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CENSUS OF INDIA 1961

VOLUME IX

MADRAS

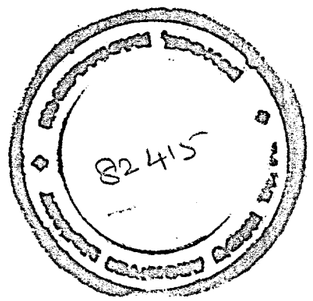
PART IX

ATLAS OF THE MADRAS STATE

P. K. NAMBIAR
OF THE INDIAN ADMINISTRATIVE SERVICE
SUPERINTENDENT OF CENSUS OPERATIONS, MADRAS

1964

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CENSUS OF INDIA 1961

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PREFACE

In his booklet on "Atlas Project of Census of India, 1961" presented to the 20th International Geographical Congress held in London in 1964, Sri A. Mitra, Registrar General, India has made the following observations :—

"FEW PEOPLE REALISE, much less appreciate, that apart from the Survey of India and the Geological Survey, the Census of India had been perhaps the largest single producer of maps of the Indian subcontinent. Intimate collaboration between geographer and demographer began quite early in the modern era, almost two centuries before the first experiments in a permanent decennial Census were made in the 1850's. For example, the population estimates of Fort St. George, Madras, made in 1639 and 1648, and of Masulipatnam and Bombay by John Fryer around 1672-3 were supported by cartographic documents of no mean order. The first detailed modern maps, the results of Major James Rennell's stupendous Survey of 1767—74, were published in 1778—1780 and Henry Taylor Colebrooke, almost our first systematic demographer, was quick to make good use of them by making estimates of population in the East India Company's Possessions in the 1780's. Upjohn's map of Calcutta City, drawn in 1792—3, reprinted in the Census Report of Calcutta for 1951, gives an idea of the standards of cartographic excellence reached at that period In the first decade of the nineteenth century, Francis Buchanan Hamilton improved upon Colebrooke's method in which he was undoubtedly helped by the improved maps for the areas he surveyed.

It is possible that the Great Revenue Survey, begun in the middle of the last century, offered the best guarantee of the success of decennial population censuses proposed shortly before the Mutiny of 1857. In the experimental Censuses organised between 1865 and 1872 the Survey of India, the Provincial Surveys and Census of India struck an informal but stable partnership which has been fascinatingly described by R. H. Phillimore in his monumental four-volume work on the *HISTORICAL RECORDS OF THE SURVEY OF INDIA*. This partnership continues to this day. On the eve of each Census, the Census of India proceeds by making use of (a) the cadastral surveys prepared by the Provincial (now State) Surveys and (b) the topographical surveys of the Survey of India. In the course of its decennial operation, the Census of India begins by revising and bringing up-to-date the minute jurisdictional changes made during the decade. Next, and equally important, it revises the lists of inhabited and uninhabited villages and of towns and cities. These are placed at the disposal of the Survey of India. Thirdly, at each decade the Census of India itself produces maps of its own which serve to strengthen the study of geography at official and academic levels. These are both numerous and of great range and variety. What is more, they are often unsurpassed for their wealth of authentic regional detail. For proof, if proof were needed, one has only to turn to the geographical maps published in the 1872 Census Reports of North-West Provinces, Cochin, Bengal and the very excellent volume of maps of different Collectorates of the Bombay Presidency, published as Part IV of the 1872 Census Report of Bombay, or the fine taluk maps of Mysore State published in the Census Report of 1891. The high watermark of a skilful fusion of topographical and thematic maps was reached in maps published in the encyclopaedic Linguistic Survey of India and the State Census Reports of 1931 and the special All India Ethnographic Appendix published in 1933. In fact, the particular genius of the Census of India seems to lie as much in the high quality of its themato-topographic maps as in the pure thematic maps so essential for Census analysis and presentation.

The restricted programme in 1941 on account of World War II temporarily restrained the cartographic activities of the Census of India, although several excellent contributions were made. One of the major contributions of the 1951 Census was the excellence of detail achieved in the great bulk of taluk/tehsil maps published in the District Handbooks.

The Census of India has been a discontinuous affair up to 1961. The Census Commissioner for India in 1941 compared it to the mythical phoenix. The Census starts every time with a very limited assignment, but ends up, thanks to the vistas that open up with the progress of the work and the hunger they stimulate, by becoming the most fruitful single source of information about the country.

The seeds of the 1961 Census Atlas Project were unobtrusively sown in para 42 of the Registrar General's first 1961 Census Circular of March 1959 to State Census Superintendents as follows :

"It will be very useful to have a map for every village and ward of a town showing the broad layout of the village and the house numbers shown therein. The map need not be drawn to scale but a map large enough to show the house-numbers would be sufficient. A map of this kind, if prepared, will also help the maintenance of housenumbers".

This volume is the result of the impact of his project on Madras State. His plan was to bring out an Atlas Volume depicting social, cultural, demographic and economic aspects of every State and a General National Atlas for all India. As it was likely that various Census Superintendents would have their own ideas about the lay-out and contents of the Atlas Volume, Sri A. Mitra also laid down certain principles clarifying the general lay-out of the Atlas Volume more with a view to ensure uniformity in presentation and preparation. He also indicated that the worth and quality of the maps depend on their boldness, unity of objective and impression of spaciousness. It was also our good fortune that he issued detailed instructions regarding the number and mode of preparation of maps.

The first step I took was to organise a proper Cartography Section in my Office. It collected data for the preparation of these maps. It also prepared base maps from which original maps could be prepared. This section has not only been engaged in the preparation of Atlas Volumes but also in the preparation of maps, graphs, charts and diagrams which have become a normal feature of every Census publication issued from this office.

