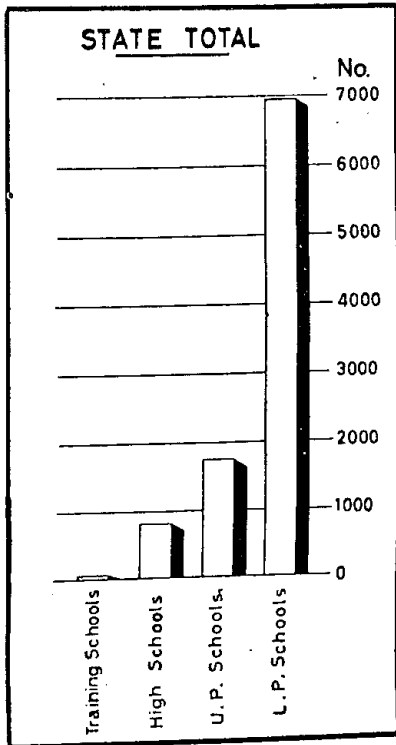
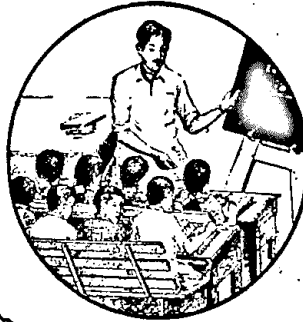
DISTRICT WISE LITERACY (1951 CENSUS)



KERALA STATE

EDUCATIONAL INSTITUTIONS (AS ON 1-2-58)

Lower primary, Upper primary, High Schools
And Training Schools



...Lower Primary Schools.

...Upper Primary Schools.

...High Schools.

...Training Schools.

(Figures near the symbols denote the actual numbers.)

