



GOVERNMENT OF KERALA

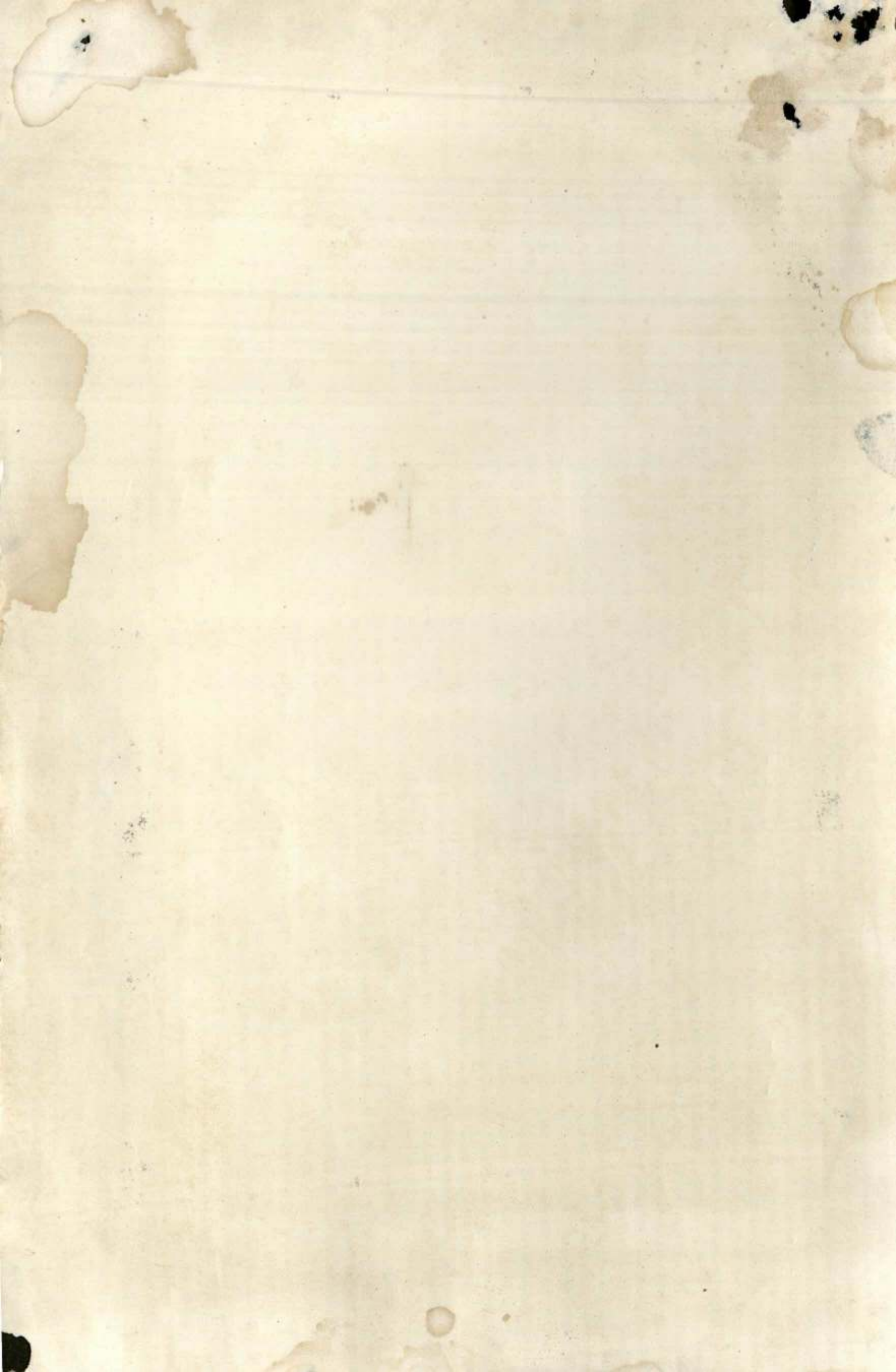
# Kerala in maps

1978



BUREAU OF ECONOMICS AND STATISTICS  
TRIVANDRUM





# KERALA IN MAPS



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**GOVERNMENT OF KERALA**  
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September 1978

KERALA IN MAPS



Bureau of Economics and Statistics  
Government of Kerala  
Trivandrum

THE BUREAU OF ECONOMICS AND STATISTICS  
GOVERNMENT OF KERALA

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## P R E F A C E

This publication of the Bureau is aimed at a picture-sque presentation of the important economic aspects related to Kerala. The data presented in the maps are mostly related to the year 1976. The narrative part is incorporated with a view to providing detailed understanding of the economy of Kerala.

Bureau of Economics and Statistics,  
Trivandrum,  
September 6, 1978.

DR. P. A. NAIR,  
*Director.*



PLATE

The illustration to the present is the same as the one in the preceding page, but the figures are arranged in a different order.

The figures are arranged in a different order.



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## INTRODUCTORY NOTE

### I. General

With the enactment of the States Reorganisation Act of 1956, Kerala State came into existence on 1st of November, 1956. The State consists of the erstwhile Travancore Cochin State (excluding the Taluks of Thovala, Agastheeswaram, Kalkulam, Vilavancode and major portion of Schencotta), the Malabar District of the former Madras State and the Kasargode Taluk of the South Canara District of the former Mysore State. The State lies at the southern tip of the Indian Peninsula 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 and is bounded on the eastern side by the western ghats which form a continuous barrier except the Palghat gap towards the middle and flanked on the western side by the Arabian Sea. The breadth of the State varies from 30 km. in the extreme north and south to about 130 km. in the middle. The State has a coastal line of about 580 km. from south to north. The area of the State is 38,864 sq. km.

For the purpose of administration, the State is divided into 11 Revenue Districts viz., Trivandrum, Quilon, Alleppey, Kottayam, Idikki, Ernakulam, Trichur, Palghat, Malappuram, Kozhikode and Cannanore.

Trivandrum is the capital of Kerala State. Besides its importance as the capital of the State, it has always been an important centre of education. The seat of the Kerala University is at Trivandrum. In the city and its suburbs there are a number of institutions of higher education. Kovalam, an international tourist centre is only 14 km. away from the city and similarly the Neyyar Dam—another tourist resort—is only at a distance of 29 km. The city is connected by air and rail services.

### II. Physical Characteristics

Topographically the State can be divided into three natural regions, viz., the lowland, the midland and the highland. These regions form parallel belts running across the length of the State. The highland region lies on the eastern boundary comprising the high ranges of the western ghats and the lowland is a narrow strip along the seacoast. The midland lies in between these two regions.

In the lowland area the rainfall ranges from 900 mms. in the south to 3,500 mms. in

the north. The soil in the area is mainly sandy loam which is suited for paddy and coconut cultivation. There are numerous lagoons and backwaters in this area receiving drainage of several rivers. The large number of backwaters along the coast are interconnected by a net work of canals affording cheap water communication from Trivandrum in the south to Tirur in the north (nearly 354 km.). Paddy and coconut are the important crops grown in this area.

The midland region consists of land of varying elevation full of hills and valleys. The rainfall ranges from 1,400 mms. in the south to about 4,000 mms. in the north. The soil in the area is loamy and gravelly. The main crops cultivated in the region are coconut, paddy, tapioca, pepper, sugarcane and ginger.

Most of the reserve forests of the State are in the highland region. The annual rainfall ranges from 2,500 mms. in the south to about 5,000 mms. in the north. In this region the means of communication are comparatively poor and the soil is mainly laterite combined with humus. The main crops cultivated are plantation crops like tea, coffee, rubber and cardamom. Considerable income from forest products like rosewood, teakwood, hard and softwood is obtained from the region. The important peaks in the western ghats are Anamudi (2,690 metres), Mukunti (2,550 mts.) and Nilgiris (2,470 mts.).

Kerala has a good number of rivers originating from the ghats and flowing into the sea. Of the 44 rivers in the State 41 are flowing west and the remaining 3 are flowing east. The east flowing rivers are tributaries of the Cavery River. Among the west flowing rivers Bharathapuzha is the longest with a length of 250 km. The other important rivers are Periyar, Manimala, Pamba, Achancoil and Muvattupuzha. The rivers which flow west after traversing the high mountainous regions descend rapidly to the midland and are mostly rich in hydel power potential. The average length of the rivers is 64 km.

### III. Area and population

The area of Kerala is 38,864 sq. km. which is 1.18 per cent of the area of the Indian Union. The population of Kerala has been



growing rapidly in recent years. During the 40 year period from 1901 to 1941, the population of the State almost doubled from 63.96 lakhs to 110.30 lakhs and it almost doubled again in the next 30 years reaching 213.47 lakhs in 1971. The decendent variation in population is presented in Table 3.1. The districtwise area and population of the State are given in Table 3.2.

**Table 3-1**

**VARIATION OF POPULATION**

1901	..	6,396,262
1911	..	7,147,673
1921	..	7,802,127
1931	..	9,507,050
1941	..	11,031,541
1951	..	13,549,118
1961	..	16,903,715
1971	..	21,347,375
1976	..	23,737,000

**Table-3-2**

**AREA, POPULATION AND DENSITY OF POPULATION**

Sl. No.	District/State	Area Sq. km. (1971)	Population (1971) in lakhs	Density (1971) Per sq. km.
1.	Trivandrum	2,192	21.99	1,003
2.	Quilon	4,623	24.13	522
3.	Alleppey	1,884	21.26	1,128
4.	Kottayam	2,196	15.39	701
5.	Idikki	5,087	7.65	150
6.	Ernakulam	2,377	21.64	910
7.	Trichur	3,032	21.29	702
8.	Palghat	4,400	16.85	383
9.	Malappuram	3,638	18.56	510
10.	Kozhikode	3,729	21.06	565
11.	Cannanore	5,706	23.65	415
	STATE	38,864	213.47	549

Areawise, Cannanore District ranks first and Alleppey District last. The density of population is highest in Alleppey District followed by Trivandrum District and lowest density is in Idikki District.

The distribution of taluks, villages and towns as well as number of panchayats, munici-

palities, corporations and townships in the various districts of the State are presented in Table 3.3 and 3.4

**Table 3-3**

**DISTRICTWISE DISTRIBUTION OF TALUKS, VILLAGES, TOWNS, ETC. (1976)**

Sl. No.	District/State	No. of Taluks	No. of Revenue Villages	No. of Census Villages	No. of Towns
1.	Trivandrum	4	92	493	10
2.	Quilon	6	100	790	4
3.	Alleppey	7	99	613	8
4.	Kottayam	5	74	379	8
5.	Idikki	4	42	258	2
6.	Ernakulam	7	101	660	11
7.	Trichur	5	249	903	9
8.	Palghat	5	144	472	8
9.	Malappuram	4	122	588	5
10.	Kozhikode	4	123	567	10
11.	Cannanore	6	188	652	13
	STATE	57	1,334	6,375	88

**Table 3-4**

**DISTRICTWISE DISTRIBUTION OF PANCHAYATS AND MUNICIPALITIES—1976**

District	No. of Panchayats	No. of Municipalities	No. of Corporations	No. of Townships
Trivandrum	82	2	1	..
Quilon	99	2	..	..
Alleppey	96	5	..	..
Kottayam	71	4	..	..
Idikki	50	..	..	..
Ernakulam	86	4	1	..
Trichur	94	4	..	1
Palghat	89	2	..	..
Malappuram	91	2	..	..
Kozhikode	90	1	1	..
Cannanore	124	3	..	..
TOTAL	972	29	3	1

The male and female population and sex ratio in the different districts of the State according to 1961 and 1971 Census is furnished in Table 3.5 and 3.6.

**Table 3-5**

**POPULATION BY SEX 1971**

Name of District	Male		Female		Total	
	1961	1971	1961	1971	1961	1971
Trivandrum	869,884	1,095,176	874,747	1,103,430	1,744,531	2,198,606
Quilon	972,657	1,205,720	968,571	1,207,101	1,941,228	2,412,821
Alleppey	893,435	1,048,032	917,817	1,077,640	1,811,252	2,125,722
Kottayam	882,580	773,182	850,300	765,848	1,732,880	1,539,030
Idikki	..	395,297	..	370,311	..	765,608
Ernakulam	931,248	1,088,432	928,665	1,075,242	1,859,913	2,163,674
Trichur	784,736	1,022,774	855,126	1,106,023	1,639,862	2,128,797
Palghat	851,746	819,571	924,820	865,771	1,776,566	1,685,342
Malappuram	..	909,515	..	946,847	..	1,856,362
Kozhikode	1,300,974	1,057,764	1,316,215	1,018,485	2,617,189	2,106,249
Cannanore	874,667	1,172,338	905,627	1,192,826	1,780,294	2,365,164
KERALA STATE	8,361,927	1,058,785	8,541,788	10,759,524	16,903,715	21,347,375

The districts of Idikki and Malappuram were carved out from Kottayam, Ernakulam, Palghat and Kozhikode Districts after the 1961 Census.

**Table 3-6**

**SEX RATIO (FEMALES PER 1000 MALES) IN DIFFERENT DISTRICTS**

Sl. No.	District	Sex ratio	
		1961	1971
(1)	(2)	(3)	(4)
1.	Trivandrum	1,005	1,007
2.	Quilon	996	1,001
3.	Alleppey	1,027	1,028
4.	Kottayam	988	991
5.	Idikki	966	937
6.	Ernakulam	999	988
7.	Trichur	1,093	1,081
8.	Palghat	1,077	1,056
9.	Malappuram	1,037	1,041
10.	Kozhikode	992	991
11.	Cannanore	1,035	1,017
	STATE	1,022	1,016

A peculiar feature of the sex composition of the State is that in all the census periods from 1901 to 1971, females outnumbered males, while opposite is the case with most of the other Indian States. The sex ratio of the State during 1961 and 1971 was 1,022 and 1,016 respectively as against 941 and 930 respectively for India as a whole. Trichur District maintained the highest sex ratio with 1,081 females per 1,000 males and Idikki District has the lowest sex ratio with 937 during 1971.



Another demographic feature, which needs to be looked into, is the population belonging

to Scheduled Castes and Scheduled Tribes. The figures for 1971 are given in Table 3.7.

**Table 3.7**  
POPULATION OF SCHEDULED CASTES AND SCHEDULED TRIBES (1971 CENSUS)

District (1)	Scheduled castes			Scheduled tribes		
	Persons (2)	Male (3)	Female (4)	Persons (5)	Male (6)	Female (7)
Trivandrum	213,741	105,111	108,630	11,059	5,523	5,536
Quilon	280,632	139,707	140,925	3,737	1,901	1,836
Alleppey	200,770	100,074	100,696	435	221	214
Kottayam	94,528	47,566	46,962	11,059	5,640	5,419
Idikki	97,819	49,723	48,096	23,181	11,846	11,335
Ernakulam	182,775	91,403	91,372	580	361	219
Trichur	216,237	106,436	109,801	9,363	4,604	4,779
Palghat	210,765	103,784	106,981	25,594	12,870	12,724
Malappuram	140,826	69,254	71,572	8,882	4,382	4,500
Kozhikode	76,338	38,447	37,891	84,982	42,579	42,403
Cannanore	57,737	29,421	28,316	90,464	45,069	45,395
<b>KERALA</b>	<b>1,772,168</b>	<b>880,926</b>	<b>891,242</b>	<b>269,356</b>	<b>134,996</b>	<b>134,360</b>

Source: Director of Census Operations, Kerala.

A comparative statement showing the area, population, density, sex ratio, etc., of Kerala

and the other Indian States is furnished in Table 3.8.

**Table 3.8**  
AREA, POPULATION, DENSITY, SEX RATIO, ETC., OF DIFFERENT STATES IN INDIA, 1971

Sl. No.	State	Area Sq. km.	Percentage of area	Population in lakhs	Percentage of Popu- lation	Density per Sq. km.	Sex ratio	Rank in area	Rank in Population
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Uttar Pradesh	294,413	8.97	883.41	16.12	300	879	4	1
2.	Bihar	173,876	5.30	563.53	10.28	324	954	9	2
3.	Maharashtra	307,762	9.38	504.12	9.20	164	930	3	3
4.	West Bengal	87,853	2.68	443.12	8.09	504	891	12	4
5.	Andhra Pradesh	276,814	8.44	435.03	7.94	157	977	5	5
6.	Madhya Pradesh	442,841	13.50	416.54	7.60	94	941	1	6
7.	Tamil Nadu	130,069	3.96	411.99	7.52	317	978	11	7
8.	Karnataka	191,773	5.85	292.99	5.35	153	957	8	8
9.	Gujarat	195,984	5.97	266.97	4.87	136	934	7	9
10.	Rajasthan	342,214	10.43	257.66	4.70	75	911	2	10
11.	Orissa	155,782	4.75	219.45	4.00	141	988	10	11
12.	Kerala	38,864	1.18	213.47	3.90	549	1,016	17	12
13.	Assam	78,523	2.40	146.25	2.67	186	897	13	13
14.	Punjab	50,362	1.54	135.51	2.47	269	865	15	14
15.	Haryana	44,222	1.35	100.37	1.83	227	867	16	15
16.	Jammu and Kashmir	222,236	6.77	46.17	0.84	21	878	6	16
17.	Himachal Pradesh	56,673	1.70	34.60	0.63	62	958	14	17
18.	Tripura	10,477	0.32	15.56	0.28	149	943	21	18
19.	Manipur	21,356	0.68	10.73	0.20	48	980	19	19
20.	Meghalaya	22,489	0.69	10.12	0.18	45	942	18	20
21.	Nagaland	16,527	0.50	5.16	0.09	31	871	20	21
22.	Union Territories	119,373	3.64	63.42	1.24	56	..	..	..
	<b>INDIA</b>	<b>3,280,483</b>	<b>100.00</b>	<b>5,479.50</b>	<b>100.00</b>	<b>167</b>	<b>930</b>	<b>..</b>	<b>..</b>

Though the area of the State is only 1.18 per cent of the Indian Union, its population forms 3.90 per cent of the Indian population according to 1971 census. The high growth rate of population has its impact on the density of population. The pressure of population is highest in Kerala when compared to the other States of the Indian Union. The density of population of the State is 549 per sq. km. (1971 census) as against 167 for India as a whole.

#### IV. Workers and non-workers

While about 70 per cent of the workers in the Indian Union are cultivators and agricultural labourers; in Kerala only less than 50 per cent of the workers come under this category. The industrywise distribution of working population in India and Kerala is given in Table 4.1.

**Table 4.1**  
CLASSIFICATION OF WORKERS ACCORDING TO INDUSTRY 1971

Sl. No.	Industry	Kerala		India	
		No. of workers (in lakhs)	Per-centage	No. of workers (in lakhs)	Per-centage
(1)	(2)	(3)	(4)	(5)	(6)
1.	Cultivators	11.1	17.8	781.8	43.3
2.	Agricultural labourers	19.1	30.7	474.8	26.3
3.	Livestock, forestry fishing, hunting and plantation and allied activities	4.3	7.0	43.0	2.5
4.	Mining and quarrying	0.3	0.5	9.2	0.5
5.	Manufacturing, processing servicing and repairs, etc.				
	(a) Household industry	2.7	4.3	63.5	3.5
	(b) Other than household industry	7.1	11.4	107.2	5.9
6.	Construction	1.1	1.7	22.2	1.2
7.	Trade and Commerce	5.7	9.1	100.4	5.6
8.	Transport, Storage and Communications	2.4	3.9	44.0	2.4
9.	Other services	8.4	13.6	157.6	8.8
	<b>TOTAL</b>	<b>62.2</b>	<b>100.00</b>	<b>1803.7</b>	<b>100.00</b>



It is seen that industrial sector provides jobs for 15.7 per cent of the workers in Kerala as against 9.4 per cent for the country as a whole. But the share of the industrial sector to the State income is very low since a good

majority of the industries in the State are traditional industries characterised by low productivity and low wages.

The distribution of workers in the different districts of the State is presented in Table 4.2.

**Table 4.2**  
DISTRIBUTION OF WORKERS IN THE DIFFERENT DISTRICTS OF KERALA—1961 AND 1971 (POPULATION IN LAKHS)

Sl. No.	District	Workers	1961	Workers	1971
			Percentage of workers to total population		Percentage of workers to total population
(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	5.41	31.06	6.28	28.58
2.	Quilon	6.31	32.51	6.90	28.61
3.	Alleppey	6.10	33.72	5.98	28.15
4.	Kottayam	3.87	29.32	4.21	27.33
5.	Idikki	2.31	39.09	2.65	34.62
6.	Ernakulam	5.65	33.56	6.21	28.71
7.	Trichur	5.59	33.11	6.03	28.35
8.	Palghat	5.50	40.47	6.05	35.89
9.	Malappuram	4.47	31.56	5.03	27.08
10.	Kozhikode	4.79	30.49	5.67	26.92
11.	Cannanore	6.30	35.37	7.15	30.21
	STATE	56.30	33.31	62.16	29.12

The participation rate of workers in Kerala during 1971 is 29.12 per cent as against 33.31 per cent in 1961. Out of the total number of workers 15.04 per cent is in the urban area in 1971 as against 13.4 per cent in 1961.

The percentage distribution of population in different industrial categories and the percentage of non-workers in the different districts of the State is given in Table 4.3.

**Table 4.3**  
PERCENTAGE OF TOTAL POPULATION IN VARIOUS INDUSTRIAL CATEGORIES (DISTRICTWISE) (1971 CENSUS)

Industrial category	Trivandrum	Quilon	Alleppey	Kottayam	Idikki	Ernakulam	Trichur	Palghat	Malappuram	Kozhikode	Cannanore	State
	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1. Cultivators	4.02	7.69	4.51	6.74	8.85	3.69	3.87	5.65	5.10	3.92	5.53	5.19
2. Agricultural labourers	8.53	5.95	8.65	7.63	7.78	6.30	9.31	17.38	10.59	7.09	10.25	8.94
3. Livestock, forestry fishing, plantation orchards and allied activities	1.54	1.70	1.52	2.01	10.72	1.57	1.41	1.29	1.62	2.89	1.60	2.04
4. Mining and Quarrying	0.13	0.10	0.06	0.11	0.05	0.20	0.20	0.10	0.14	0.16	0.21	0.14
5. (a) Household industry	1.51	1.08	1.96	0.86	0.32	1.19	1.66	1.53	0.84	0.88	1.18	1.25
(b) Other than Household industry	3.40	5.16	2.91	2.13	1.28	4.83	3.66	2.52	1.86	2.82	3.77	3.34
6. Construction	0.46	0.37	0.44	0.49	1.06	0.87	0.46	0.49	0.36	0.47	0.43	0.50
7. Trade and commerce	2.39	2.13	2.73	2.39	1.44	3.12	2.87	2.50	2.36	3.35	3.00	2.65
8. Transport, storage and Communication	1.06	0.85	1.13	0.93	0.41	2.08	1.14	0.99	0.93	1.54	0.90	1.13
9. Other services	5.54	3.58	4.26	3.99	2.71	4.86	3.77	3.44	3.23	3.79	3.34	3.95
10. Non-workers	71.42	71.39	71.83	72.67	65.33	71.29	71.65	64.11	62.92	73.09	69.79	70.87
TOTAL	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

According to 1961 census 8.49 per cent of the total population of Kerala belonged to Scheduled Castes. In 1971 the percentage of Scheduled Castes to the total population was 8.30 per cent. It is seen that 1.26 per cent of the total number of persons in the State are

Scheduled Tribes according to 1961 and 1971 Population Census Reports. Idikki District has the highest percentage of Scheduled Castes population to the total population in the District. In absolute numbers Quilon District has the maximum



number of Scheduled Castes population when compared to the other districts of Kerala.

With regard to religion it is seen that 59.41 per cent of the total population are Hindus, 21.05 per cent Christians, 19.50 per cent Muslims and the rest (0.04 per cent) belong to other religions.

## V. Urbanisation

According to 1971 Census 16.24 per cent of the total population of the State are living in urban areas. In the 1971 Census all places which have a minimum of 5,000 population of which about 75 per cent of the male working population is non-agricultural and having a density of population above 400 per sq. km. are classified as urban areas.

As per 1971 Census there are 88 towns (including non-municipal towns) in Kerala. These towns include 3 corporations, 29 municipalities and one township. The three corporations are Trivandrum, Cochin and Calicut.

The districtwise break up of population and the percentage of urban population in the State are given in Table 5.1.

Table 5.1

DISTRICT-WISE DISTRIBUTION OF RURAL AND URBAN POPULATION 1971

Sl. No.	District	Population (in lakhs)			Percentage of urban population
		Total	Rural	Urban	
(1)	(2)	(3)	(4)	(5)	(6)
1.	Trivandrum	21.99	16.27	5.72	26.00
2.	Quilon	24.13	22.23	1.90	7.87
3.	Alleppey	21.26	17.66	3.60	16.92
4.	Kottayam	15.39	13.30	2.09	13.56
5.	Idikki	7.65	7.40	0.25	3.30
6.	Ernakulam	21.64	15.28	6.36	29.39
7.	Trichur	21.29	18.79	2.50	11.74
8.	Palghat	16.85	14.71	2.14	12.70
9.	Malappuram	18.56	17.31	1.25	6.73
10.	Kozhikode	21.06	15.45	5.61	26.66
11.	Cannanore	23.65	20.40	3.25	13.74
	STATE	213.47	178.80	34.67	16.24

Ernakulam District has the highest percentage (29.39 per cent) of urban population in 1971 whereas in 1961 Trivandrum District had the highest percentage of urban population. Trivandrum, Alleppey, Ernakulam and Kozhikode Districts have higher percentage of urban population than the State. Idikki District has the lowest percentage of urban population during 1971.

Population of municipalities and corporations during 1961 and 1971 is presented in Table 5.2.

Table 5.2

POPULATION OF MUNICIPALITIES AND CORPORATIONS DURING 1961 AND 1971

Sl. No.	Name of municipalities/Corporations/Townships	Population	
		1961	1971
(1)	(2)	(3)	(4)
1.	Trivandrum (C)	239,815	409,627
2.	Cochin (C)	N. F.	439,056
3.	Calicut (C)	N. F.	333,976
4.	Neyyattinkara	20,268	23,933
5.	Attingal	22,031	27,052
6.	Quilon	91,018	124,203
7.	Punalur	N. F.	38,188
8.	Kayamkulam	44,571	54,102
9.	Mavelikara	18,974	25,648
10.	Thiruvalla	24,242	26,683
11.	Alleppey	138,834	160,166
12.	Shorthalai	31,155	36,752
13.	Changanacherry	42,376	48,545
14.	Kottayam	52,685	59,714
15.	Palai	15,457	20,273
16.	Vaikom	17,418	20,014
17.	Muvattupuzha	22,500	22,137
18.	Perumbavoor	16,147	20,888
19.	Parur	20,852	24,398
20.	Alwaye	20,863	24,067
21.	Irinjatakuda	22,335	25,405
22.	Chalakudy	N. F.	37,562
23.	Trichur	73,038	76,741
24.	Kunnamkulam	16,268	18,367
25.	Palghat	77,620	95,788
26.	Chittur-Thathamangalam	26,457	28,510
27.	Tirur	N. F.	32,272
28.	Malappuram	N. F.	32,002
29.	Badagara	43,908	53,938
30.	Cannanore	46,101	55,162
31.	Tellicherry	44,763	68,759
32.	Kasaragode	N. F.	34,584
33.	Guruvayur (T)	N. F.	15,863

(N.F. Not Formed)

## VI. Climate and rainfall

The State has a fairly salubrious climate. In the highland region of the State there is bracing cold climate for most part of the year whereas the other regions enjoy a temperate climate. The temperature varies from 69°F to 99°F. The most important rainy season in the State is during the south west monsoon commencing from June and ending in September. The other rainy season is the north east monsoon which generally lasts from October to November. The average annual rainfall in the State is 2,615 mm. In the rainy season, heavy floods occur causing substantial damages to crops grown on either side of the river basins. Usually July is the wettest month and January is the driest month.

The percentage of humidity is very high in the coastal region and it varies from 95 per cent in July-August to 60 per cent in January. There is progressive decline in humidity and temperature from the coastal belts to the western ghats.

## VII. Agriculture

A major portion of the population of Kerala depends on agriculture for their livelihood. More than half of the State income of Kerala is from agriculture and allied sectors.



Agriculture is dependent on soil conditions and climate. Heterogeneity in cultivation and diversity of crops are important features of agriculture in the State. Plantation crops like tea, coffee and rubber are dominant in the highland, while the predominant crops in the lowland are paddy and coconut. The important crops in the midland region are pepper, coconut, arecanut, tapioca, ginger and rubber.

#### (a) Soil

The soil of Kerala can be divided into seven categories, viz., (i) the sandy soil of the coastal belt which is suited for paddy and coconut cultivation, (ii) the laterite soil of the midland region which is suited for the cultivation of pepper, ginger and tapioca, (iii) the hilly and forest soil seen along the eastern side which are suitable for the cultivation of plantation crops like tea, rubber, coffee and cardamom, (iv) the red soil which exists in some parts of Trivandrum District which is suitable for the cultivation of tuber crops, rubber, etc., (v) black soil which occurs as a patch on the eastern side of Palghat District, (vi) the kari or peat soil in Alleppey District which is suited for the cultivation of paddy and (vii) the alluvial soil in the eastern and southern parts of Vempanad lake in Ernakulam, Kottayam and Alleppey Districts.

#### (b) Land utilisation

According to the Surveyor General of India, the area of Kerala is 38,864 sq. km. But as per village papers the geographical area of the State is only 38,855 sq. km. This shows that only 99.28 per cent of the area have been accounted in the village records.

The land use particulars of Kerala in the different districts of the State from 1972-73 to 1975-76 are furnished in Table 7.1 to 7.4.

**Forest:** The percentage of area under forest in the State during 1975-76 is 27.83. It can be seen that 23 per cent of the area of Trivandrum District, 50 per cent area of Quilon District, 51 per cent area of Idikki District, 35 per cent area of Trichur District, 28 per cent area of Malappuram District and

24 per cent area in Kozhikode District are under forest during 1975-76. Idikki District has the largest area under forest and Alleppey District the smallest area.

**Land put to non-agricultural use:** 6.67 per cent of the total geographical area comes under this category during 1975-76. The percentage of area under this category is largest in Alleppey District and lowest in Idikki District.

**Barren and uncultivable land:** The land classified under this category during 1975-76 is 2.02 per cent of the total area of the State. The percentage of area under the items is maximum in Cannanore District and minimum in Alleppey District.

**Permanent pastures and other grazing land:** 0.51 per cent of the total area of the State is classified under this category. The percentage of area under this item is maximum in Cannanore District and minimum in Quilon District.

**Land under miscellaneous tree crops and groves not included in net area sown:** 2.17 per cent of the total area of the State comes under this category during 1975-76. Under this item Cannanore District showed the maximum percentage and Quilon District the minimum.

**Cultivable waste, fallow land other than current fallow, and current fallow:** The area classified under the category of waste land is 2.92 per cent of the total area of the State in 1975-76. Fallow land formed 0.59 per cent of the total area and current fallow 0.9 per cent during 1975-76.

**Net area sown and area sown more than once:** The net area sown during 1975-76 works out to 56.35 per cent of the total area of the State. Kottayam District has the maximum percentage of net area sown to the total area in the District and Idikki District has the least percentage. 20.39 per cent of the area was under cultivation more than once during 1975-76. The percentage of area sown more than once to the total area in the district was maximum in Alleppey District (48.10) followed by Trivandrum District (41.89) and Trichur District (39.69) during 1975-76.

Table 7.1  
CLASSIFICATION OF AREA 1972-73  
(Area in Hectares)

Sl. No.	Category	Trivandrum		Quilon		Alleppey		Kottayam	
		Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Forest	4,3849	20.29	210,651	44.91	513	0.28	6,398	2.97
2.	Land put to non-agricultural use	15,845	7.33	14,983	3.19	12,500	6.69	12,113	5.61
3.	Barren and uncultivable land	574	0.27	7,321	1.56	653	0.35	1,521	0.71
4.	Permanent pastures and other grazing land	550	0.25	1,300	0.28	250	0.13	2,513	1.16
5.	Land under miscellaneous tree crops not included in net area sown	643	0.30	749	0.16	6,150	3.29	4,343	2.01
6.	Cultivable waste	433	0.20	2,157	0.46	775	0.42	1,658	0.77
7.	Fallow land other than current fallow	718	0.33	768	0.16	901	0.48	1,338	0.62
8.	Current fallow	239	0.11	399	0.09	594	0.32	2,257	1.05
9.	Net area sown	153,245	70.92	230,723	49.19	164,454	88.04	183,554	35.10
10.	Total geographical area according to village papers	216,096	100.00	469,051	100.00	186,790	100.00	215,695	100.00
11.	Area sown more than once	95,778	44.32	128,558	27.41	72,549	38.84	86,810	40.25
	<b>TOTAL CROPPED AREA</b>	<b>249,023</b>	<b>115.24</b>	<b>359,281</b>	<b>76.60</b>	<b>237,003</b>	<b>126.88</b>	<b>270,364</b>	<b>125.35</b>



Table 7-1—(cont.)

Sl. No.	Category	Idikki		Ernakulam		Trichur		Polghat	
		Area (11)	Percentage (12)	Area (13)	Percentage (14)	Area (15)	Percentage (16)	Area (17)	Percentage (18)
1.	Forest	299,221	59.04	2,512	1.14	132,369	44.25	67,185	15.37
2.	Land put to non-agricultural use	13,704	2.70	20,857	9.43	17,191	5.75	48,787	11.16
3.	Barren and uncultivable land	7,671	1.51	1,489	0.67	2,043	0.68	10,682	2.44
4.	Permanent pastures and other grazing land	1,368	0.27	1,599	0.72	500	0.17	2,810	0.65
5.	Land under miscellaneous tree crops not included in net area sown	1,948	0.38	505	0.23	3,631	1.21	9,363	2.14
6.	Cultivable waste	13,401	2.63	1,805	0.82	1,871	0.63	4,096	0.93
7.	Fallow land other than current fallow	308	0.06	2,565	1.16	430	0.14	2,796	0.64
8.	Current fallow	3,490	0.68	3,691	1.67	1,554	0.52	2,277	0.52
9.	Net area sown	165,644	32.68	186,160	84.16	139,560	46.65	289,091	66.14
10.	Total geographical area according to village papers	506,775	100.00	221,183	100.00	299,149	100.00	437,087	100.00
11.	Area sown more than once	2,576	0.52	35,471	16.04	104,222	34.84	51,025	11.67
TOTAL CROPPED AREA		168,220	33.20	221,631	100.20	243,782	81.49	340,116	77.81

Table 7-1—(cont.)

Sl. No.	Category	Malappuram		Kozhikode		Cannanore		State	
		Area (19)	Percentage (20)	Area (21)	Percentage (22)	Area (23)	Percentage (24)	Area (25)	Percentage (26)
1.	Forest	97,627	26.89	128,607	35.05	65,932	11.44	1,054,864	27.34
2.	Land put to non-agricultural use	13,184	3.63	45,126	12.90	61,436	10.65	275,726	7.15
3.	Barren and uncultivable land	5,081	1.40	10,186	2.76	20,510	3.56	67,731	1.76
4.	Permanent pastures and other grazing land	2,369	0.65	2,521	0.69	12,000	2.03	27,800	0.71
5.	Land under miscellaneous tree crops not included in net area sown	5,359	1.48	3,338	0.91	78,978	13.70	115,007	2.97
6.	Cultivable waste	22,639	6.24	8,359	2.28	16,816	2.92	74,010	1.92
7.	Fallow land other than current fallow	490	0.13	2,925	0.80	7,493	1.30	20,732	0.54
8.	Current fallow	4,057	1.12	2,350	0.64	4,756	0.82	25,664	0.67
9.	Net area sown	212,239	58.46	163,579	44.57	308,740	53.54	2,196,989	56.94
10.	Total geographical area according to village papers	363,045	100.00	366,991	100.00	576,661	100.00	3,858,523	100.00
11.	Area sown more than once	45,326	12.49	112,062	30.53	55,112	9.56	789,489	20.16
TOTAL CROPPED AREA		257,565	70.95	275,641	75.10	363,852	63.10	2,986,478	77.40

Table 7-2

CLASSIFICATION OF AREA 1973-74

(Area in Hectares)

Sl. No.	Category	Trivandrum		Quilon		Alleppey		Kottayam		Idikki		Ernakulam	
		Area (3)	Percentage (4)	Area (5)	Percentage (6)	Area (7)	Percentage (8)	Area (9)	Percentage (10)	Area (11)	Percentage (12)	Area (13)	Percentage (14)
1.	Forest	43,849	20.29	210,650	44.91	513	0.28	6,398	2.97	299,221	59.05	1,312	0.60
2.	Land put to non-agricultural use	17,026	7.88	16,142	3.44	12,199	6.54	12,466	5.78	13,770	2.72	22,349	10.10
3.	Barren and uncultivable land	565	0.26	7,085	1.51	731	0.39	1,671	0.77	7,160	1.41	1,577	0.72
4.	Permanent pastures and other grazing land	550	0.25	1,300	0.28	250	0.13	2,513	1.17	1,368	0.27	1,599	0.72
5.	Land under miscellaneous tree crops not included in net area sown	489	0.23	980	0.21	7,993	4.28	4,549	2.11	1,636	0.32	630	0.29
6.	Cultivable waste	390	0.18	2,015	0.43	826	0.44	1,451	0.67	13,403	2.65	1,714	0.77
7.	Fallow land other than current fallow	717	0.33	301	0.17	825	0.44	1,178	0.55	267	0.06	2,381	1.08
8.	Current fallow	231	0.12	488	0.11	561	0.30	2,868	1.32	3,711	0.73	5,060	2.29
9.	Net area sown	152,279	70.46	229,590	48.94	162,892	87.28	182,601	84.66	166,214	32.79	184,541	83.43
10.	Total geographical area according to village papers	276,096	100.00	469,051	100.00	186,790	100.00	215,695	100.00	506,775	100.00	221,183	100.00
11.	Area sown more than once	92,015	42.58	141,817	30.23	77,073	41.26	87,614	40.62	5,028	0.99	40,585	18.35
TOTAL CROPPED AREA		244,294	113.05	371,407	79.18	239,965	128.47	270,215	125.28	171,242	33.79	225,126	101.78



Table 7-2—(cont.)

Sl. No.	Category	Trichur		Palghat		Malappuram		Kozhikode		Cannanore		State	
		Area	Percentage	Area	percentage	Area	Percentage	Area	Percentage	Area	percentage	Area	percentage
		(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1.	Forest	131,934	44.11	67,185	15.37	97,627	26.89	128,607	35.04	65,932	11.44	1,053,228	27.30
2.	Land put to non-agricultural use	18,491	6.18	52,527	12.02	13,687	3.77	43,868	11.95	63,266	10.97	285,791	7.41
3.	Barren and uncultivable land	2,206	0.74	10,756	2.46	4,709	1.30	9,612	2.62	19,458	3.37	65,530	1.69
4.	Permanent pastures and other grazing land	500	0.17	2,810	0.64	2,369	0.65	2,521	0.69	12,000	2.08	27,800	0.72
5.	Land under miscellaneous tree crops not included in net area sown	3,364	1.12	2,004	0.46	5,034	1.39	3,576	0.97	69,914	12.12	100,169	2.60
6.	Cultivable waste	1,934	0.64	4,108	0.94	23,337	6.43	7,996	2.18	16,970	2.94	74,149	1.92
7.	Fallow land other than current fallow	414	0.14	3,240	0.75	545	0.15	3,092	0.84	8,171	1.42	21,621	0.56
8.	Current fallow	1,744	0.58	2,108	0.48	4,813	1.31	2,032	0.57	4,266	0.74	27,952	0.73
9.	Net area sown	138,562	46.32	292,349	66.89	2,01924	58.09	165,647	45.14	316,684	54.92	2,202,233	57.07
10.	Total geographical area according to village papers	299,149	100.00	437,087	100.00	363,045	100.00	366,991	100.00	576,661	100.00	3,858,523	100.00
11.	Area sown more than once	107,353	35.89	50,830	11.63	46,944	13.48	112,685	30.71	33,354	5.78	797,298	20.66
	<b>TOTAL CROPPED AREA</b>	<b>245,915</b>	<b>82.20</b>	<b>343,179</b>	<b>78.52</b>	<b>259,868</b>	<b>71.58</b>	<b>278,332</b>	<b>75.84</b>	<b>350,038</b>	<b>60.70</b>	<b>2,999,581</b>	<b>77.74</b>

Table 7-3

CLASSIFICATION OF AREA 1974-75

(AREA IN HECTARES)

Sl. No.	Category	Trivandrum		Quilon		Alleppey		Kottayam		Idikki		Ernakulam	
		Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Forest	43,860	20.30	209,074	44.57	513	0.27	5,912	2.74	297,626	58.73	1,312	0.59
2.	Land put to non-agricultural use	17,534	8.11	18,042	3.85	12,450	6.67	13,805	6.40	14,557	2.87	22,638	10.23
3.	Barren and uncultivable land	498	0.23	6,902	1.47	753	0.40	1,683	0.78	7,128	1.41	1,521	0.69
4.	Permanent pastures and other grazing land	550	0.25	1,300	0.28	250	0.13	2,513	1.17	1,388	0.27	1,599	0.72
5.	Land under miscellaneous crops not included in net area sown	476	0.22	984	0.21	6,350	3.40	4,516	2.09	1,646	0.32	650	0.29
6.	Cultivable waste	340	0.16	1,985	0.42	800	0.43	1,308	0.61	13,556	2.67	1,716	0.78
7.	Fallow land other than current fallow	691	0.32	769	0.16	760	0.41	1,166	0.54	302	0.06	2,405	1.09
8.	Current fallow	224	0.10	484	0.10	530	0.28	1,849	0.86	3,711	0.73	3,644	1.65
9.	Net area sown	151,923	70.30	229,511	48.93	164,384	88.00	182,943	84.82	166,261	32.93	185,698	83.96
10.	Total geographical area according to village papers	216,096	100.00	469,051	100.00	186,790	100.00	215,695	100.00	506,775	100.00	221,183	100.00
11.	Area sown more than once	94,740	43.84	147,937	31.54	80,329	43.00	88,962	41.24	3,055	0.60	40,840	18.46
	<b>TOTAL CROPPED AREA</b>	<b>246,663</b>	<b>114.14</b>	<b>377,448</b>	<b>80.47</b>	<b>244,713</b>	<b>131.00</b>	<b>271,905</b>	<b>126.06</b>	<b>169,916</b>	<b>33.53</b>	<b>226,538</b>	<b>102.42</b>

Table 7-3—(cont.)