In addition to the maps prescribed by the Registrar General, India, I also selected some maps from Atlas Volume issued by the National Council of Applied Economic Research and Techno-Economic Survey Reports of Madya Pradesh and Madras, a few maps of which I felt would add to the value of Madras State Atlas Volume.

This volume contains 158 maps reflecting various characteristics of Madras State. They can be classified into the following broad categories :

1. Orientation
2. Physical condition
3. Demographic pattern
   a. Distribution, density and growth
   b. Fertility and mortality
   c. Age and sex structure
4. Urbanism
5. Economic aspects
6. Agriculture
7. Industries
8. Power
9. Transport
10. Socio cultural aspects
    a. Castes and Tribes
    b. Religion
    c. Languages
    d. Education
    e. Housing
    f. Health

In 36 maps, taluks have been taken as the basis of preparation. 7 maps have been prepared by isopleth method, 95 maps by choropleth method and 56 maps by other methods of presentation like circles, histogram, polygon. 149 maps are in black and white and 9 in colour. The number of coloured maps has been restricted to the minimum in my desire to bring out the Atlas Volume as early as possible.

The significant development in the preparation of maps was the appointment of an expert Dr. Miss Sen Gupta as Map Officer in Registrar General's Office with effect from 30-11-1962. The essence of her policy was to maintain uniformity in maps pertaining to Atlas Volume in respect of all States which involved some changes in the original programme I had outlined for Madras State. It has not been possible for me to see eye to eye with Dr. (Miss) Sen Gupta in the preparation of Atlas Volume of Madras State. No doubt, the volume has suffered in its technique as a result of my failure to implement all her instructions; but as an administrator, I have preferred a quicker execution of a project rather than delay it though such delay may give better technical perfection. At the same time, I must record my appreciation of the instructions issued by her from time to time from which I have benefitted.

This project has been rendered possible by the co-operation extended by the Central Survey Office of the Government of Madras. It lent all the technical staff needed in manning the Cartography Section of my office. Originally, the Central Survey Office could not agree to print Atlas Volume within any reasonable time because of their pre-occupation with the printing work of the State Government. It was due to the personal intervention of Sri K. V. Ramanathan, I.A.S., the then Director of Settlements that the Central Survey Office undertook the printing of these maps and I must take this opportunity to record my thanks to him. Once having undertaken the project, the Central Survey Office has printed 147 maps. They would have printed other 11 maps also but in my desire to see that this Atlas Volume was released in 1964 itself, I had 9 coloured and 2 black and white maps prepared by Klein and Peyerl and printed at Janatha Press. This project was completed within a period of one year, thanks to the co-ordinated efforts of my Cartography Section, Central Survey Office, Klein and Peyerl and Janatha Press and Kasturi Printers which printed the notes. This project has been implemented according to the original schedule I had in mind.

My Cartography Section has been headed by Sri M. Ganesh Lal, Cartographer and assisted by the following persons : A. Rajamani, Draftsman, N. Chandran, Draftsman. and K. P. Subramaniam, Compositor. They have done excellent work not only in connection with the preparation of this volume but also in the preparation of maps for other volumes of Madras State. The work relating to the Atlas Volume has been ably supervised by Sri D. Ranganathan, Tabulation Officer of my office who was assisted by Sri A. V. Rajan and Balan Nambiar. In the planning of details of the Atlas Volume, Sri P. Murari, I.A.S., my then Deputy Superintendent of Census Operations, has made some significant contribution. His successor Sri N. Krishnamurthy, I.A.S. has also assisted me in getting this volume completed.

In conclusion, I wish to thank the Registrar General, India who has conceived this Project and encouraged me in undertaking it. He has given me all possible help in implementing the project and has also given me maximum freedom of action and expression in its implementation after laying down the general principles which should guide the preparation of such a project. It is this internal freedom which he has delegated to each Census Superintendent in implementing the all-India Census Programme that has made it a pleasure to work with him. I should not also fail to record my thanks to Sri D. Natarajan, Deputy Registrar General, India who has been most liberal in the grant of adequate staff for this purpose and who has also, from time to time, taken personal interest in the preparation of maps and notes and given valuable suggestions during every visit he made to Madras.