ALLEPPEY

KOTTAYAM

ERNAKULAM

PALGHAT

KOZHIKODE

CANNANORE

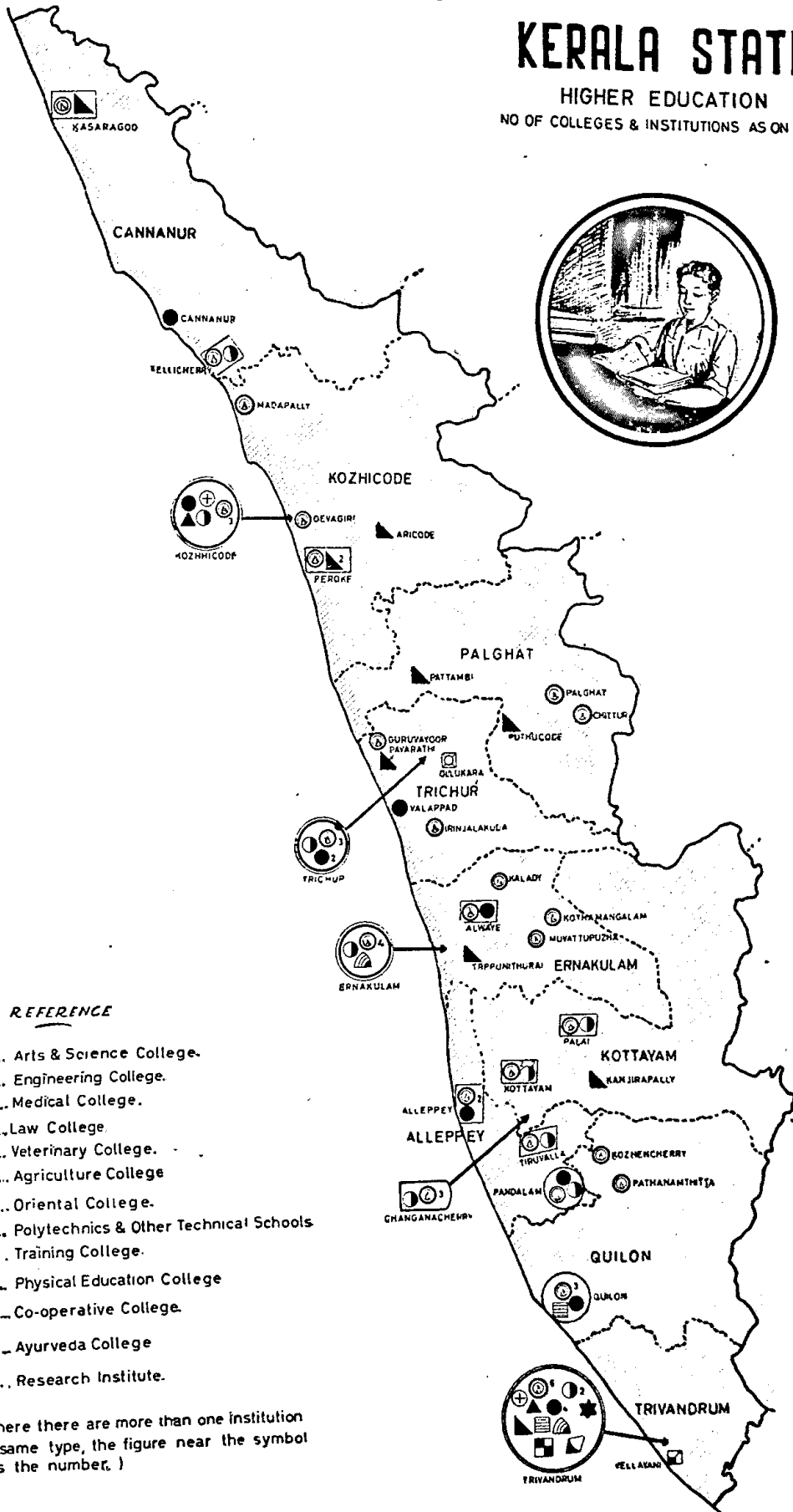
QUILON

TRIVANDRUM

KERALA STATE

HIGHER EDUCATION

NO OF COLLEGES & INSTITUTIONS AS ON 31-3-58

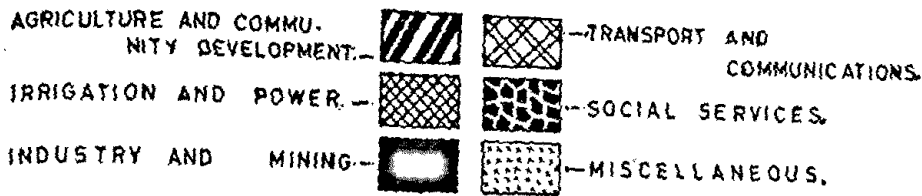


DEPARTMENT OF STATISTICS

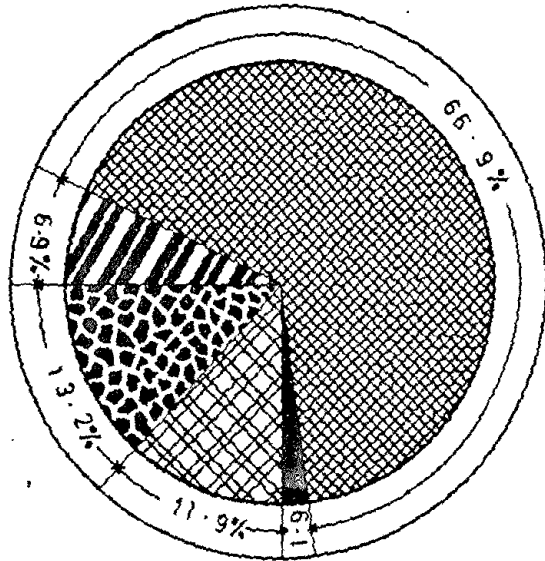
BLUCK ANTONY'S

PLANNING STATISTICS