Sl. No.	Category	Trichur		Palghat		Malappuram		Kozhikode		Cannanore		State	
		Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage
		(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1.	Forest	131,634	44.00	67,185	15.37	97,627	26.89	128,607	35.04	63,932	11.09	1,047,282	27.14
2.	Land put to non-agricultural use	18,748	6.27	52,897	12.10	14,389	3.96	44,670	12.17	65,383	11.94	295,113	7.65
3.	Barren and uncultivable land	2,156	0.72	10,575	2.42	4,602	1.27	9,774	2.66	19,295	3.35	64,897	1.68
4.	Permanent pastures and other grazing land	500	0.17	2,810	0.64	2,369	0.65	2,521	0.69	12,000	2.08	27,800	0.72
5.	Land under miscellaneous crops not included in net area sown	3,326	1.11	1,432	0.33	5,082	1.40	3,022	0.82	70,203	12.17	97,687	2.53
6.	Cultivable waste	1,493	0.50	4,017	0.92	23,323	6.42	7,126	1.94	16,286	2.82	71,950	1.86
7.	Fallow land other than current fallow	414	0.14	3,053	0.70	523	0.14	2,935	0.80	7,790	1.35	20,808	0.54
8.	Current fallow	1,546	0.52	2,082	0.48	4,677	1.29	1,910	0.52	3,888	0.67	24,545	0.64
9.	Net area sown	139,332	46.58	293,036	67.04	210,453	57.97	166,426	45.35	317,884	55.12	2,208,451	57.24
10.	Total geographical area according to village papers	299,149	100.00	437,087	100.00	363,045	100.00	366,991	100.00	576,661	100.00	3,858,523	100.00
11.	Area sown more than once	107,025	35.78	54,693	12.51	52,025	14.33	113,390	30.90	36,628	6.35	819,624	21.24
	<b>TOTAL CROPPED AREA</b>	<b>246,357</b>	<b>82.35</b>	<b>347,729</b>	<b>79.56</b>	<b>262,478</b>	<b>72.30</b>	<b>279,816</b>	<b>76.25</b>	<b>354,512</b>	<b>61.47</b>	<b>3,028,075</b>	<b>78.48</b>



**Table 7-4**  
CLASSIFICATION OF AREA—1975-76\*  
(Area in hectares)

Sl. No.	Category	Trivandrum		Quilon		Alleppey		Kottayam		Idikki		Ernakulam	
		Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Forest	49,861	22.81	236,048	49.77	518	0.29	8,141	3.71	269,993	50.67	8,123	3.45
2.	Land put to non-agricultural use	17,293	7.91	22,229	4.69	26,965	14.79	17,696	8.05	13,517	2.63	30,460	12.94
3.	Barren and uncultivable land	1,509	0.69	3,939	0.83	638	0.35	2,293	1.05	17,005	3.30	2,020	0.86
4.	Permanent pastures and other grazing land	86	0.04	100	0.02	76	0.04	531	0.24	9,861	1.92	968	0.41
5.	Land under miscellaneous tree crops and groves not included in net area sown	578	0.26	752	0.16	457	0.25	1,720	0.78	19,886	3.86	4,005	1.70
6.	Cultivable waste land	1,208	0.55	1,557	0.33	2,311	1.27	2,524	1.15	33,184	6.44	4,740	2.02
7.	Fallow lands other than current fallow	1,288	0.59	787	0.16	735	0.40	1,300	0.59	2,340	0.45	2,399	1.02
8.	Current fallow	1,304	0.60	1,313	0.28	1,475	0.81	1,421	0.65	2,074	0.40	4,815	2.05
9.	Net area sown	145,473	66.55	207,565	43.76	149,095	81.80	183,924	83.77	156,188	30.33	177,789	75.55
10.	Total geographical area according to village papers	218,600	100.00	474,290	100.00	182,270	100.00	219,550	100.00	515,048	100.00	235,319	100.00
11.	Area sown more than once	91,575	41.89	137,784	29.05	87,671	48.10	63,455	28.90	1,0892	2.11	61,534	26.15
TOTAL CROPPED AREA		237,048	108.44	345,349	72.81	236,766	129.90	247,379	112.67	167,080	32.44	239,323	101.76

\* Estimates from Timely Reporting Survey. The figures for previous years are estimates from Land Utilisation Survey.

**Table 7-4—(cont.)**

Sl. No.	Category	Trichur		Palghat		Malappuram		Kozhikode		Cannanore		State	
		Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage	Area	Percentage
		(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1.	Forest	103,619	34.61	136,257	31.04	103,417	28.47	90,876	24.48	83,656	14.74	1,081,509	27.83
2.	Land put to non-agricultural use	18,023	6.02	32,147	7.32	13,925	3.83	20,620	5.56	46,349	8.17	259,230	6.67
3.	Barren and uncultivable land	3,957	1.32	12,226	2.79	6,756	1.86	5,110	1.38	23,041	4.06	78,494	2.02
4.	Permanent pastures and other grazing land	668	0.22	1,709	0.39	1,182	0.33	569	0.15	4,165	0.73	19,915	0.51
5.	Land under miscellaneous tree crops and groves not included in net area sown	2,401	0.80	3,498	1.94	3,788	1.04	10,143	2.73	32,022	5.64	84,250	2.17
6.	Cultivable waste land	4,027	1.35	18,374	4.19	12,943	3.56	8,421	2.27	24,125	4.25	113,414	2.92
7.	Fallow lands other than current fallow	1,593	0.53	3,924	0.89	2,317	0.64	883	0.26	5,288	0.93	22,954	0.59
8.	Current fallow	3,583	1.20	6,342	1.44	5,445	1.50	1,615	0.44	7,172	1.26	36,559	0.94
9.	Net area sown	161,513	53.95	219,503	50.00	213,457	58.77	232,813	62.73	341,852	60.22	2,189,172	56.35
10.	Total geographical area according to village papers	299,390	100.00	438,980	100.00	363,230	100.00	371,150	100.00	567,670	100.00	3,885,497	100.00
11.	Area sown more than once	85,573	39.69	102,301	23.30	63,795	17.42	46,677	12.57	41,350	7.28	792,107	20.39
TOTAL CROPPED AREA		247,036	93.64	321,804	73.30	276,752	76.19	279,490	75.30	383,202	67.50	2,981,279	76.73

**(c) Irrigation**

There are fortyfour rivers in Kerala. Almost all of them originate from the western ghats and flow through the midlands and lowlands into the sea. Out of the 44 rivers, 41 are west flowing rivers and 3 are east flowing.

These rivers are the main sources of irrigation in the State. The annual run off of all the west flowing rivers is estimated to be 25,60,800 mc. feet; while that of the other 3 east flowing rivers till they cross Kerala Border is estimated to be 1,96,000 mc. feet.



Irrigation facilities in the State are inadequate due to the following reasons:

- (i) Non-uniformity of rainfall causes hardship to agriculturists. Draining out excess water is important in many parts of the State;
- (ii) either or both of the monsoons may fail in some years; and
- (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 intrusion of saline water into the paddy fields in the lowland areas.

The total cropped area under important crops during 1975-76 was 29.81 lakh hectares as against 27.57 lakh hectares in 1967-68. Of this, the total cropped area under paddy

during 1975-76 was 8.76 lakh hectares paddy and sugarcane require irrigation facilities by controlled flow of water or lift irrigation or dewatering. Table 7.5 gives the net area irrigated in the various years.

The list of major and medium irrigation schemes completed and in progress till the end of 1975-76 are given in Table 7.6.

Table 7.5

Year	Net area irrigated ('000 Hects.)
1961-62	327
1966-67	393
1971-72	439
1972-73	446
1973-74	457
1974-75	465
1975-76	228

(Net area sown 2,189,172 Hect.)

Table 7.6

MAJOR AND MEDIUM IRRIGATION SCHEMES COMPLETED AND IN PROGRESS (TILL THE END OF 1975-76)

Sl. No. (1)	Name of project (2)	Name of river/tributary (3)	Name of dam (4)	District benefitted (5)
1.	Neryyar	Neryyar River	Neryyar	Trivandrum
2.	Chalakkudy	Chalakkudy River	Thumburam Kuzhi	Trichur and Ernakulam
3.	Peechi	Manali tributary of Karuvannur River	Peechi	Trichur
4.	Vazhani	Wadakancherry tributary of Keechery River	Vazhani	do.
5.	Cheerakuzhi	Cheerakuzhi tributary of Bharathapuzha	Cheerakuzhi	Trichur
6.	Pothundy	Ayalur puzha tributary of Bharathapuzha	Pothundy	Palghat
7.	Mangalam	Mangalam puzha tributary of Bharathapuzha	Mangalam	do.
8.	Gayathri I	Meenkara puzha tributary of Bharathapuzha	Meenkara	do.
9.	Gayathri II	Chulliyar puzha tributary of Bharathapuzha	Chulliyar	do.
10.	Walayar	Walayar puzha tributary of Bharathapuzha	Walayar	do.
11.	Malampuzha	Malampuzha tributary of Bharathapuzha	Malampuzha	Palghat and Trichur
12.	Pumba	Kakad tributary of Pumba River	Maniar	Alleppey and Quilon
13.	Periyarvalley	Periyar River	Planchode	Ernakulam
14.	Chitturpuzha	Chitturpuzha tributary of Bharathapuzha	Moolathara (Regulator) Thembara Madak	Palghat
15.	Kuttiadi	Kuttiadi River	Peruvannamuzhi (Dam)	Kozhikode
16.	Kallada	Kallada River	Parappur (Dam)	Quilon
17.	Kanhirapuzha	Kanhirapuzha tributary of Bharathapuzha	Kanhirapuzha (Dam)	Palghat
18.	Pazhassi	Valappathanam River	Kuilur (Dam)	Cannanore
19.	Mecnachil	Meenachil River	Cherippad	Kottayam
20.	Moovattupuzha	Moovattupuzha River	Melamkaram (Dam)	Ernakulam, Kottayam and Idikki
21.	Edamalayar	Periyar River (under K.S.E.B.)	Enakkal (Dam)	Ernakulam
22.	Chimoni	Chimoni tributary of Karuvannur River	Chimoni (Dam)	Trichur
23.	Attappady	Siruvani tributary of Bahavani River	Chittur (Dam)	Palghat
24.	Karapuzha	Karapuzha tributary of Kaveri River	Vazhavatta (Dam)	Kozhikode

In addition to the above, there are minor irrigation and lift irrigation schemes spread all over the State

#### (d) Area and production under principal crops

The important crops of Kerala are paddy, coconut, tapioca, arecanut, pepper, ginger,

cashew, cardamom, tea, coffee, rubber, etc.

The area and production under principal crops for the years 1967-68, 1972-73 to 1975-76 is given in Table 7.7 and 7.8.



Table 7-7

## AREA AND PRODUCTION OF PRINCIPAL CROPS—STATE

Sl. No.	Name of crops	1967-68		1972-73		1973-74		1974-75		1975-76	
		Area (Hectares)	Production (Tonnes)	Area (Hectares)	Production (Tonnes)	Area (Hectares)	Production (Tonnes)	Area (Hectares)	Production (Tonnes)	Area (Hectares)	Production (Tonnes)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Rice	809,544	1,123,897	873,704	1,376,367	874,675	1,257,069	831,466	1,333,931	876,022	1,331,191
2.	Pulses	42,632	13,173	37,557	12,821	37,417	12,620	37,262	12,674	37,485	14,169
3.	Sugar cane (gur)	8,033	49,973	16,275	40,099	9,530	51,345	9,505	53,912	7,596	41,831
4.	Pepper	99,702	21,064	116,343	25,150	118,245	27,745	118,408	27,728	103,251	24,580
5.	Ginger	11,795	11,117	11,802	23,487	12,044	26,683	12,201	26,040	11,671	28,840
6.	Turmeric	4,443	3,725	4,194	4,424	4,320	4,546	4,263	4,480	2,477	2,608
7.	Cardamom	47,026	1,616	47,492	1,250	47,492	1,502	46,630	2,050	54,004	2,050
8.	Betel nuts	76,044	11,473*	88,633	13,136*	90,701	13,459*	93,012	13,777*	76,618	11,387*
9.	Banana and other plantains	49,418	374,282	47,287	357,883	46,722	353,620	47,143	356,583	52,280	395,042
10.	Cashewnut	94,790	106,578	101,493	113,876	103,162	115,747	104,885	117,679	109,057	119,888
11.	Tapioca	297,646	4,198,357	304,828	5,692,355	305,446	5,659,523	317,880	5,625,116	326,865	5,390,217
12.	Other food crops	221,517	..	208,807	..	208,650	..	213,220	..	246,879	..
TOTAL FOOD CROPS		1,762,790	..	1,849,896	..	1,859,404	..	1,885,876	..	1,909,205	..

\* Estimates from timely reporting survey. Figures for earlier years are estimates of land utilisation survey

Table 7-7 (cont.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
II. Non-food crops											
1.	Groundnut	13,714	24,675	16,014	16,461	17,167	18,043	17,510	19,471	26,679	35,268
2.	Sesamum	11,163	2,629	11,780	3,420	11,782	3,489	11,782	3,264	16,785	4,271
3.	Coconut	638,722	3,593*	745,429	3,921*	744,828	3,703*	748,174	3,719*	692,945	3,439*
4.	Cotton	6,625	6,461†	7,476	1,518	7,476	8,639†	7,551	1,714	7,562	..
5.	Tobacco	698	902	675	1,459	668	1,386	762	1,327	607	1,230
6.	Tea	39,282	43,189	38,377	43,677	37,685	48,358	37,572	48,899	37,693	45,801
7.	Coffee	26,468	11,458	34,651	14,916	35,805	15,459	36,589	15,784	41,778	17,528
8.	Rubber	162,932	59,978	195,603	91,948	199,604	118,016	202,318	121,558	206,686	126,265
9.	Other non-food crops	55,970	..	86,547	..	85,162	..	79,941	..	41,334	..
TOTAL NON-FOOD CROPS		994,649	..	1,136,582	..	1,140,177	..	1,142,199	..	1,072,074	..
TOTAL CROPPED AREA		2,757,439	..	2,986,478	..	2,999,581	..	3,028,075	..	2,981,279	..

\*—Million nuts

†—Bales of 180 kg. each

Table 7-8

## AREA AND PRODUCTION OF PRINCIPAL CROPS—DISTRICT-WISE—1975-76

District	Pepper		Coffee		Tea		Coconut	
	Area (Hect.)	Production (Tonnes)	Area (Hect.)	Production (Tonnes)	Area (Hect.)	Production (Tonnes)	Area (Hect.)	Production (Million nuts)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	5,856	1,248	130	87	35	27	74,074	428
Quilon	8,750	2,975	428	54	2,690	1,372	98,073	485
Alleppey	5,231	737	91	39	..	..	72,824	404
Kottayam	12,938	3,933	1,848	800	2,307	517	58,168	288
Idikki	10,186	2,220	3,849	1,678	24,006	31,008	11,472	61
Ernakulam	6,499	1,092	1,367	623	45	53	50,726	269
Trichur	1,525	245	10	4	..	..	50,699	299
Palghat	851	146	1,727	1,025	146	259	16,994	56
Malappuram	5,989	1,084	560	242	567	486	70,269	311
Kozhikode	17,694	4,157	23,640	9,633	6,917	11,281	97,448	523
Cannanore	32,732	6,743	8,128	3,343	983	798	92,198	315
STATE	108,251	24,580	41,778	17,528	37,698	45,801	692,945	3,439

Table 7-8—(cont.)

District	Tapioca		Rubber		Rice	
	Area (Hect.)	Production (Tonnes)	Area (Hect.)	Production (Tonnes)	Area (Hect.)	Production (Tonnes)
(1)	(10)	(11)	(12)	(13)	(14)	(15)
Trivandrum	72,035	1,029,296	6,307	4,220	57,447	59,060
Quilon	88,538	1,595,363	33,995	23,966	53,053	81,702
Alleppey	24,568	412,720	4,029	2,362	96,316	140,881
Kottayam	35,429	636,959	52,600	32,452	44,159	76,047
Idikki	9,955	215,424	16,369	10,660	15,873	26,143
Ernakulam	17,091	323,702	23,096	13,556	99,017	132,534
Trichur	12,178	164,884	7,785	6,111	126,426	162,189
Palghat	7,965	112,298	7,910	3,314	174,278	349,667
Malappuram	28,372	338,181	15,220	8,326	86,871	125,129
Kozhikode	9,235	167,970	17,250	10,064	56,116	66,223
Cannanore	21,499	393,420	22,125	11,234	81,466	111,611
STATE	326,865	5,390,217	206,686	126,265	876,022	1,331,191



The total cropped area under food crops increased from 17.63 lakh hectares in 1967-68 to 19.09 lakh hectares in 1975-76. Similarly the total cropped area during 1975-76 was 29.81 lakh hectares as against 27.57 lakh hectares in 1967-68.

The production of rice during 1975-76 was 13.31 lakh tonnes as against 11.24 lakh tonnes in 1967-68. In case of tapioca, the production during 1975-76 was 53.90 lakh tonnes as against 41.98 lakh tonnes in 1967-68. In respect of rubber the production was 1.26 lakh tonnes in 1975-76 as against 0.60 lakh

tonnes in 1967-68. As far as pepper was concerned the production amounted to 0.25 lakh tonnes in 1975-76, as against 0.21 lakh tonnes in 1967-68. In case of coffee, the production came to 0.18 lakh tonnes in 1975-76 as against 0.11 lakh tonnes in 1967-68. The production of tea was 0.46 lakh tonnes in 1975-76. In case of coconut the production during 1975-76 was 3,439 million nuts while it was 3,593 million nuts in 1967-68. The district-wise distribution (in percentage) of important crops in the State during the years 1972-73 to 1975-76 is furnished in Table 7.9.

Table 7.9

PERCENTAGE OF AREA UNDER RICE, TAPIOCA, PEPPER, COCONUT, TEA, COFFEE AND RUBBER

District (1)	Rice				Tapioca				Pepper			
	1972-73 (2)	1973-74 (3)	1974-75 (4)	1975-76 (5)	1972-73 (6)	1973-74 (7)	1974-75 (8)	1975-76 (9)	1972-73 (10)	1973-74 (11)	1974-75 (12)	1975-76 (13)
Trivandrum	4.52	4.55	4.53	4.27	24.94	24.84	24.74	22.04	8.80	3.39	3.42	5.41
Quilon	5.86	5.85	5.87	6.06	31.08	30.92	31.36	27.09	4.97	12.98	12.97	8.08
Alleppey	10.43	10.52	10.94	11.00	6.28	6.24	6.02	7.52	1.29	3.61	3.71	4.83
Kottayam	5.09	5.07	5.03	5.04	12.48	12.54	12.62	10.84	13.30	14.33	14.16	11.95
Idikki	1.56	1.53	1.51	1.81	1.01	1.01	0.98	3.04	3.70	5.54	5.04	9.41
Ernakulam	9.86	9.90	9.97	11.30	3.92	3.93	3.83	5.23	4.16	8.27	8.26	6.00
Trichur	12.64	12.57	12.36	14.43	2.74	2.72	2.71	3.72	0.64	3.55	3.65	1.41
Palghat	20.86	20.94	21.00	19.89	4.02	4.19	4.21	2.44	1.40	0.50	0.53	0.79
Malappuram	10.58	10.54	10.44	10.15	7.53	7.49	7.44	8.68	2.79	5.05	5.04	5.53
Kozhikode	7.39	7.32	7.24	6.41	3.59	3.60	3.50	2.82	15.49	16.65	17.13	16.35
Cannanore	11.21	11.21	11.11	9.64	2.41	2.52	2.59	6.58	43.46	26.13	26.09	30.24
STATE	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 7.9—(cont.)

District	Coconut				Tea			
	1972-73 (14)	1973-74 (15)	1974-75 (16)	1975-76 (17)	1972-73 (18)	1973-74 (19)	1974-75 (20)	1975-76 (21)
Trivandrum	10.22	10.33	10.33	10.69	2.78	2.83	2.84	0.09
Quilon	14.33	14.34	14.36	14.15	6.17	6.22	5.93	7.14
Alleppey	10.72	10.73	10.69	10.51	0.74	0.73	0.73	6.12
Kottayam	9.38	8.92	8.89	8.39	73.45	72.54	72.76	63.68
Idikki	3.09	3.09	3.08	1.66	..	0.50	0.50	0.12
Ernakulam	7.07	7.07	7.06	7.32	..	1.14	1.16	..
Trichur	7.63	7.63	7.66	7.32	1.65	1.69	1.68	0.39
Palghat	3.14	3.31	3.32	2.45	0.45	0.46	0.46	1.50
Malappuram	9.31	9.32	9.32	10.14	10.09	10.26	10.30	18.35
Kozhikode	12.87	13.01	12.96	14.06	3.53	3.61	3.64	2.61
Cannanore	12.24	12.25	12.33	13.31	..	..	..	..
STATE	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

Table 7.9—(cont.)

District	Coffee				Rubber			
	1972-73 (22)	1973-74 (23)	1974-75 (24)	1975-76 (25)	1972-73 (26)	1973-74 (27)	1974-75 (28)	1975-76 (29)
Trivandrum	0.13	0.12	0.12	0.31	3.90	3.83	3.82	3.05
Quilon	0.77	0.77	0.75	1.03	16.44	16.22	16.12	16.45
Alleppey	..	..	..	0.22	1.94	1.90	1.89	1.95
Kottayam	4.04	2.37	2.31	4.42	24.79	26.21	26.28	25.45
Idikki	2.40	4.94	4.36	9.21	7.83	7.59	7.59	7.92
Ernakulam	0.41	0.19	0.19	3.27	10.87	9.95	9.92	11.17
Trichur	..	..	..	0.02	4.99	4.47	4.42	3.77
Palghat	11.97	12.72	12.46	4.13	3.87	3.86	3.99	3.83
Malappuram	..	..	..	1.34	8.98	8.42	8.37	7.36
Kozhikode	65.97	64.62	63.91	56.59	8.13	8.04	8.10	8.35
Cannanore	14.31	15.17	15.90	19.46	8.26	9.51	9.50	10.70
STATE	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00



Palghat District has the maximum percentage of area under rice (19.89 per cent) followed by Trichur (14.43 per cent) and Alleppey (11.00 per cent) Districts and the minimum percentage is in Idikki District (1.81 per cent) during 1975-76. Quilon District has the highest percentage of area under tapioca (27.09 per cent) followed by Trivandrum District (22.04 per cent) and Palghat District has the largest percentage (2.44 per cent) of area during 1975-76. The percentage of area under pepper is in Cannanore District (30.24 per cent) followed by Kozhikode District (16.35 per cent) and the least percentage is in Palghat District (0.79 per cent) during 1975-76.

Coconut is the most important commercial crop of the State. The maximum area under

coconut cultivation is in Quilon District (14.15 per cent) followed by Kozhikode (14.06 per cent) and Cannanore District (13.31 per cent) and least in Idikki District (1.66 per cent), during 1975-76.

About 64 per cent of the area under tea is in Idikki District. Coffee is mainly cultivated in Kozhikode District. 57 per cent of the total area under coffee is in Kozhikode District. Rubber is being cultivated in all the districts of the State. The area under rubber is maximum in Kottayam District followed by Quilon District (16.45 per cent) and minimum in Alleppey District (1.87 per cent) in 1975-76.

The average yield per hectare of important crops in Kerala is given in Table 7.10.

Table 7.10  
AVERAGE YIELD PER HECTARE OF IMPORTANT CROPS IN KERALA 1972-73 TO 1975-76

Sl. No.	Crops	Unit	Average Yield			
			1972-73	1973-74	1974-75	1975-76
1.	Rice	Kg./Hect.	1,575	1,436	1,513	1,520
2.	Coconut	Nuts/Hect.	5,260	4,972	4,971	4,963
3.	Tapioca	Kg./Hect.	18,674	18,468	17,696	16,491
4.	Arecanut	Nuts/Hect.	1,48,207	1,48,389	1,48,072	1,48,620
5.	Pepper	Kg./Hect.	216	213	230	227
6.	Tea	"	1,138	1,283	1,301	1,148
7.	Cashewnut	"	1,122	1,122	1,122	1,122
8.	Rubber	"	470	591	601	623
9.	Coffee	"	430	432	431	345
10.	Ginger	"	1,990	2,215	2,134	2,471
11.	Cardamom	"	26	32	44	38

In the case of rice, coconut, tapioca and coffee there is decline in the average yield per hectare in 1975-76 over 1972-73.

#### (e) Agricultural Research

The Kerala Agricultural University was established in 1971 under the Kerala Agricultural University Act. The headquarters of the University is located at Mannuthy. There are two campuses for the University. The main campus is at Mannuthy in Trichur District while the second is at Vellayani in Trivandrum District. There are three colleges attached to the University. They are (i) College of Veterinary and Animal Science, Mannuthy; (ii) College of Agriculture, Vellayani and (iii) College of Horticulture, Mannuthy.

Learning and promotion of research in agriculture and allied subjects is one of the main objectives of this University. Research on agriculture and allied sciences is carried out in the Research Stations and the different departments of the colleges under the University and is aimed at aiding the development of agriculture and benefiting the agricultural population in the State.

The department of agriculture is another body which takes interest in agricultural research and is concerned with evolving improved varieties of seeds, controlling pests and diseases and studying effects of various kinds of manures on different types of soils.

In Kerala there are 32 State Seed Farms and one Agriculture Farm attached to the Agricultural College and Research Institute, Vellayani. In addition there are 35 Agricultural Research Stations in the various districts of Kerala.

#### (f) Livestock, poultry and fisheries

The development of livestock is of vital importance in the economic development of the rural areas and the health and happiness of the human population as a whole. The dairy potential of cattle in Kerala remains to be exploited in full. The per capita availability of milk in the State is very low when compared to the other parts of the country. In order to achieve self-sufficiency in milk at a per capita requirement of 280 gm. of milk per day there is need to make six fold increase in the productivity of cattle. This can be achieved only by a programme of mixed breeding with selected exotic dairy type breeds of cattle.

According to 1972 Livestock Census, the total number of livestock in the State was 49.36 lakhs (as against 46.41 lakhs in 1966). Of this 45.39 lakhs was in the rural area and the rest (3.97 lakhs) in the urban area. Among the total number of livestock in 1972, as many as 33.28 lakhs were bovines (cattle and buffaloes). There were 30.81 lakhs bovines in the rural area alone during 1972.



The bovine population during 1972 was 14.78 lakhs as against 12.01 lakhs in 1966. Table 7-11 gives the livestock population of Kerala according to the 1972 census.

The total number of poultry in the State during 1972 was 122.07 lakhs as against 99.09 lakhs in 1966 and 91.06 lakhs in 1961. During 1972 50.42 per cent of the total number of poultry was hens and 33.60 per cent was chicken. Cocks formed about 13.01 per cent. Only 2.96 per cent of the total poultry population was ducks. The poultry population of Kerala in 1972 is given in Table 7-12.

The State has a coastal line of over 500 kms. The fisheries sector is supporting about two

per cent of the total population of the State. Kerala produces over 35 per cent of the sea fish production in the country. The State income from fisheries during 1975-76 stood at Rs. 73.69 crores as against Rs. 33.02 crores in 1972-73. 58 per cent of the marine products export earnings of the country is from Kerala.

The important shoaling areas in the State are around Trivandrum, Quilon, Alleppey, Cochin, Ponnani and Kozhikode. The fishermen of the South Kerala use catamaran and that of the northern side use small dug out canoes operated with oars and sails. Different types of nets, boat seines, shore seines, large drift nets, gill nets, cast nets, etc., are used for fishing.

Table 7-11

DISTRICT-WISE LIVESTOCK POPULATION IN KERALA, 1972

Name of District	Cattle		Buffaloes		Goats and sheep	
	Male	Female	Male	Female	Male	Female
Trivandrum	34,368	132,225	17,185	27,323	29,152	120,453
Quilon	88,709	292,508	12,021	16,843	37,202	142,764
Alleppey	51,356	282,634	6,804	7,088	18,279	82,467
Kottayam	54,440	214,957	2,365	5,784	29,999	117,646
Idikki	34,714	101,417	3,480	8,730	16,133	45,313
Ernakulam	91,691	172,733	12,162	10,644	37,306	125,759
Trichur	77,410	145,271	35,590	28,439	31,664	111,824
Palghat	100,033	179,945	106,339	38,566	36,792	104,007
Malappuram	68,919	110,047	38,434	24,736	29,584	107,643
Kozhikode	64,631	183,724	13,769	13,247	30,330	107,276
Cannanore	112,408	259,730	20,377	21,621	28,880	85,904

Table 7-12

POULTRY POPULATION (DISTRICT-WISE) 1972 CENSUS

Name of District	Cock	Hen	Chicken	Drake	Duck	Duckling
Trivandrum	116,058	584,237	320,343	774	3,008	781
Quilon	119,445	697,729	333,177	1,236	6,684	1,317
Alleppey	99,611	957,291	405,595	17,665	138,543	33,223
Kottayam	105,872	569,156	352,263	6,024	48,674	6,953
Idikki	66,900	202,437	191,617	759	2,139	642
Ernakulam	179,398	665,840	510,442	7,647	35,623	8,603
Trichur	192,682	617,384	420,865	2,448	16,250	2,758
Palghat	176,654	385,111	352,267	1,000	6,829	608
Malappuram	212,926	544,693	435,885	901	3,143	425
Kozhikode	157,842	468,968	401,486	902	2,076	1,088
Cannanore	161,073	461,977	377,322	711	1,708	726

The quantity of marine fish landings in the State during 1975 was 4.08 lakh M.T. valued at Rs. 83.70 crores against 3.33 lakh M.T. valued at Rs. 48.92 crores in 1973. The quantity of inland fish landings

during 1975-76 was 0.23 lakh M.T. as against 0.21 lakh M.T. in 1973-74.

The exports of fish products from India and Kerala's contribution in this regard is furnished in Table 14.

Table 7-13

EXPORT OF FISH PRODUCTS

Year	India		Kerala		Kerala's percentage contribution to India	
	Quantity—in Tonnes		Value—Rs. in crores			
	Quantity	Value	Quantity	Value	Quantity	Value
1966-67	21,116	17.37	13,175	14.64	62.4	84.3
1971-72	35,523	44.55	21,892	33.70	61.6	75.6
1972-73	38,903	59.72	25,797	41.97	66.3	70.3
1973-74	52,279	89.51	31,561	57.75	60.4	64.5
1974-75	45,099	68.41	25,340	39.58	56.2	57.9
1975-76	54,463	124.53	31,683	67.62	58.2	54.3



### (g) Agricultural Implements and Machinery

The number of agricultural implements and machinery in various districts of Kerala in 1972 is furnished in Table 7-14

Table 7-14

AGRICULTURAL IMPLEMENTS AND MACHINERY 1972

District	Ploughs (1)	Carts (2)	Ghanies (3)	Sugar cane crushers (4)	Oil Engines (5)	Electric pumpsets (6)	Tractors (7)	Sprayers and dusters (8)
Trivandrum	20,543	1,196	62	22	191	106	50	1,195
Quilon	45,056	1,695	251	72	327	207	77	2,401
Alleppey	19,792	634	334	105	1,468	546	201	3,841
Kottayam	8,521	392	99	180	709	255	128	4,359
Idikki	7,511	119	45	12	153	161	31	1,126
Ernakulam	52,510	637	101	116	3,417	3,039	241	1,740
Trichur	43,417	2,167	176	116	1,163	1,849	160	3,598
Palghat	102,909	8,203	85	158	3,861	2,373	324	3,012
Malappuram	53,313	365	45	15	1,658	366	59	685
Kozhikode	27,608	259	354	41	906	538	113	1,881
Cannanore	47,612	278	149	60	4,796	543	127	1,987
<b>TOTAL</b>	<b>428,802</b>	<b>16,245</b>	<b>1,701</b>	<b>897</b>	<b>18,649</b>	<b>9,983</b>	<b>1,511</b>	<b>25,828</b>

### (h) Forests

Forests play an important part in the economic development of the State. It has great influence on industry, agriculture, employment, climate and rural development.

There are two groups of forests, viz., the natural forests and the man made forests. The natural forest comprises 8.99 lakh hectares and the man made forests extend over 1.26 lakh hectares. During 1975-76 the man made forest consists of 32,090 hectares of eucalyptus, 63,824 hectares of teak, 20,021 hectares of soft wood, 1,190 hectares of rubber, 2,995 hectares of cashew and 6,423 hectares of other plantations.

The net revenue from forest during 1975-76 was Rs. 21.92 crores in 1975-76 as against 14.57 crores in 1973-74. The Kerala Forest Development Corporation was formed in January 1975 with the objective of intensive development of the forest resources of Kerala.

### VIII. Community Development

In Kerala Community Development programme was initiated in October 1952 with three projects only. Since then the coverage was gradually expanded and in 1965-66 there were 144 N.E.S. Blocks. According to 1971 census 83.89 per cent of the total area and 88.05 per cent of the total population of the State is covered by N. E. S. Blocks.

The main activities of the N.E.S. Blocks are (1) distribution of improved seeds, ferti-

lisers and agricultural implements, (2) distribution of improved varieties of livestock and poultry and (3) other activities for the economic and social development of the people in the locality. The programme envisages the uplift of the villagers by helping them to participate in the various developmental activities for their betterment.

### IX. Co-operation

Serious attempts to develop the co-operative movement in the State started with the establishment of the Kerala State Co-operative Bank and seven Central Banks during the Second Five Year Plan period. During the Third Plan attempts were made to tune up the co-operative administration in line with the recommendations of the Mehta Committee. During the fourth plan period, the programme of reorganising the primary agricultural credit societies was continued vigorously. During the Fifth Plan attempts were made to strengthen the credit co-operatives by payment of share capital contribution.

### X. Industries

There is a tendency for the industries to cluster in areas which are already developed. This tendency is due to the better infrastructure facilities and the availability of technical personnel in these areas. In Kerala too, large scale industrial units show concentration in certain districts of the State depending on the availability of infrastructure facilities, raw materials, etc.



According to 1971 census, the industrial sector of Kerala accommodates 15 per cent of the workers as against 9 per cent for India as a whole. But the contribution of the industrial sector to the State income is not commensurate with the labour force engaged in it as the bulk of the industries in the State are traditional industries like cashew, coir, handlooms, handicrafts, etc., which require only very low investment and hence of very low productivity. There are only very few large scale industries in the State and the organised industrial sector absorbs only a very low percentage of the labour force in the State.

The total number of registered factories in the State during 1975 was 6,317 as against 3,499 in 1972 and 2,400 in 1960. The average daily employment, provided in these

factories during 1975 was 2.64 lakhs as against 2.26 lakhs in 1972.

The growth in the number of factories in the different districts of Kerala and their average daily number of employment are presented in Table 10.1

Concentration of factory workers is highest in Quilon District where there are many cashew factories which are labour intensive. Many of the major industrial units are in Ernakulam District.

Apart from factory industries plantation industries such as tea, coffee and rubber have a vital role in the State's economy. They provide employment for about 2.7 lakhs persons. Employment in plantations was maximum in Idikki District where tea, coffee and rubber are cultivated extensively.

Table 10.1

Sl. No.	Name of Industry	State								Trivandrum			
		1972		1973		1974		1975		1972		1973	
		A	B	A	B	A	B	A	B	A	B	A	B
1	Oil	261	1,649	312	1,893	336	2,126	319	2,102	20	104	24	128
2	Tea	117	5,177	119	5,193	117	5,080	111	4,868	5	179	5	176
3	Cashew	269	113,222	264	118,309	265	119,999	267	122,465	19	6,688	20	7,718
4	Beedi	32	942	32	941	32	999	32	932	..	..	..	..
5	Cotton textiles	181	15,460	268	17,006	375	18,706	415	19,761	9	1,255	10	1,455
6	Coir	167	3,741	232	4,452	260	4,313	250	4,198	..	..	3	27
7	Saw mills	390	4,495	551	5,240	617	6,031	655	5,500	6	39	6	37
8	Plywood, splints and veneers	183	7,509	222	8,232	244	8,583	271	9,013	4	199	5	227
9	Printing	264	5,338	372	6,093	449	6,939	456	7,148	31	1,255	35	1,321
10	Rubber	89	3,068	179	3,997	227	4,404	217	4,310	1	433	2	457
11	Chemical and chemical products	76	6,795	89	6,583	107	8,029	118	8,370	5	486	5	478
12	Matches	42	652	54	922	66	1,164	82	1,223	..	..	1	38
13	Soaps	13	1,152	38	1,320	43	1,552	40	1,437	..	..	..	..
14	General engineering	110	2,508	171	2,747	198	2,995	221	3,152	7	399	7	399
15	Tiles	234	12,419	260	12,623	280	12,689	285	12,519	1	48	1	48
16	Automobile repairing	192	5,211	298	5,946	365	6,963	367	6,969	19	2,099	19	2,081
17	Other industries	879	36,550	1,585	41,869	2,055	48,387	2,211	50,227	49	1,339	63	1,444
TOTAL		3,499	226,088	5,016	253,366	6,036	258,960	6,317	264,194	176	14,543	206	1,6034

Table 10.1—(cont.)

Sl. No.	Name of Industry	Trivandrum				Quilon							
		1974		1975		1972		1973		1974		1975	
		A	B	A	B	A	B	A	B	A	B	A	B
1	Oil	26	150	21	117	14	77	18	89	19	113	19	114
2	Tea	5	171	5	150	8	234	8	232	8	228	7	204
3	Cashew	20	7,670	21	8,030	228	94,437	225	99,056	229	101,923	228	103,272
4	Beedi	..	..	..	..	..	..	..	..	..	..	..	..
5	Cotton textiles	10	1,453	8	1,474	1	992	1	955	1	1,139	1	1,250
6	Coir	4	35	5	75	1	43	5	199	1	52	1	53
7	Saw mills	6	37	7	46	26	233	57	455	59	419	68	439
8	Plywood, splints and veneers	5	231	5	190	24	969	27	1,101	29	1,163	32	1,223
9	Printing	45	1,576	43	1,840	15	331	26	374	26	394	32	407
10	Rubber	4	475	4	493	16	500	19	524	20	528	18	480
11	Chemical and chemical products	5	606	6	823	3	92	3	94	2	81	3	95
12	Matches	2	62	5	86	5	58	5	58	7	87	14	180
13	Soaps	..	..	1	5	..	..	..	..	..	..	..	..
14	General engineering	7	387	9	527	3	225	4	230	8	325	9	277
15	Tiles	1	48	4	91	41	2,160	42	2,143	43	2,268	44	2,243
16	Automobile repairing	24	2,324	25	2,587	5	162	9	215	17	265	13	221
17	Other industries	76	1,630	83	1,956	75	3,626	130	4,275	169	5,056	170	4,935
TOTAL		240	16,855	252	18,490	465	104,239	579	110,000	638	114,041	659	115,393



Table 10-1—(cont.)