P. K. NAMBIAR
Superintendent of Census Operations.

MAP 1

POSITION OF MADRAS STATE

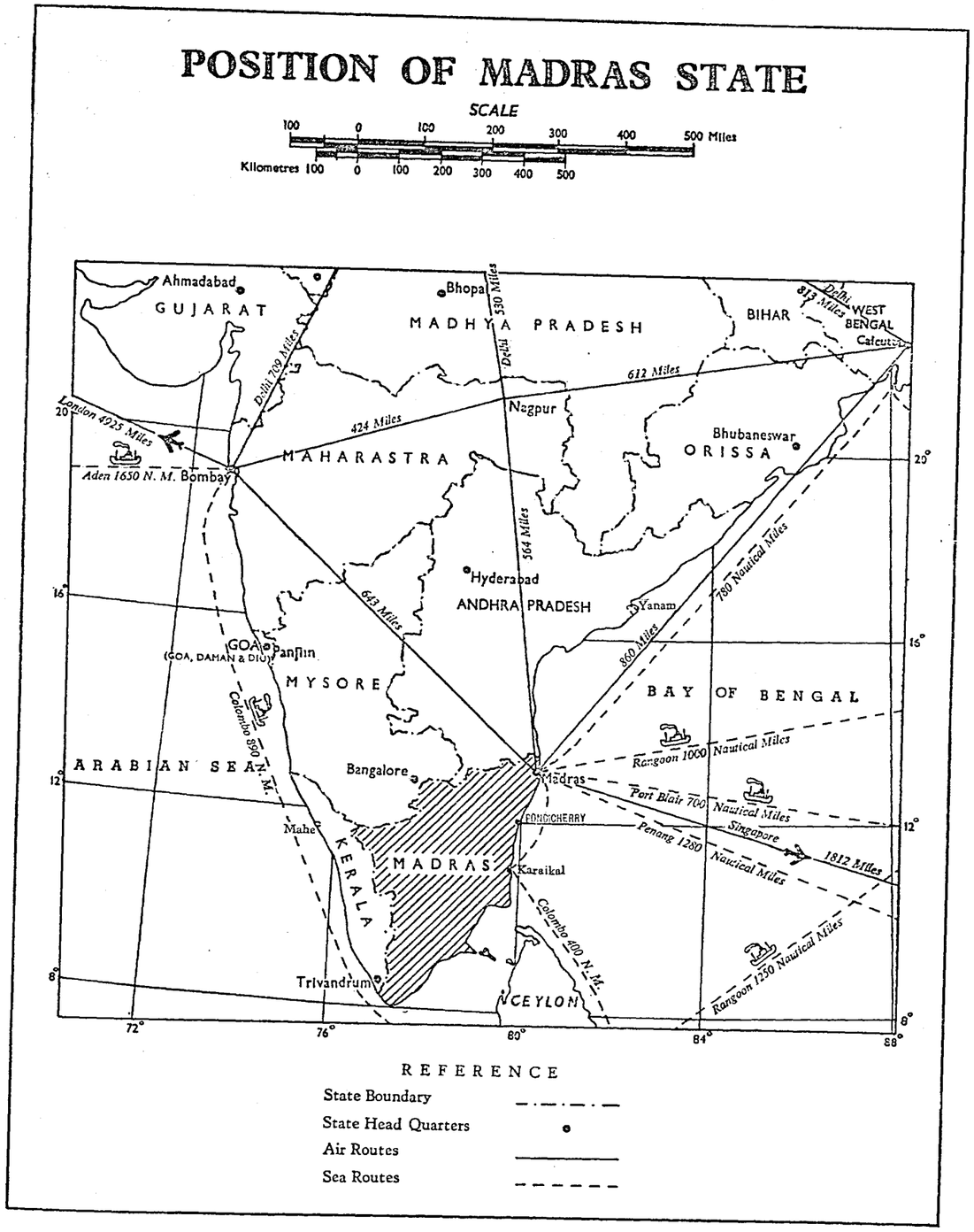
MAP 1

POSITION OF MADRAS STATE

The present unilingual State of Madras, was born on 1st November, 1956. It is situated at the south-eastern extremity of the Indian Peninsula. Bounded on the north by Mysore and Andhra Pradesh, on the east by the Bay of Bengal, on the south by the Indian Ocean and on the west by Kerala State, it has a coast line of 620 miles and a land boundary of 750 miles. It lies between 8°5' and 13° 35' of northern latitude and 76° 15' and 80° 20' of eastern longitude. With an area of 50,154.7 square miles or 129,900.6 square kilometres, it is the eleventh State in India in area, forming 4.08% of the Union's area. It ranks sixth in population having 7.67% of the total population. The population as on 1-3-1961 is 33,686,953. Its density is 672 and the sex ratio (number of females per 1,000 males) is 992. There are 339 towns and 14,124 villages in Madras State compared to 2,700 towns and 567,351 villages in India.

The area of Madras State is about $\frac{1}{0.00009}$ of the total area of the world while the population forms $\frac{1}{0.011}$ of world population. The area of United Kingdom is nearly double and that of France is nearly four times that of Madras State, while the area of United States of America is nearly 72 times that of Madras State. The country approximating the area of Madras State is Greece with an area of 51,182 square miles or Czechoslovakia with 49,366 sq. miles.

The map also indicates the air routes to important places in the world. Madras is 1,094 miles from the capital of India, 860 miles from Calcutta, 643 miles from Bombay and 390 miles from Trivandrum in the extreme south. Madras is 3,825 miles from Moscow, 5,185 miles from Paris, 5,277 miles from London and 8,398 miles from New York.



MAP 2

ADMINISTRATIVE DIVISIONS

MAP 2

ADMINISTRATIVE DIVISIONS

PURPOSE

This map shows the administrative divisions of Madras State. The district and taluk boundaries have also been shown.

SALIENT FEATURES

Madras State has been divided into thirteen districts viz., Madras, Chingleput, North Arcot, South Arcot, Salem, Coimbatore, Nilgiris, Madurai, Tiruchirapalli, Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari.

Madras City is a district and limited to the Corporation limits but the other districts have been divided into 103 taluks. The details are given below:

Name of District		Number of Taluks
Chingleput	...	8
North Arcot	...	11
South Arcot	...	8
Salem	...	12
Coimbatore	...	9
Nilgiris	...	3
Madurai	...	8
Tiruchirapalli	...	10
Thanjavur	...	12
Ramanathapuram	...	9
Tirunelveli	...	9
Kanyakumari	...	4