OUTLAY UNDER THE FIRST & SECOND FIVE YEAR PLANS

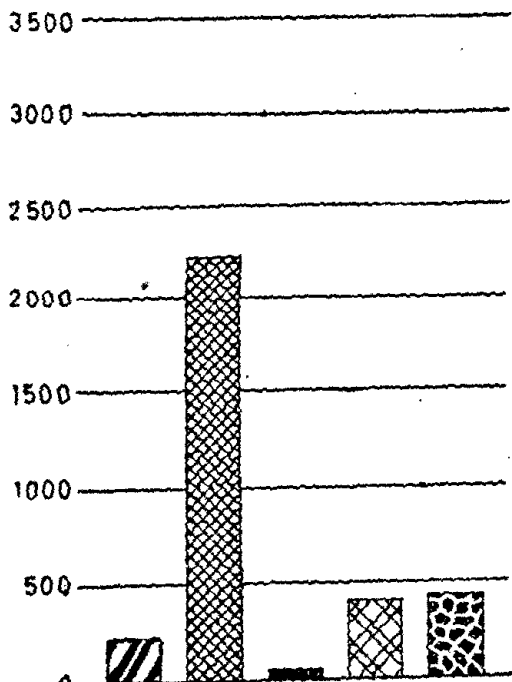


**FIRST PLAN
(ACTUAL OUTLAY)
1951-56**



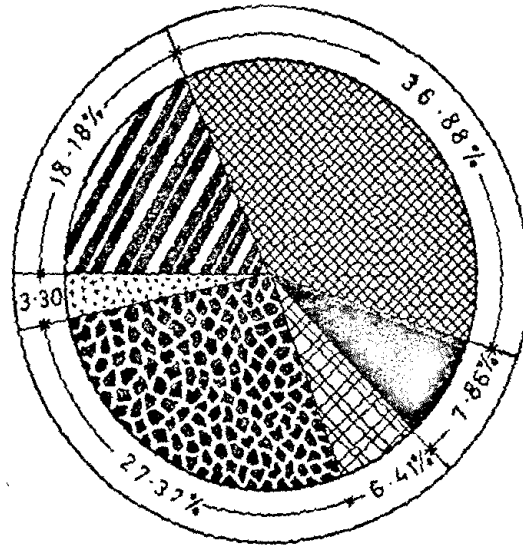
RS. IN LAKHS

RS. 3372.30 LAKHS



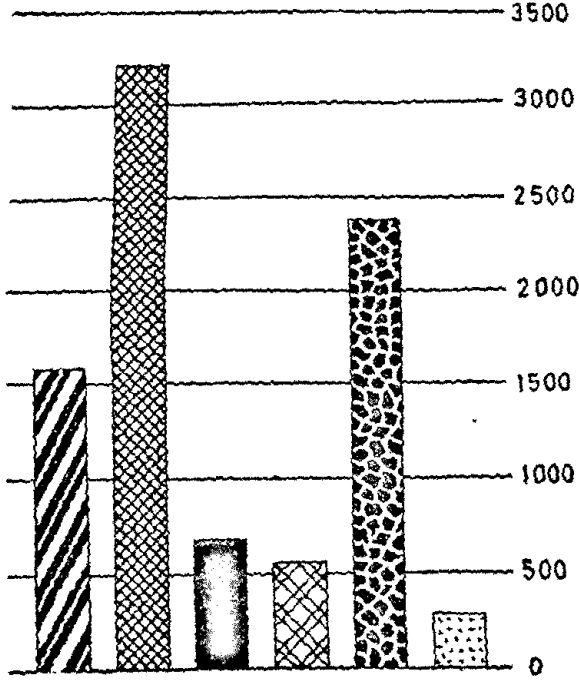
FIRST PLAN

**SECOND PLAN
(PLAN OUTLAY)
1956-61**



RS. 8700.71 LAKHS

RS. IN LAKHS.