Sl. No.	Name of Industry	Alleppey								Kottayam			
		1972		1973		1974		1975		1972		1973	
		(13)	(14)	(15)	(16)	(17)	(18)						
		A	B	A	B	A	B	A	B	A	B	A	B
1	Oil	58	404	57	411	52	359	50	411	12	43	18	72
2	Tea	..	..	..	..	..	..	..	..	1	17	5	76
3	Cashew	6	5,732	6	6,069	4	5,116	4	5,171	..	..	..	..
4	Beedi	..	..	..	..	..	..	..	..	..	..	..	..
5	Cotton textiles	1	289	2	428	3	454	4	599	1	200	1	220
6	Coir	137	2,921	166	3,103	191	3,075	176	2,892	2	26	2	31
7	Saw mills	8	37	20	108	24	140	25	142	25	157	33	202
8	Plywood, splints and veneers	11	557	10	486	11	701	9	343	13	726	14	767
9	Printing	20	154	23	167	24	158	27	174	39	717	58	802
10	Rubber	1	154	1	154	3	158	3	171	38	1,118	92	1,734
11	Chemical and chemical products	5	130	6	159	8	161	8	340	8	358	9	435
12	Matches	3	25	3	18	5	84	5	56	..	..	1	9
13	Soaps	..	..	2	21	2	21	2	21	..	..	2	5
14	General engineering	7	86	7	73	10	90	11	100	7	50	11	138
15	Tiles	2	19	3	79	3	78	4	81	2	37	6	65
16	Automobile repairing	5	173	6	194	8	290	13	365	25	549	37	602
17	Other industries	53	1,932	79	2,180	118	2,834	121	3,133	54	1,229	123	1,621
	TOTAL	317	12,518	391	13,670	466	13,719	462	13,999	227	5,247	412	6,779

Table 10-1—(cont.)

Sl. No.	Name of Industry	Kottayam				Idikki							
		1974		1975		1972		1973		1974		1975	
		(19)	(20)	(21)	(22)	(23)	(24)						
		A	B	A	B	A	B	A	B	A	B	A	B
1	Oil	18	72	17	62	8	47	8	46	8	64	9	59
2	Tea	5	34	3	20	81	3,567	79	3,518	77	3,555	74	3,381
3	Cashew	..	..	..	..	..	..	..	..	..	..	..	..
4	Beedi	..	..	..	..	..	..	..	..	..	..	..	..
5	Cotton textiles	1	239	1	264	1	10	1	10	1	10	1	10
6	Coir	2	33	3	41	..	..	..	..	..	..	..	..
7	Saw mills	47	315	42	295	4	60	4	58	2	39	2	29
8	Plywood, splints and veneers	19	616	20	897	1	42	..	..	2	82	1	50
9	Printing	67	862	59	780	2	16	2	16	3	25	3	25
10	Rubber	125	2,077	111	1,829	4	66	7	107	6	57	11	197
11	Chemical and chemical products	13	472	12	504	1	48	1	48	2	57	2	49
12	Matches	2	59	2	37	..	..	..	..	..	..	..	..
13	Soaps	2	5	2	5	..	..	..	..	..	..	..	..
14	General engineering	12	86	12	80	3	198	2	123	3	176	1	12
15	Tiles	15	149	14	141	..	..	..	..	..	..	..	..
16	Automobile repairing	44	581	43	610	1	59	4	147	8	239	6	156
17	Other industry	168	2,183	166	2,022	8	257	11	239	12	294	12	305
	TOTAL	540	7,783	507	7,587	114	4,370	119	4,362	124	4,598	122	4,273

Table 10-1—(cont.)

Sl. No.	Name of Industry	Ernakulam				Trichur							
		1972		1973		1974		1975		1972		1973	
		(25)	(26)	(27)	(28)	(29)	(30)						
		A	B	A	B	A	B	A	B	A	B	A	B
1	Oil	36	187	43	240	46	248	44	252	76	568	91	628
2	Tea	..	..	..	..	..	..	..	..	1	76	1	73
3	Cashew	4	1,196	4	963	4	939	4	928	5	2,259	4	1,867
4	Beedi	3	36	3	36	3	36	3	27	3	58	3	58
5	Cotton textiles	4	1,156	4	1,132	5	1,155	5	1,262	7	2,533	7	2,537
6	Coir	13	344	21	444	20	424	18	392	3	32	6	58
7	Saw mills	90	947	113	1,082	132	1,193	131	1,052	74	606	99	699
8	Plywood, splints and veneers	14	477	19	571	22	627	27	798	21	646	26	743
9	Printing	48	917	65	1,102	87	1,310	93	1,288	32	512	44	631
10	Rubber	2	49	12	163	15	190	15	226	9	300	12	303
11	Chemical and chemical products	21	4,489	24	4,160	27	5,252	33	5,237	17	442	18	375
12	Matches	..	..	3	107	2	98	3	104	20	261	20	292
13	Soaps	7	854	15	917	16	1,003	16	1,080	3	99	5	94
14	General engineering	30	382	44	455	58	584	65	622	25	604	38	635
15	Tiles	21	584	26	640	29	682	28	582	124	4,567	133	4,705
16	Automobile repairing	19	479	26	640	43	864	51	832	25	387	36	414
17	Other industries	218	1,423	368	16,164	457	18,285	476	18,110	110	4,077	198	4,554
	TOTAL	530	2,627	790	28,816	966	32,890	1,012	32,792	555	18,027	740	18,506



Table 10.1—(cont.)

Sl. No.	Name of Industry	Trichur				Palghat							
		1974		1975		1972		1973		1974		1975	
		A	B	A	B	A	B	A	B	A	B	A	B
		(31)		(32)		(33)		(34)		(35)		(36)	
1	Oil	99	690	87	630	9	63	9	45	10	52	11	61
2	Tea	1	78	1	60	3	137	3	128	3	128	3	127
3	Cashew	4	1,983	5	2,567	..	..	..	..	..	..	..	..
4	Beedi	3	58	3	58	15	543	15	543	15	543	15	543
5	Cotton textiles	7	2,596	7	2,588	4	888	10	954	11	865	12	973
6	Coir	7	52	8	66	..	..	1	5	1	5	1	5
7	Saw mills	100	1,026	106	759	38	280	68	432	73	477	81	471
	Plywood, splints and veneers	27	712	28	682	40	1,190	43	1,171	43	1,110	47	1,181
9	Printing	57	796	57	801	23	354	29	349	28	340	29	357
10	Rubber	13	331	14	332	4	56	7	86	10	100	8	94
11	Chemical and chemical products	20	386	20	396	3	124	7	154	8	167	12	260
12	Matches	27	366	26	309	10	252	10	257	10	254	13	277
13	Soaps	7	111	5	26	..	..	2	10	2	10	..	..
14	General engineering	40	676	40	660	9	192	13	236	13	197	17	283
15	Tiles	135	4,480	134	4,383	12	617	12	615	13	614	11	587
16	Automobile engineering	35	402	34	401	17	172	28	249	31	254	34	291
17	Other industries	209	4,740	252	5,243	116	2,708	225	3,547	274	4,092	337	4,585
	TOTAL	832	19,483	827	19,963	303	7,576	482	8,781	545	9,208	631	10,095

Table 10.1—(cont.)

Sl. No.	Name of Industry	Malappuram				Kozhikode							
		1972		1973		1974		1975		1972		1973	
		A	B	A	B	A	B	A	B	A	B	A	B
		(37)		(38)		(39)		(40)		(41)		(42)	
1	Oil	6	37	6	46	8	74	9	60	14	64	23	97
2	Tea	..	..	..	..	..	..	..	..	13	807	13	830
3	Cashew	1	250	..	..	..	..	..	..	3	1,220	2	1,128
4	Beedi	..	..	..	..	..	..	..	..	1	25	1	25
5	Cotton textiles	1	183	1	183	1	180	1	162	20	1,537	30	1,642
6	Coir	..	..	..	..	..	..	..	..	11	375	24	541
7	Saw mills	12	75	19	103	22	124	23	125	67	1,283	81	1,290
8	Plywood, splints and veneers	13	259	9	182	10	222	12	224	23	785	41	1,100
9	Printing	4	26	8	54	11	80	9	64	29	1,087	46	1,026
10	Rubber	4	84	4	104	5	113	6	121	8	238	20	285
11	Chemical and chemical products	2	413	1	52	2	448	..	..	10	242	13	612
12	Matches	..	..	..	..	..	..	1	14	4	56	9	122
13	Soaps	..	..	..	..	..	..	3	208	3	208	11	264
14	General engineering	..	..	1	8	1	4	2	24	14	292	24	301
15	Tiles	2	321	1	197	2	310	3	328	21	3,412	28	3,450
16	Automobile engineering	5	50	8	68	9	75	7	41	49	867	79	980
17	Other industries	14	95	25	156	29	229	37	335	140	5,916	261	5,937
	TOTAL	64	1,793	83	1,153	102	1,877	112	1,516	430	18,414	706	1,9630

Table 10.1—(cont.)

Sl. No.	Name of Industry	Kozhikode				Cannanore							
		1974		1975		1972		1973		1974		1975	
		A	B	A	B	A	B	A	B	A	B	A	B
		(43)		(44)		(45)		(46)		(47)		(48)	
1	Oil	32	185	33	206	8	55	15	91	18	119	19	128
2	Tea	13	745	13	790	5	160	5	160	5	141	5	136
3	Cashew	1	958	2	1,095	3	1,440	3	1,488	3	1,410	3	1,402
4	Beedi	1	25	1	25	10	280	10	279	10	337	10	279
5	Cotton textiles	40	1,844	42	1,929	132	6,417	201	7,670	295	8,771	333	9,250
6	Coir	28	575	32	612	..	..	4	44	4	44	4	44
7	Saw mills	92	1,398	102	1,317	40	678	51	774	60	863	68	825
8	Plywood, splints and veneers	46	1,116	56	1,322	19	1,659	29	1,834	30	2,003	34	2,103
9	Printing	61	1,121	63	1,117	20	161	36	251	40	277	41	295
10	Rubber	23	320	23	308	2	50	3	80	3	55	4	59
11	Chemical and chemical products	16	358	19	618	1	11	2	16	4	41	3	48
12	Matches	9	133	11	139	..	..	2	21	2	21	2	21
13	Soaps	12	388	12	286	..	..	1	9	2	14	2	14
14	General engineering	25	324	31	372	5	70	20	129	21	147	24	195
15	Tiles	31	3,411	35	3,437	8	654	8	681	8	649	8	646
16	Automobile engineering	88	1,211	90	1,102	22	209	46	856	58	458	51	363
17	Other industry	354	6,914	401	7,505	43	1,139	102	1,702	148	2,130	156	2,098
	TOTAL	872	21,026	966	22,180	318	12,983	538	15,635	711	17,480	767	17,906

A. Number of registered working factories; B. Average daily number of employment



Based on the annual survey of industries certain economic indicators have been worked out for the years 1962, 1964, 1971, 1973-74, 1974-75 and 1975-76. The survey covered all factories in the State employing

10 or more workers and using power and those employing 20 or more workers and not using power. Table 10-2 gives the above indicators for different years.

Table 10-2

INDUSTRIES COVERED BY A.S.I. CENSUS SECTOR							
(1)	1962 (2)	1964 (3)	1971 (4)	1972 (5)	1973-74 (6)	1974-75 (7)	1975-76 (8)
1. No. of factories covered	532	579	818	..	899	904	661
2. Productive capital (Rs. in lakhs)	5,670-44	7,348-12	25,389	..	50,010-38	54,299-07	33,323-39
3. No. of persons employed	137,013	145,494	186,833	..	201,543	205,733	173,601
4. Wages salaries and other benefits (Rs. in lakhs)	1,341-25	1,550-84	4,301-83	..	6,457-88	7,565-66	7,104-94
5. Value added by manufacture (Rs. in lakhs)	2,413-27	2,948-15	9,691-44	..	11,723-81	13,701-89	12,356-52
6. Value added by manufacture per employee (Rs.)	1,761-00	2,026-00	5,187-00	..	5,817-00	6,659-87	7,117-77

### Small Scale Industries

Some of the important small scale industries in the State are handloom weaving, oil crushing, pottery, carpentry, blacksmithy, coir industry, beedi making, etc. Most of these industries are having single proprietorship.

There are a number of cottage industries in the State such as coir weaving, mat making, fish curing, bell metal, curing of arecanut, bamboo works, etc. Quilon and Alleppey Districts produce some of the best varieties of coir yarn.

Coir industry provides employment to a sizeable number of people in the Taluks of Quilon, Karunagappally, Karthikapally, Shertallai, Ambalapuzha, Vaikom, Ponnani, Kozhikode, Tirur, Quilandy, etc. Handloom weaving is a dominant cottage industry in the Taluks of Quilon. Kottarakara, Sherthallai, Vaikom, Kunnathunad and in places of Chovva, Chirakkal and Azhikode of Cannanore District. Screwpine mats are produced in the coastal taluks of Quilon and Alleppey Districts. Kayamkulam and Thazhava (in Karunagappally Taluk) are famous places for the production of fine

mats. Molasses from sugarcane is produced in Thiruvalla, Pathanamthitta, Kunnathunad and Chittur Taluks of the State. Curing of fish by sun-drying is being exported to other countries and earn valuable foreign exchange. Curing of arecanut is being done in the taluks of Meenachil, Thalappally, Trichur and Mukundapuram. Oil crushing industry is functioning in all parts of the State except in the hilly regions. Village potteries make a large variety of earthenware articles for the domestic use especially of the vulnerable sections of the society. Using reeds and bamboos obtained from the forests, mats and baskets are produced. Kora grass mats are produced in the taluks of Talappally and Chittoor. Kunnathunadu and Moovattupuzha are the largest producers of lemongrass oil. Beedi making provides employment to a sizeable number or people in all parts of the State.

### Industrial relations

The following table gives the details of industrial disputes resulting in work stoppages and mandays lost in the State during 1965, 1970, 1971, 1972, 1973, 1974, 1975 and 1976.

Table 10-3

#### INDUSTRIAL DISPUTE IN KERALA RESULTING IN WORK STOPPAGES

Sl. No.	Industry	No. of Industrial disputes								No. of Mandays lost (in thousand)							
		1965	1970	1971	1972	1973	1974	1975	1976	1965	1970	1971	1972	1973	1974	1975	1976
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1.	Plantations	40	37	49	47	19	56	11	2	220	63	1,355	118	158	3,180	15	136
2.	Textiles	12	6	17	18	30	26	5	20	40	4	119	117	326	141	21	9
3.	Coir	..	3	3	11	10	9	..	..	..	5	921	1,138	18	29	..	..
4.	Saw mills	8	12	7	8	8	8	3	..	5	4	1	1	23	10	5	..
5.	Tiles	45	26	9	11	20	16	4	2	41	40	53	34	214	252	3	..
6.	Cashew	8	1	4	26	24	7	3	..	319	1	11	1,387	772	811	23	..
7.	Others	82	187	181	175	147	193	65	33	160	493	671	415	731	371	471	79
	TOTAL	195	272	270	296	258	225	91	57	785	610	3,131	3,210	2,292	4,794	538	226



## XI. Transport and Communications

### (a) Road Transport

Kerala has nearly 85,165 km. of roads (as in 1977-78). The road length is nearly 36.6 per 10,000 of population, more or less same as the All India average. Area-wise Kerala has 219 km. road per 100 sq. km. of area, which is larger than the All India average. However, it is to be noted that the total length stated above is constituted by various categories of roads as shown by Table 11.1

Table 11.1

Sl. No.	Categories	Road length km. (As in 1977-78)
(1)	(2)	(3)
1.	(a) National Highway	838
	(b) Under P.W.D. (B and R)	15,255
	(c) Under Irrigation wing	404
	(d) Under Projects	25
2.	(a) Under Corporations	957
	(b) Under Municipalities	2,000
	(c) Under Panchayats	60,039
	(d) Under C. D. and N.E.S. Blocks	2,905
3.	K.S.E.B.	574
4.	Forests	1,155
5.	Railways	66
6.	Others	947
	<b>TOTAL</b>	<b>85,165</b>

The national highways NH 47 and NH 17 pass through the State. NH 47 runs a length of 416.8 km. through the State starting at km. 182/2 from Walayar in the Tamil Nadu boarder. It passes through Palghat, Trichur, Alwaye, Cochin, Alleppey, Quilon, Trivandrum and Neyyattinkara to enter Parassala before crossing to Tamil Nadu at km. 599/0. NH 17 has a length of 421 km. in the State. It starts at km. 18/0 from Thalappady in the Karnataka Boarder and passes through Kasargod, Cannanore, Calicut, Kuttippuram, Puduponnani, Chavakad, Chettuva, Cranganore and Parur to end at km. 439/0 in Edappally. There it joins NH 47 at km. The two national highways together cover the major part of the coastal length of Kerala besides linking some midland regions. Besides the national highways, there are 31 state highways, many major district roads, other district roads, village roads, etc., in the State as detailed under Table 11.2

Table 11.2

LENGTH OF ROADS IN KERALA CATEGORYWISE AND SURFACEWISE (AS ON 1977)

Sl. No.	Category	Total length (km.)	Concrete	Bituminous	Surface distribution W.B.M.	Gravel and Earth Roads
(1)	(2)	(3)	(4)	(5)	(6)	(7)
I	(a) Under National Highway	838	..	838	..	..
	(b) Under P.W.D.					
	(i) State Highways	2,028	45	1,926	57	..
	(ii) Major District Roads	5,324	8	4,710	497	109
	(iii) Other District Roads	5,229	48	3,003	1,660	518
	(iv) Village Roads	2,674	..	110	2,400	164
	<b>TOTAL OF I B</b>	<b>15,255</b>	<b>101</b>	<b>9,749</b>	<b>4,614</b>	<b>791</b>
	<b>TOTAL OF I (a)+I (b)</b>	<b>16,093</b>	<b>101</b>	<b>10,587</b>	<b>4,614</b>	<b>791</b>
	(c) Under Irrigation wing	404	2	113	163	106
	(d) Under Projects	25	..	10	15	..
II	(a) Under Corporations	957	8	400	240	309
	(b) Under Municipalities	2,000	24	576	300	1,100
	(c) Under Panchayats	60,039	..	270	2,001	57,768
	(d) Under C.D. and N.E.S. Blocks	2,905	..	..	1,000	1,905
III	Under K.S.E.B.	574	..	473	101	..
IV	Under Forests	1,155	..	100	138	917
V	Under Railways	66	..	..	66	..
VI	Others	947	..	100	400	447
	<b>TOTAL</b>	<b>85,165</b>	<b>135</b>	<b>12,629</b>	<b>9,058</b>	<b>63,343</b>

The State highways numbering 31 connect the various important places in the State both interior regions and areas in the border. These roads serve as links from the national

highways and between the coastal, midland and highland regions. The names and length of the State highways are given in Table 11.3.



**TABLE 11-3**  
STATE HIGHWAYS AND THEIR LENGTH

	Length km.		Length km.
SH1 Main Central Road	340/600	SH29 Calicut Vythiri Gudalloor	97,069
SH2 Trivandrum Chenkottah Highway	72/500	SH31 Tellicherry Coorg Highway	55/127
SH3 Nedumangad Shorlacode Highway	37/484	SH32 Kalleda Cherkala Highway	52/194
SH4 Quilon Chenkottah Highway	81/249	<b>TOTAL</b>	<b>2,068/988</b>
SH5 Kayamkulam Pathanapuram Highway	42/520		
SH6 Kayamkulam Thiruvalla Highway	30/890		
SH7 Thiruvalla Koshancherry Kumbazha Highway	32/800		
SH8 Main eastern Highway (Punalur Ranni Muvattupuzha)	153/600		
SH9 Kottayam Kozhancherry Highway	44/466		
SH10 Mavelikkara Kozhancherry Highway	28/766		
SH11 Alleppey Changanacherry Highway	24/200		
SH12 Ambalappuzha Tiruvalla Highway	27/290		
SH13 Kattayam Kumali Highway	109/658		
SH14 Erattupettah Peermedu Highway	24/300		
SH15 Ettumanoor Emakulam Highway	57/330		
SH16 Alwaye Munnar Highway	114/140		
SH17 Munnar Udumalpet	39/170		
SH18 Munnar Topstation	36/210		
SH19 Munnar Kumali	105/100		
SH20 Kottamangalam Tripunithura	41/600		
SH21 Chalakudi Anamalai	86/030		
SH22 Cranganoor Shornoor	70/590		
SH23 Shornoor Perinthalmanna	39/380		
SH24 Calicut Palghat	140/260		
SH25 Thathamangalam Chittur Nattukkal	14/200		
SH26 Nattukkal Velanthavalam Highway	11/664		
SH27 Palghat Koduvayoor Thathamangalam Meenakshipuram	35/010		
SH28 Calicut Nilamboor Gudalloor Highway	103/600		

NOTE. (i) A deduction of 41 km. for overlapping etc., is to be made and thus the net length (as on 30th June 1977) becomes 2,028 km.

(ii) The erstwhile state highway 30 (West Coast Road) has been converted into N.H. 17 and hence is no more a state highway.

There is a Highway Research Institute functioning in the State. It started as a testing and control laboratory for roads and bridges works in Kerala. In 1973 the name was changed into Kerala Highway Research Institute. There are three divisions at present under the Institute, viz., the Soil Mechanics and Foundation Division, Concrete and Structure Division, and the Flexible Pavements Division. The Traffic Engineering Division is yet to be started.

The number of motor vehicles on road having valid registration has increased from 13,457 in 1956-57 to 118,056 in 1975-76. The motor vehicles having valid registration in Kerala is given in Table 11-4. The district-wise number of motor vehicles on road as on 31st March 1976 is also furnished in Table 11-5.

**Table 11-4**  
NUMBER OF MOTOR VEHICLES HAVING VALID REGISTRATION

Year	Motor cycles	Private cars and jeeps	Goods vehicles	Taxi cars	Buses	Others	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1956-57	627	6,871	3,162	591	2,198	8	13,457
1960-61	2,064	11,611	5,128	1,485	3,511	681	24,480
1965-66	5,231	20,396	8,848	4,118	4,370	1,427	44,390
1970-71	15,117	33,294	13,162	8,848	6,563	9,250	86,234
1971-72	16,959	36,531	13,584	9,699	6,840	10,096	93,709
1972-73	17,715	44,176	14,164	10,442	7,174	5,788	99,429
1973-74	21,492	45,064	13,921	10,737	6,795	6,456	104,465
1974-75	25,769	50,356	15,875	11,525	7,830	8,320	119,670
1975-76	26,110	47,087	15,882	11,582	8,268	9,127	118,056

**Table 11-5**

NUMBER OF MOTOR VEHICLES AS ON 31st MARCH 1976 (DISTRICT-WISE)

Sl. No.	District	Goods vehicles	Stage carriages	Taxis	Motor cars	Jeeps	Auto-rickshaws	Motor cycles	Tractor trailers	Other vehicles	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1	Trivandrum	2,434	3,781	1,331	9,645	1,188	252	6,235	87	253	25,106
2	Quilon	1,874	362	1,504	4,300	413	60	1,839	91	67	10,510
3	Alleppey	880	341	1,079	3,502	184	164	2,032	121	64	8,367
4	Kottayam	1,070	419	1,116	1,911	484	259	1,303	112	82	6,846
5	Idikki	404	80	293	891	694	8	445	196	139	3,150
6	Ernakulam	2,471	521	1,548	7,029	422	653	4,736	346	469	18,195
7	Trichur	1,422	733	1,412	2,708	187	292	2,715	403	205	10,077
8	Palghat	878	332	1,123	2,742	267	477	2,137	1,457	58	9,471
9	Malappuram	597	308	669	1,131	130	66	560	263	75	3,799
10	Kozhikode	2,543	774	556	4,395	1,959	661	2,306	350	242	14,386
11	Cannanore	1,309	617	1,051	2,413	492	842	1,112	148	165	8,149
	STATE	15,882	8,268	11,582	40,667	6,420	3,734	26,110	3,574	1,819	118,056

### (b) Railways

There is a railway line connecting Trivandrum in the south with the northern end of the State. Earlier line was metergauge from Trivandrum to Quilon and beyond Quilon broadgauge. The metergauge line from Trivandrum to Quilon was converted

to broadgauge and the same was inaugurated on 13th September 1976. There are two other railway lines coming from Madras, one entering through Palghat gap in the north-east and the other through Aryancavu gap in the southeast. The railway line coming through Palghat gap is a broadgauge line, and the other one is a metergauge line.



### (c) Water ways

The rivers and backwaters in the State provide a good system of water routes. The rivers are interconnected by backwaters and canals. There are 1,900 km. of waterways in the State connecting ports and industrial and commercial centres. One of the cheapest modes of transport in the State is water transport.

### (d) Airways

Trivandrum and Cochin are on the air map of India. With the inauguration of the Trivandrum-Dubai direct international flight recently in January 1978 the importance of Trivandrum air port has increased. The other important international flights from Trivandrum are to Colombo and to Mali. Internally there are flights from Trivandrum to Bombay and Madras. There is a flight to Madras connecting Cochin to Coimbatore enroute.

### (e) Posts and Telegraphs

There were 2,898 post offices under the Kerala Circle of Posts and Telegraphs Department as on 1st July 1961. The number of post offices in the State has increased to 4,013 in 1971-72 and 4,030 in 1975-76. These post offices include departmental sub-offices, extra departmental sub-offices, extra departmental branch offices, sub-offices and head post offices.

By the end of 1975-76 there were 303 telephone exchanges as against 81 telephone exchanges in 1961-62. The number of telephone connections was 65,082 in 1975-76 as against 16,852 in 1961-62.

### (f) Broadcasting stations

There are four broadcasting stations of all India Radio at Trivandrum, Alleppey, Trichur and Kozhikode.

## XII. Power

Availability of power is an essential prerequisite for industrial development. Generation of power is cheaper in Kerala when compared to other states in India. Efforts at exploiting the hydroelectric resources of the State started in 1933. The hydroelectric project at Pallivasal was the first project taken up and this scheme harnesses the water of Mudirapuzha river, a tributary of Periyar river.

The installed capacity of power system in Kerala rose from 36 M.W. in 1951-52 to 751.50 M. W. in 1975-76. All the three generating units of the Idikki hydroelectric power station have been put into service, and the present installed capacity is 1,011.5 M.W.

The number of consumers of electricity has increased from 7.11 lakhs in 1972-73 to 9.10 lakhs in 1975-76. The units of power generated in 1975-76 was 2,783.28 M.K.W.H. as against 2,351.2 M.K.W.H. in 1972-73. The per capita consumption of

electricity per annum was 85.8 unit in 1975-76 as against 77.41 unit in 1972-73.

Table 12-1

POWER	
Year	Installed power capacity (M.W.)
(1)	(2)
1961-62	147.50
1966-67	361.00
1971-72	549.10
1972-73	624.60
1973-74	624.60
1974-75	624.60
1975-76	754.60

Table 12-2

Power generation (in million K.W.H.)		Power consumption including external sales (in million K.W.H.)
(1)	(2)	(3)
1956-57	363.54	299.29
1960-61	581.82	505.61
1965-66	841.94	748.74
1970-71	2,125.99	1,858.72
1971-72	2,292.55	1,501.49
1972-73	2,351.27	2,070.60
1973-74	2,510.50	2,120.45
1974-75	2,659.16	2,202.99
1975-76	2,783.28	2,317.80

## XIII. Tourism

Kerala is famous for its natural scenery and equable climate and is an ideal place for tourists. From remote periods this treasure land of the east had attracted many nations seeking trade and empire. In order to capture the market, foreign traders like the Arabs, the Portugese, the French, the Dutch and the British landed on Kerala soil and the warm hospitality of the people and the rulers of Kerala enabled these foreigners to carry on trade in spices, ivory and other valuable products. Majority of the people of Kerala are Hindus. The other two major communities are Christians and Muslims. One can find temples, churches and mosques jostling each other in the same locality.

In order to guide tourists, there is a Tourist Department in the State. Travellers Bungalows and Rest Houses are provided in all important places of the State.

Trivandrum, the capital city of the State is an ancient city of palaces, temples, churches and mosques. The Sree Padmanabhaswamy Temple is in the heart of the city. The Art Gallery and the Napier Museum are also centrally situated. The city has a fine sandy beach. There are facilities for recreation, tennis, golf, boating and swimming. Even aerial joy-riding or mountaineering trips are possible in and around the city. Trivandrum is the seat of Kerala University and the abode of several colleges. Kovalam beach 14 km. to the south of Trivandrum is one of the most picturesque bathing beaches in the whole world. It is an international tourist centre. NEYYAR DAM 29 km. from Trivandrum is a delightful spot for picnic. ARUVIKARA 16 km. from Trivandrum is situated on the banks of Karamana river. It is a pilgrim centre. There is an ancient temple dedicated to the Goddess Bhagavathi, built on a rock on the right bank of the river and headworks



command a view of the beautiful scenery and picturesque landscape around. VARKALA 50 km. to the north of Trivandrum is a famous pilgrim centre renowned for its Janardhana Temple. High cliffs and mineral water springs are added attractions of this place. PONMUDI is a health resort hill station, 56 km. from Trivandrum. VIZHINJAM 13 km. to the south of Trivandrum is a modern fishing harbour under construction. INDIAN SPACE RESEARCH ORGANISATION is situated at Thumba 16 km. north of Trivandrum.

COCHIN is a business centre and a harbour city. It has many places of interest, a unique Jewish synagouge, the former Dutch palace (with its ancient murals) and the modern harbour. MUNNAR 138 km. from Cochin and 914 metres above sea level is a plantation centre. It is a beautiful hill station and health resort. PEERMADE 74 km. from Kottayam is another hill station. From Peermade a winding road passes along to the Periyar lake, which is surrounded by a game preserve. Thekkady is the halting place for visitors to the game sanctuary on Periyar lake. Cruising on the lake is possible for visitors to watch wild life in its natural habitat. CALICUT is a business place and is famous in history as the capital of Zamorin of Calicut. It is here that Vascode Gama, the Portuguese sailor, first landed in 1498 an event which was a turning point in the history of the Indian subcontinent.

The irrigation and power projects at PEECHI, PERINGALKUTHU and MALAMPUZHA are good tourist attractions. Residential accommodation is available for tourists in these places. The other important places in the State are ANJENGO an ancient European trading centre of historic importance, ALLEPPEY an industrial and commercial centre which used to be known as 'Venice of the East', ALWAYE the seat of large industrial concerns and about 20 km. north of

Ernakulam, KALADY the birth place of Sri Sankaracharya of the 8th century and CANNANORE with an ancient fort dating back to European Colonial days.

Some of the important handicrafts seen in the different parts of the state are ivory and wood carving, metal inlay, handloom weaving, screwpine works and bell metal casting. Kerala is famous for Kathakali and such other visual arts which have a lasting impression on the spectators.

#### XIV. Education

In the matter of literacy, Kerala stands very high among the Indian States. According to 1971 census the percentage of literacy in the State was 60.42 as against 46.85 in 1961. The percentage of literacy for India as a whole is 29.34 in 1971 as against 24.03 in 1961.

The percentage of literacy in the different districts of the State is given in Table 14.1.

Table 14-1

PERCENTAGE OF LITERATES TO TOTAL POPULATION			
Sl. No.	District	1961	1971
1	Trivandrum	45.30	62.54
2	Quilon	50.39	64.97
3	Alleppey	57.04	70.44
4	Kottayam	61.52	72.88
5	Idikki	44.33	56.42
6	Ernakulam	50.33	65.37
7	Trichur	47.08	61.61
8	Palghat	35.02	46.69
9	Malappuram	34.29	47.90
10	Kozhikode	44.88	57.23
11	Cannanore	41.29	54.84
	STATE	46.85	60.42

The percentage of literacy was highest in Kottayam District and lowest in Palghat District. Table 14.2 gives literacy by sex in 1971.

The District-wise distribution of Schools during 1972-73 to 1975-76 is furnished in Table 14.3.

Table 14-2  
LITERACY BY SEX 1971  
(Population in lakhs)

District	Males		Females		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	7.52	68.64	6.23	56.48	13.75	62.54
Quilon	8.45	70.10	7.72	59.84	15.68	64.97
Alleppey	7.88	75.22	7.09	65.79	14.97	70.44
Kottayam	5.89	76.18	5.33	69.55	11.22	72.88
Idikki	2.46	62.21	1.86	50.25	4.32	56.42
Ernakulam	7.68	70.52	6.47	60.16	14.14	65.37
Trichur	6.73	66.35	6.33	57.23	13.12	61.61
Palghat	4.47	54.58	3.40	39.22	7.87	46.69
Malappuram	5.03	55.32	3.86	40.78	8.89	47.90
Kozhikode	6.96	65.82	5.09	49.56	12.05	57.23
Cannanore	7.41	63.20	5.56	46.62	12.97	54.84
STATE	70.54	66.62	58.44	54.31	128.98	60.42



**Table 14.3**  
DISTRICTWISE DISTRIBUTION OF SCHOOLS

(1)	Trivandrum				Quilon				Alleppey			
	1972-73 (2)	1973-74 (3)	1974-75 (4)	1975-76 (5)	1972-73 (6)	1973-74 (7)	1974-75 (8)	1975-76 (9)	1972-73 (10)	1973-74 (11)	1974-75 (12)	1975-76 (13)
1. L.P. School	526	530	527	526	703	702	701	702	642	644	642	641
2. U.P. School	192	192	192	192	267	264	266	265	225	226	228	228
3. High/Higher Secondary	133	134	146	148	172	175	186	189	179	178	183	183
4. Engineering Technology(*)	11	11	11	11	8	8	8	9	11	11	11	11
5. Teachers Training	9	9	9	9	15	15	15	15	18	18	18	18
6. Technical and Industrial and Art and Crafts	177	177	177	177	150	150	150	150	144	144	144	144
7. Physically Handicapped	1	1	1	2	..	..	..	..	1	1	1	1
<b>TOTAL</b>	<b>1,049</b>	<b>1,054</b>	<b>1,063</b>	<b>1,065</b>	<b>1,315</b>	<b>1,314</b>	<b>1,326</b>	<b>1,330</b>	<b>1,220</b>	<b>1,222</b>	<b>1,227</b>	<b>1,226</b>

**Table 14.3—(cont.)**

(1)	Kottayam				Idikki				Ernakulam			
	1972-73 (14)	1973-74 (15)	1974-75 (16)	1975-76 (17)	1972-73 (18)	1973-74 (19)	1974-75 (20)	1975-76 (21)	1972-73 (22)	1973-74 (23)	1974-75 (24)	1975-76 (25)
1. L.P. School	506	511	503	504	175	168	205	206	515	521	513	510
2. U.P. School	198	201	197	197	64	61	79	80	196	196	195	196
3. High/Higher Secondary	155	159	160	161	52	46	54	54	181	185	192	191
4. Engineering and Technology(*)	6	6	6	6	..	..	..	1	12	12	12	11
5. Teachers Training	12	12	12	13	1	1	1	1	16	16	16	15
6. Technical and Industrial and Arts and Crafts	101	101	101	101	12	12	12	12	132	132	132	132
7. Physically Handicapped	1	1	1	1	..	..	..	..	..	..	..	2
<b>TOTAL</b>	<b>979</b>	<b>991</b>	<b>980</b>	<b>983</b>	<b>304</b>	<b>288</b>	<b>351</b>	<b>354</b>	<b>1,052</b>	<b>1,062</b>	<b>1,060</b>	<b>1,057</b>

**Table 14.3—(cont.)**

(1)	Trichur				Palghat				Malappuram			
	1972-73 (26)	1973-74 (27)	1974-75 (28)	1975-76 (29)	1972-73 (30)	1973-74 (31)	1974-75 (32)	1975-76 (33)	1972-73 (34)	1973-74 (35)	1974-75 (36)	1975-76 (37)
1. L.P. School	558	559	561	559	546	546	546	548	791	793	799	803
2. U.P. School	222	222	222	221	216	216	214	215	207	207	229	230
3. High/Higher Secondary	158	158	163	165	94	94	94	96	62	62	90	90
4. Engineering Technology(*)	10	10	10	10	4	4	4	4	5	5	5	5
5. Teachers Training	10	10	10	10	7	7	7	7	5	5	5	5
6. Technical and Industrial and Arts and Crafts	168	168	168	168	74	74	74	75	39	39	39	39
7. Physically Handicapped	1	1	1	1	1	1	1	1	1	1	1	1
<b>TOTAL</b>	<b>1,127</b>	<b>1,128</b>	<b>1,135</b>	<b>1,134</b>	<b>942</b>	<b>942</b>	<b>940</b>	<b>946</b>	<b>1,110</b>	<b>1,112</b>	<b>1,168</b>	<b>1,173</b>

**Table 14.3—(cont.)**

(1)	Kozhikode				Cannanore				State			
	1972-73 (38)	1973-74 (39)	1974-75 (40)	1975-76 (41)	1972-73 (42)	1973-74 (43)	1974-75 (44)	1975-76 (45)	1972-73 (46)	1973-74 (47)	1974-75 (48)	1975-76 (49)
1. L.P. School	848	850	867	866	1,077	1,080	1,101	1,110	6,887	6,904	6,965	6,975
2. U.P. School	309	309	313	317	454	454	465	465	2,550	2,548	2,600	2,606
3. High/Higher Secondary	97	95	112	112	116	116	132	132	1,399	1,404	1,512	1,521
4. Engineering Technology(*)	6	6	6	5	6	6	6	7	78	79	79	80
5. Teachers Training	5	5	5	5	7	7	7	7	105	105	105	105
6. Technical and Industrial and Arts and Crafts	54	54	54	54	65	65	65	63	1,116	1,116	1,116	1,115
7. Physically Handicapped	..	..	..	1	1	1	1	1	7	7	7	11
<b>TOTAL</b>	<b>1,319</b>	<b>1,319</b>	<b>1,357</b>	<b>1,360</b>	<b>1,726</b>	<b>1,729</b>	<b>1,777</b>	<b>1,785</b>	<b>12,143</b>	<b>12,163</b>	<b>12,384</b>	<b>12,413</b>

\*Including J.T.S., I.T.I. and Polytechnics.



During 1975-76 there were 6,975 Lower Primary Schools in the State as against 6,887 in 1972-73. The number of Upper Primary Schools has increased from 2,550 in 1972-73 to 2,606 in 1975-76. The total number of High Schools in the State during 1975-76 was 1,521 as against 1,399 in 1972-73.

The number of scholars in the L.P. Section during 1975-76 was 26.70 lakhs as against

29.90 lakhs in 1972-73. Similarly the number of students in the U.P. Section during 1972-73 and 1975-76 was 13.86 lakhs and 17.06 lakhs respectively. There were 9.07 lakhs scholars in the High School Section in 1975-76 as against 7.80 lakhs in 1972-73.