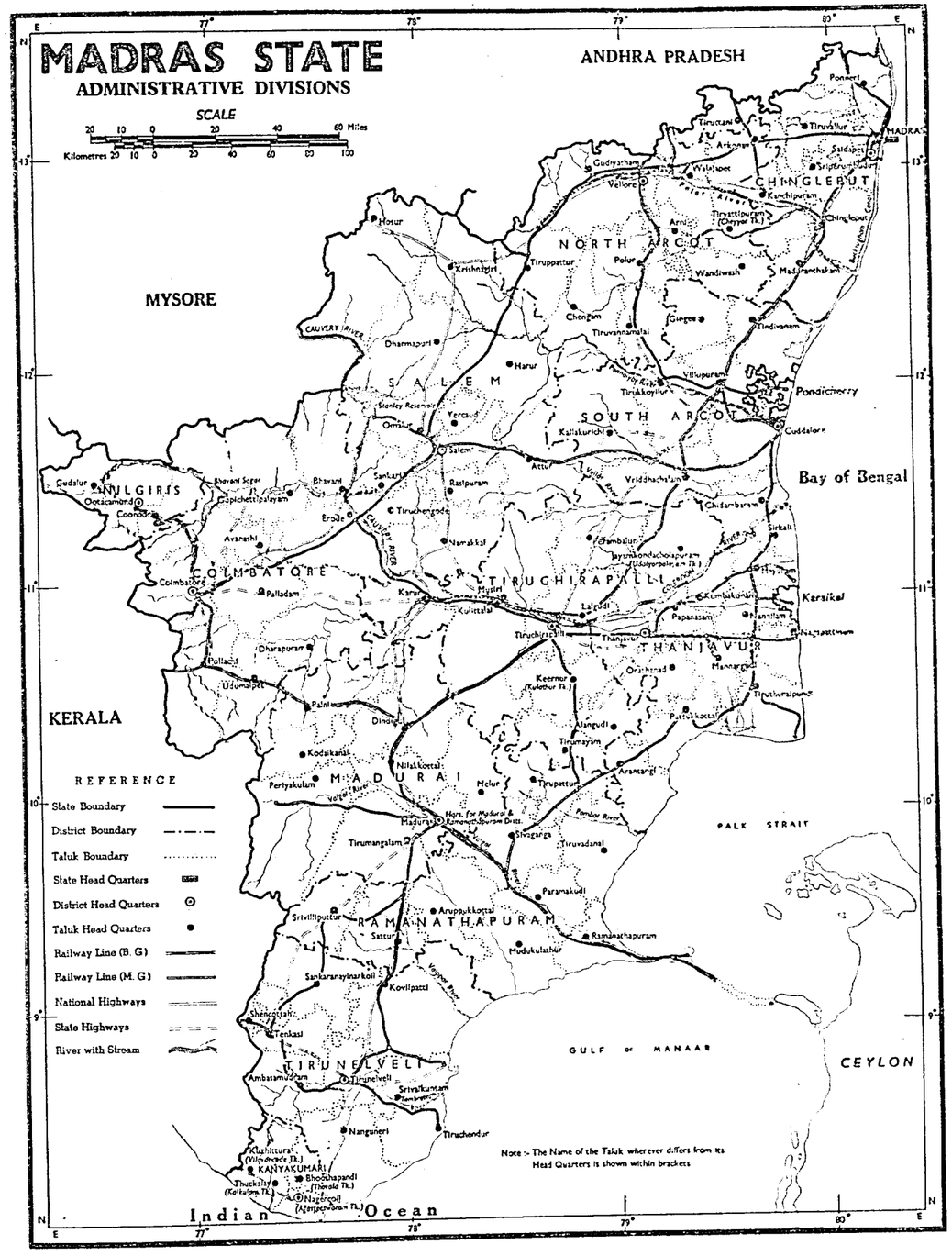
The map also indicates district and taluk headquarters. The headquarters of Chingleput is in Madras City and Ramanathapuram has its headquarters in Madurai City in Madurai district.

The names of taluk headquarters have also been shown in the map. In most of the cases the name of the taluk headquarters tallies with the name of the taluk. However, they differ in the following cases:

Tiruvattipuram	— headquarters of Cheyyar taluk
Jayamkondacholapuram	— headquarters of Udayarpalayam taluk
Keeranur	— headquarters of Kulathur taluk
Boothapandi	— headquarters of Thovala taluk
Kuzhithurai	— headquarters of Vilavancode taluk
Thuckalay	— headquarters of Kalkulam taluk
Nagercoil	— headquarters of Agastheeswaram taluk

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 3

CHANGES IN ADMINISTRATIVE BOUNDARIES 1951—61

MAP 3

CHANGES IN ADMINISTRATIVE BOUNDARIES

1951-61

PURPOSE

This map shows the changes that have taken place in the boundaries of Madras State during the decade 1951—61.

METHOD

The units that were affected by the changes have been shown by different hatches.

SALIENT FEATURES

The boundary of Madras State changed considerably during the decade 1951—61 in three stages. During this decade, area of the State fell from 1,27,790 square miles or 3,30,976 square kilometers to 50,331 square miles or 1,30,375 square kilometers.

The first major change occurred in October 1953 when under Andhra Pradesh-Madras Act of 1953, twelve districts covering an area of 67,608 square miles or 175,105 square kilometers, were deleted from Madras State. The following districts—Srikakulam, Visakhapatnam, East Godavari, West Godavari, Krishna, Guntur, Nellore, Anantapur, Cuddapah, Kurnool, Chittoor and three taluks of Bellary district formed Andhra Pradesh. The rest of Bellary district were transferred to Mysore State.