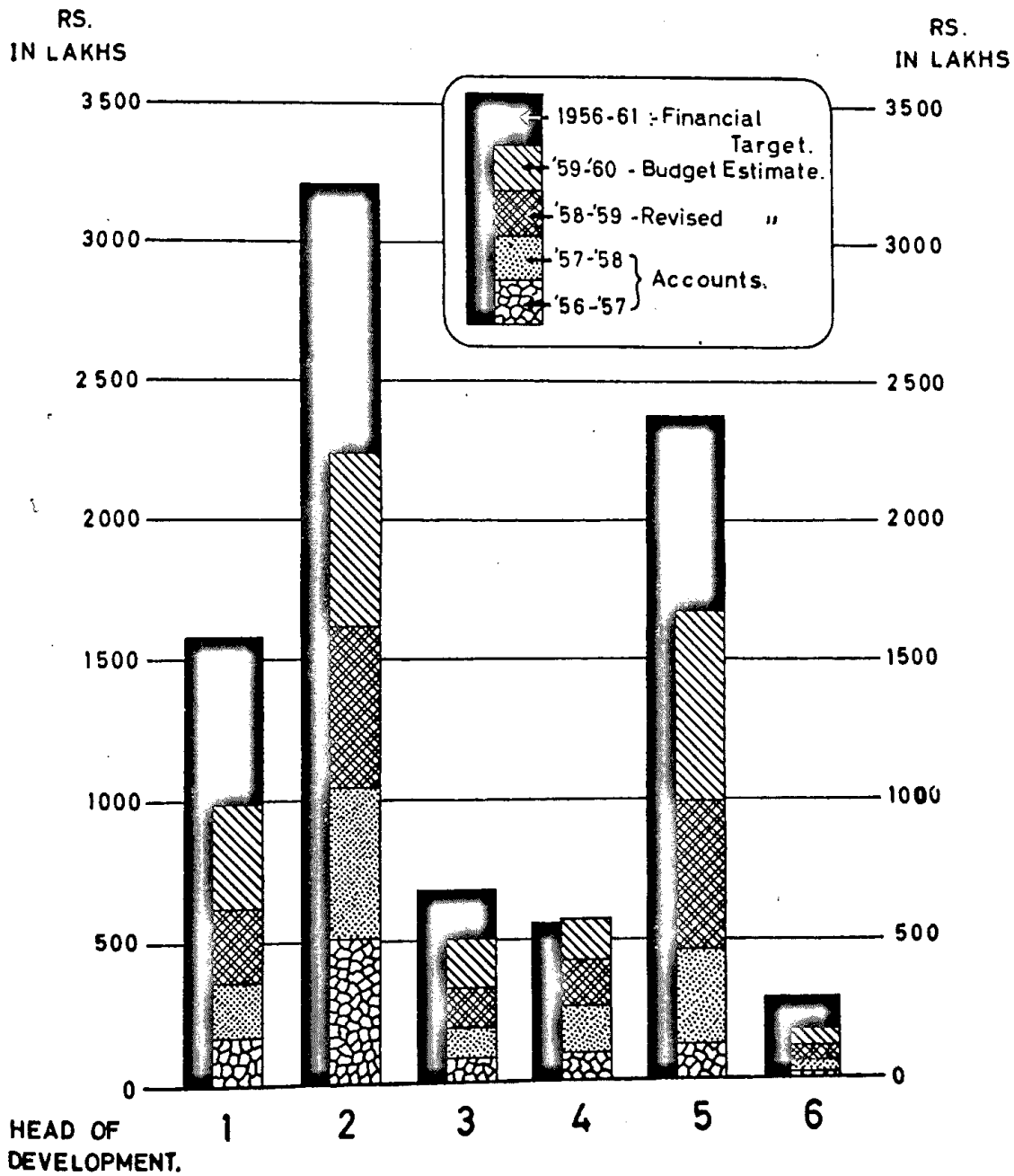


SECOND PLAN

PLANNING STATISTICS

SECOND FIVE YEAR PLAN - PROGRESS OF EXPENDITURE

- 1 - AGRICULTURE AND COMMUNITY DEVELOPMENT.
- 2 - IRRIGATION AND POWER. 3 - INDUSTRY AND MINING.
- 4 - TRANSPORT AND COMMUNICATIONS.
- 5 - SOCIAL SERVICES. 6 - MISCELLANEOUS.



GOVERNMENT OF KERALA · DEPARTMENT OF STATISTICS.