The number of scholars in the various districts of the State is furnished in Table 14.4:

**Table 14.4**  
NUMBER OF SCHOLARS

Sl. No.	District	Scholars in lakhs							
		L.P. Section				U.P. Section			
		1972-73 (3)	1973-74 (4)	1974-75 (5)	1975-76 (6)	1972-73 (7)	1973-74 (8)	1974-75 (9)	1975-76 (10)
1	Trivandrum	2.94	2.77	2.72	2.55	1.51	1.60	1.66	1.76
2	Quilon	3.37	3.27	3.15	2.94	1.82	1.91	1.98	2.19
3	Alleppey	2.78	2.71	2.61	2.39	1.65	1.70	1.74	1.84
4	Kottayam	2.80	2.75	2.06	1.90	1.48	1.59	1.34	1.43
5	Idikki	..	..	0.88	0.85	..	..	0.48	0.54
6	Ernakulam	3.46	3.33	2.93	2.74	1.74	1.81	1.73	1.88
7	Trichur	3.22	3.28	3.02	2.83	1.49	1.61	1.71	1.84
8	Palghat	2.15	2.14	2.12	1.96	0.84	0.91	0.95	1.06
9	Malappuram	2.75	2.77	2.84	2.68	0.75	0.93	0.96	1.14
10	Kozhikode	3.04	2.92	3.13	2.82	1.24	1.32	1.43	1.62
11	Cannanore	3.39	3.24	3.22	3.04	1.34	1.47	1.51	1.76
	<b>TOTAL</b>	<b>29.90</b>	<b>29.18</b>	<b>28.68</b>	<b>26.70</b>	<b>13.86</b>	<b>14.85</b>	<b>15.55</b>	<b>17.06</b>

**Table 14.4—(cont.)**

Sl. No.	District	Scholars in lakhs							
		H.S. Section				Total			
		1972-73 (11)	1973-74 (12)	1974-75 (13)	1975-76 (14)	1972-73 (15)	1973-74 (16)	1974-75 (17)	1975-76 (18)
1	Trivandrum	0.90	0.99	1.06	1.02	5.35	5.36	5.44	5.33
2	Quilon	1.11	1.21	1.29	1.27	6.30	6.39	6.42	6.40
3	Alleppey	1.10	1.16	1.24	1.16	5.53	5.57	5.59	5.39
4	Kottayam	0.88	0.97	0.90	0.86	5.16	5.31	4.30	4.19
5	Idikki	..	..	0.26	0.26	..	..	1.62	1.65
6	Ernakulam	0.98	1.00	1.07	1.04	6.18	6.23	5.73	5.66
7	Trichur	0.83	0.93	1.05	0.99	5.54	5.82	5.78	5.66
8	Palghat	0.45	0.49	0.55	0.53	3.44	3.54	3.62	3.55
9	Malappuram	0.30	0.35	0.40	0.42	3.80	4.05	4.20	4.24
10	Kozhikode	0.60	0.68	0.75	0.73	4.83	4.92	5.31	5.17
11	Cannanore	0.65	0.78	0.79	0.79	5.38	5.49	5.58	5.59
	<b>TOTAL</b>	<b>7.80</b>	<b>8.65</b>	<b>9.36</b>	<b>9.07</b>	<b>51.56</b>	<b>52.68</b>	<b>53.59</b>	<b>52.83</b>

Kerala has achieved substantial progress in the field of higher education also. There were 128 Arts and Science Colleges in the State in 1975-76. In addition to that there were 19 Training Colleges, 6 Engineering Colleges, 4 Medical Colleges, 1 Dental College, 1 Veterinary College, 1 Agricultural College, 1 Horticultural College, 2 Co-operative Colleges, 2 Physical Education Colleges,

10 Colleges for Oriental Studies and Fine Arts, 4 Law Colleges and 3 Ayurveda Colleges in the State. Table 14.5 gives the district-wise distribution of these colleges during 1972-73 to 1975-76. Details regarding number of scholars in Arts and Science and Professional Colleges and per capita expenditure on education are given in Tables 14.6 and 14.7 respectively.



**Table 14.5**  
DISTRIBUTION OF COLLEGES IN KERALA

Type of colleges	Trivandrum				Quilon				Alleppey				Kottayam			
	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Arts and Science	15	15	15	16	12	12	12	13	15	15	15	14	17	17	17	17
Engineering	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Medical	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dental	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Veterinary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Agriculture	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Horticulture	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Co-operative	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Physical Education	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Training	3	3	3	3	2	2	2	2	3	3	3	3	4	4	4	4
Fine Arts and Oriental Studies	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Law	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Ayurveda	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>TOTAL</b>	<b>28</b>	<b>28</b>	<b>28</b>	<b>29</b>	<b>15</b>	<b>15</b>	<b>15</b>	<b>16</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>18</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>

**Table 14.5—(cont.)**

Type of colleges	Idikki				Ernakulam				Trichur				Palghat			
	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	
Arts and Science	2	2	2	2	17	17	17	17	14	14	14	15	8	8	8	8
Engineering	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Medical	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dental	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Veterinary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Agriculture	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Horticulture	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Co-operative	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Physical Education	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Training	1	1	1	1	2	2	2	2	1	1	1	1	1	1	1	1
Fine Arts and Oriental studies	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Law	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ayurveda	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>TOTAL</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>20</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>

**Table 14.5—(cont.)**

Type of colleges	Malappuram				Kozhikode				Cannanore				State			
	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	
Arts and Science	5	5	6	6	9	9	10	11	8	8	8	9	122	122	123	128
Engineering	1	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4
Medical	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dental	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Veterinary	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Agriculture	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Horticulture	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
Co-operation	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2
Physical Education	1	1	1	1	1	1	1	1	1	1	1	1	19	19	19	19
Training	1	1	1	1	2	2	2	2	1	1	1	1	9	9	9	9
Fine Arts and Oriental studies	5	5	5	5	1	1	1	1	1	1	1	1	4	4	4	4
Law	1	1	1	1	1	1	1	1	1	1	1	1	3	3	3	3
Ayurveda	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<b>TOTAL</b>	<b>11</b>	<b>11</b>	<b>12</b>	<b>12</b>	<b>16</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>10</b>	<b>175</b>	<b>175</b>	<b>176</b>	<b>181</b>

\*Including Sanskrit College.

**Table 14.6**  
NUMBER OF SCHOLARS IN ARTS AND SCIENCE AND PROFESSIONAL COLLEGES 1972-73-TO 1975-76

Sl. No.	Year	Arts and Science Colleges	Professional Colleges
(1)	(2)	(3)	(4)
1.	1972-73	157,328	10,543
2.	1973-74	152,602	10,930
3.	1974-75	153,445	11,606
4.	1975-76	164,982	12,546



Table 14.7

PER CAPITA EXPENDITURE ON EDUCATION (Rs.)

Sl. No.	State	1968-69 (Accounts)	1970-71 (Accounts)	1972-73 (Accounts)	1973-74 (Accounts)	1974-75 (Revised Estimate)	1975-76 (Budget Estimate)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Andhra Pradesh	4.5	14.4	14.53	19.43	21.32	24.05
2.	Assam	14.5	17.0	16.58	20.40	26.13	26.09
3.	Bihar	2.6	8.7	NA	13.38	14.22	17.13
4.	Gujarat	4.4	16.0	NA	21.22	24.09	25.68
5.	Haryana	14.0	18.6	NA	..	28.44	29.05
6.	Jammu and Kashmir	17.9	20.3	23.30	30.99	33.81	35.21
7.	Kerala	23.5	28.5	30.98	37.00	46.05	50.52
8.	Madhya Pradesh	10.2	12.0	14.86	18.16	19.79	20.31
9.	Maharashtra	7.8	19.7	21.06	26.62	30.56	32.01
10.	Karnataka	10.9	18.5	19.94	22.58	25.62	29.04
11.	Orissa	5.3	10.9	12.53	15.21	20.89	20.66
12.	Punjab	19.8	22.5	27.31	33.56	35.01	38.25
13.	Rajasthan	9.4	16.3	19.07	20.87	24.62	25.80
14.	Tamil Nadu	6.7	17.8	NA	..	26.65	26.40
15.	Uttar Pradesh	4.1	8.5	11.52	14.22	17.28	21.82
16.	West Bengal	9.5	15.9	16.47	18.26	22.12	22.72
ALL STATES AVERAGE		10.4	17.2	19.01	22.27	26.00	27.73

## XV. Health

During the past few years, medical and public health activities in the State expanded considerably. The number of medical institutions under modern system of medicine (Government and grant-in-aid institutions) has increased from 397 in 1960-61 to 783 in 1972-73 and again rose to 886 in 1975-76. The number of medical institutions under indigenous system of medicine rose from 222 in 1960-61 to 413 in 1972-73 and again to 562 in 1975-76.

The distribution of these institutions with number of beds in different districts of the State during 1972-73 to 1975-76 is given in Tables 15.1, 15.2, and 15.3

The number of beds per lakhs of population in different districts of the State from 1972-73 to 1975-76 is given in Table 15.4

The per capita Government expenditure on medicine and public health in the different States of India from 1968-69 to 1975-76 is given in Table 15.5:

Table 15.1

MEDICAL INSTITUTIONS AND BEDS IN KERALA (ALLOPATHIC)

Sl. No.	District	Hospitals				Dispensaries Including T.B. Clinics and others				M.C.H. Unit and Primary Health Centres				Mobile Dental Hospitals			
		1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
1.	Trivandrum	15	15	19	19	47	50	48	49	18	18	18	19	1	1	..	1
2.	Quilon	11	11	11	12	49	57	59	59	20	20	20	20	..	..	..	..
3.	Alleppey	10	11	12	12	41	51	49	49	20	20	20	20	..	..	..	..
4.	Kottayam	11	11	12	13	24	34	34	32	15	15	15	15	..	..	..	..
5.	Idikki	2	2	2	2	29	35	35	35	4	4	4	4	..	..	..	..
6.	Ernakulam	17	17	18	18	47	54	53	53	17	17	17	17	..	..	..	..
7.	Trichur	17	18	18	18	37	47	48	49	18	18	18	18	..	..	..	..
8.	Palghat	9	9	10	10	50	58	57	51	11	11	11	11	..	..	..	..
9.	Malappuram	6	7	7	8	29	49	49	49	12	12	12	12	..	..	..	..
10.	Kozhikode	9	9	9	10	39	48	48	49	15	15	15	15	..	..	..	..
11.	Cannanore	10	11	12	13	80	103	101	102	13	13	13	13	..	..	..	..
STATE		117	121	130	135	490	586	580	577	163	163	163	164	1	1	..	1

Table 15.1—(cont.)

Sl. No.	District	Grant-in-aid Institutions				Total institutions				Total beds			
		1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1.	Trivandrum	3	1	3	2	85	86	89	90	4,940	4,795	5,125	5,334
2.	Quilon	..	..	..	1	80	88	90	92	1,557	1,617	1,737	1,881
3.	Alleppey	1	1	1	2	72	83	82	83	3,159	3,249	3,262	3,579
4.	Kottayam	..	..	1	1	54	60	61	61	1,969	2,000	2,031	2,490
5.	Idikki	..	..	..	..	35	41	41	41	265	261	261	261
6.	Ernakulam	2	..	1	1	83	88	89	89	2,608	2,391	2,623	2,661
7.	Trichur	3	..	1	2	78	83	85	87	3,150	2,925	3,171	3,692
8.	Palghat	1	..	..	..	71	78	78	72	1,071	1,107	1,242	1,242
9.	Malappuram	..	..	..	..	57	68	68	69	758	776	784	796
10.	Kozhikode	1	..	..	..	64	72	72	74	3,043	3,170	3,188	3,416
11.	Cannanore	..	..	..	..	104	127	126	128	1,664	1,815	1,888	2,216
STATE		11	2	7	9	783	874	881	886	24,184	24,106	25,312	27,568



Table 15.2

Sl. No	District	MEDICAL INSTITUTIONS (AYURVEDA) IN KERALA											
		Hospitals					Dispensaries					Beds	
(1)	(2)	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Trivandrum	9*	8	8	8	29*	32	32	33	430*	380	390	390
2	Quilon	4	4	4	4	36	35	34	34	70	70	70	70
3	Alleppey	7	7	7	7	37	39	39	39	96	96	96	96
4	Kottayam	7	6	6	6	20	18	18	18	186	86	86	86
5	Idikki	1	1	1	1	15	15	15	15	10	10	10	10
6	Ernakulam	10	9	9	9	29	29	28	28	179	154	154	154
7	Trichur	10	10	10	10	54	55	52	52	154	60	60	60
8	Palghat	3	3	3	3	33	35	34	34	50	96	96	96
9	Malappuram	4	6	6	6	27	31	33	33	36	60	60	60
10	Kozhikode	5	5	5	5	27	34	33	33	60	60	60	60
11	Cannanore	6	6	6	6	40	53	56	57	101	96	96	96
	STATE	66	65	65	65	347	376	374	376	1,372	1,262	1,274	1,282

\* Including Homoeo also.

Table 15.3

Sl. No.	District	MEDICAL INSTITUTIONS (HOMOEOPATHY) IN KERALA											
		Hospitals					Dispensaries					Beds	
(1)	(2)	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Trivandrum	Separate figure not available	1	1	1	Separate figure not available	9	9	9	Separate figure not available	50	50	50
2	Quilon	..	..	..	..	..	11	11	11	..	25	25	25
3	Alleppey	..	..	..	..	..	13	14	14	..	50	50	50
4	Kottayam	..	..	..	..	..	7	8	8	..	25	25	25
5	Idikki	..	..	..	..	..	10	9	9	..	25	25	25
6	Ernakulam	..	..	..	..	..	6	6	6	..	25	25	25
7	Trichur	..	..	..	..	..	11	11	11	..	25	25	25
8	Palghat	..	..	..	..	..	10	10	10	..	25	25	25
9	Malappuram	..	..	..	..	..	9	9	9	..	25	25	25
10	Kozhikode	..	..	..	..	..	14	14	15	..	25	25	25
11	Cannanore	..	..	..	..	..	..	..	..	..	250	250	250
	STATE	8	8	8	8	113	113	113	113	250	250	250	250

Table 15.4

NUMBER OF BEDS PER LAKH POPULATION (DISTRICT-WISE)

Sl. No.	District	Number of beds											
		Modern					Indigenous					Total	
(1)	(2)	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1	Trivandrum	4,940	4,795	5,125	5,334	430	430	440	390	5,370	5,225	5,565	5,724
2	Quilon	1,557	1,617	1,737	1,881	70	70	70	70	1,627	1,687	1,807	1,951
3	Alleppey	3,159	3,249	3,262	3,579	96	121	121	96	3,255	3,370	3,383	3,675
4	Kottayam	1,969	2,000	2,031	2,490	186	136	136	86	2,155	2,136	2,167	2,576
5	Idikki	265	261	261	260	10	10	10	10	275	271	271	271
6	Ernakulam	2,608	2,391	2,623	2,661	179	179	179	154	2,787	2,570	2,802	2,815
7	Trichur	3,150	2,925	3,171	3,692	154	179	189	164	3,304	3,104	3,360	3,856
8	Palghat	1,071	1,107	1,242	1,242	50	85	85	60	1,121	1,192	1,327	1,302
9	Malappuram	758	776	784	796	36	96	96	96	794	872	880	892
10	Kozhikode	3,043	3,170	3,188	3,416	60	85	85	60	3,163	3,255	3,273	3,476
11	Cannanore	1,664	1,815	1,888	2,216	101	121	121	96	1,765	1,936	2,009	2,312
	STATE	24,184	24,106	25,312	27,568	1,372	1,512	1,532	1,282	25,556	25,618	26,844	28,850

Table 15.4—(cont.)

No. of beds per lakh population

Sl. No.	District	No. of beds per lakh population											
		Modern					Indigenous					Total	
(1)	(2)	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76	1972-73	1973-74	1974-75	1975-76
		(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
1	Trivandrum	206	206	215	219	19	18	19	16	235	224	234	235
2	Quilon	62	62	67	71	3	2	3	3	65	64	70	74
3	Alleppey	145	147	145	157	4	5	5	4	149	152	150	157
4	Kottayam	125	125	125	152	12	9	8	5	136	134	133	157
5	Idikki	33	32	31	30	1	1	1	1	34	33	32	31
6	Ernakulam	116	104	111	110	8	8	8	6	124	112	119	116
7	Trichur	142	126	133	152	7	7	8	7	149	133	141	159
8	Palghat	61	62	69	67	3	5	5	3	64	67	74	70
9	Malappuram	39	39	38	33	2	4	5	3	41	43	43	43
10	Kozhikode	137	139	137	143	3	4	4	3	140	143	141	148
11	Cannanore	67	71	72	82	4	5	5	4	71	76	77	86
	STATE	109	106	109	116	6	7	6	5	115	113	115	121



Table 15.5

PER CAPITA EXPENDITURE ON MEDICINE AND PUBLIC HEALTH (Rs.)

Sl. No.	State	1968-69 (Accounts)	1970-71 (Accounts)	1972-73 (Accounts)	1973-74 (Accounts)	1974-75 (Revised estimate)	1975-76 (Budget estimate)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1	Andhrapradesh	4.2	5.9	6.51	7.99	9.54	10.09
2	Assam	4.6	5.0	5.77	7.17	8.24	8.62
3	Bihar	2.1	2.0	N.A.	4.70	5.63	6.16
4	Gujarat	4.7	7.5	N.A.	11.44	12.18	12.39
5	Haryana	4.2	7.3	N.A.	..	13.26	14.07
6	Jammu and Kashmir	8.5	9.9	18.77	22.11	21.35	22.62
7	Kerala	6.8	7.1	12.08	14.68	14.50	15.94
8	Madhya Pradesh	3.9	4.7	7.41	8.38	9.05	9.22
9	Maharashtra	5.3	7.7	11.52	13.02	13.64	14.11
10	Karnataka	4.2	5.4	9.52	9.95	11.25	13.20
11	Orissa	3.9	4.9	6.79	7.43	8.19	7.88
12	Punjab	5.7	7.2	11.52	14.30	14.37	14.55
13	Rajasthan	6.3	9.1	11.67	13.27	13.93	13.41
14	Tamil Nadu	5.0	7.9	N.A.	..	11.05	11.42
15	Uttar Pradesh	2.9	3.4	5.09	6.11	6.24	6.16
16	West Bengal	5.7	6.1	8.91	9.78	10.15	11.80
ALL STATE AVERAGE		4.9	6.3	9.63	10.72	11.14	11.98

## XVI. Trade

From remote times Kerala had trade relations with the countries in almost all parts of the world. The hill products and spices of Kerala have attracted traders from all parts of the world. The main products of the State are pepper, ginger, cardamom, lemongrass oil, rubber, cashew, tea, coffee and coir products. Marine products of Kerala have also good demand in foreign markets. Some of the products of Kerala enjoy monopoly position in India's economy.

*Sea borne trade:* The Port of Cochin is an important centre for coastal as well as foreign trade. The other two intermediate ports are Alleppey and Kozhikode. In addition there

are 10 minor ports in Kerala. The volume of traffic handled at these ports increased considerably during recent years. The main commodities exported through Cochin Port are pepper, ginger, marine products, tea, coffee, cardamom, lemongrass oil, cashew, kernels, coir, coir products, timber, etc. The important commodities exported through the Port of Kozhikode are bricks and tiles, coconut, tea, coffee, coir and coir products, pepper, ginger and timber. Alleppey Port is important for the export of coir, coir products, pepper, ginger and turmeric.

The important minor ports are Trivandrum, Quilon, Ponnani, Badagara, Tellicherry, Azhikkal, Cannanore, Calicut, Beypore and Kasargode.

Table 16.1

FOREIGN EXPORTS FROM THE PORTS OF KERALA (VALUE IN LAKHS)

Sl. No.	Commodity	Unit	1957-58		1960-61		1965-66		1970-71	
			Quantity	Value Rs.	Quantity	Value Rs.	Quantity	Value Rs.	Quantity	Value Rs.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1	Bricks and tiles	1000 Nos.	21,378	28.18	27,382	43.18	..	..	..	0.8
2	Cardamom	Qtl.	2,551	56.73	3,696	76.97	2,056	61.83	5,154.44	313.45
3	Cashew kernels	M.T.	36,325	1,368.45	36,394	1,693.57	48,626	2,602.45	47,961	4,958.21
4	Cashew shell liquid	1000 litre	4,372	35.81	5,183	48.53	12,250	171.67	5,618	65.05
5	Coffee	M.T.	1,656	86.93	9,490	327.26	9,679	443.38	17,631	1,346.68
6	Coir yarn and fibre	"	51,463	494.49	47,679	516.44	46,409	657.65	28,393	653.54
7	Coir products	"	17,609	266.66	17,748	301.33	17,080	361.24	16,457	523.45
8	Cordage and rope of vegetable fibre	"	113	0.96	112	1.22	33	0.57	881	22.58
9	Fish and prawns	"	6,018	149.80	5,067	191.04	10,359	735.81	23,802	2,677.43
10	Ginger	"	2,435	22.60	4,513	66.84	2,684	82.83	1,829	129.28
11	Hides and skins	"	20	2.06	151	20.31	14	3.01	133	96.24
12	Jute and jute products	"	489	12.42	365	10.38	80	2.29	16	1.35
13	Metals, minerals and ores	"	333,759	212.51	182,370	106.66	30,933	29.94	15,262	79.47
14	Manioc meals	"	12,071	27.36	28,740	61.36	13	0.11	391	4.56
15	Lemongrass oil	100 litre	1,460	138.41	1,145	200.76	296	38.43	173	67.55
16	Sandalwood oil	"	9	8.21	11	20.73	13	18.92	39	8.48
17	Other vegetable oil	"	42	1.20	8	3.94	68	3.42	103	6.26
18	Oil cake	M.T.	731	1.58	1,477	4.75	1,578	5.91	3,753	22.80
19	Pepper	"	10,956	224.88	15,921	723.90	24,477	1,027.37	16,704	1,393.23
20	Rubber manufactures	"	..	0.39	10	0.40	N.A.	16.19	..	13.38
21	Tea	"	41,275	2,281.50	36,529	2,069.83	45,254	2,209.63	33,531	2,338.92
22	Turmeric	"	904	7.00	1,069	15.00	2,012	29.12	1,347	37.34
23	Rose wood	Value	..	88.83	..	173.96	..	131.05	..	436.50
24	Other kinds of wood	"	..	5.10	..	9.27	..	7.28	..	13.12
25	Wood manufactures	"	..	0.58	..	0.58	..	3.82	..	14.57
26	Others	"	..	245.95	..	283.70	..	361.54	..	1,937.64
TOTAL			..	5,758.59	..	6,971.91	..	9,005.46	..	16,101.16



Table 16.1—(cont.)

Sl. No.	Commodity	Unit	1971-72		1972-73		1973-74		1974-75	
			Quantity	Value Rs.	Quantity	Value Rs.	Quantity	Value Rs.	Quantity	Value Rs.
(1)	(2)	(3)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
1.	Bricks and tiles	100 Nos.	..	..	138	0.38	..	0.98	..	0.42
2.	Cardamom	Qtl.	5,537.20	182.18	4,194.95	215.84	5,263	333.86	5,369	449.11
3.	Cashew kernels	M.T.	64,588	6,620.10	55,365	5,859.96	56,406	9,183.39	56,797	10,579.76
4.	Cashew shell liquid	1000 Litre	4,109	46.51	3,975	46.43	3,970	59.03	6,039	145.67
5.	Coffee	M.T.	19,423	1,166.52	24,913	1,761.49	41,791	4,050.13	31,710	2,919.29
6.	Coir yarn and fibre	"	25,074	663.46	30,836	781.97	2,171	908.29	22,449	838.57
7.	Coir products	"	18,886	699.46	15,821	651.95	17,589	833.40	15,788	900.18
8.	Cordage and rope of vegetable fibre	"	825	22.53	907	25.21	1,424	45.45	1,228	51.81
9.	Fish and prawns	"	25,320	4,100.33	23,825	3,859.04	31,302	5,985.53	26,485	4,171.90
10.	Ginger	"	4,560	164.01	4,159	154.22	3,624	206.72	3,181	242.22
11.	Hides and skins	"	21	5.57	235	176.00	177	55.75	118	101.20
12.	Jute and jute products	"	82	0.43	63	0.77	21	1.68	13	1.31
13.	Metals, minerals and ores	"	49,602	183.50	59,775	241.51	29,558	106.67	8,208	49.79
14.	Manioc meals	"	393	3.51	351	3.36	779	10.85	760	14.88
15.	Lemongrass oil	100 litre	243	73.12	279	100.44	360	207.76	244	154.53
16.	Sandalwood oil	"	6	1.59	4	5.32	0.3	0.96	..	..
17.	Other vegetable oil	"	34	2.36	817	35.71	1	2.25	1	1.39
18.	Oil cake	M.T.	7,054	34.80	5,551	45.84	5,041	68.92	480	5.83
19.	Pepper	"	21,150	1,565.47	21,590	1,582.91	29,298	3,014.94	24,436	3,270.91
20.	Rubber manufactures	"	..	8.09	..	24.17	..	28.00	..	55.52
21.	Tea	"	45,694	3,117.77	42,120	2,806.00	46,837	3,330.19	43,065	4,239.21
22.	Turmeric	"	1,801	50.78	1,272	36.66	2,183	100.13	1,402	63.10
23.	Rosewood	Value	..	610.59	..	806.11	..	1,208.60	..	442.72
24.	Other kinds of wood	"	..	67.20	..	23.85	..	21.47	..	74.84
25.	Wood manufactures	"	..	10.36	..	26.42	..	108.22	..	59.23
26.	Others	"	..	865.51	..	994.81	..	2,296.55	..	2,184.12
TOTAL			..	20,265.76	..	20,266.32	..	32,169.72	..	31,017.46

Source: 1. Director General of Commercial Intelligence and Statistics, Calcutta.

2. Cochin Chamber of Commerce.

3. Alleppey Chamber of Commerce.

4. Report from the District Statistical Officers, Trivandrum, Quilon, Alleppey and Kozhikode.

## XVII. Five Year Plans

Table 17.1 gives the actual plan expenditure of the State during the First, Second, Third, Annual and Fourth Plans. The

sectoral distribution of the expenditure are also given in the table. Table 17.2 gives the plan outlay during the Fifth Five Year Plan.

Table 17.1

PLAN EXPENDITURE IN KERALA DURING THE FIRST FOUR PLAN PERIODS (Rs. in lakhs)

(1)	First plan		Second plan		Third plan		Annual plan		Fourth plan	
	Actual expenditure	Percentage	Actual expenditure	Percentage	Actual expenditure	Percentage	Actual expenditure	Percentage	Actual expenditure	Percentage
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Agricultural Programme	248.51	9.6	794.54	9.8	2,585.96	14.2	3,289.85	22.8	4,419.57	13.19
Community development and co-operation	..	..	540.47	6.8	1,097.66	6.0	600.37	4.2	1,199.44	3.58
Irrigation and power	1,570.62	60.8	3,273.67	40.8	7,634.58	41.9	5,441.91	37.7	14,329.05	42.77
Industry and mining	50.43	2.0	603.98	7.5	1,437.02	7.9	1,334.99	9.2	*1,140.00	7.47
Transport and communication	335.89	12.7	718.31	9.0	1,195.76	6.5	1,066.79	7.4	*10.00	9.18
Social services	383.83	14.9	2,019.42	25.2	4,170.29	22.9	2,660.74	18.4	7,765.48	23.67
Miscellaneous	..	..	71.39	0.9	109.72	0.6	42.72	0.3	44.07	0.14
TOTAL STATE PLAN	2,589.28	100.0	8,021.78	100.0	18,231.01	100.0	14,437.37	100.0	35,335.00	100.0
									*1,240.00	

\*Represents the plan assistance outside plan ceiling.



Table 17.2

FIFTH FIVE YEAR PLAN—KERALA (STATE PLAN) 1974-75 TO 1978-79 (Rs. in lakhs)

Sl. No.	Sectors	Tentative outlay		1974-75 Account		1975-76 Account		1976-77 Revised estimate		1977-78 Budget estimate	
		Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage	Amount	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Agriculture and allied services	10,745	18.89	1,194.20 *57.53	14.32	1,549.07 *25.86	14.97	2,268.32	18.84	2,600.00	19.19
2.	Co-operation	739	1.30	74.23 *8.44	0.89	97.37 *5.52	0.94	156.74	1.30	178.01	1.31
3.	Irrigation and Power	22,220	39.05	3,408.42 *108.30	40.85	4,279.67 *18.88	41.36	4,527.00 *200.00	38.18	5,550.00 *200.00	40.95
4.	Industry and minerals	6,154	10.82	659.11 *49.82	7.91	1,126.65 *20.34	10.89	1,229.05 *100.00	10.21	1,561.01	11.52
5.	Transport and Communications	4,103	7.20	933.01 *1.95	11.18	699.05	6.76	856.37	7.11	700.00	5.17
6.	Social and community services	12,159	21.37	1,985.28 *37.17	23.79	2,478.95 *22.42 **16.96	23.96	2,663.67 **49.00	22.12	1,818.86 **70.00	20.80
7.	Economic services	220	0.39	31.56	0.38	17.71 *33.58	0.17	38.30 *118.00	0.32	43.00 *150.00	0.32
8.	General services	556	0.98	57.07	0.68	98.17	0.95	230.93	1.92	100.00	0.74
TOTAL		56,896	100.00	8,342.88 *263.32	100.00	10,346.64 *126.30 **16.96	100.00	12,048.38 *418.00 **49.00	100.00	13,550.88 *350.00 **70.00	100.00

\*Outside plan ceiling. \*\*Share of E.S.I. Corporation.

## XVIII. Income and Prices

The per capita income and index numbers of prices in Kerala over a period are shown in Tables 18.1 and 18.2.

Table 18.1

PER CAPITA INCOME AT CURRENT PRICES AND CONSTANT PRICES (In rupees)

Year	Per capita income at current prices	Per capita income at constant prices
(1)	(2)	(3)
1960-61	259	259
1965-66	380	261
1970-71	584	298
1971-72	573	304
1972-73	647	304
1973-74	800*	304
1974-75	884*	307
1975-76	909*	297

\*Provisional.

Table 18.2

CONSUMER PRICE INDEX NUMBERS

1956	..	383
1961	..	478
1966	..	673
1967	..	729
1968	..	783
1969	..	817
1970	..	851
1971	..	857
1972	..	909
1973	..	1,096
1974	..	1,442
1975	..	1,573
1976	..	1,401