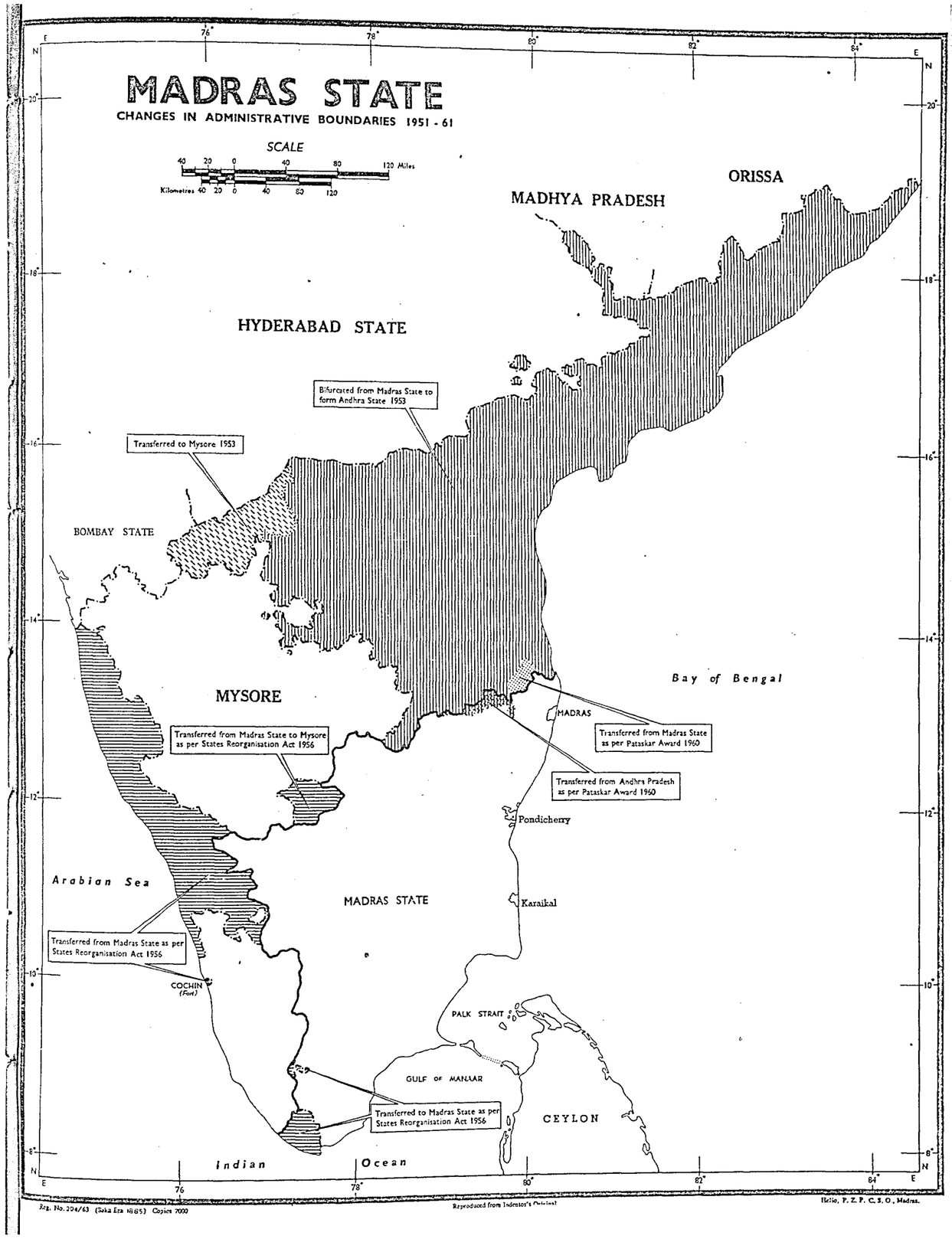
The second major change occurred in November 1956 under the States Reorganisation Act 1956. This involved the transfer of Malabar district and Kasargode taluk of South Kanara district to Kerala State and South Kanara district except Kasargode taluk and Kollegal taluk of Coimbatore district to Mysore State. However, Agastheeswaram, Thovala, Kalkulam and Vilavancode taluks of Trivandrum district of Travancore-Cochin State were transferred to Madras and they constitute the present Kanyakumari district. Shencottah taluk of Quilon district of Travancore-Cochin State except Aryankavu, Idappalayam, and Kazhuthayurutti villages of Puliyara Pakuthy, Achancoil village of Achamputhur Pakuthy and a portion of Shencottah Pakuthy with a population of 20 were also transferred to Tirunelveli district of Madras State.

As a result of these changes, Madras State lost an area of 10,249 square miles or 26,545 square kilometers.

The third stage of transfer was in 1959 under Andhra Pradesh-Madras Alteration of Boundaries Act. As a result of this, Tiruttani taluk of Andhra Pradesh was transferred to Chingleput district. In all, 285 villages were transferred to Chingleput district and 32 villages to North Arcot district of Madras State and 148 villages were transferred from Madras State to Andhra Pradesh. Three villages were transferred from Krishnagiri taluk of Salem district to Andhra Pradesh.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



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Helio, P. Z. P. C. S. O., Madras.

MAP 4

PHYSIOGRAPHY

MAP 4

PHYSIOGRAPHY

This map shows the physiography of Madras State.

The Blue Mountain or Nilgiri is the most picturesque mountain of South India. It is composed of hard charnockites and rises abruptly to over 2,000 m, and presents a rolling surface at the top, above which rise two of its highest peaks—Doda Betta (2,637 m) and Makurti (2,554 m). In the south-western section the summit is more elevated and dissected giving rise to Kunda Hills.

There are a number of short traverse ranges of which the Anaimalai and the Palni hills are the highest. These two ranges meet at Anai Mudi, the highest peak in South India (2,695 m). Their flat or undulating summits and innumerable waterfalls just below the summit level reveal that they are undergoing the second cycle of erosion. Farther south, the landscape consists of parallel ranges and valleys carved out of an uplifted peneplain during the second cycle of erosion. The flat-floored Kambam Valley flanked by the Elamalai (Cardamom Hills) on the west is a typical valley of this group. Agastyamalai or Mahendragiri in south, with its predominating rock being granitoid—gneiss is covered with thick residual soils due to heavy rainfall precipitated from both the monsoons.