Kerala at a Glance

General:

Location	North latitudes: 8°-18' & 12°-48'
	East longitudes: 74°-52' & 77°-22'
Area	14992 Sq. miles
Length of coastal line	360 Miles
Highest Peak	Anamudi (8837 ft.)
Number of rivers 44
Number of Districts	(1960) 9
Number of Taluks	(1960) 55
Number of Revenue Villages	(1960) 1635
Number of Census Villages	(1951) 4615
Number of Panchayats	(1960) 892
Number of Municipal Towns	(1960) 29
No. of Non-Municipal Towns	(1960) 66
Number of M. L. As	127
Elected	126
Nominated	1
Number of M. Ps	27
Loka Sabha	18
Rajya Sabha	9
Per Capita income	(1957-58) Rs. 244/-

Population:

A. No. of persons (1951 Census)	135.5 lakhs
Males	66.8 ,, (49.3%)
Females	68.7 ,, (50.7%)
B. Rural population	117.2 ,, (86.5%)
Urban Population	18.3 ,, (13.5%)
C. Agricultural population	72.7 ,, (53.6%)
Non-Agrl: population	62.8 ,, (46.4%)
D. Literates	54.9 ,, (40.5%)
Illiterates	80.6 ,, (59.5%)
E. Hindus	83.5 ,, (61.6%)
Christians	28.3 ,, (20.9%)
Muslims	23.7 ,, (17.5%)
F. Scheduled Castes	12.5 ,, (9.3%)
Scheduled Tribes	0.7 ,,
Density of population,	904 persons per Sq. mile

Agricultural:

Area under Forests	(1956-57) 2458 ('000Acres)
Net area sown	(1956-57) 4525 ,,
Total cropped area	(1956-57) 5382 ,,
Area under food crops	(1956-57) 3660 ,,
Area under non-food crops	(1956-57) 1722 ,,
Per capita cropped area	(1956-57) 40.2 Cents
Value of	
Agricultural production	('57-58) Rs. 207 crores
Livestock population	(1956-Census) 41.7 lakhs
Poultry	(,,) 68.0 lakhs

Power:

Annual Consumption of Electricity	
in the State	(1958-59) 4250 lakhs k.w.Hs.
No. of Towns & Villages	
Electrified in the State	(1958-59) 1579

Banks & Joint Stock Companies:

No. of Commercial	
Banks-Scheduled	(1959) 5
Non-Scheduled (,,)	103
No. of Joint Stock companies (31-3-58)	1212
No. of Co-operative Societies (1958-59)	4323

Community Development:

Number of N.E.S. Blocks	(31-3-58) 87
Area covered (,,)	6934.69 Sq. miles
Population Covered(,,)	77.70 lakhs (1951 Census)

Industrial:

Number of Registered	
Factories (1958)	2138
Number of workers in	
Registered factories	(Estimated) (1958) 165790

Transport & Communications:

Road mileage (Motorable) (1956-57)	9200 Miles
Number of Motor Vehicles (1958-59)	19345
Number of Post Offices (,,)	2496
Number of Telegraph	
Offices (,,)	298
Number of Posts & Harbours	11

Medical

Number of Medical	
Institutions as on (31-3-59)	382
Government Hospitals ,, (,,)	66
Government Dispensaries ,, (,,)	188
Public Health Centres ,, (,,)	77
Others ,, (,,)	51
NUMBER OF BEDS:	
Government Hospitals ,, (,,)	9484
Government Dispensaries ,, (,,)	905
Public Health Centres ,, (,,)	938
Others ,, (,,)	1025

Educational:

Number of Schools (1957-58)	10315
Number of school students (,,)	28.5 lakhs
Number of Colleges:	
i) General (,,)	44
ii) Professional (,,)	22
iii) Special (,,)	1
Number of College Students (,,)	34000

State Finance:

Revenue Receipts	
(1960-61 Budget Estimates)	Rs. 4370.92 lakhs
Expenditure on	
Revenue Accounts (,,)	Rs. 4595.50 ,,
Deficit (,,)	Rs. 224.58 ,,

Printing & Publication

No. of printing presses (1957-58)	543
No. of Newspapers &	
Periodicals (,,)	212

Note:— The data given above are those for the latest available year. They may differ from the figures given in the introductory note in cases where the reference periods are different.