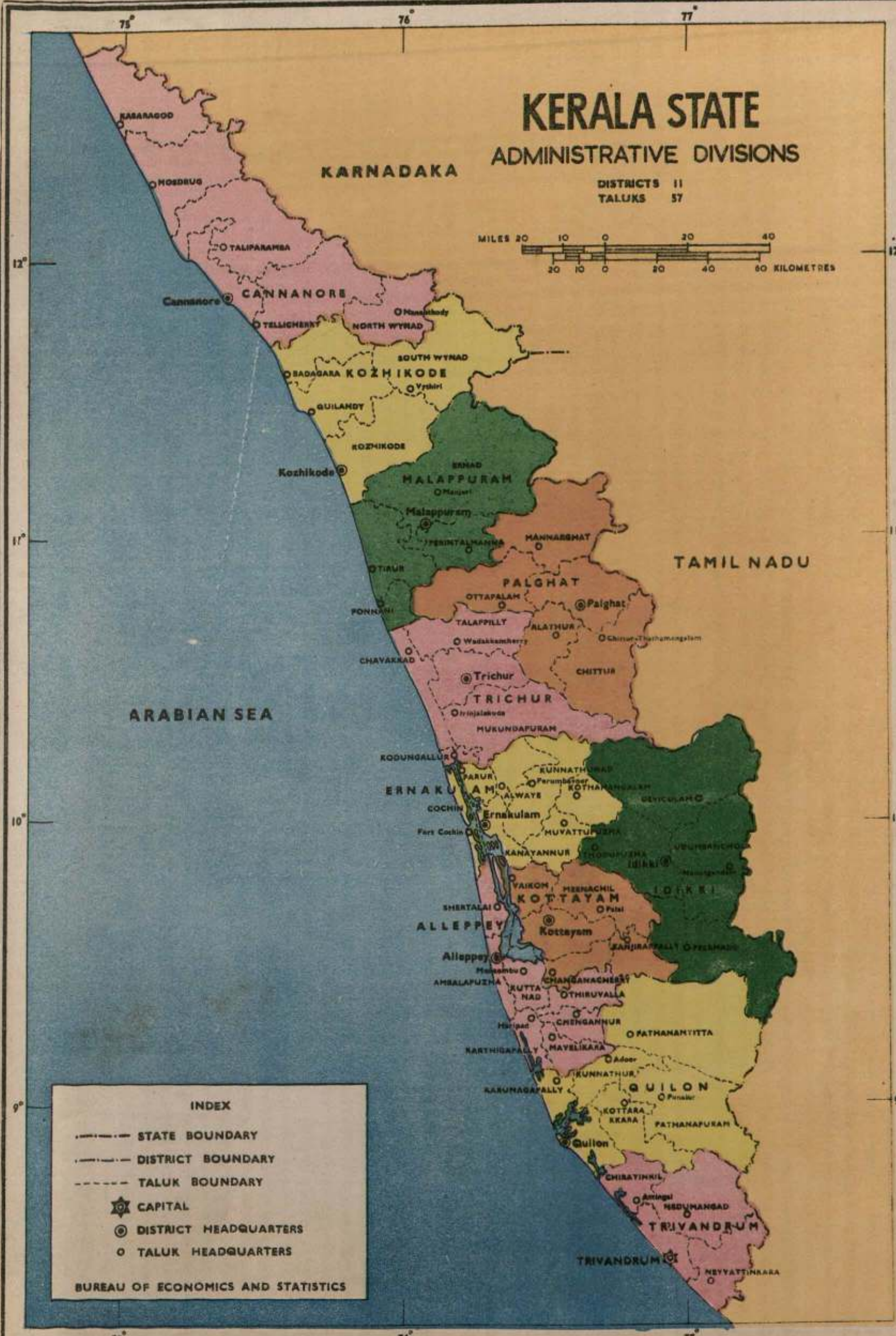




# KERALA STATE

## ADMINISTRATIVE DIVISIONS

DISTRICTS 11  
TALUKS 57



### INDEX

- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY
- ⊙ CAPITAL
- ⊙ DISTRICT HEADQUARTERS
- TALUK HEADQUARTERS

BUREAU OF ECONOMICS AND STATISTICS

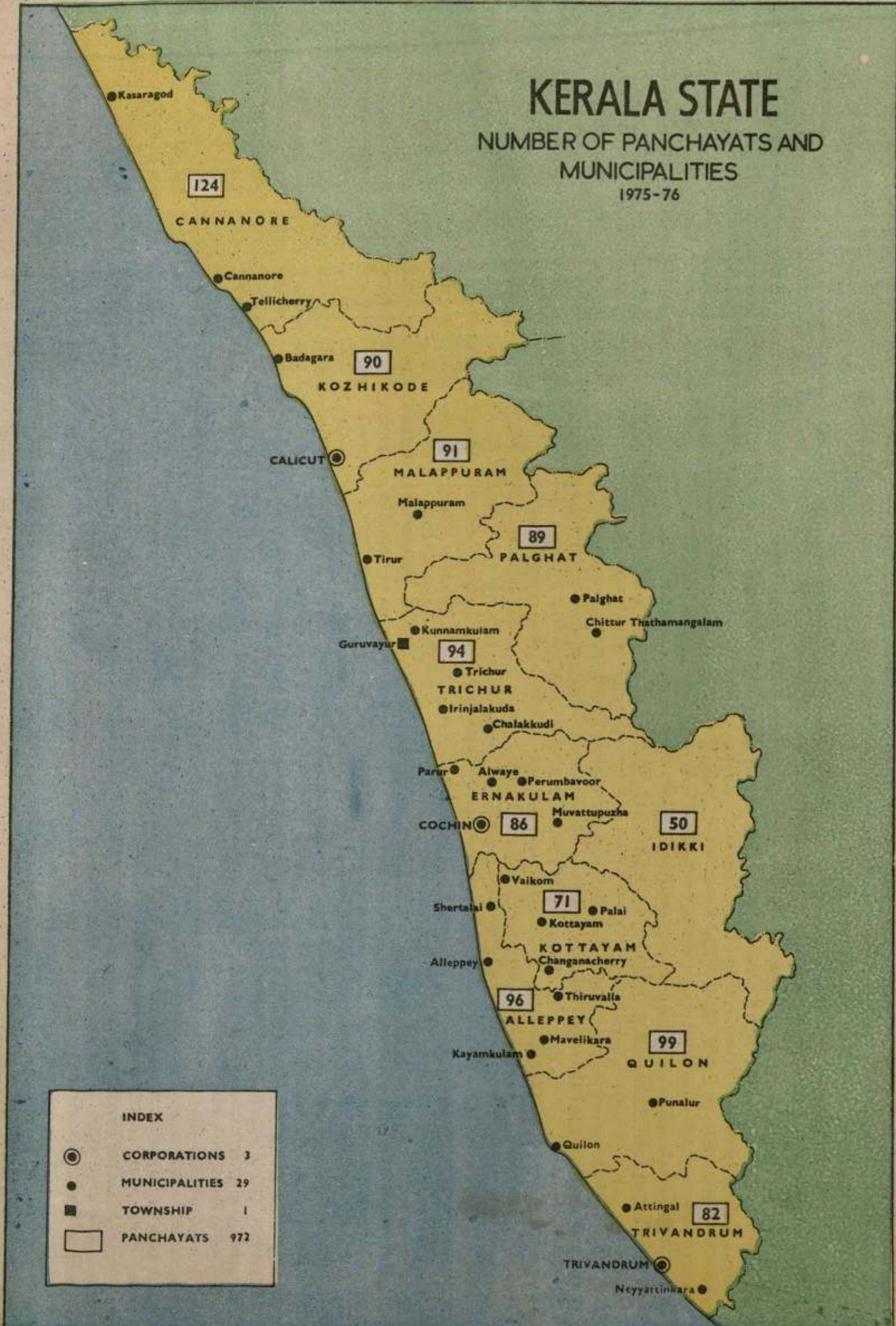






# KERALA STATE

NUMBER OF PANCHAYATS AND MUNICIPALITIES  
1975-76



**INDEX**

- CORPORATION 3
- MUNICIPALITIES 29
- TOWNSHIP 1
- PANCHAYATS 972



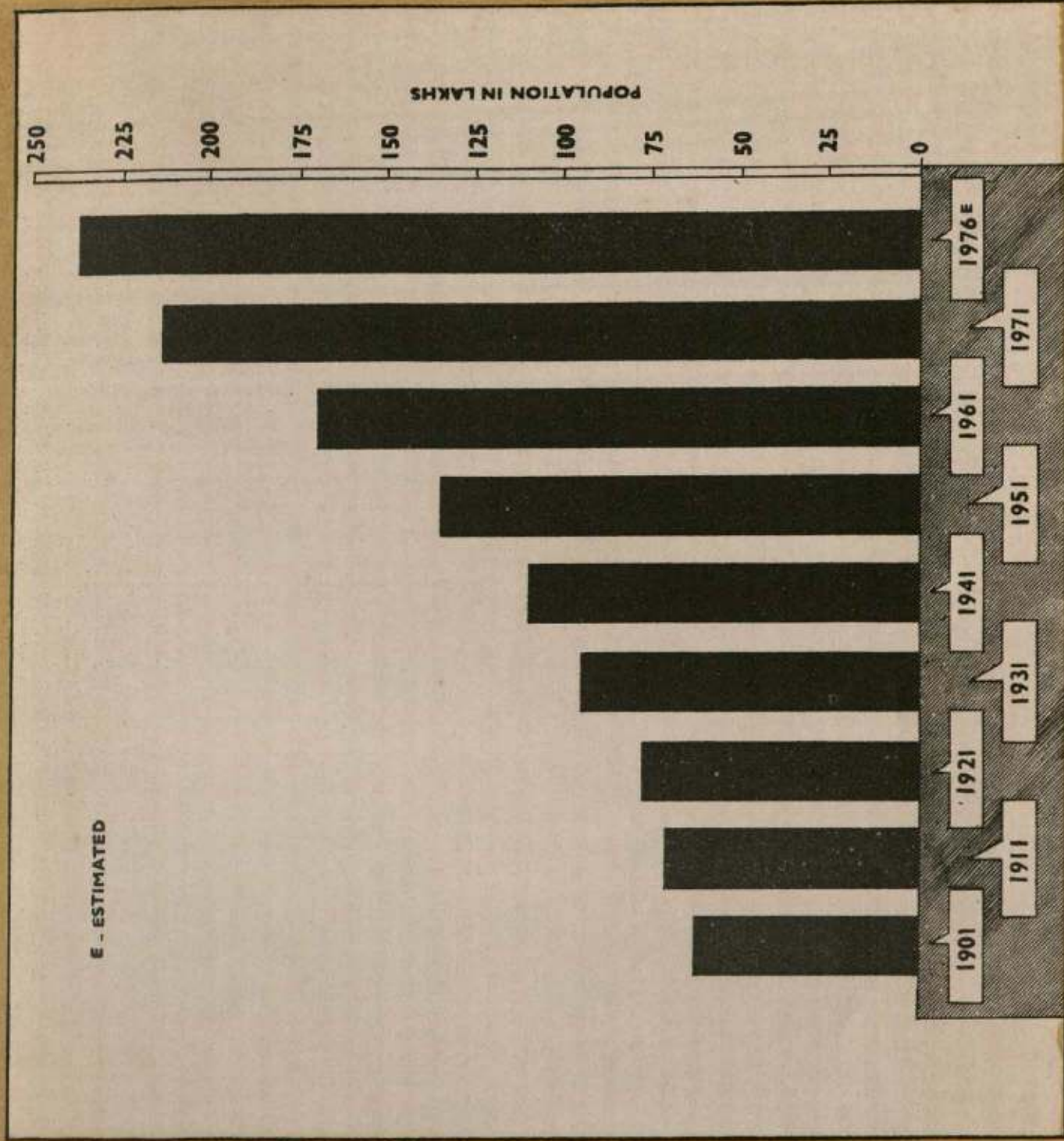




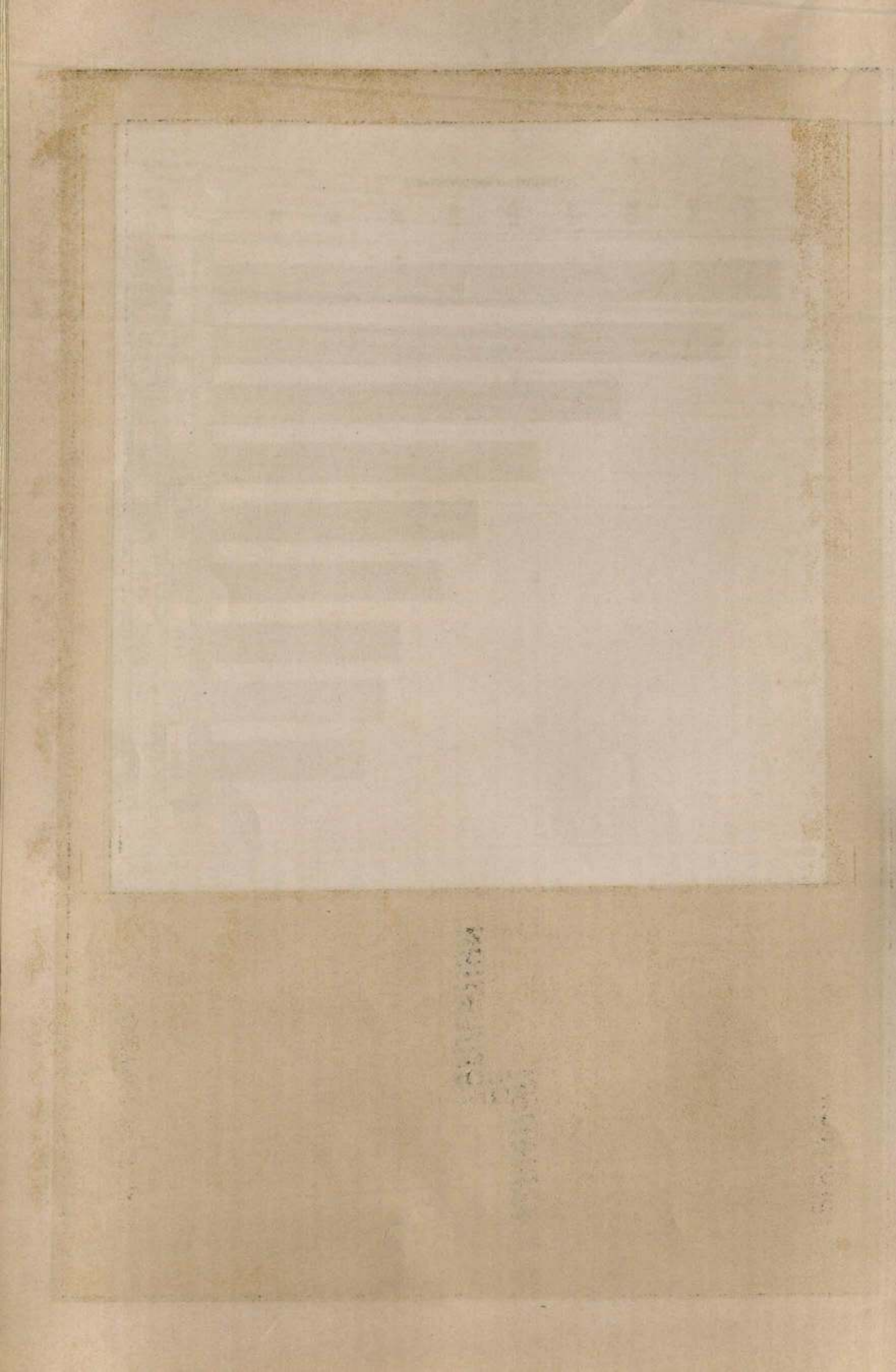
# POPULATION

## VARIATION OF POPULATION

BUREAU OF ECO: & STATISTICS





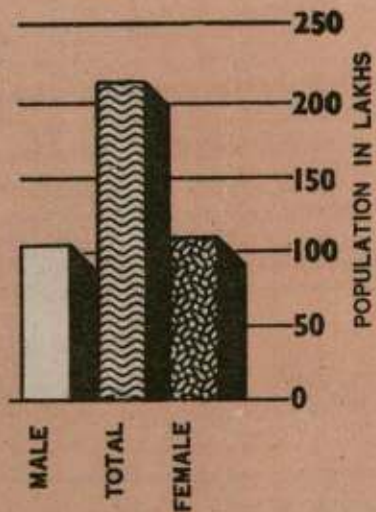




# KERALA STATE

## POPULATION BY SEX 1971

### STATE



PALGHAT



TRICHUR



ERNAKULAM



IDIKKI



KOTTAYAM



ALLEPPEY



QUILON



TRIVANDRUM



### INDEX



MALE



FEMALE

EACH SYMBOL DENOTES 3 LAKHS POPULATION

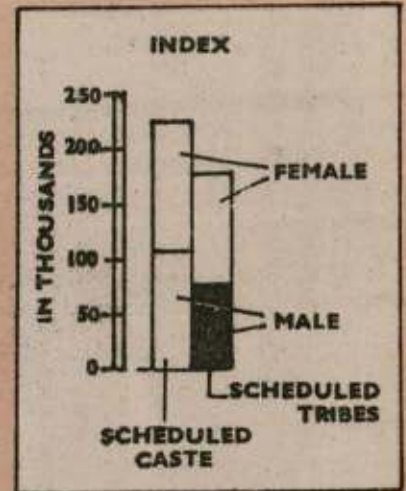








# KERALA STATE POPULATION OF SCHEDULED CASTES SCHEDULED TRIBES 1971



CANNANORE



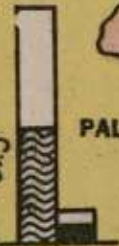
KOZHIKODE



MALAPPURAM



PALGHAT



TRICHUR



ERNAKULAM



IDIKKI



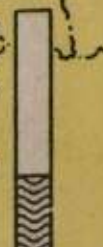
KOTTAYAM



ALLEPPEY



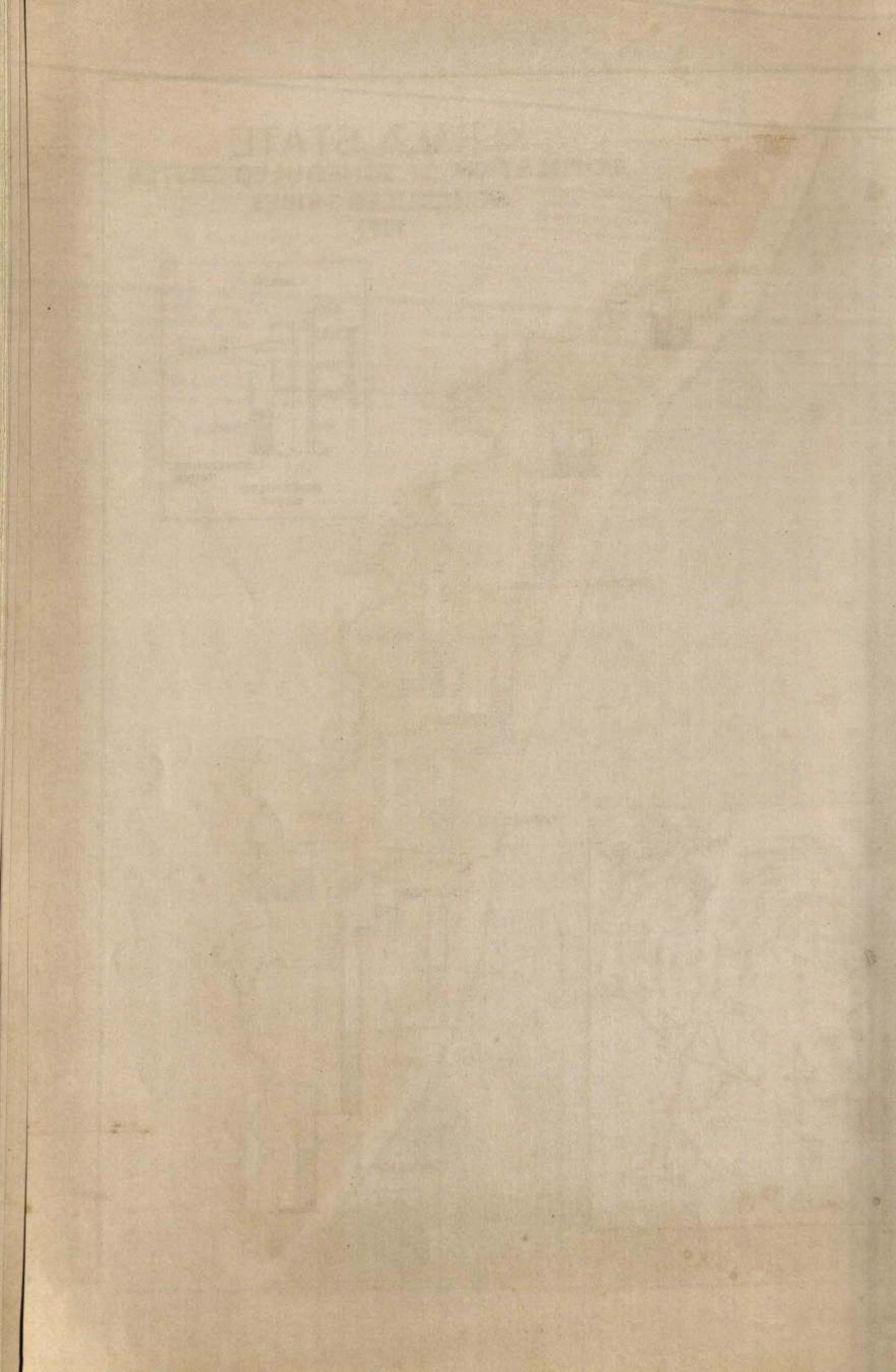
QUILON



TRIVANDRUM



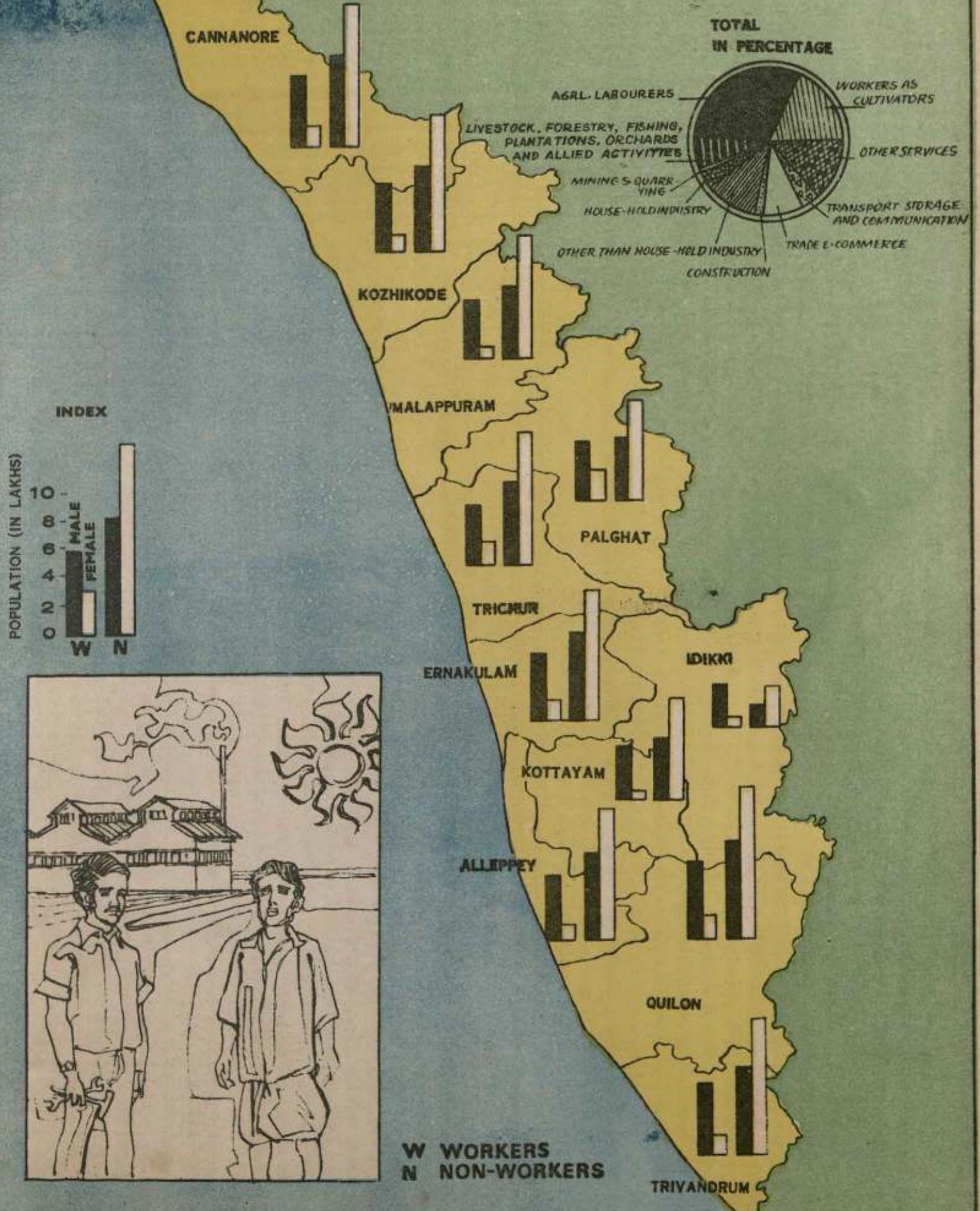






# KERALA STATE

## POPULATION OF WORKERS AND NON WORKERS 1971





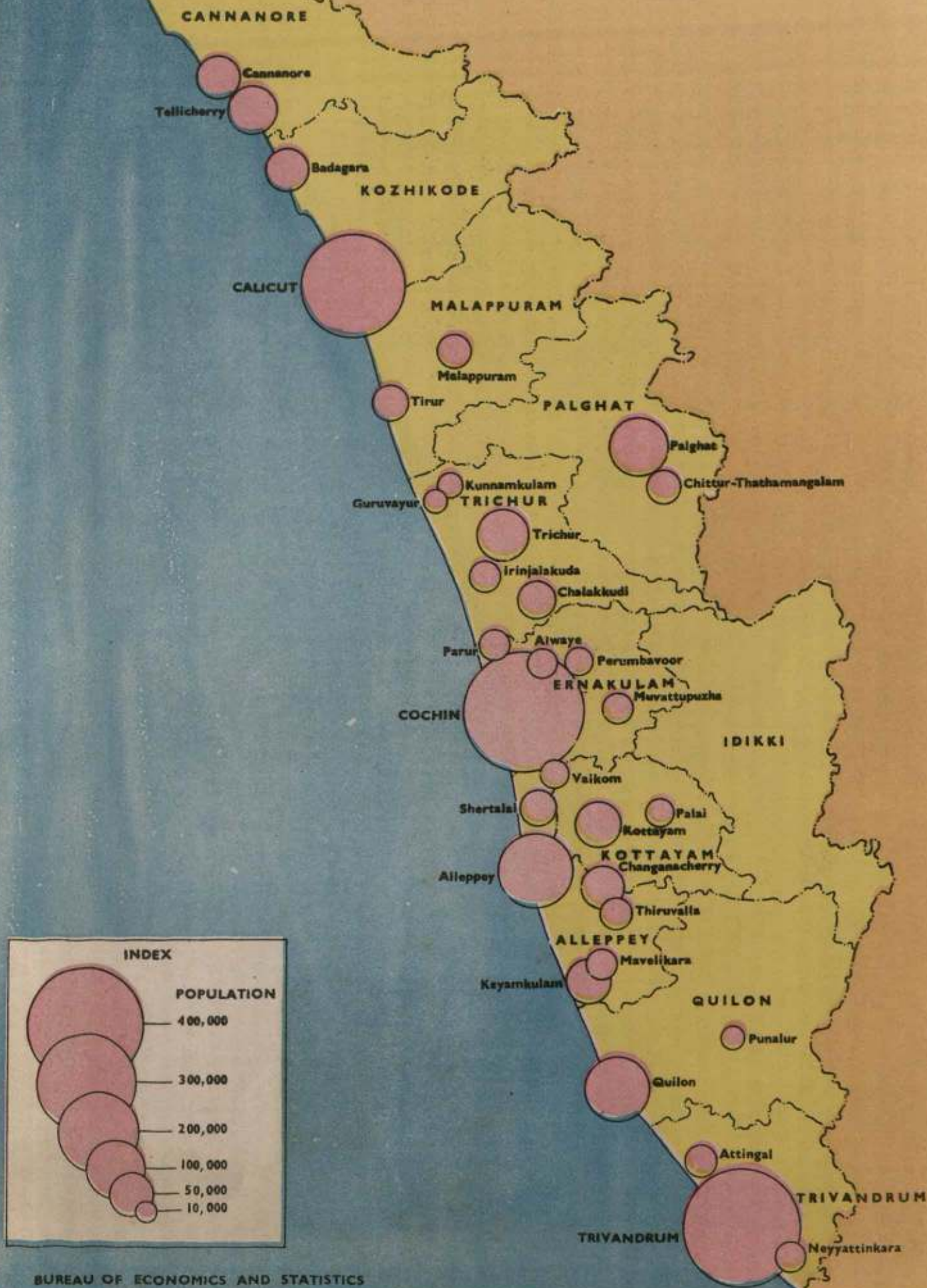




# KERALA STATE

POPULATION OF MUNICIPALITIES

1971







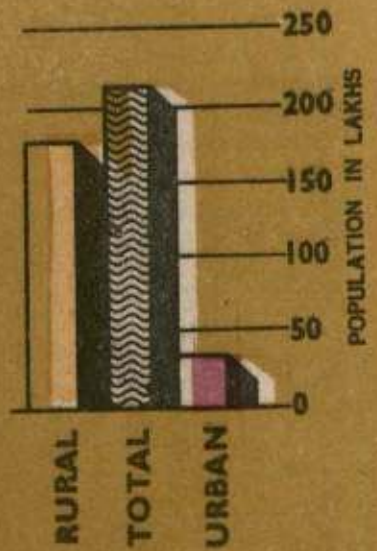


# KERALA STATE

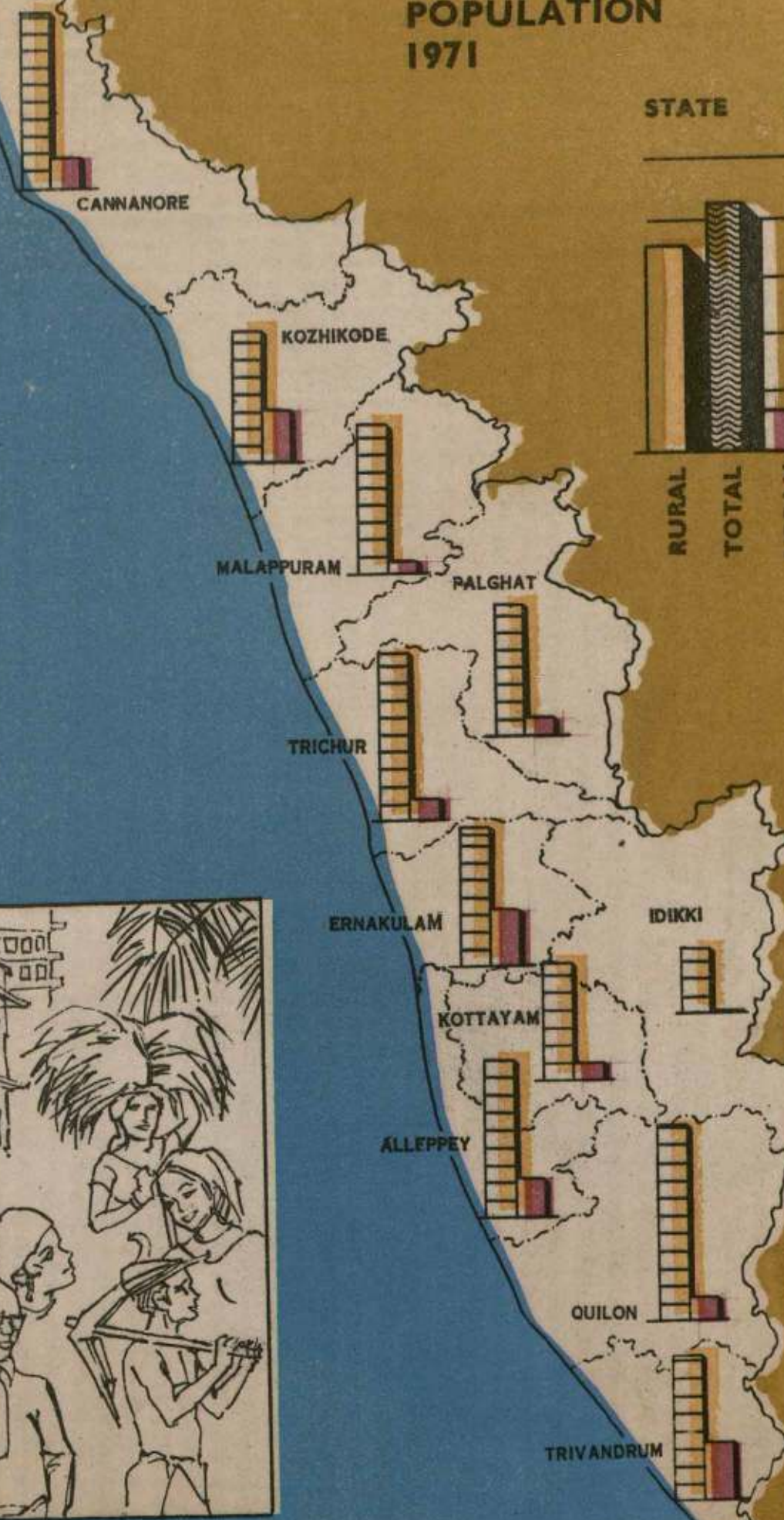
## RURAL - URBAN POPULATION

### 1971

STATE



BUREAU OF ECO: & STATISTICS



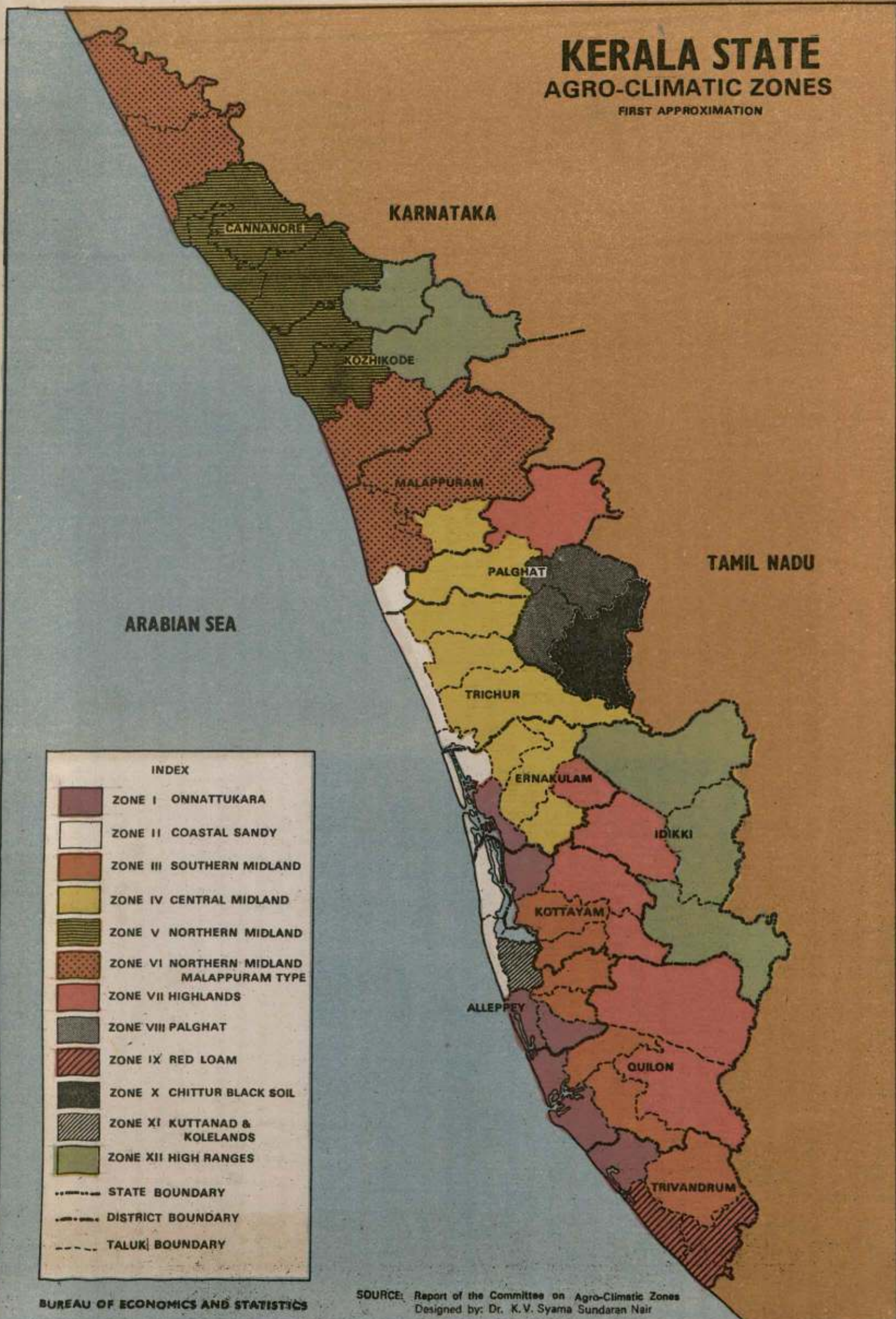






# KERALA STATE AGRO-CLIMATIC ZONES

FIRST APPROXIMATION



**INDEX**

- ZONE I ONNATTUKARA
- ZONE II COASTAL SANDY
- ZONE III SOUTHERN MIDLAND
- ZONE IV CENTRAL MIDLAND
- ZONE V NORTHERN MIDLAND
- ZONE VI NORTHERN MIDLAND MALAPPURAM TYPE
- ZONE VII HIGHLANDS
- ZONE VIII PALGHAT
- ZONE IX RED LOAM
- ZONE X CHITTUR BLACK SOIL
- ZONE XI KUTTANAD & KOLELANDS
- ZONE XII HIGH RANGES
- STATE BOUNDARY
- DISTRICT BOUNDARY
- TALUK BOUNDARY