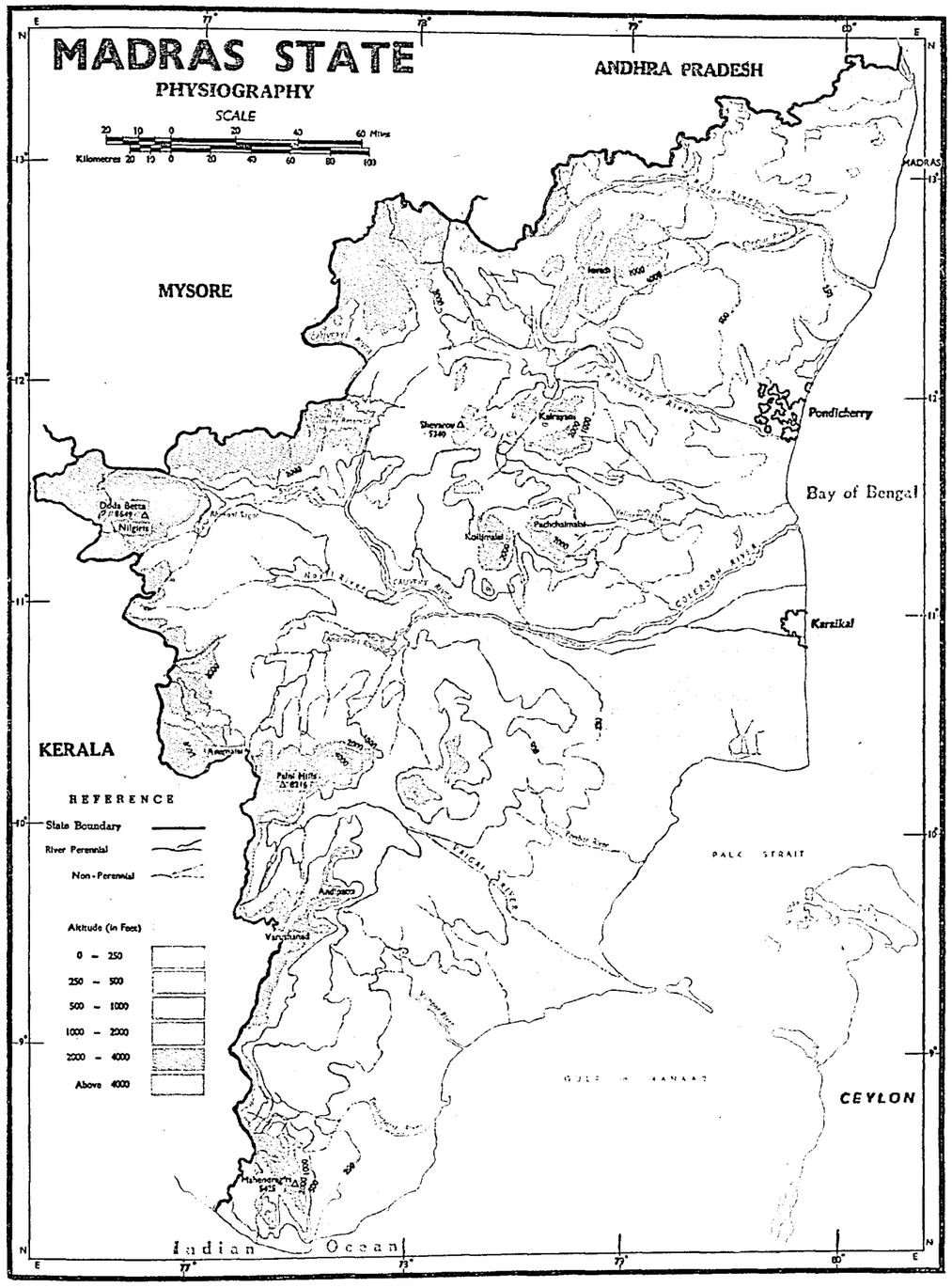
An extensive bevelled landscape with low relief, 150—450 m altitude, occurs in the north-central part, designated Tamilnad Uplands. There is a sharp break in gradient all around its edges except where the Cauvery breaks through it, and fairly steep debris slopes rise to the surrounding hills.

Extreme ruggedness characterises the landscape of the Shevaroy group of hills, which are separated from the Eastern Ghats by a pediment. Sankaridrug is a typical inselberg. It is here that the Shevaroys formed of hard charnockites rise to 1,649 m as an outlier of the Eastern Ghats. All the other hills, Chitteri, Kalrayan, Kollaimalai and Pachchaimalai formed of granitoid gneiss, are of lower elevations and they present different stages of pediplantation.

The eastern half of Madras State is low-lying, confined mainly between the coast line and 150-m contour and designated Tamilnad Plains. Typical coral reefs on the east coast occur at about 3 m above sea level in the Pamban Island at the head of the Gulf of Manaar. Along the coast there is a narrow belt of sand dunes which rise to about 10 m. on the Tuticorin coast. Farther south in Tirunelveli district, red sand hills locally known as *teris*, rise to over 50 m behind the blown sands. The rest of the plains is mainly alluvial, formed by the east-flowing rivers of which the Cauvery in the north and Tambraparni in the south deserve mention. Both these rivers have built up deltas at their mouths. The head of the Cauvery delta is just below the island of Srirangam where the river throws its largest distributary, the Coleroon. From the head to the mouth of all its distributaries the delta covers about 8,000 sq. km and contains a number of irrigation channels. The terraces and nick points at 15 m, 20 m, 45 m, 60 m and 100 m levels along the long profiles of rivers flowing through the Tamilnad Plains reveal that this region was subject to uplift and erosion a number of times.