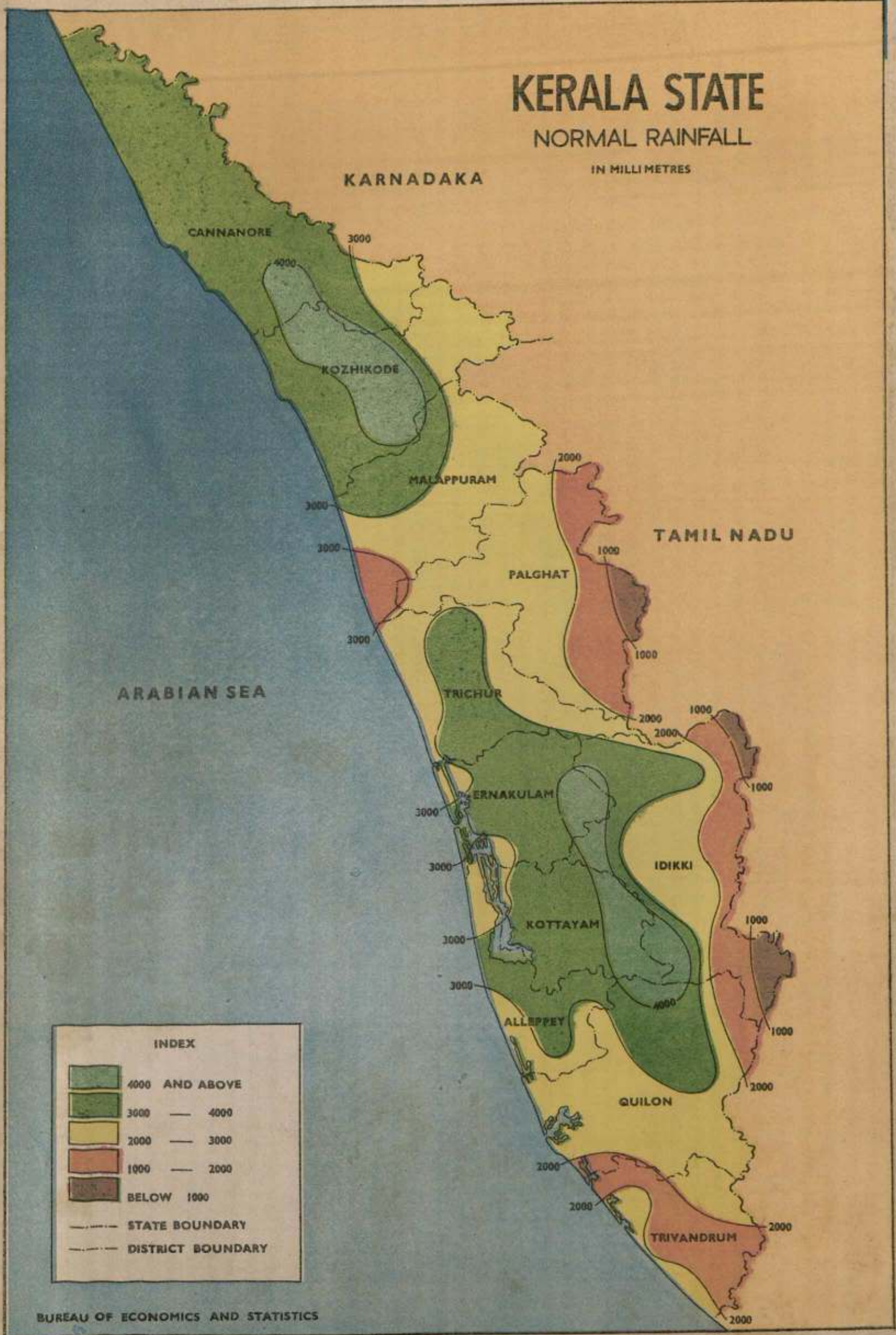




# KERALA STATE

NORMAL RAINFALL

IN MILLI METRES

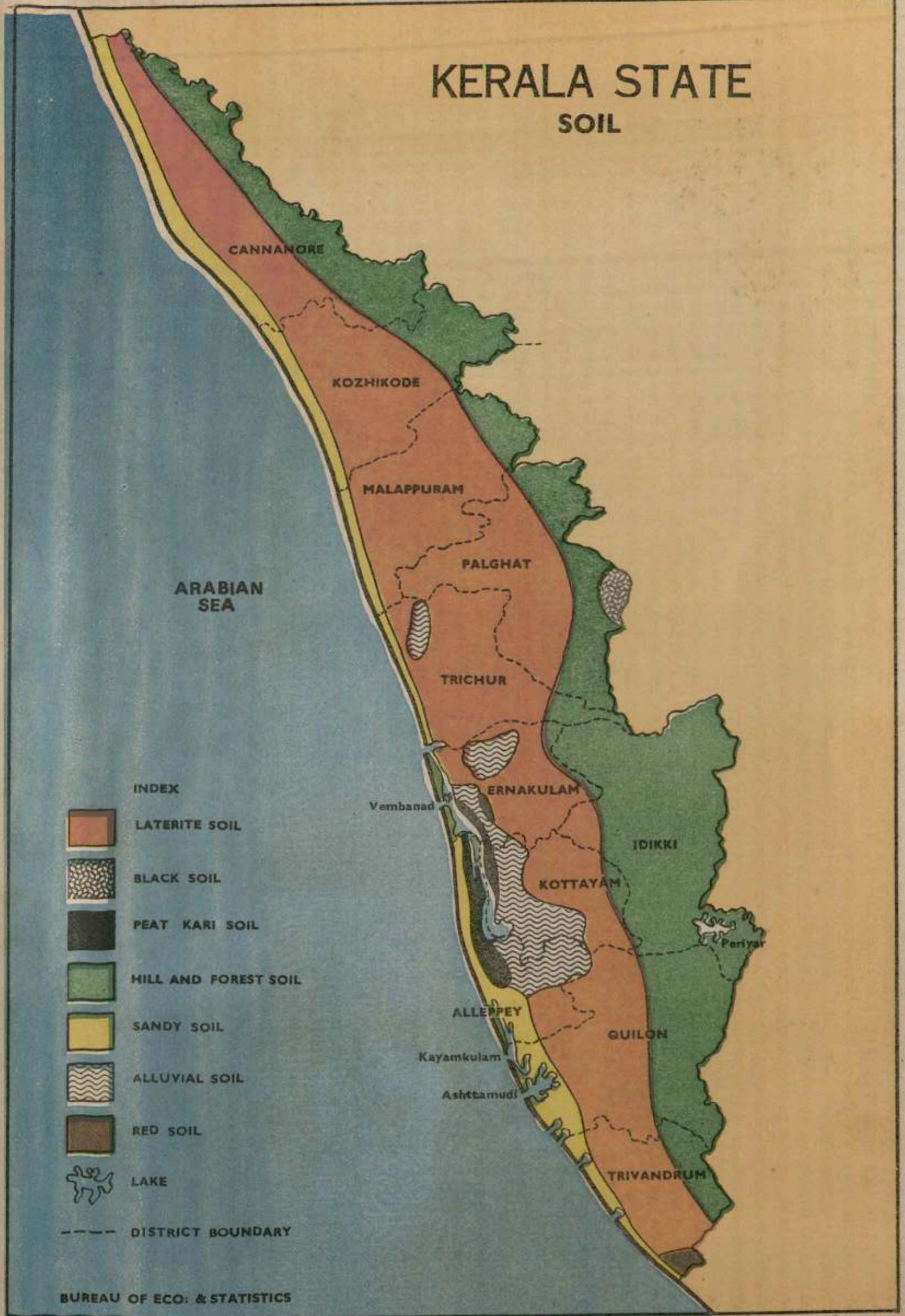








# KERALA STATE SOIL

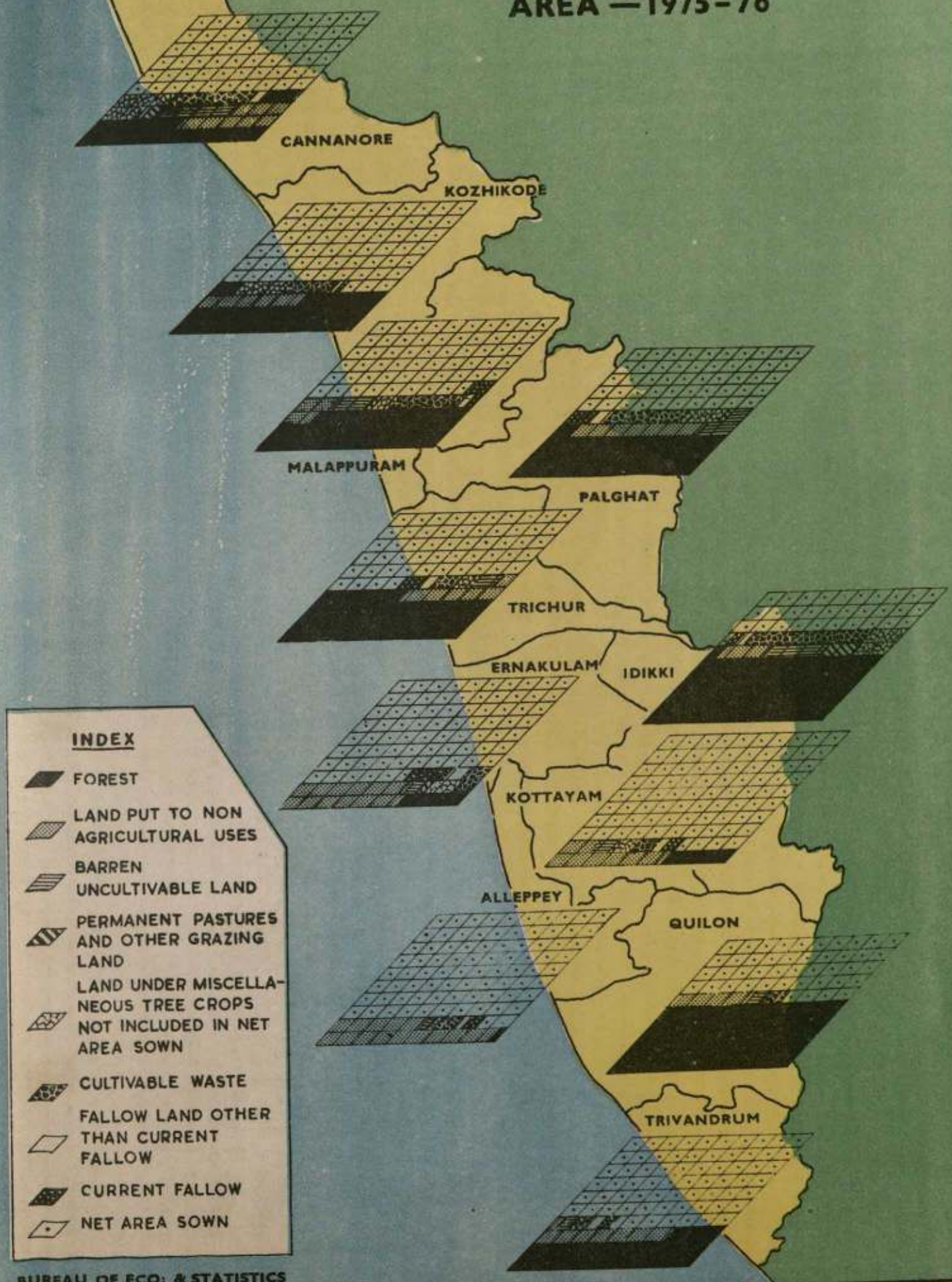








# KERALA STATE CLASSIFICATION OF AREA — 1975-76













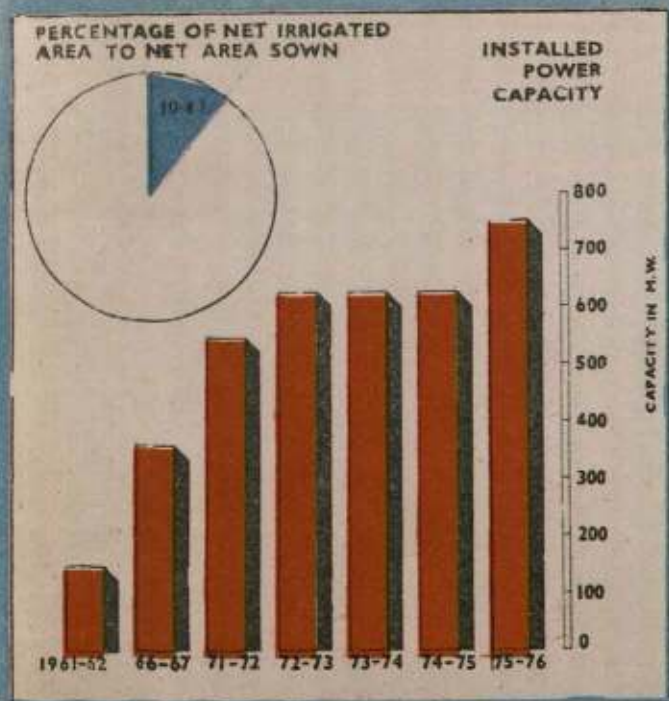
# KERALA STATE

## IRRIGATION AND POWER

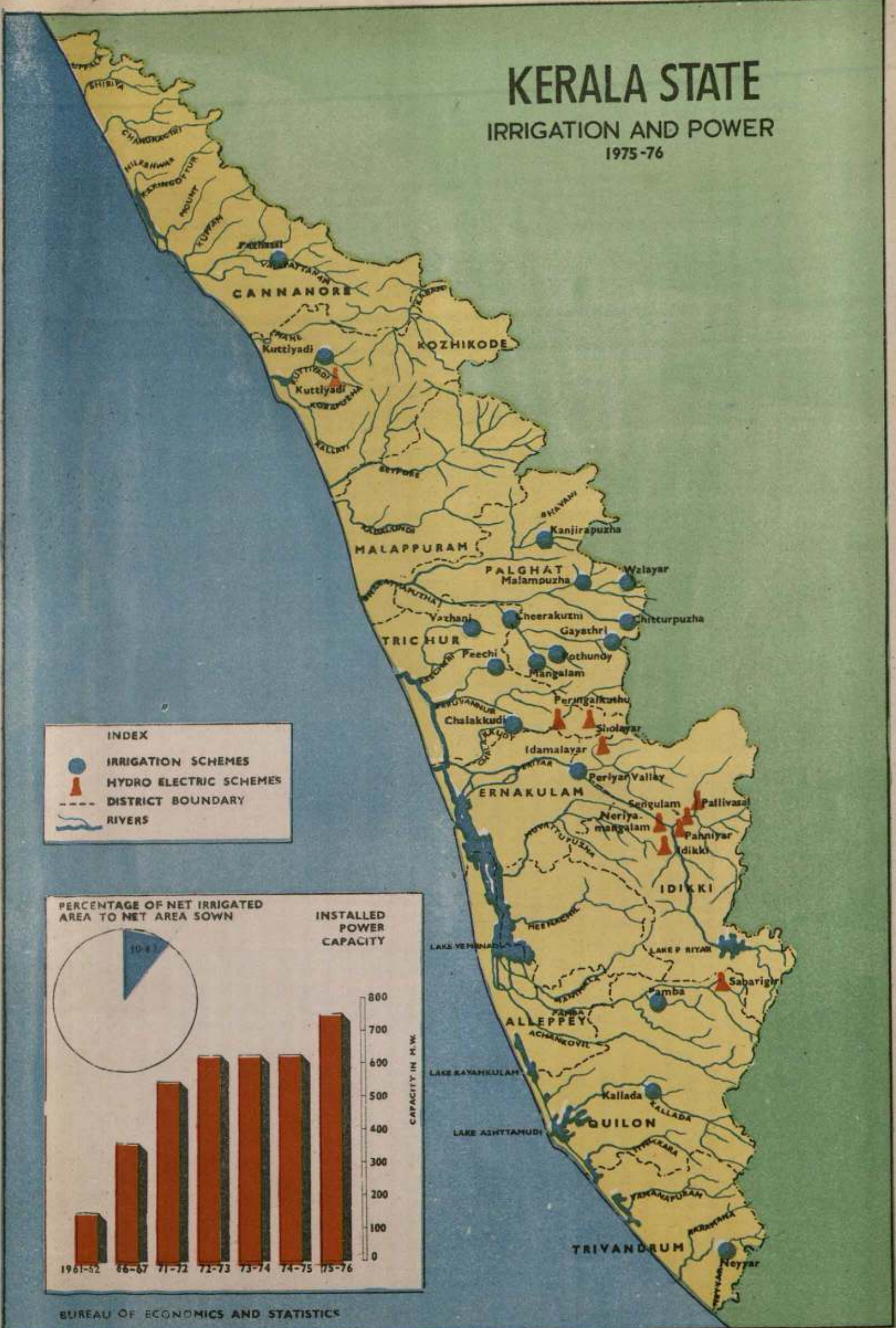
1975-76

**INDEX**

-  IRRIGATION SCHEMES
-  HYDRO ELECTRIC SCHEMES
-  DISTRICT BOUNDARY
-  RIVERS



BUREAU OF ECONOMICS AND STATISTICS





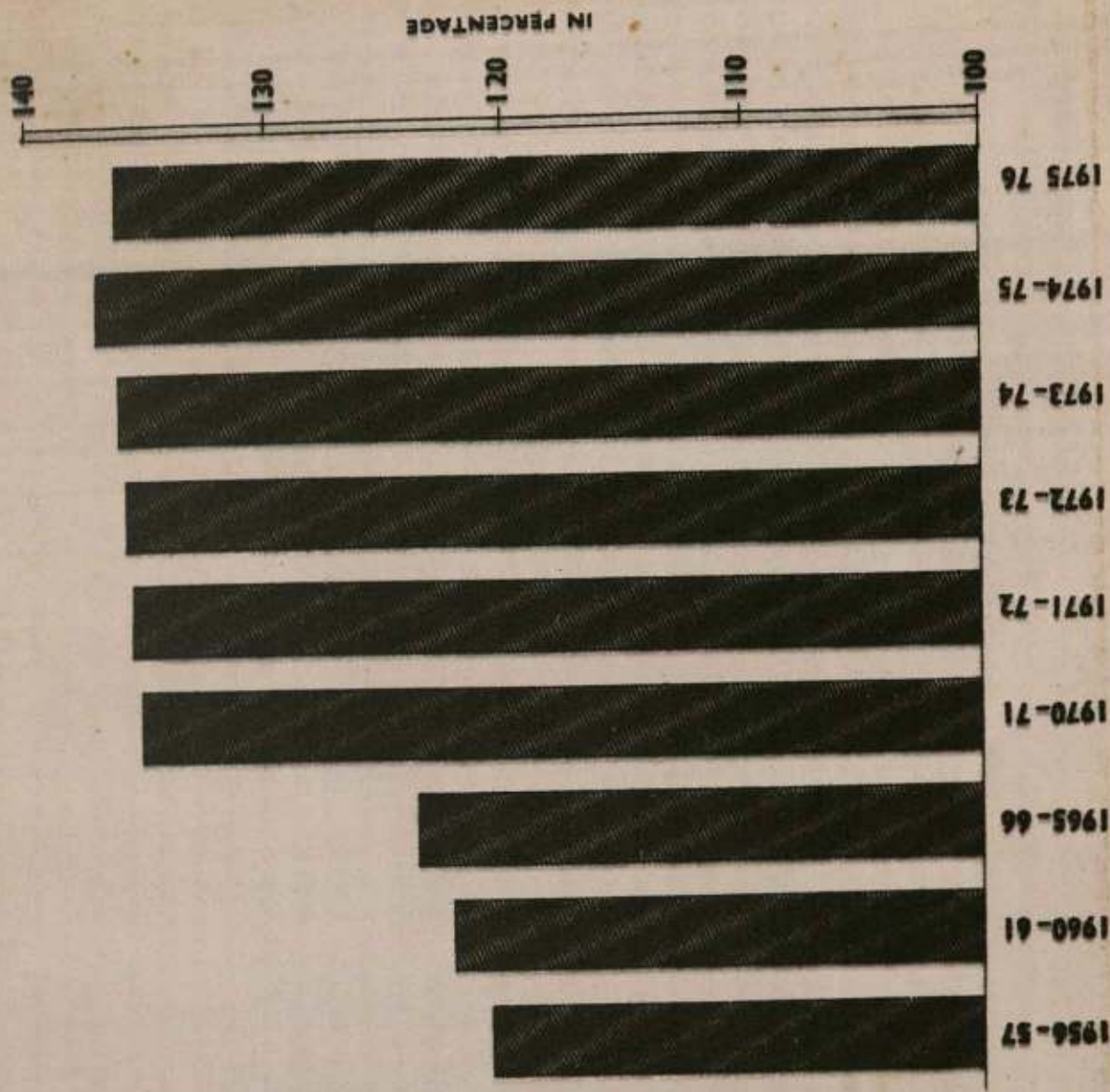




AGRICULTURE

PERCENTAGE OF  
GROSS AREA  
TO  
NET AREA  
SOWN

BUREAU OF ECON. & STATISTICS





Faint, illegible text, possibly bleed-through from the reverse side of the page. The text is arranged in approximately 10 horizontal lines across the page.

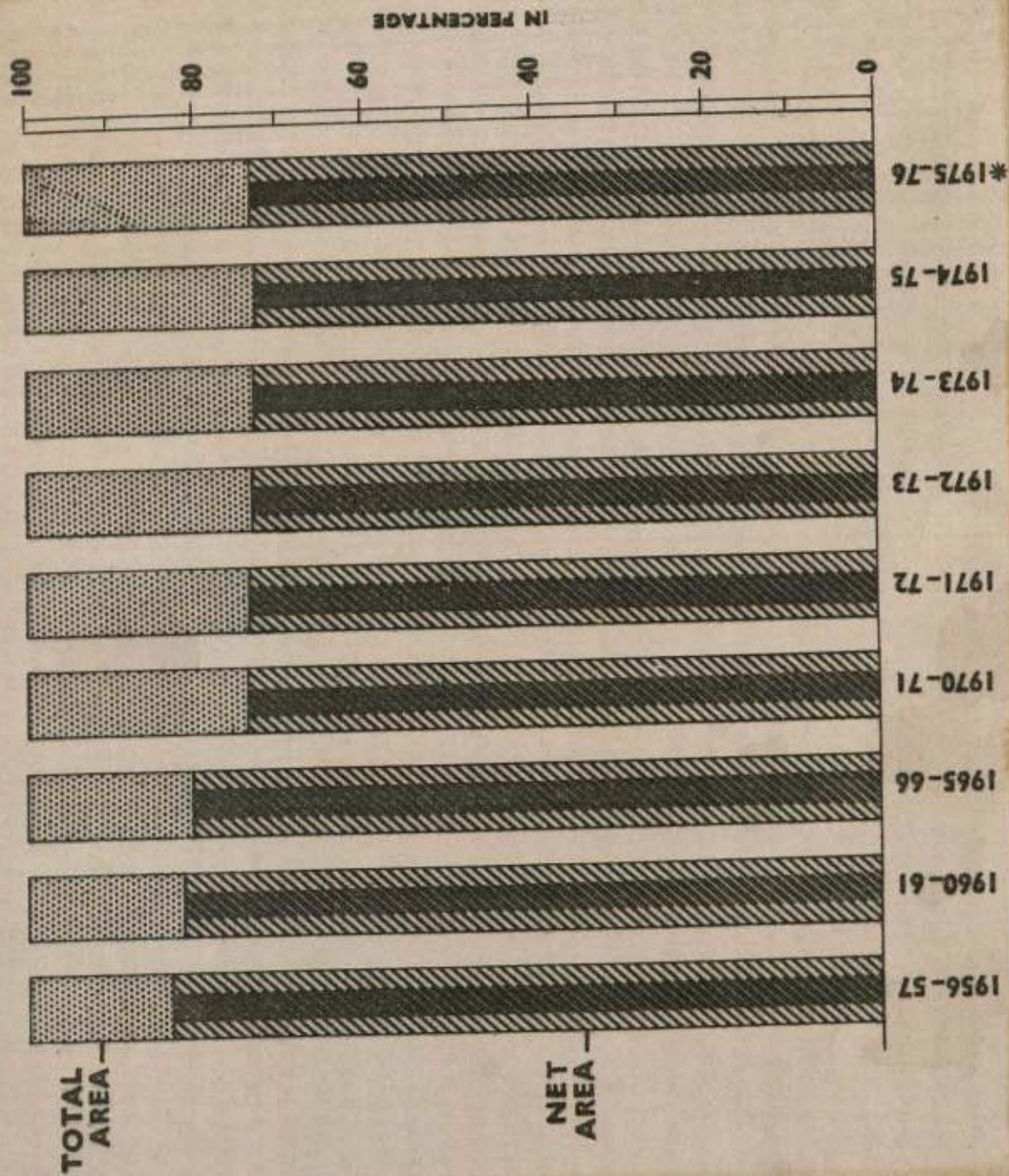


AGRICULTURE

PERCENTAGE  
OF  
NET AREA SOWN  
TO  
TOTAL  
TOTAL  
AREA SOWN

BUREAU OF ECO: & STATISTICS

\* T. R. S.



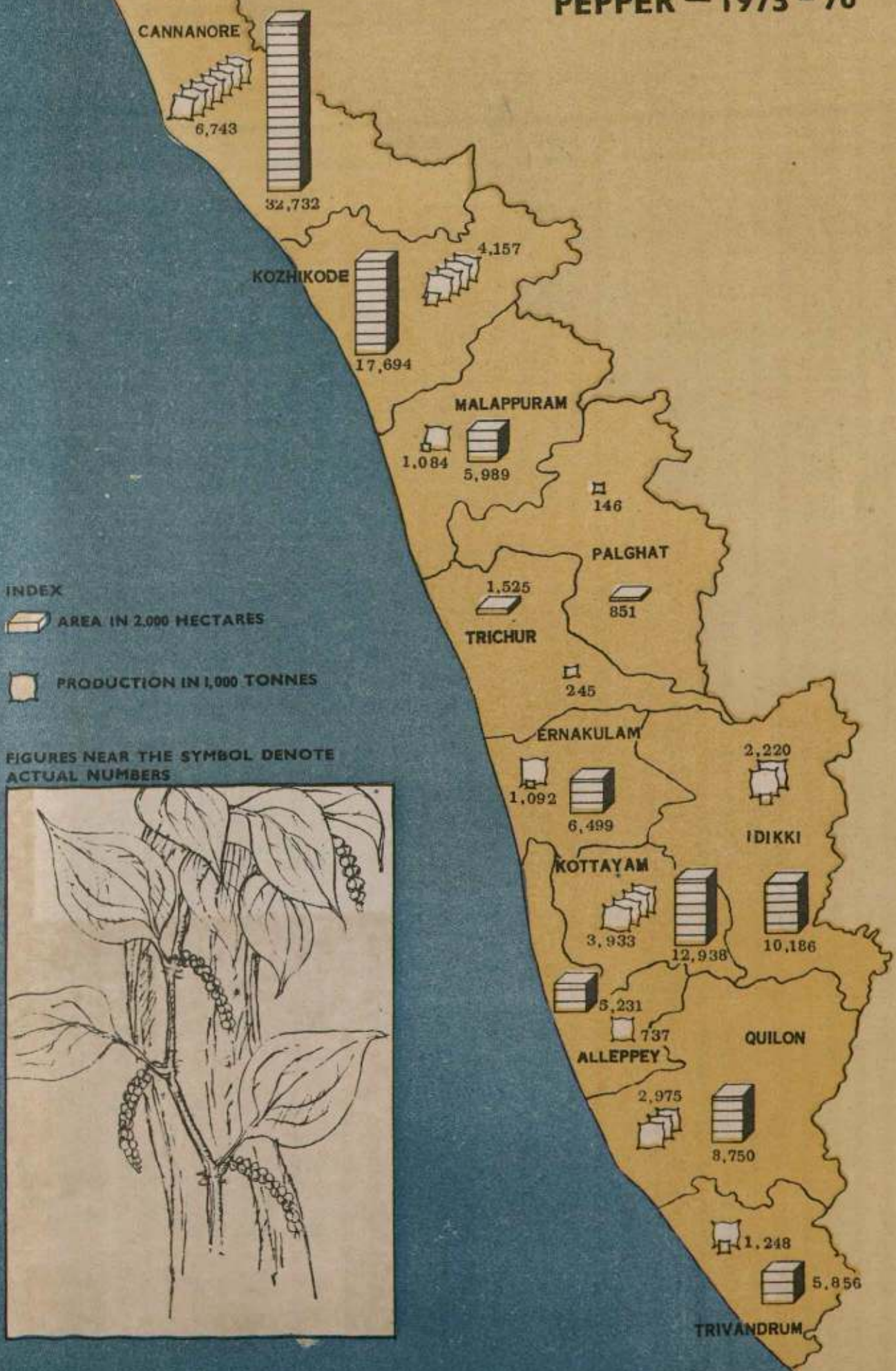






# KERALA STATE

## AREA AND PRODUCTION OF PEPPER - 1975 - 76



**INDEX**  
 AREA IN 2,000 HECTARES  
 PRODUCTION IN 1,000 TONNES

FIGURES NEAR THE SYMBOL DENOTE ACTUAL NUMBERS



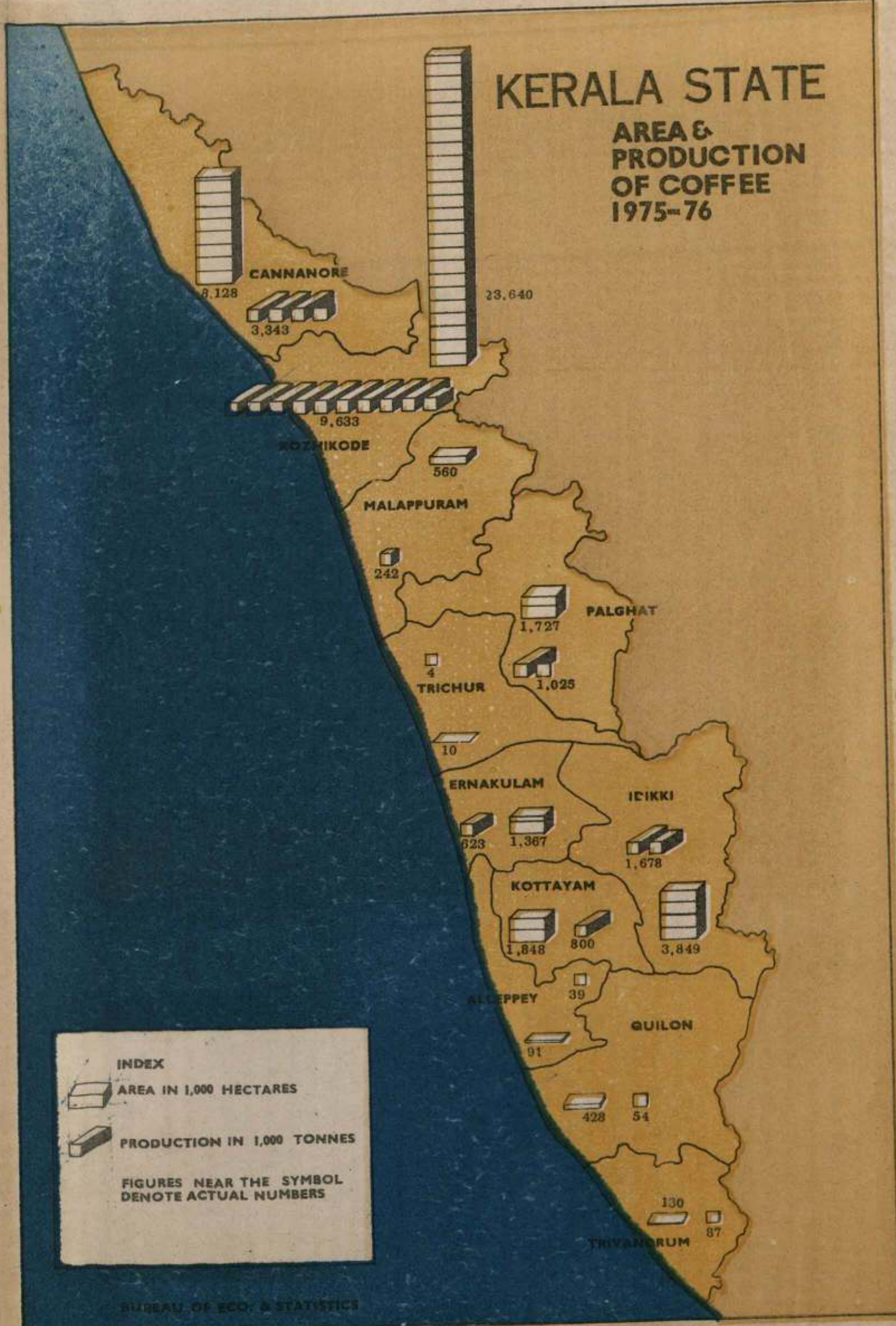






# KERALA STATE

## AREA & PRODUCTION OF COFFEE 1975-76



**INDEX**

AREA IN 1,000 HECTARES

PRODUCTION IN 1,000 TONNES

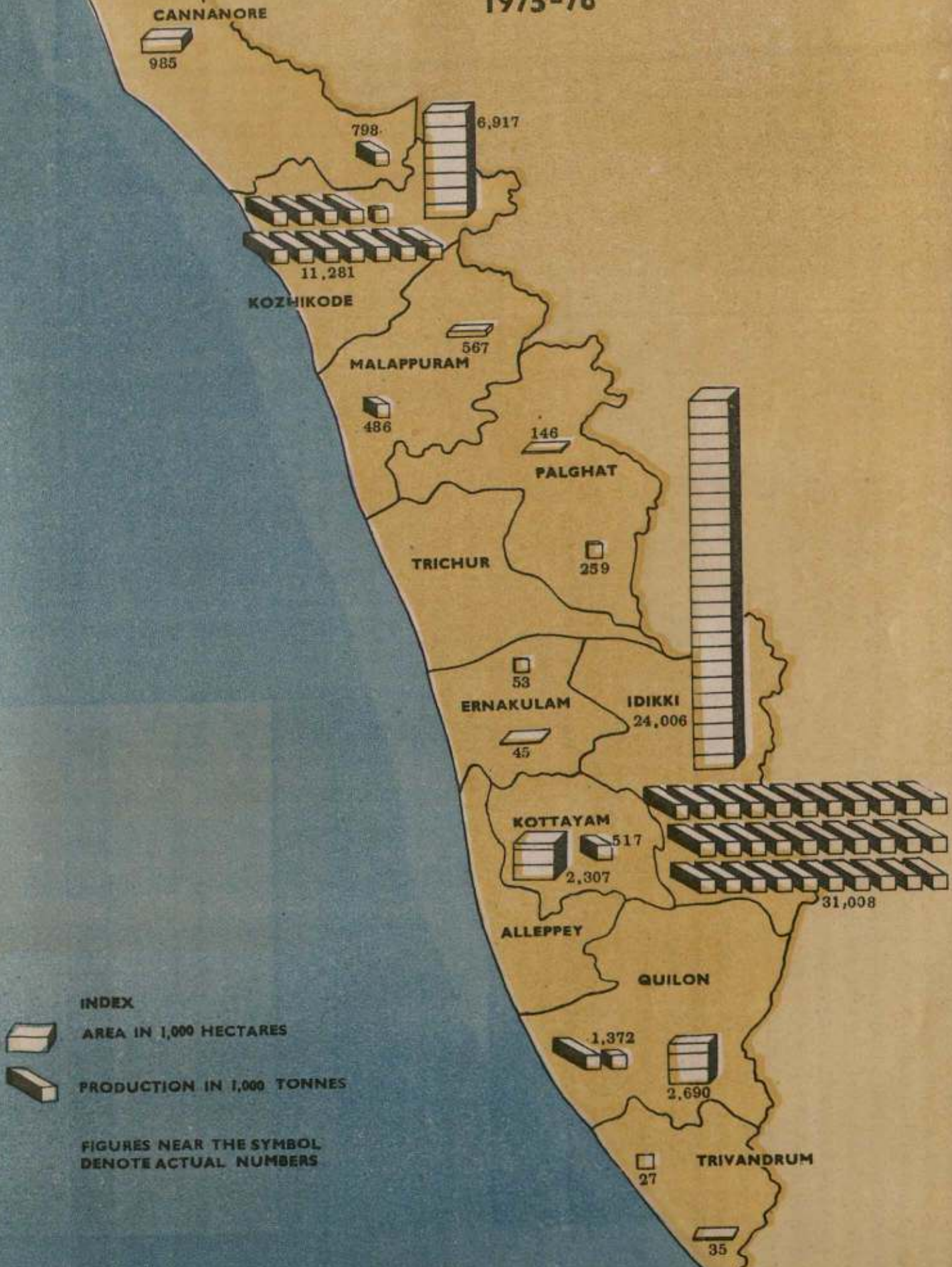
FIGURES NEAR THE SYMBOL DENOTE ACTUAL NUMBERS







# KERALA STATE AREA AND PRODUCTION OF TEA 1975-76



**INDEX**



AREA IN 1,000 HECTARES



PRODUCTION IN 1,000 TONNES

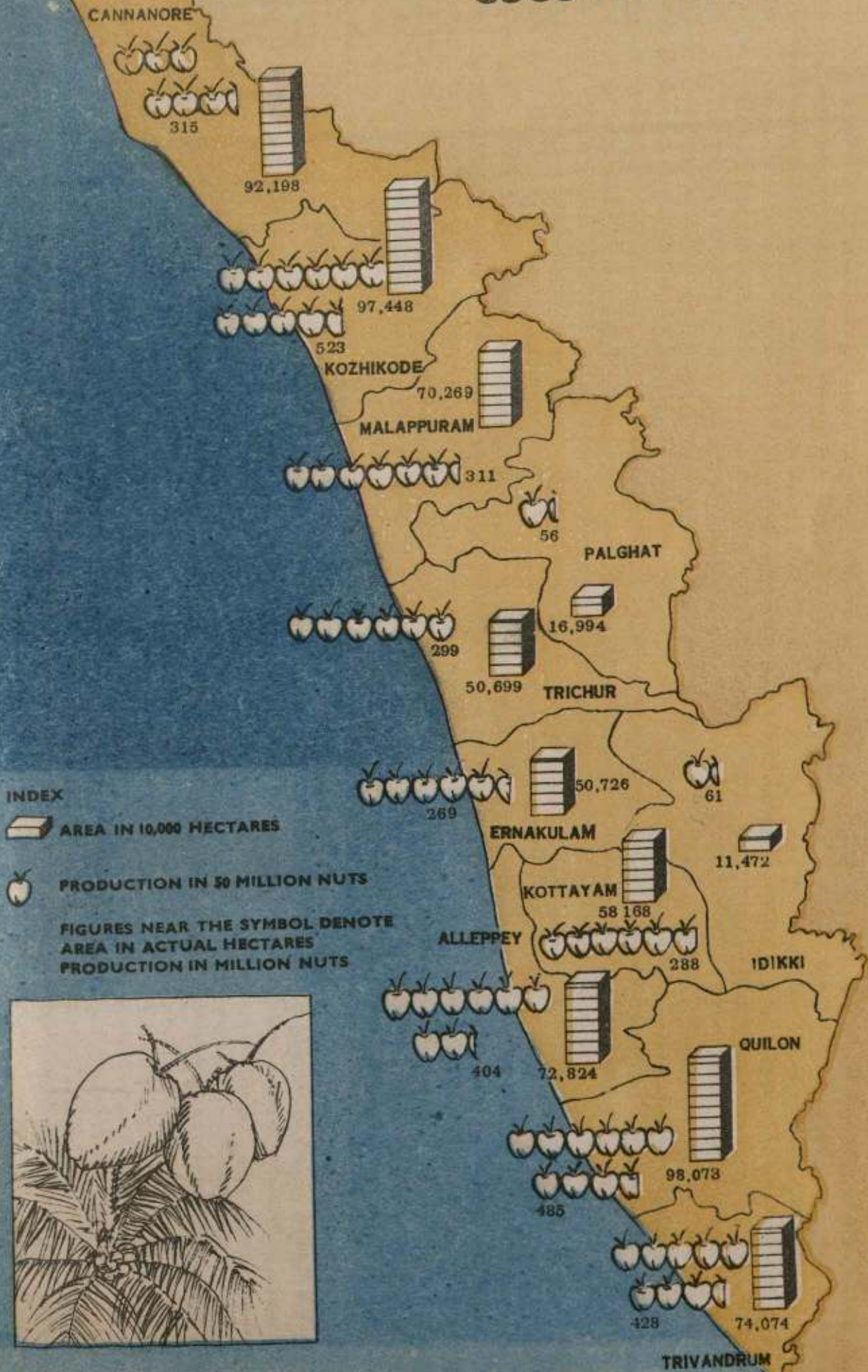
FIGURES NEAR THE SYMBOL  
DENOTE ACTUAL NUMBERS









# KERALA STATE AREA AND PRODUCTION OF COCONUT-1975-76



**INDEX**

-  AREA IN 10,000 HECTARES
-  PRODUCTION IN 50 MILLION NUTS
- FIGURES NEAR THE SYMBOL DENOTE  
AREA IN ACTUAL HECTARES  
PRODUCTION IN MILLION NUTS