SOURCE

National Atlas of India—Trivandrum Plate 37- Survey of India.



MAP 5

GEOLOGY

MAP 5

GEOLOGY

Peninsular India is considered to be one of the oldest segments of the earth, which after its initial development was not submerged again under sea and thus only the most ancient rock types are to be met with there. There have been minor departures here and there, of course, especially, along the coastal regions where younger rock types of sedimentary character and igneous trap rocks (Deccan Basalts) are developed. The ancient rock types belong to the pre Cambrian and Archaean eras which represent eras before life developed on earth. Madras State forms the south eastern portion of this shield area as it is called and a greater part of it is comprised of ancient crystallines of Archaean age (about 1,500—4,500 million years).

In the Archaean era itself it has been possible to classify the rock types according to the period of formations, though only a relative age can be arrived at. Thus the quartzites, magnetite quartzites, basic granulites and crystalline limestones form the Dharwar group as yet the oldest to be recognised. They have been followed by the intrusion of granites and gneisses resulting in the formation of peninsular gneisses and som etimes charnockites. In other instances charnockites are believed to have succeeded the peninsular gneisses. Later a series of intrusions of pegmatoid granites of Closepet age occurred followed lastly by the intrusions of basic dykes.

These rock types are represented in the various parts of the State, the magnetite quartzites notably in the Salem and Tiruchirapalli districts, the basic granulites in the various parts of the State, the quartzites notably in the southern parts of the State—that of Tirunelveli, Nilgiris, Ramanathapuram and Madurai districts, the crystalline limestones in Salem, Madurai, Ramanathapuram and Tirunelveli districts.

The entire basement rock of Madras State is comprised of peninsular gneisses. They are in fact hybrid gneisses formed owing to the interaction of later intrusions on the earlier formed materials.

The hill masses of the State such as those in Tirunelveli district, the Palnis, Anamalais, Nilgiris, Javadis etc. are all made up of the various facies of charnockites.

The Sankaridrug and Tiruchengodu hill masses are pegmatoid in character and reperesent the granites of Clospet age.

The swarms of basic dykes of Chingleput and North Arcot viz., those around Tiruttani and Sholinghur, are believed to represent the last stages of igneous activity in Archaean times.

The Archaean era is followed by pre Cambrian era in other parts of India but it is not represented in Madras. This, again is succeeded by rock types belonging to Palaeozoic era, both of marine and fresh water characters and representing a period when life first began on earth. These again are not represented in this State. Only the fresh water deposits (the Gondwanas) are found to occur in the Peninsular India (and recently a few marine beds have also been reported) and they carry valuable coal seams and almost the entire quantity of coal in India is extracted out of this group of rocks. The lower Gondwanas, as these are called, are succeeded by upper Gondwanas and it is the latter that is represented in this State viz., in Sriperumbudur in Chingleput, Teranipalayam in Tiruchirapalli and Sivaganga in Ramanathapuram. Recently some deep drillings conducted near Karaikudi, has yielded a few coal cores.

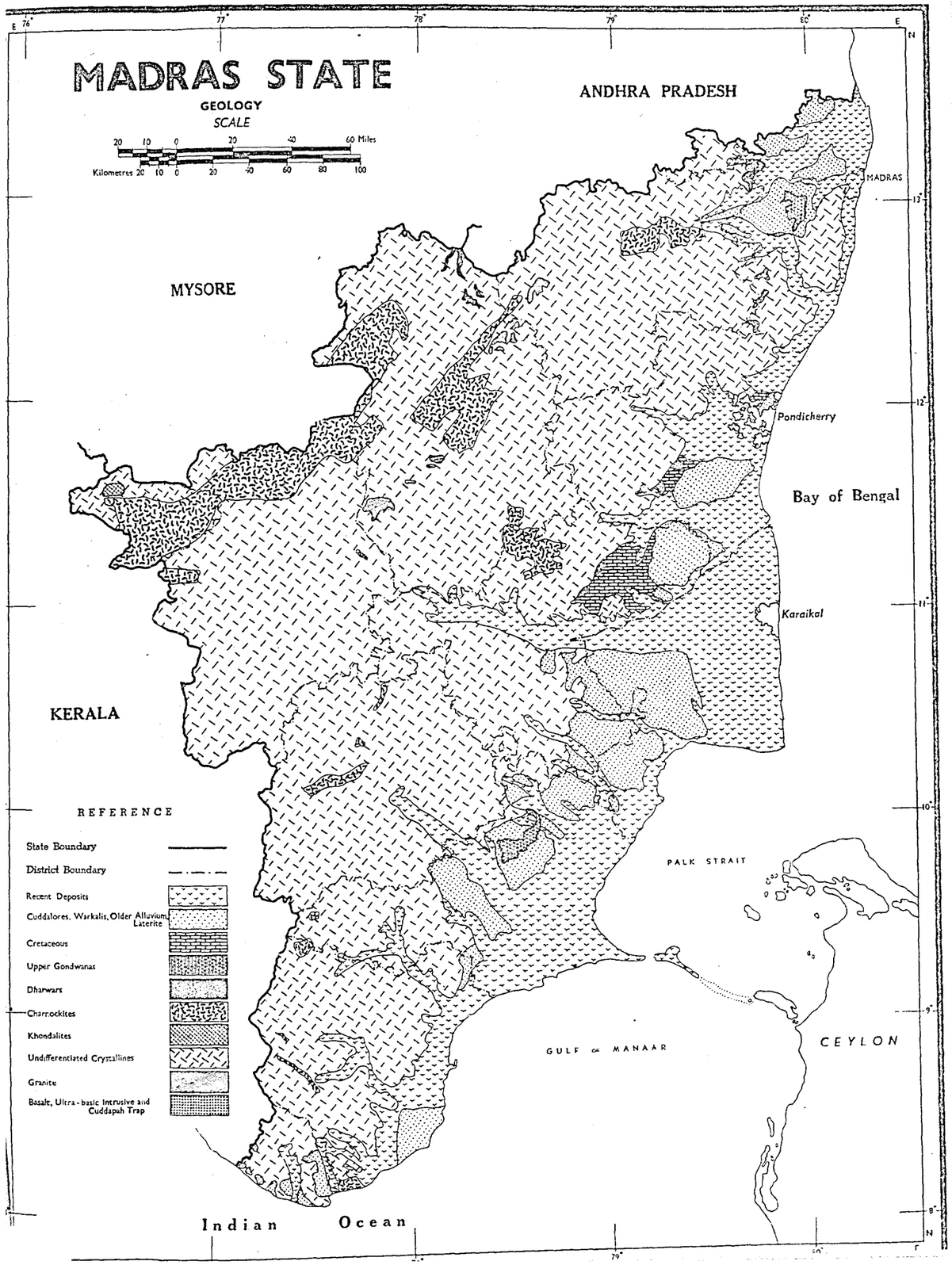
Following the upper Gondwanas, rocks belonging to upper Cretaceous period are found in Tiruchirapalli and South Arcot districts. They are very important from an economic point of view besides being the rare occurrence in Southern India and considered as the geological museum of upper cretaceous in India. They have yielded limestone, gypsum, phosphatic nodules etc. The upper cretaceous rocks are overlain by rocks of Cuddalore series (Miocene) which include shales and sandstones. They occur principally in South Arcot and Pondicherry areas. It is possible that similar rock formations occur elsewhere down south but a large part is under cover by later alluvium. The series are important sources of artesian water, lignite and fireclays. The Neyveli Lignite Field is located in them associated with clays (of refractory and ceramic properties).