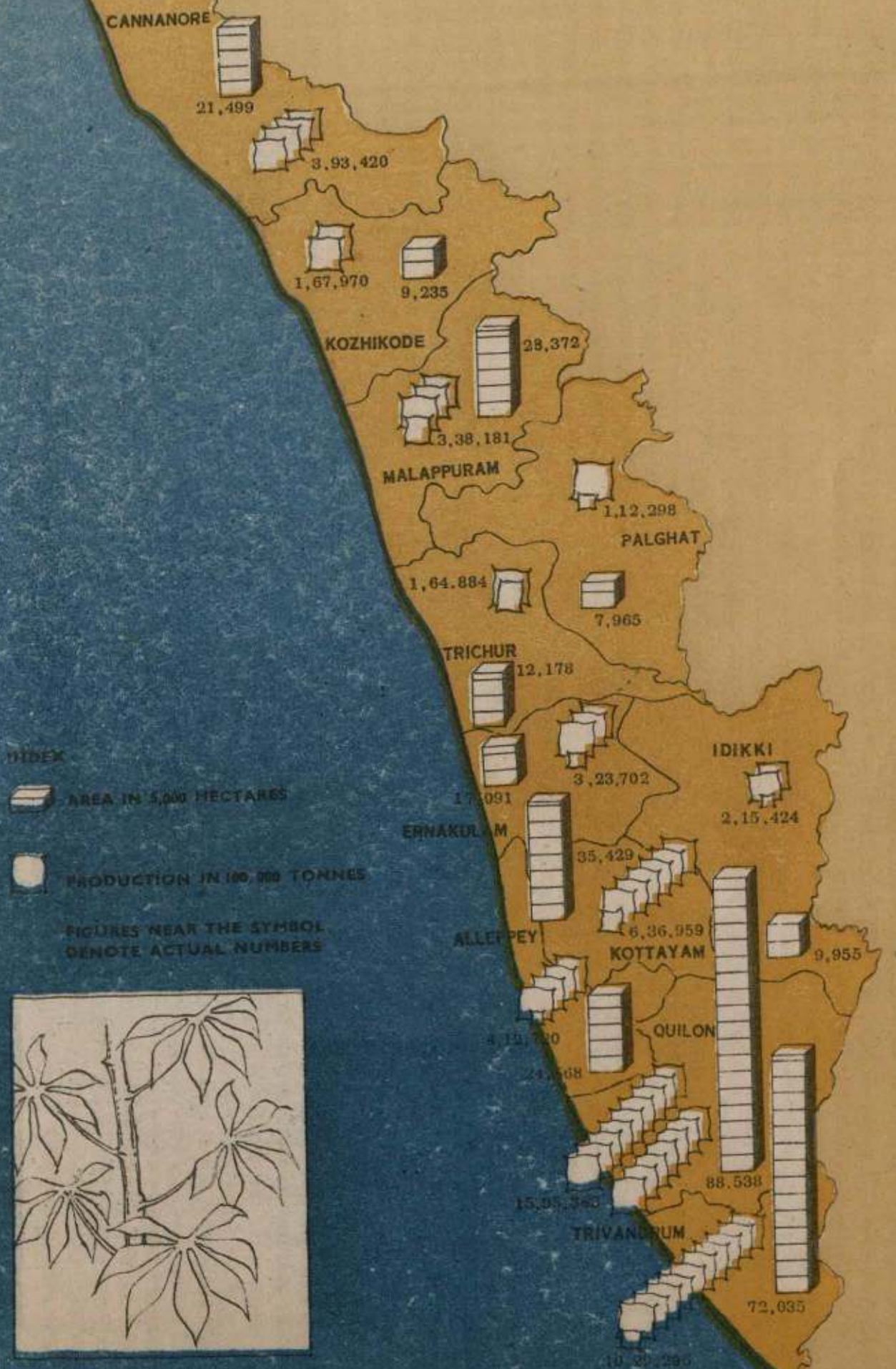








# KERALA STATE AREA AND PRODUCTION OF TAPIOCA—1975-76

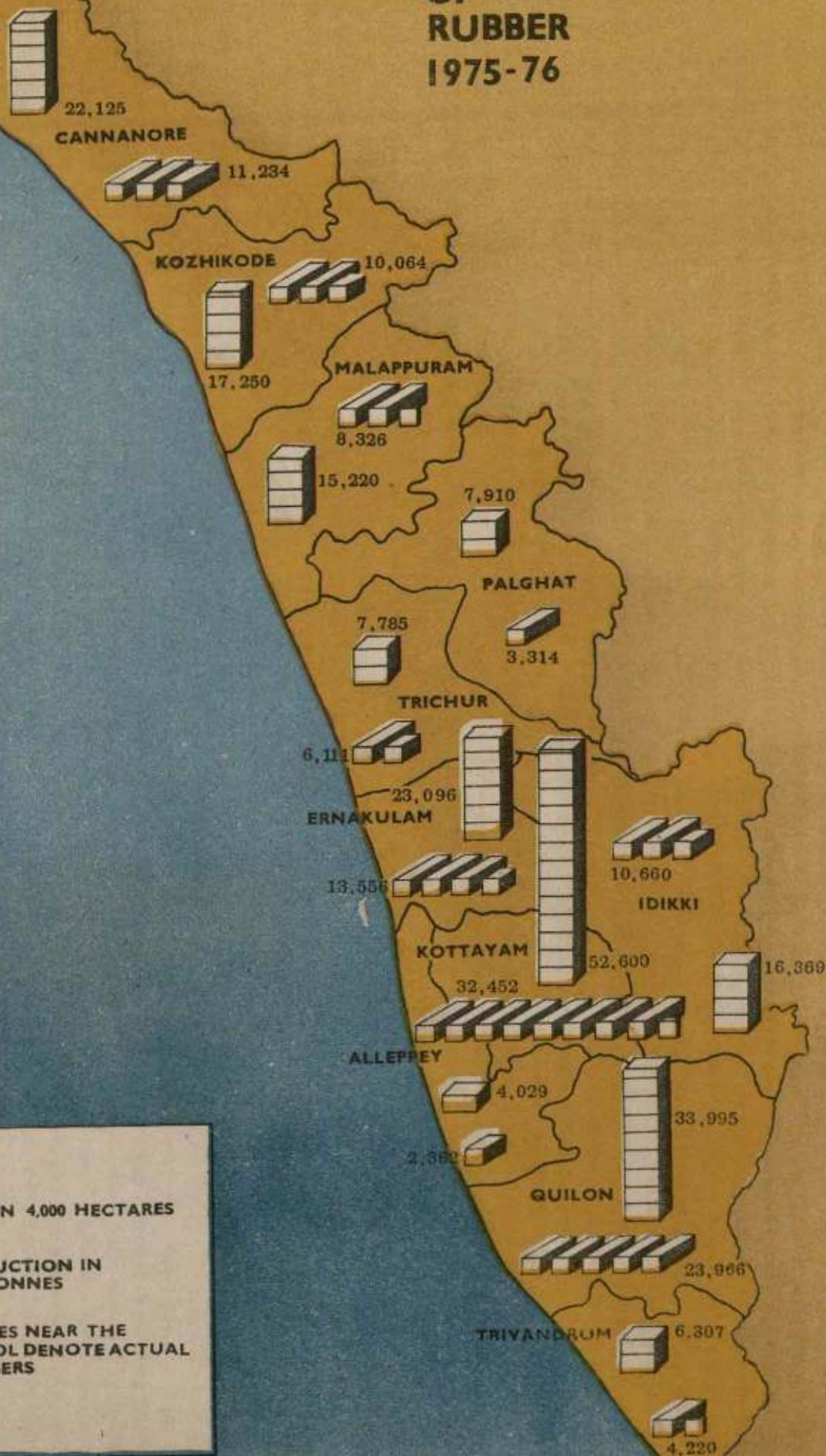








# KERALA STATE AREA AND PRODUCTION OF RUBBER 1975-76



## INDEX

AREA IN 4,000 HECTARES

PRODUCTION IN 4,000 TONNES

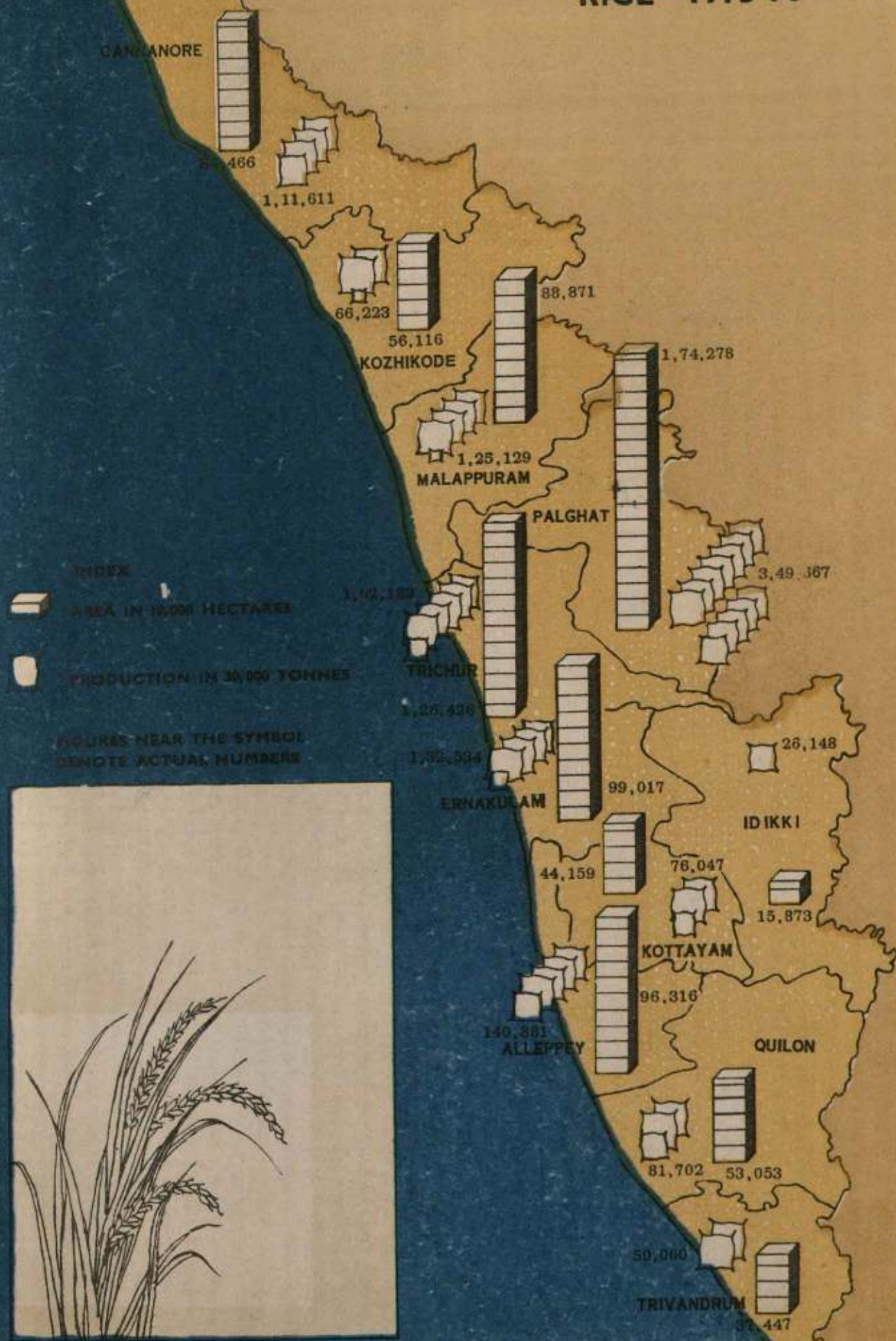
FIGURES NEAR THE SYMBOL DENOTE ACTUAL NUMBERS







# KERALA STATE AREA AND PRODUCTION OF RICE—1975-76





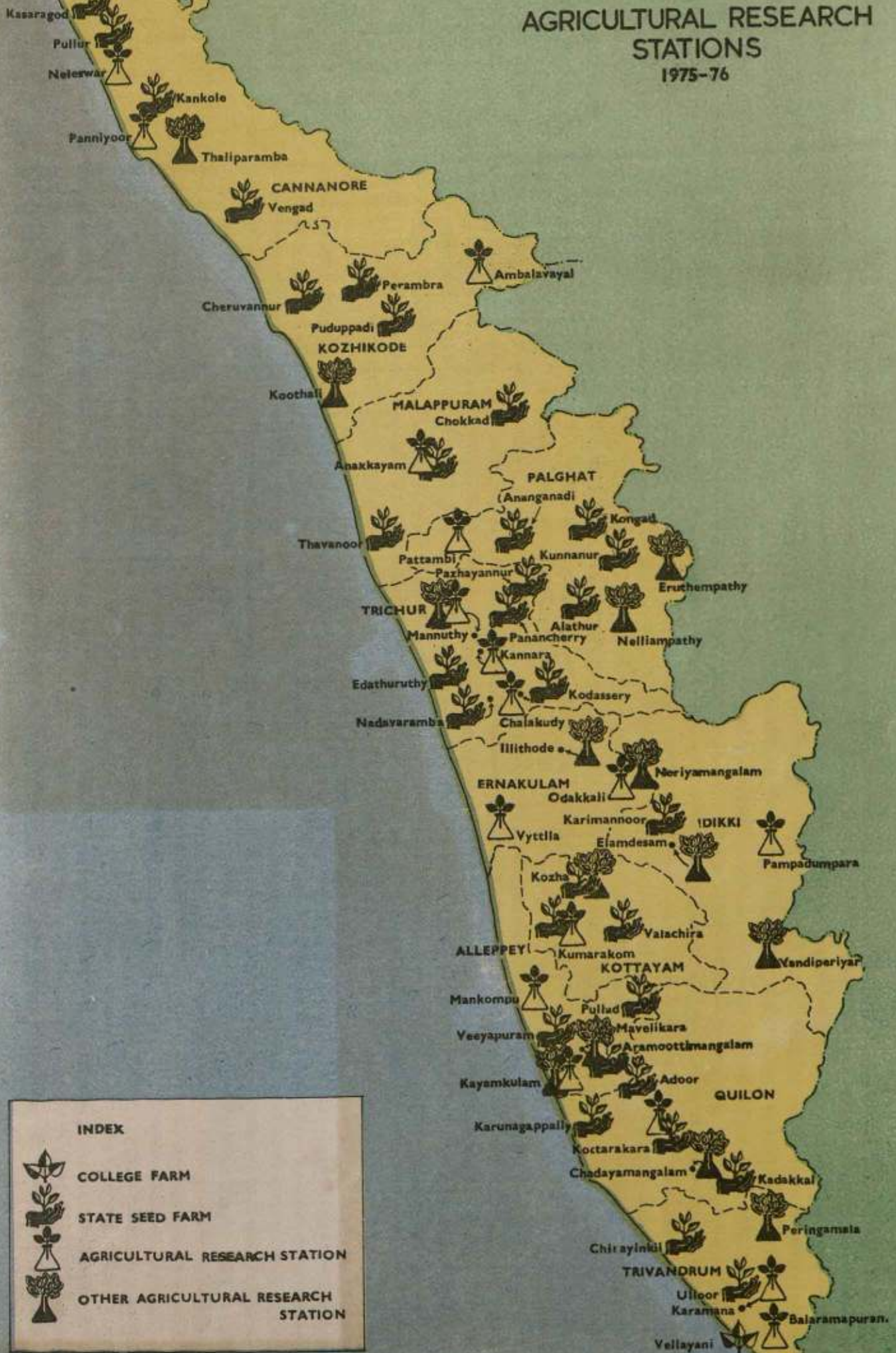




# KERALA STATE

## AGRICULTURAL RESEARCH STATIONS

1975-76















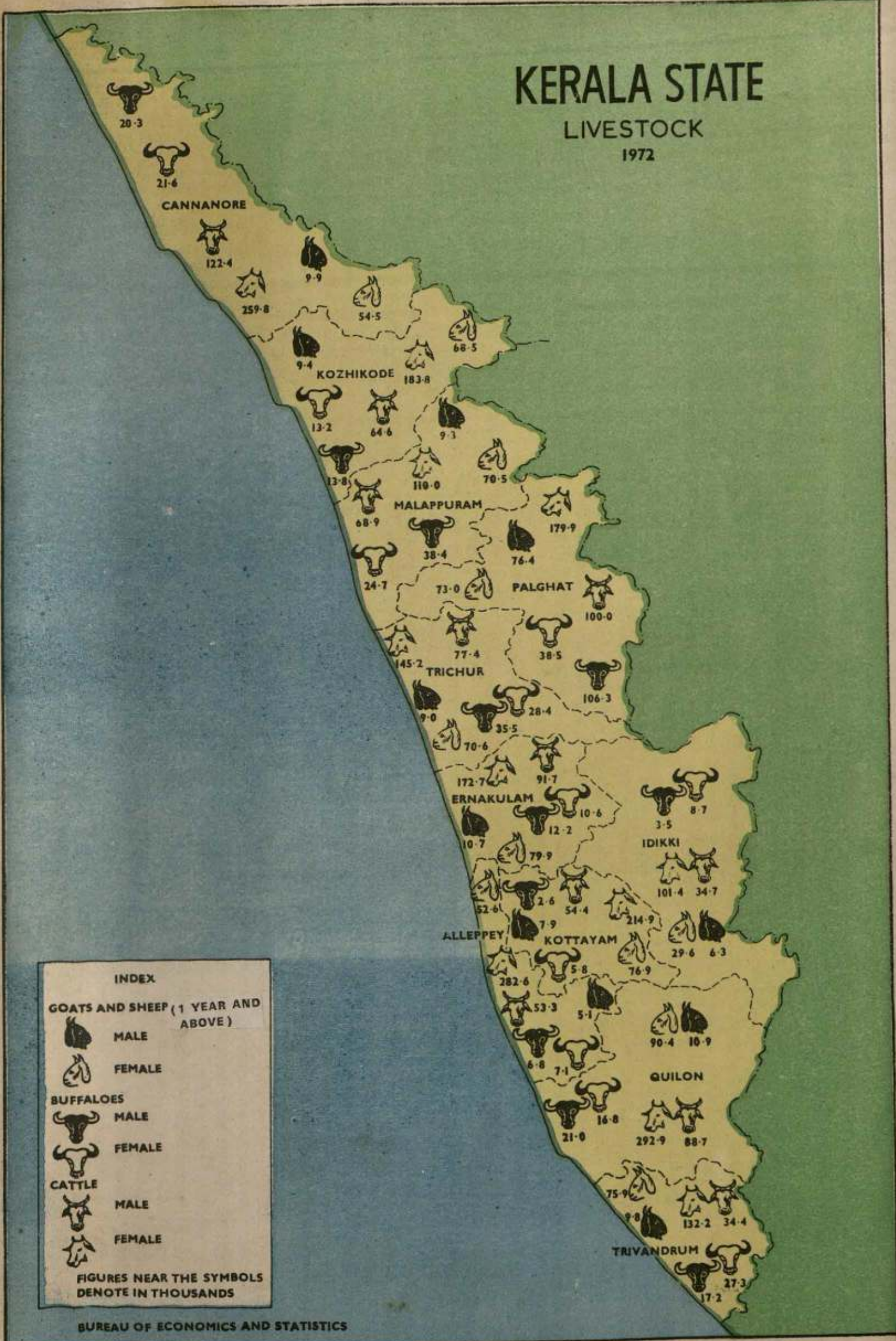
# KERALA STATE

## LIVESTOCK

1972

INDEX	
GOATS AND SHEEP (1 YEAR AND ABOVE)	
	MALE
	FEMALE
BUFFALOES	
	MALE
	FEMALE
CATTLE	
	MALE
	FEMALE
FIGURES NEAR THE SYMBOLS DENOTE IN THOUSANDS	

BUREAU OF ECONOMICS AND STATISTICS



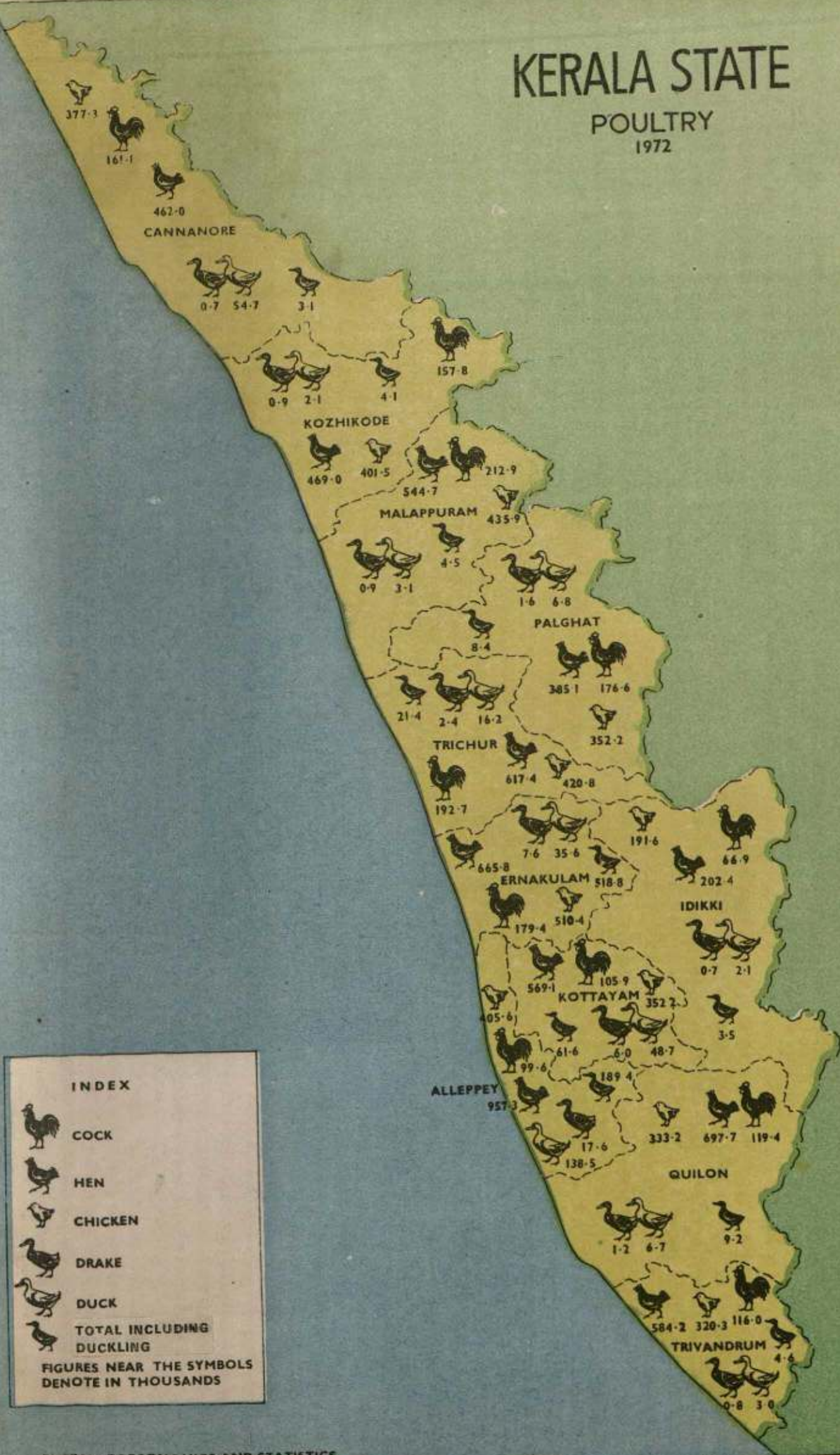






# KERALA STATE

POULTRY  
1972

















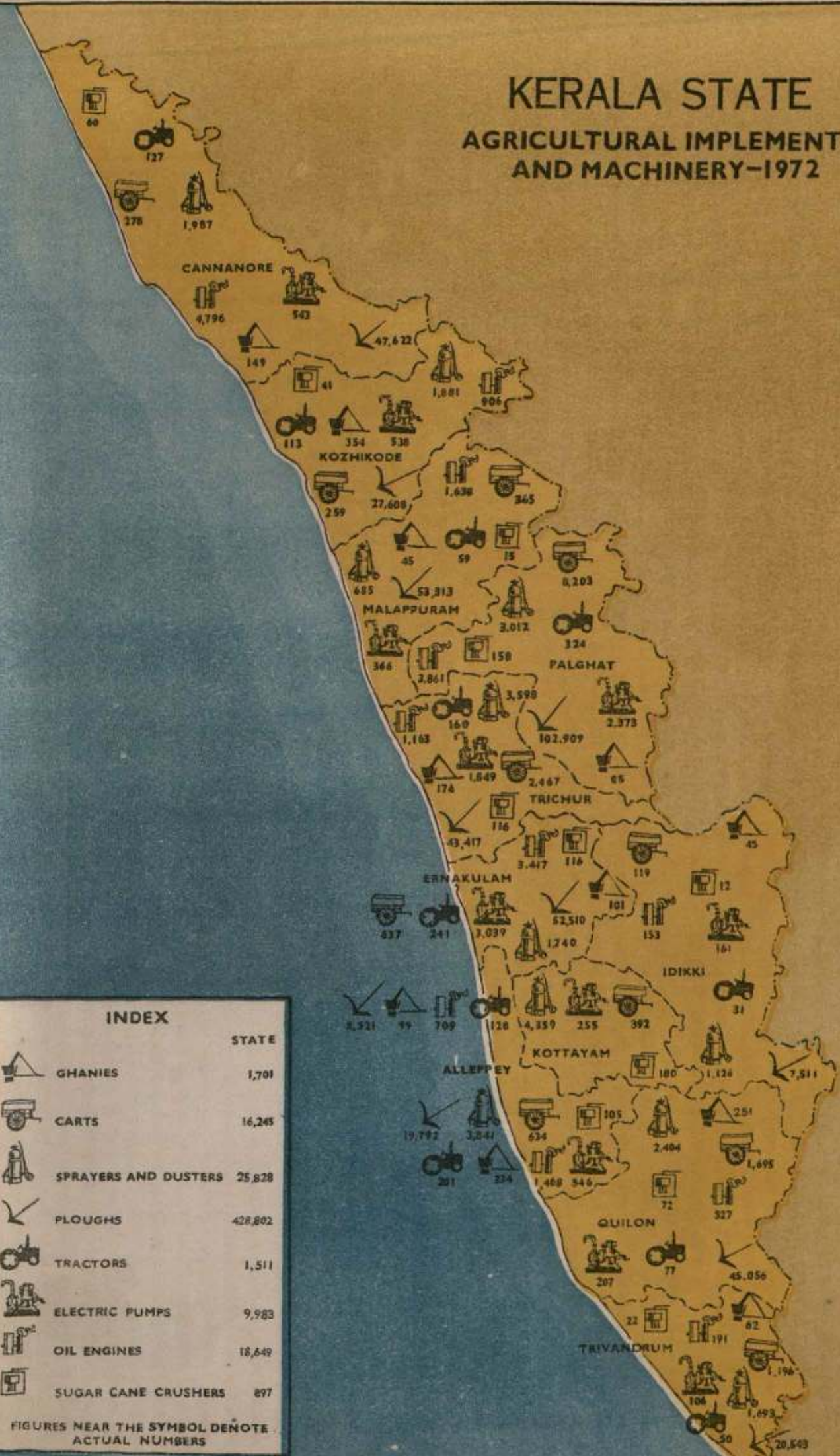
# KERALA STATE

## AGRICULTURAL IMPLEMENTS AND MACHINERY-1972

INDEX		STATE
	GHANIES	1,701
	CARTS	16,245
	SPRAYERS AND DUSTERS	25,828
	PLOUGHS	428,802
	TRACTORS	1,511
	ELECTRIC PUMPS	9,983
	OIL ENGINES	18,649
	SUGAR CANE CRUSHERS	897

FIGURES NEAR THE SYMBOL DENOTE ACTUAL NUMBERS

BUREAU OF ECONOMICS AND STATISTICS





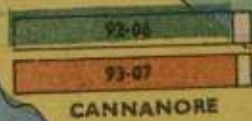
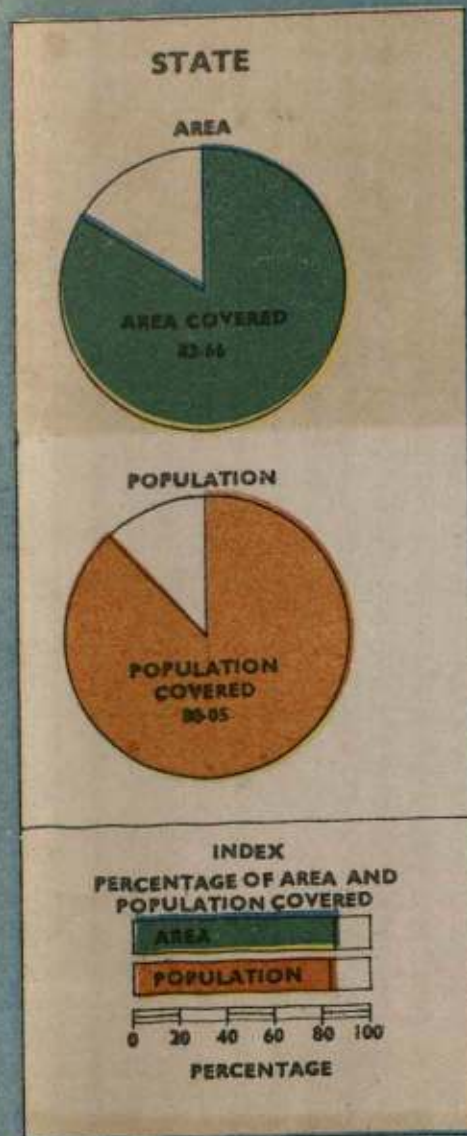




# KERALA STATE

## COMMUNITY-DEVELOPMENT PROGRAMME

PERCENTAGE OF AREA AND POPULATION COVERED  
1971









# KERALA STATE

## MANUFACTURING INDUSTRIES

### NUMBER OF FACTORIES AND EMPLOYMENT - 1975



CANNANORE



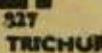
KOZHIKODE



MALAPPURAM



PALGHAT



TRICHUR



ERNAKULAM



ALLEPPEY



KOTTAYAM



QUILON



TRIVANDRUM



#### INDEX



100 FACTORIES



5,000 WORKERS

FIGURES NEAR THE SYMBOL DENOTE ACTUAL NUMBERS

BUREAU OF ECONOMICS AND STATISTICS







# KERALA STATE

## COMMUNICATIONS ROADS AND RAILWAYS



### INDEX

- NATIONAL HIGHWAYS
- OTHER ROADS
- RAILWAYS
- DISTRICT BOUNDARY



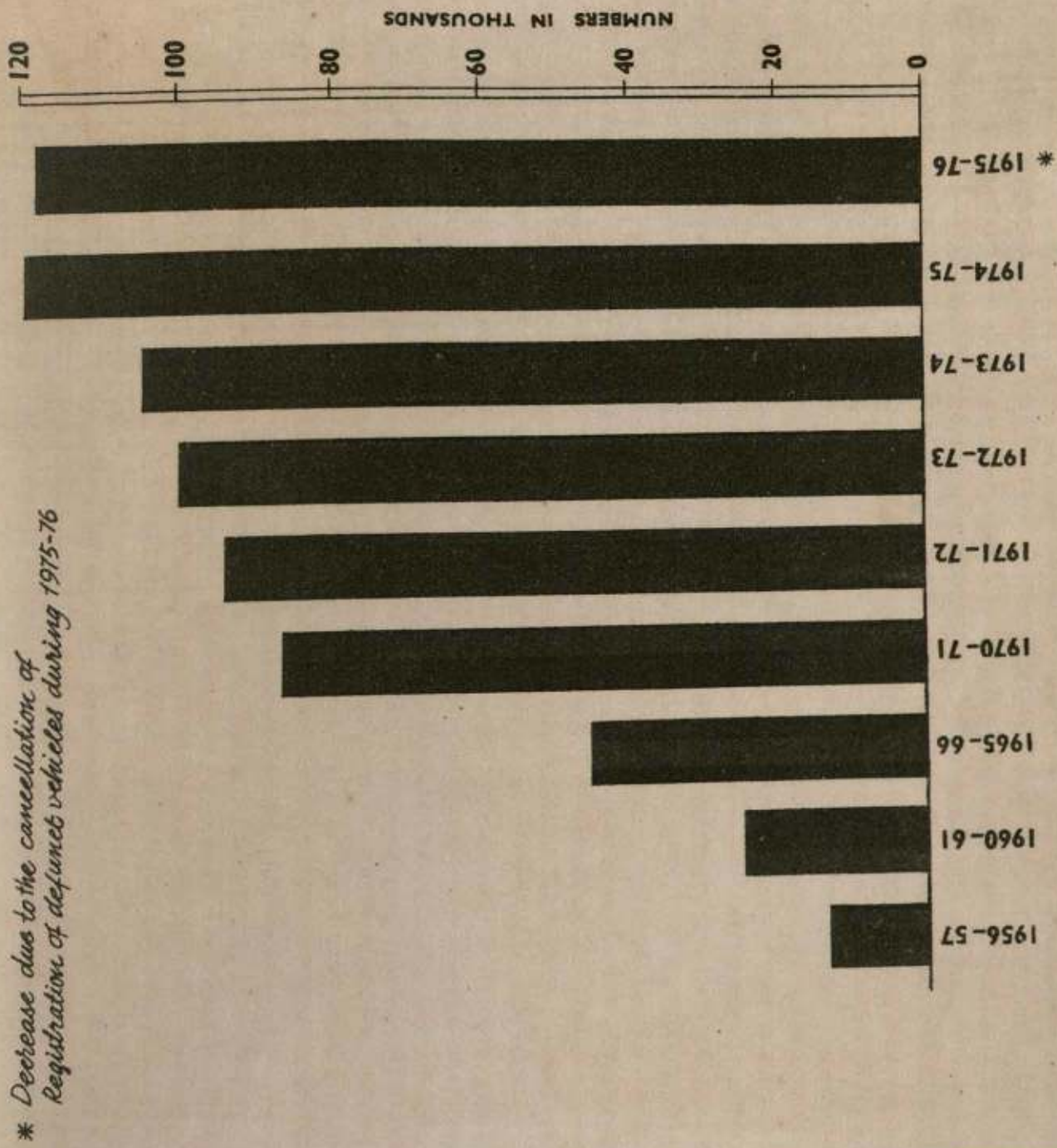




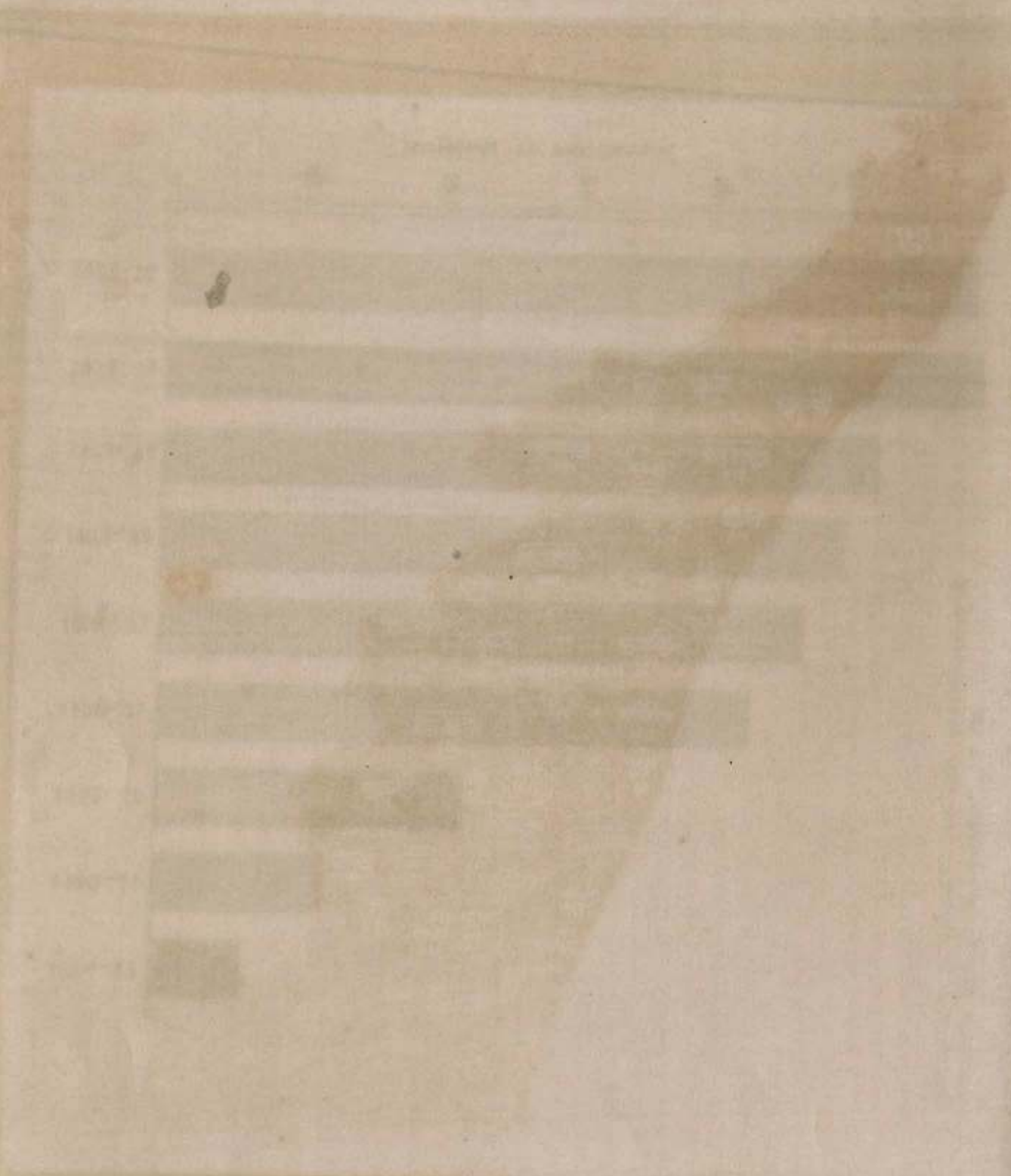
TRANSPORT

NUMBER OF  
MOTOR VEHICLES  
HAVING  
VALID REGISTRATION

BUREAU OF ECO: & STATISTICS





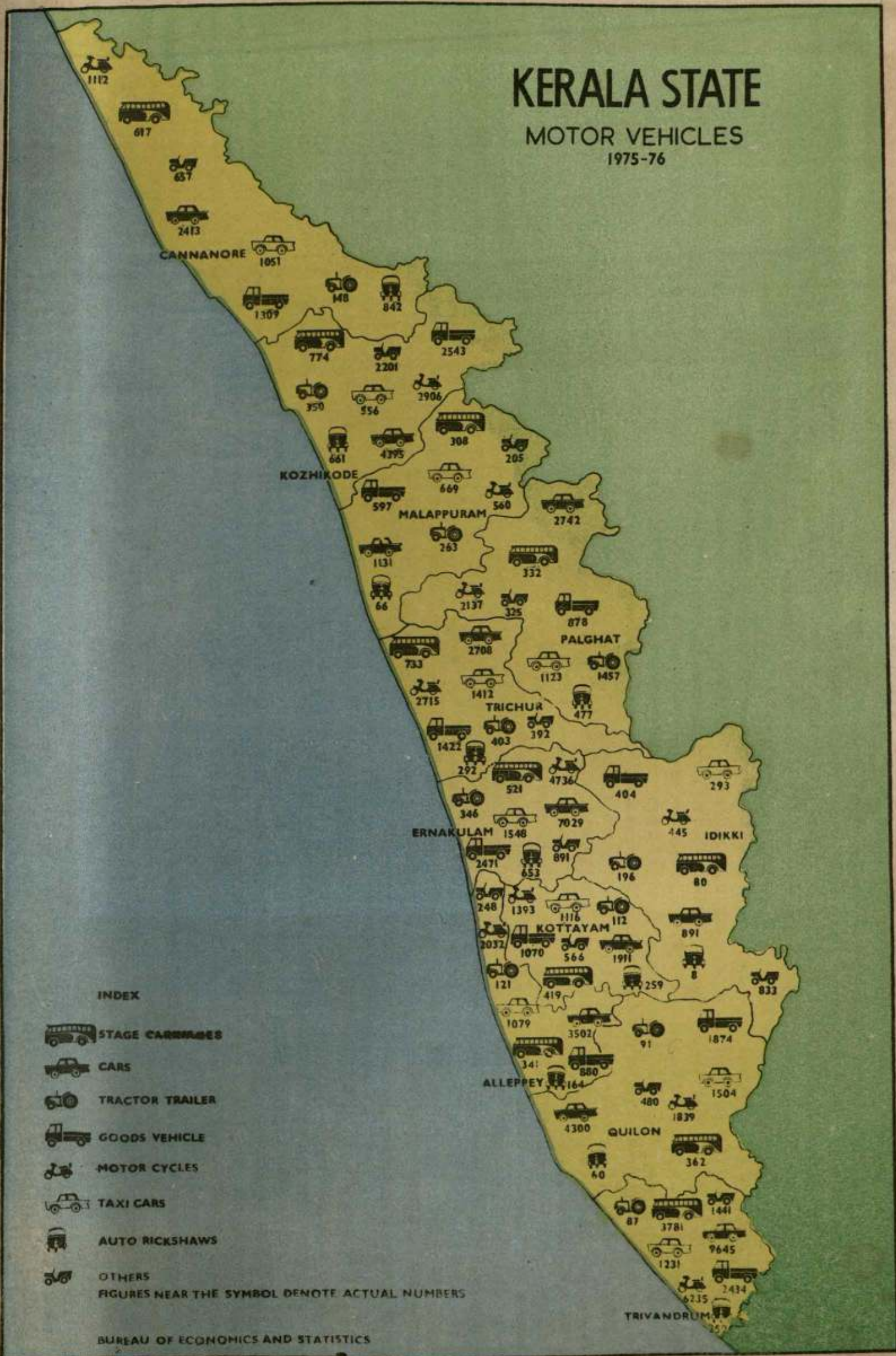












# KERALA STATE

## MOTOR VEHICLES

1975-76



### INDEX

-  STAGE CARRIAGES
-  CARS
-  TRACTOR TRAILER
-  GOODS VEHICLE
-  MOTOR CYCLES
-  TAXI CARS
-  AUTO RICKSHAWS
-  OTHERS

FIGURES NEAR THE SYMBOL DENOTE ACTUAL NUMBERS



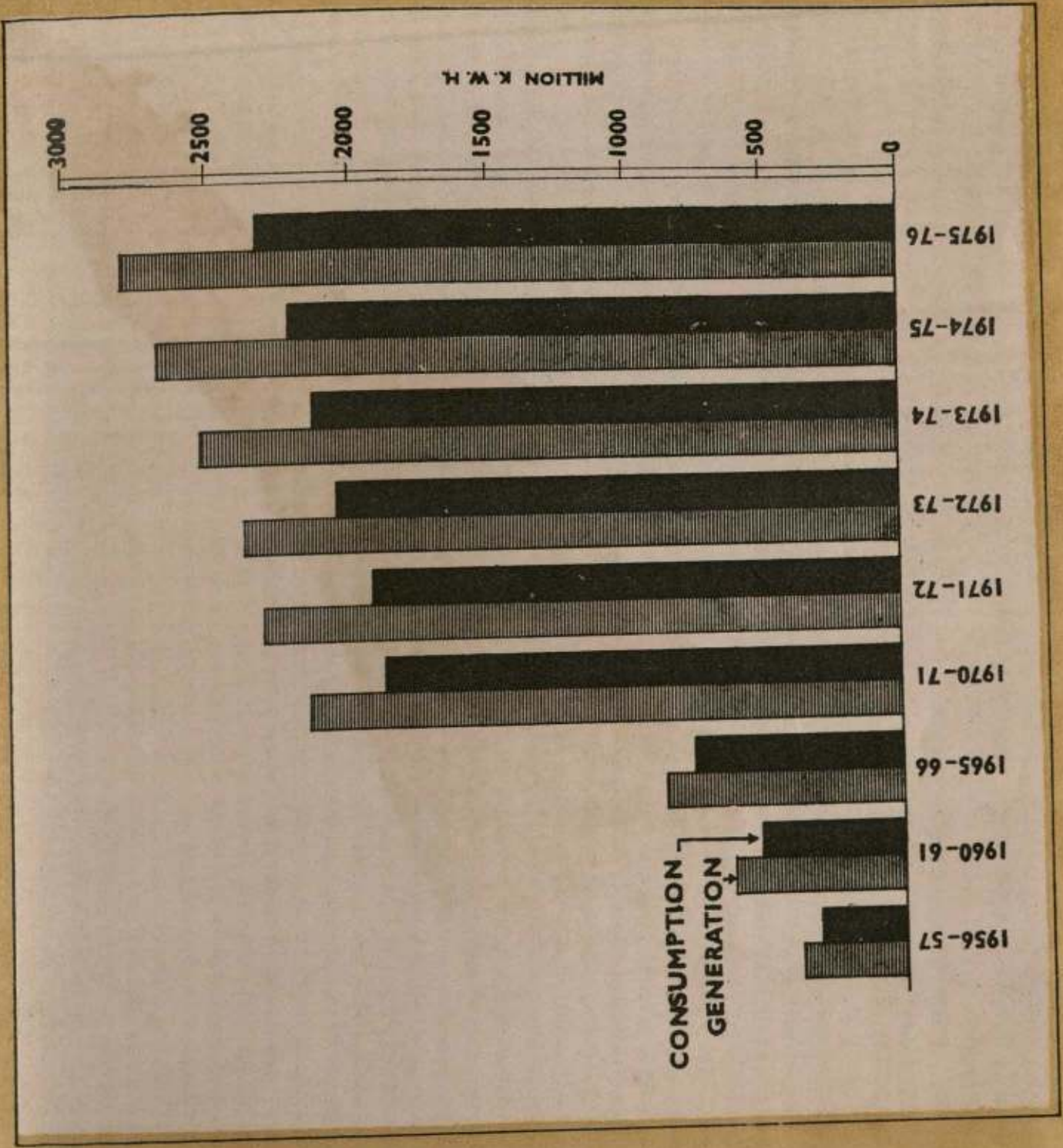




POWER

# POWER GENERATION AND CONSUMPTION

BUREAU OF ECO. & STATISTICS









# KERALA STATE TOURIST MAP

-----	STATE BOUNDARY
- - - - -	DISTRICT
—————	ROAD
+++++	RAILWAY
—————	AIRWAY





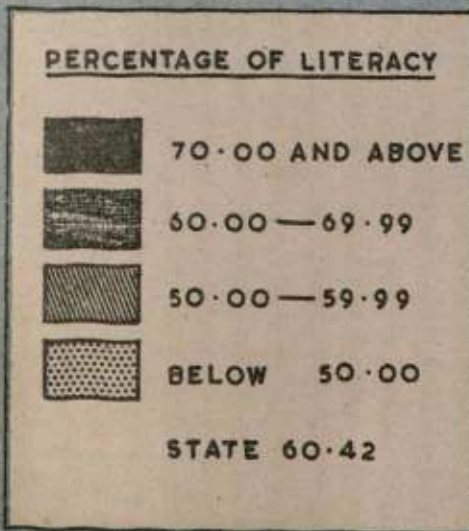




# KERALA STATE

## LITERACY RATE

### 1971



CANNANORE

54.84

KOZHIKODE

57.23

MALAPPURAM

47.90

PALGHAT

46.69

TRICHUR

61.61

ERNAKULAM

65.37

IDIKKI

56.42

KOTTAYAM

72.88

ALLEPPEY

70.44

QUILON

64.97

TRIVANDRUM

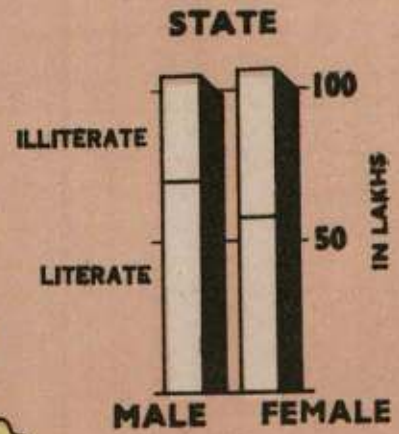
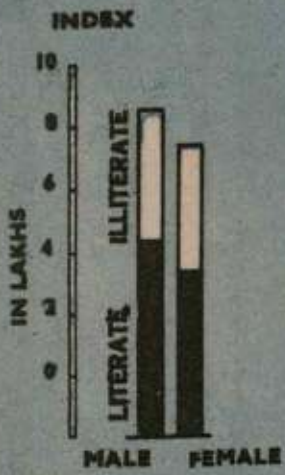
62.54







# KERALA STATE LITERACY BY SEX 1971







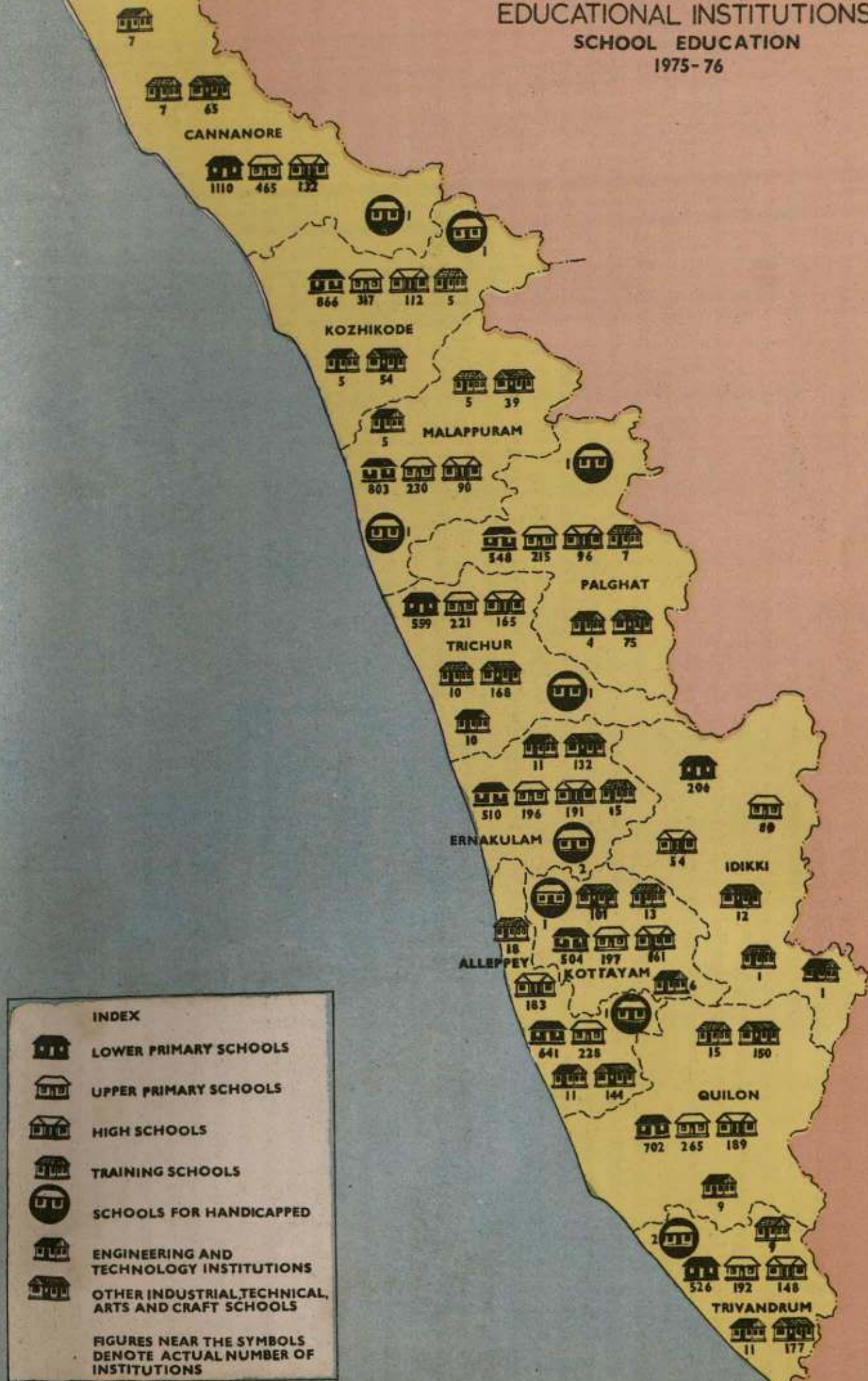


# KERALA STATE

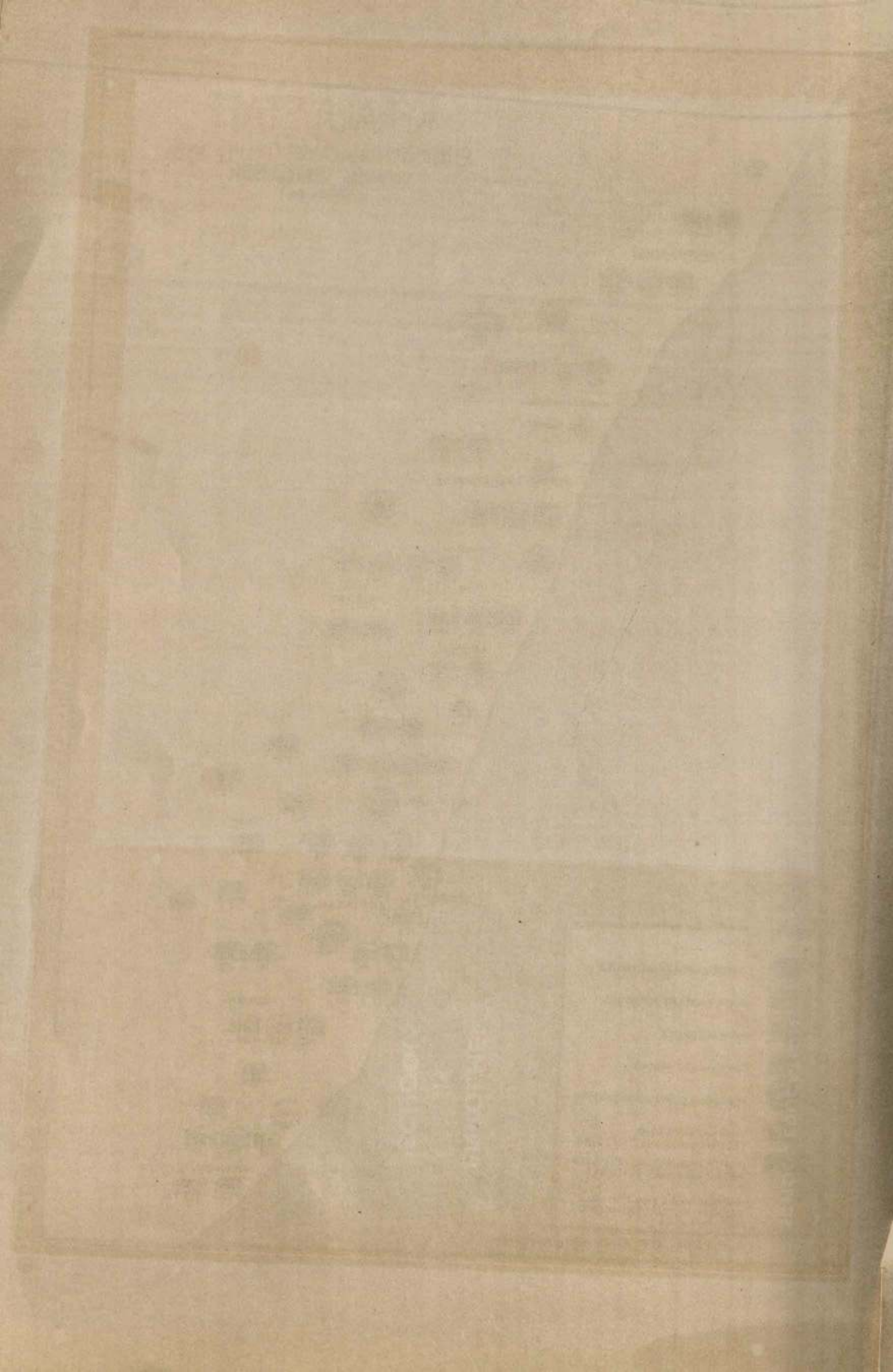
## EDUCATIONAL INSTITUTIONS

### SCHOOL EDUCATION

1975-76





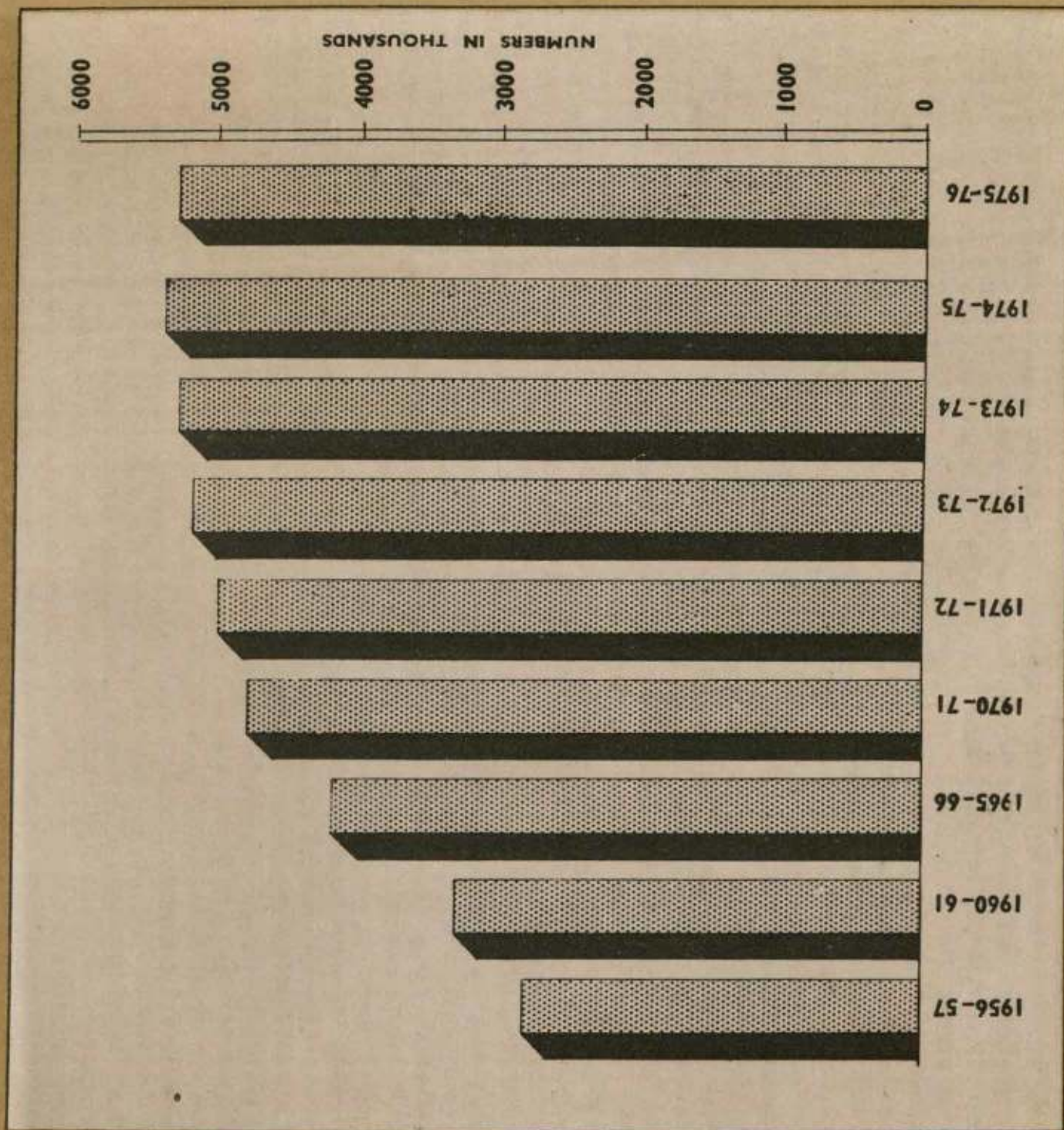




SCHOOL EDUCATION

# ENROLMENT IN SCHOOLS

BUREAU OF ECO: & STATISTICS









# KERALA STATE

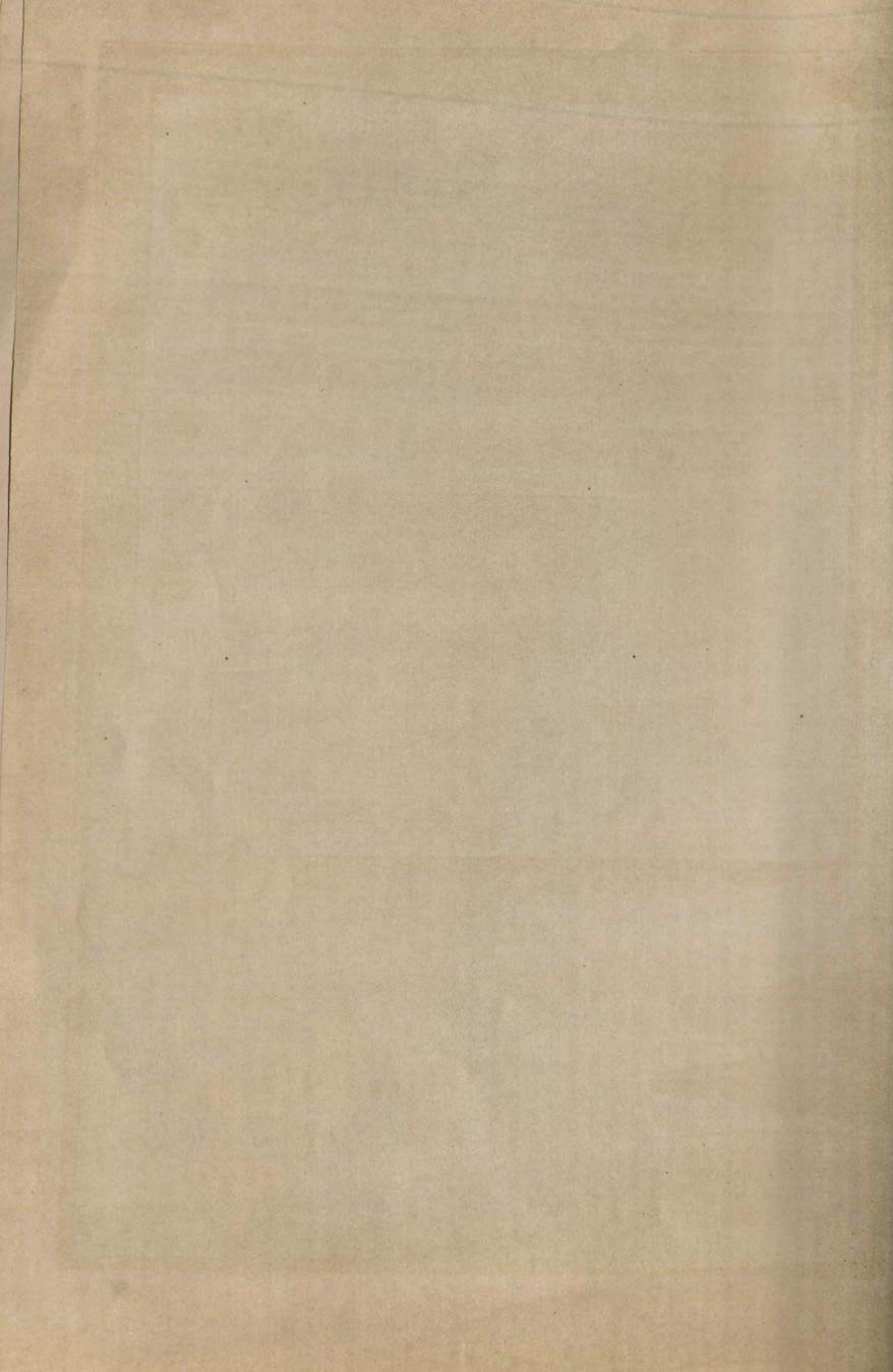
## HIGHER EDUCATION

### NUMBER OF COLLEGES - 1975-76

- INDEX**
- (A) ARTS AND SCIENCE COLLEGE
  - (T) TEACHING CENTRES FOR POST GRADUATE STUDIES
  - (T) TRAINING COLLEGE
  - (M) MEDICAL COLLEGE
  - (D) DENTAL COLLEGE
  - (Y) AYURVEDA COLLEGE
  - (L) LAW COLLEGE
  - (E) ENGINEERING COLLEGE
  - (P) PHYSICAL EDUCATION COLLEGE
  - (C) FINE ARTS COLLEGE
  - (A) AGRICULTURE COLLEGE
  - (V) VETERINARY COLLEGE
  - (H) HORTICULTURE COLLEGE
  - (C) CO-OPERATIVE COLLEGE
  - (S) SANSKRIT VIDYAPEEDOM
  - (A) ARABIC COLLEGE
  - (R) RURAL INSTITUTE
- FIGURES NEAR THE SYMBOLS DENOTE ACTUAL NUMBERS





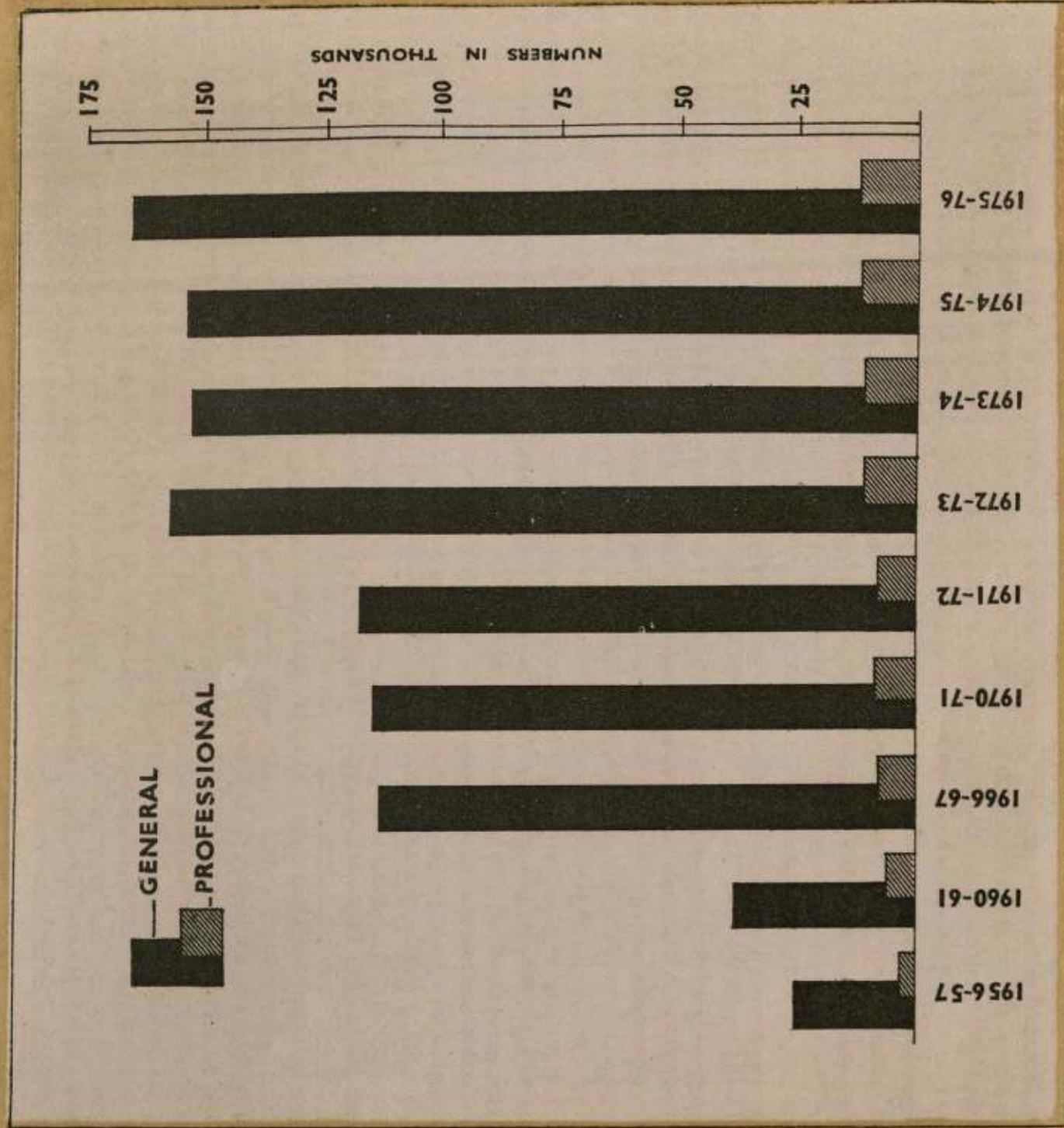




HIGHER EDUCATION

ENROLMENT

BUREAU OF ECO. & STATISTICS





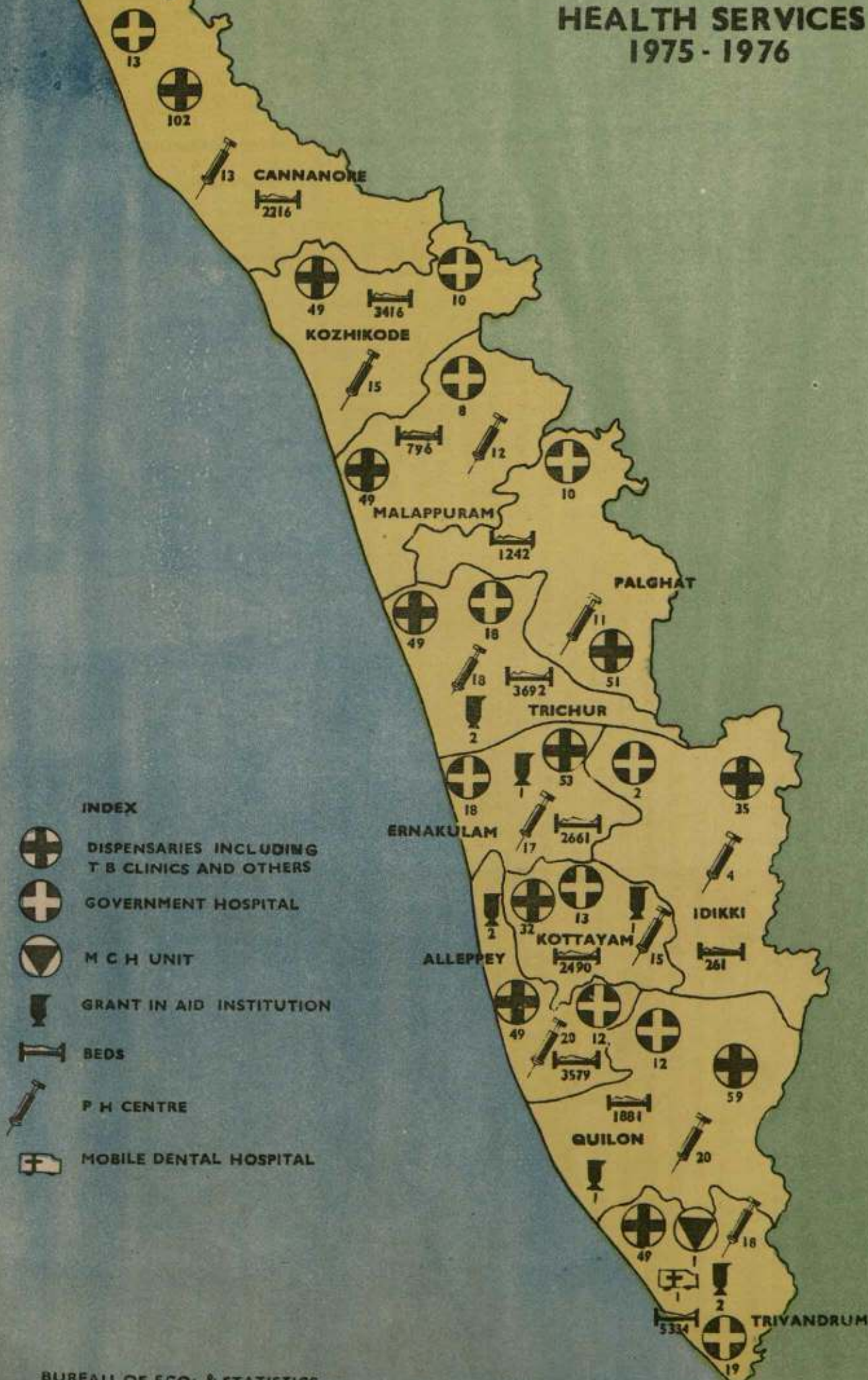




# KERALA STATE

## HEALTH SERVICES

### 1975 - 1976





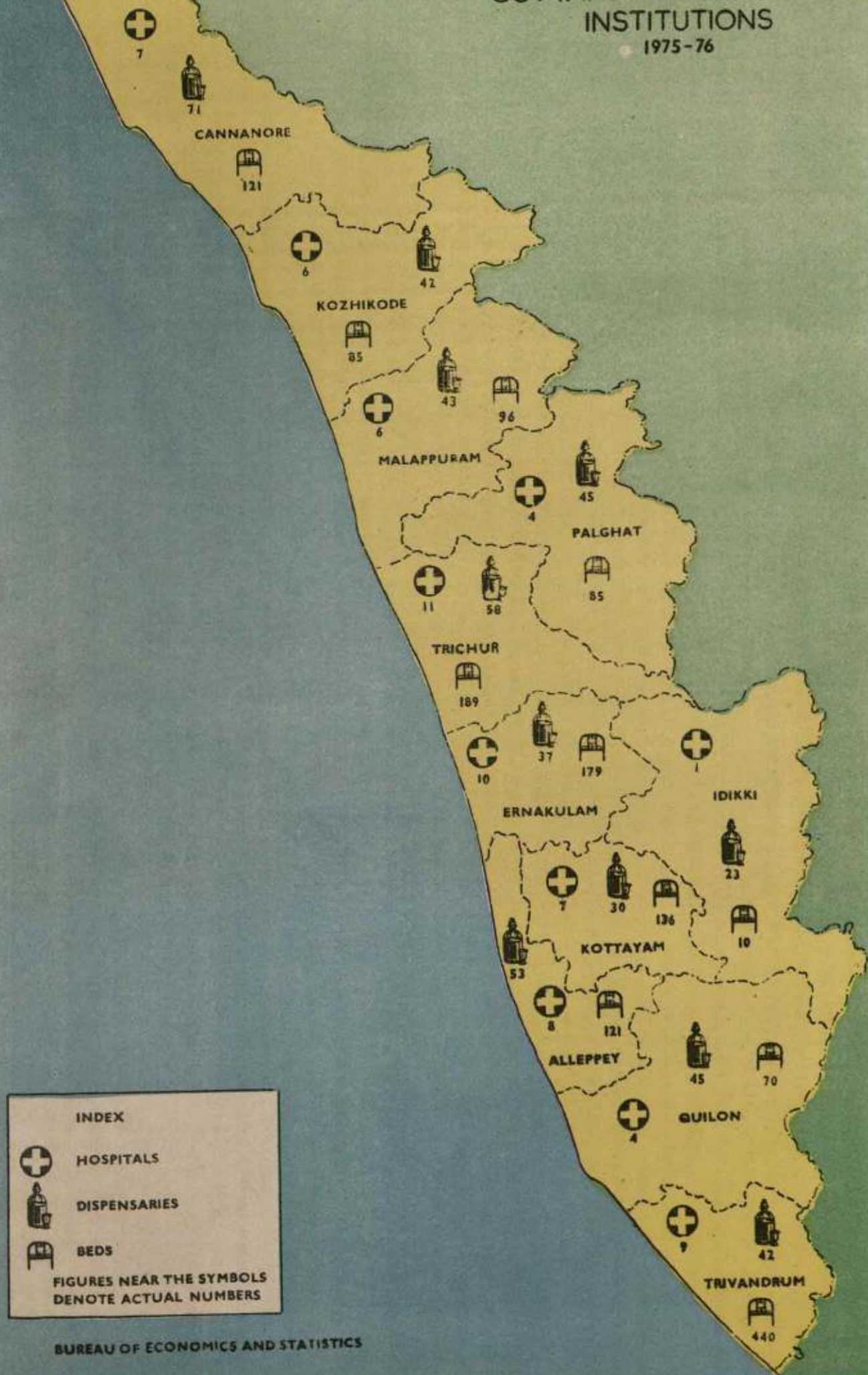




# KERALA STATE

## GOVT. INDIGENOUS MEDICAL INSTITUTIONS

1975-76





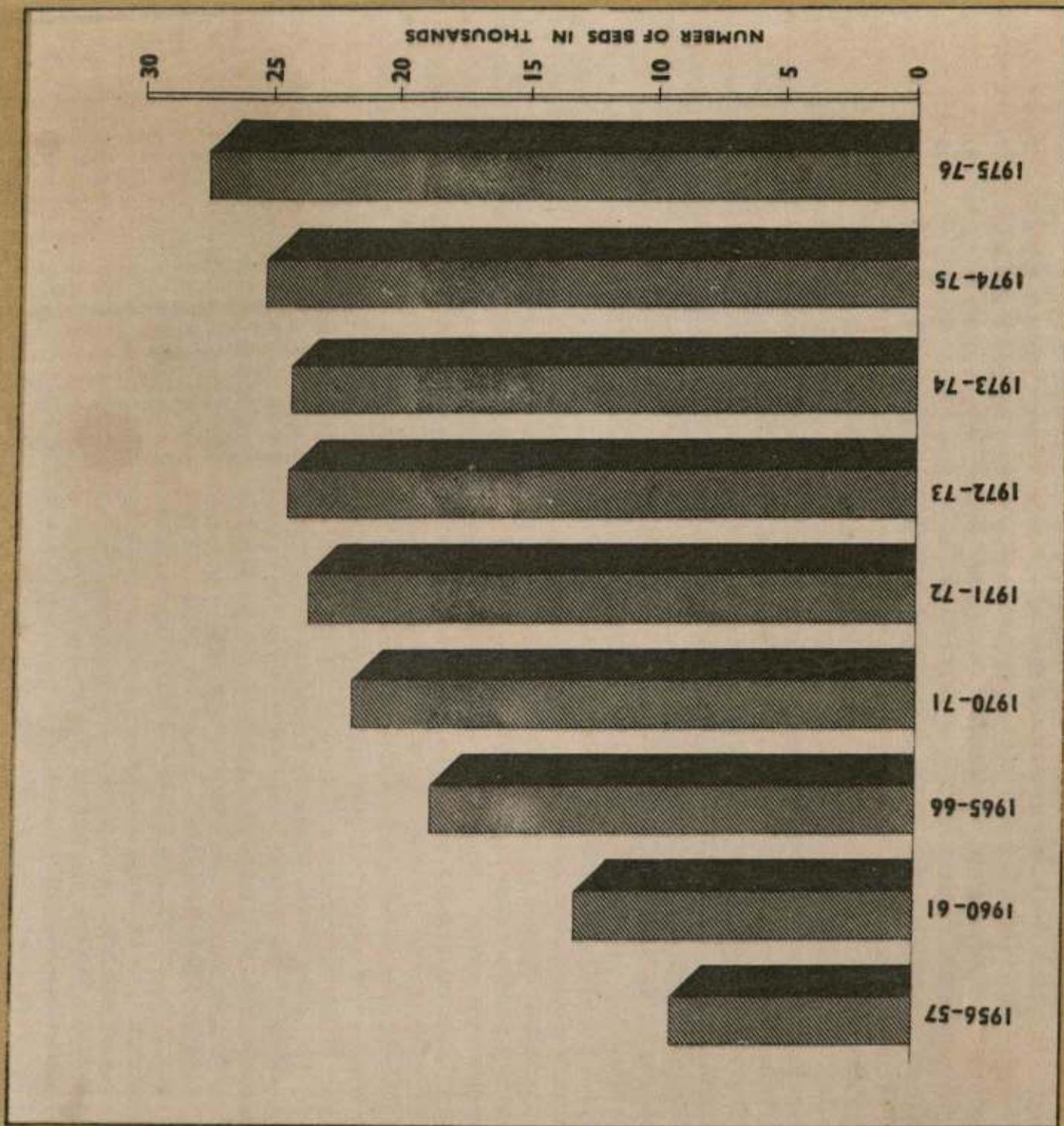




HEALTH

**NUMBER OF BEDS  
IN GOVERNMENT AND  
GRANT-IN-AID  
INSTITUTIONS  
MODERN MEDICINE**

BUREAU OF ECO: & STATISTICS



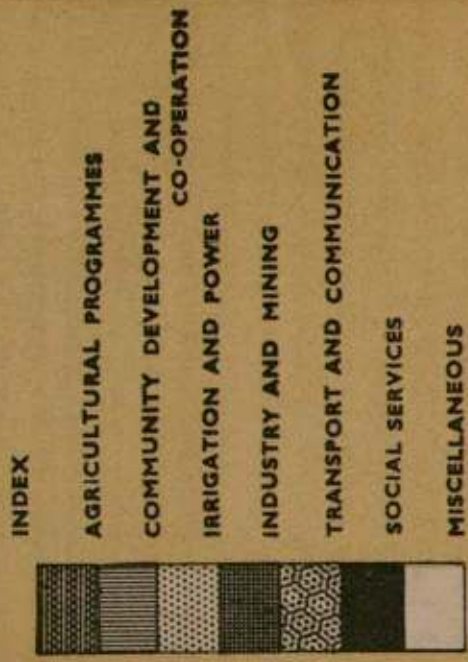




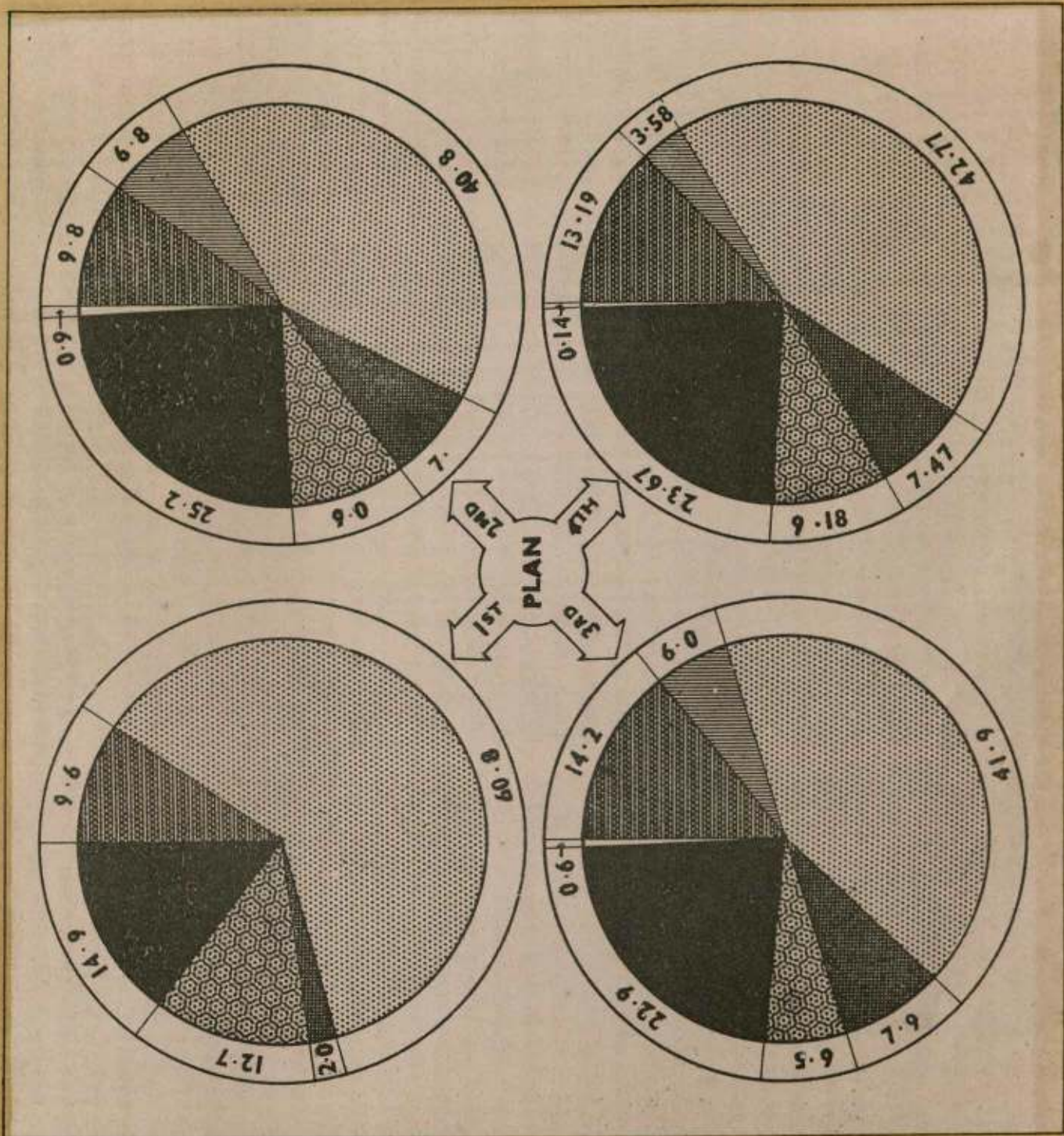


FIVE YEAR PLANS

STATE PLAN  
ACHIEVEMENTS  
PERCENTAGE



BUREAU OF ECO. AND STATISTICS





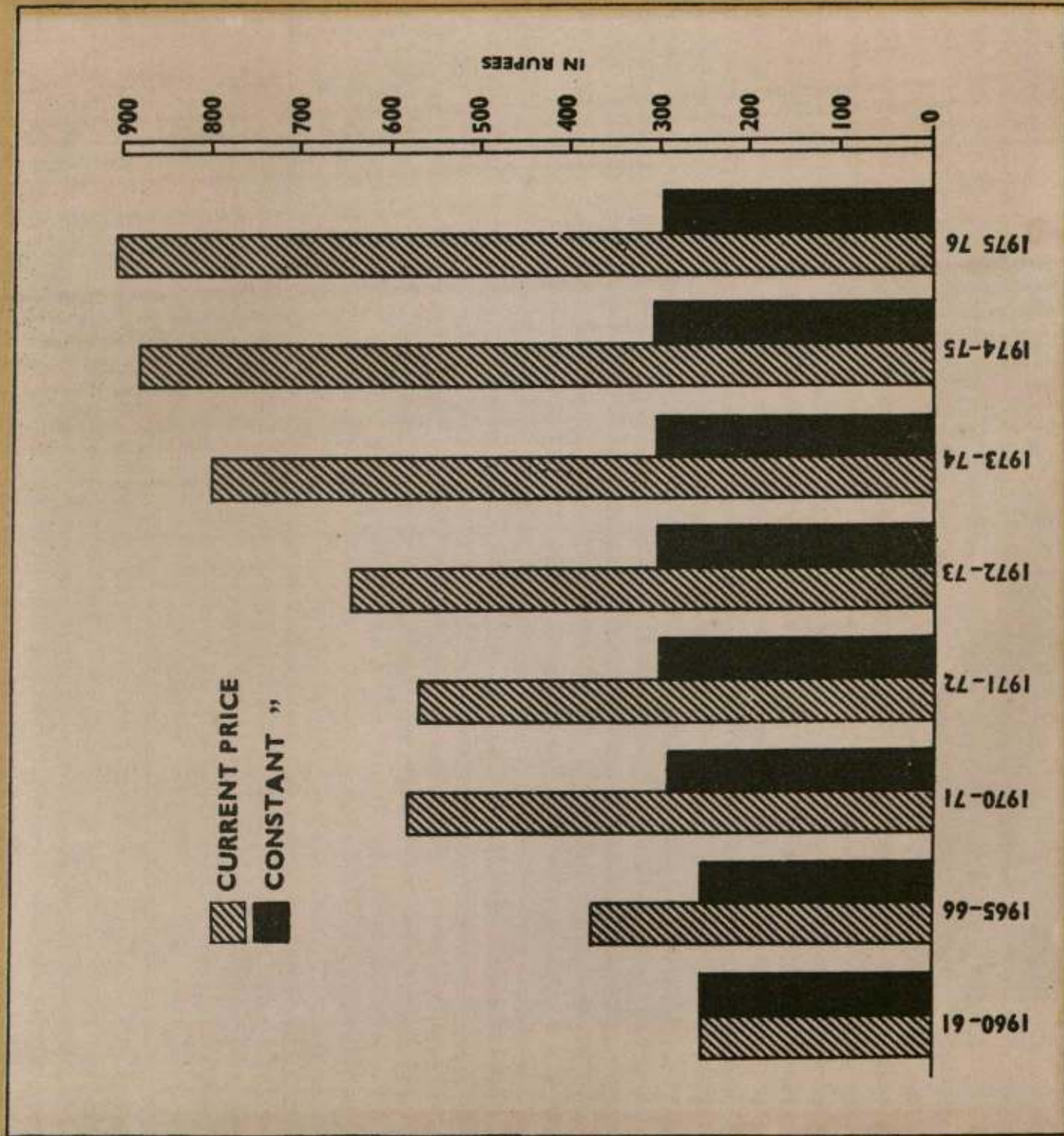




STATE INCOME

PER CAPITA  
INCOME  
AT  
CURRENT  
PRICES  
AND  
CONSTANT  
PRICES

BUREAU OF ECO. & STATISTICS





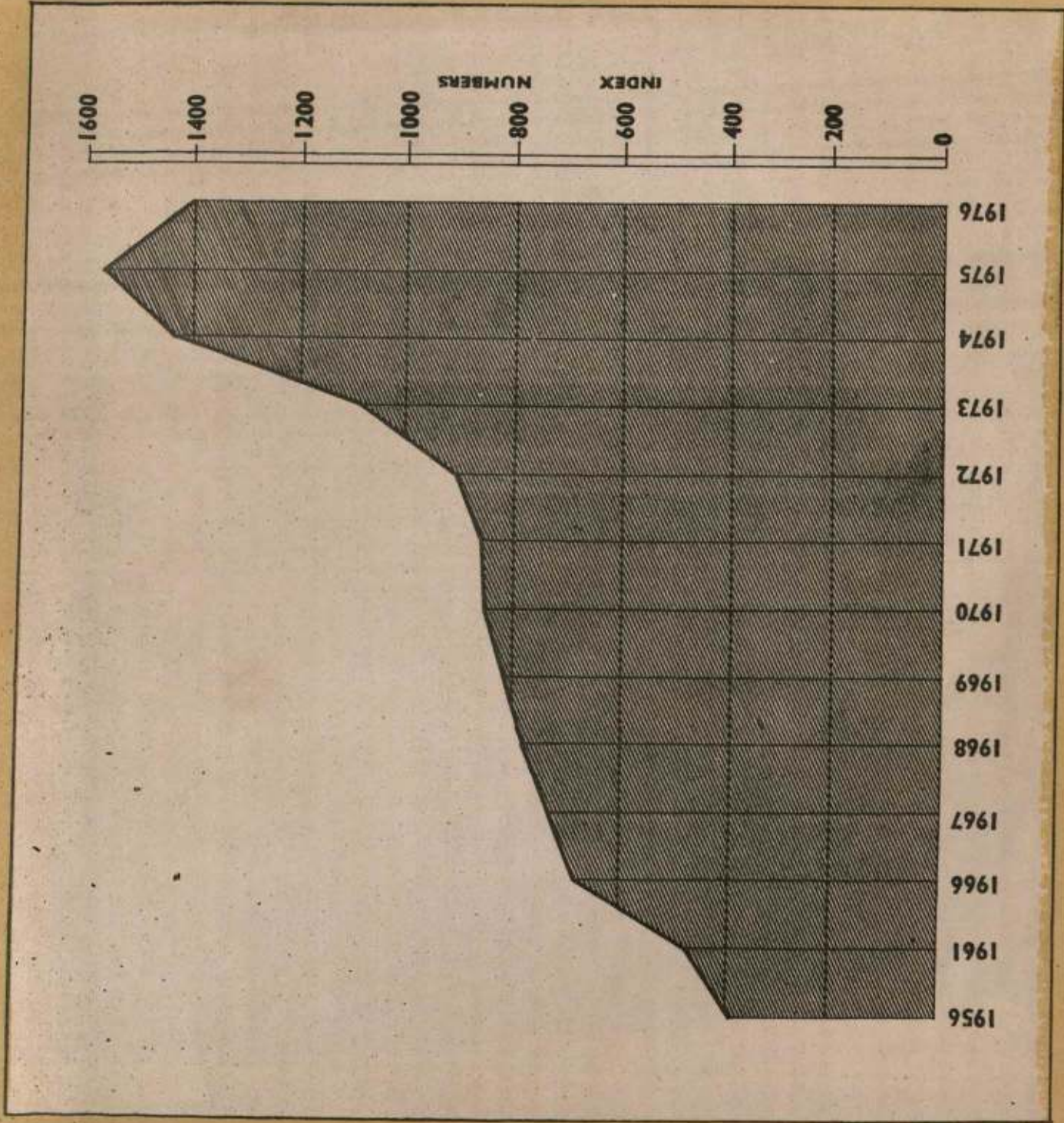
STICAD  
PHODM  
YA  
THHOD  
PHODM  
OXA  
THHOD  
PHODM

PHODM



**CONSUMER  
PRICE  
INDEX  
NUMBERS**

BUREAU OF ECO: & STATISTICS









455

209