Rocks younger than Cuddalores have not been met with in the State though a large part of the coastal area is under cover by recent alluvia and thus may in all probability conceal younger formations under them. There is much ground for such a supposition as rocks of Miocene and younger formations of Tertiary era are potential reservoirs of oil in Indian formations. An intensive survey is under way in the Cauvery deltaic regions and other places to determine whether such oil bearing zones exist. It has been estimated from geophysical surveys that about 10,000 feet of sedimentary deposits are present along the coastal regions and that a few structural traps and structures favourable for accumulation of oil exist near Karaikal. It is too early to speculate now as deep drilling has yet to be conducted. But the coastal areas are potential fields to explore.

Besides, the coastal limestone deposits of Ramanathapuram, Tirunelveli and Kanyakumari districts are of Eocene age and carry forams and lend belief to the supposition of the existence of favourable climate for the development of oil. A report on the geology of Madras State would be incomplete without the mention of the coral deposits off the south east coast of the State.

SOURCE

Geological Survey of India.



MAP 6

MINERALS

MAP 6

MINERALS

This map shows the location of minerals in Madras State.

The State has a variety of minerals. They are limestone, magnesite, gypsum, crude mica, bauxite, ilmenite, fireclay, lignite, iron ore etc. A few are exploited economically. The rest are small deposits. Lignite, magnesite, gypsum, limestone, and clay are the minerals exploited on a commercial basis. Salem magnesite reserves are among the best in the country. Large quantities of limestone and clay are available in Tirunelveli, Ramanathapuram, Tiruchirapalli and Salem districts. Madras State is one of the largest producers of common salt from sea water in the country. The Neyveli lignite project has a capacity for mining 3.5 million tons of lignite which can be used to produce briquettes (domestic fuel).

The districts of Coimbatore, Salem, South Arcot, Tiruchirapalli and Tirunelveli possess most of the mineral deposits of the State. Coimbatore has iron ore and gypsum; Salem bauxite, iron ore and magnesite; South Arcot lignite, Tiruchirapalli limestone, gypsum and fireclay; Tirunelveli limestone and ilmenite and Kanyakumari ilmenite. No metallurgical coke is found. With an estimated capacity of 20,000 tons per annum, the bauxite deposit cannot be considered to be large. The deposits of gypsum in Tiruchirapalli have been estimated at 15 million tons.

The inset map shows the trend in production of bauxite, limestone, magnesite and gypsum.

The main occurrence of bauxite in Madras State is in the Shevaroy hills in Salem district. The production of bauxite was 777 metric tons in 1960. Bauxite is the ore used for making aluminium metal but is also used for the manufacture of refractories. The ore contains roughly 45 to 50% alumina, about 20% of ferric oxide, 5 to 6% silica and 25% water.

Limestone is used mostly by cement factories. Large deposits are found in Tiruchirapalli, Ramanathapuram and Tirunelveli districts. Crystalline limestone are known to occur in the vicinity of Sankaridurg. In the limestone of Iveli—Annadanapettai area, the limestone is of exceptionally high grade with magnesia under 1.5%. This variety is useful in the manufacture of bleaching powder. The total quantity that might be expected from Iveli is about 100,000 tons within a depth of 10 feet from the surface. An extension of the limestone belt to the east of this area is also found. Some of the limestones are dolomite in composition and are useful as basic lining for steel furnaces.

Limestone is found in Talayuthu ridge near Tirunelveli town. Deposits in portions of this area are of very high grade and are hence reserved for chemical purposes. Cretaceous limestones are used in the construction of pagodas and chatrams as they are soft and are easily worked.

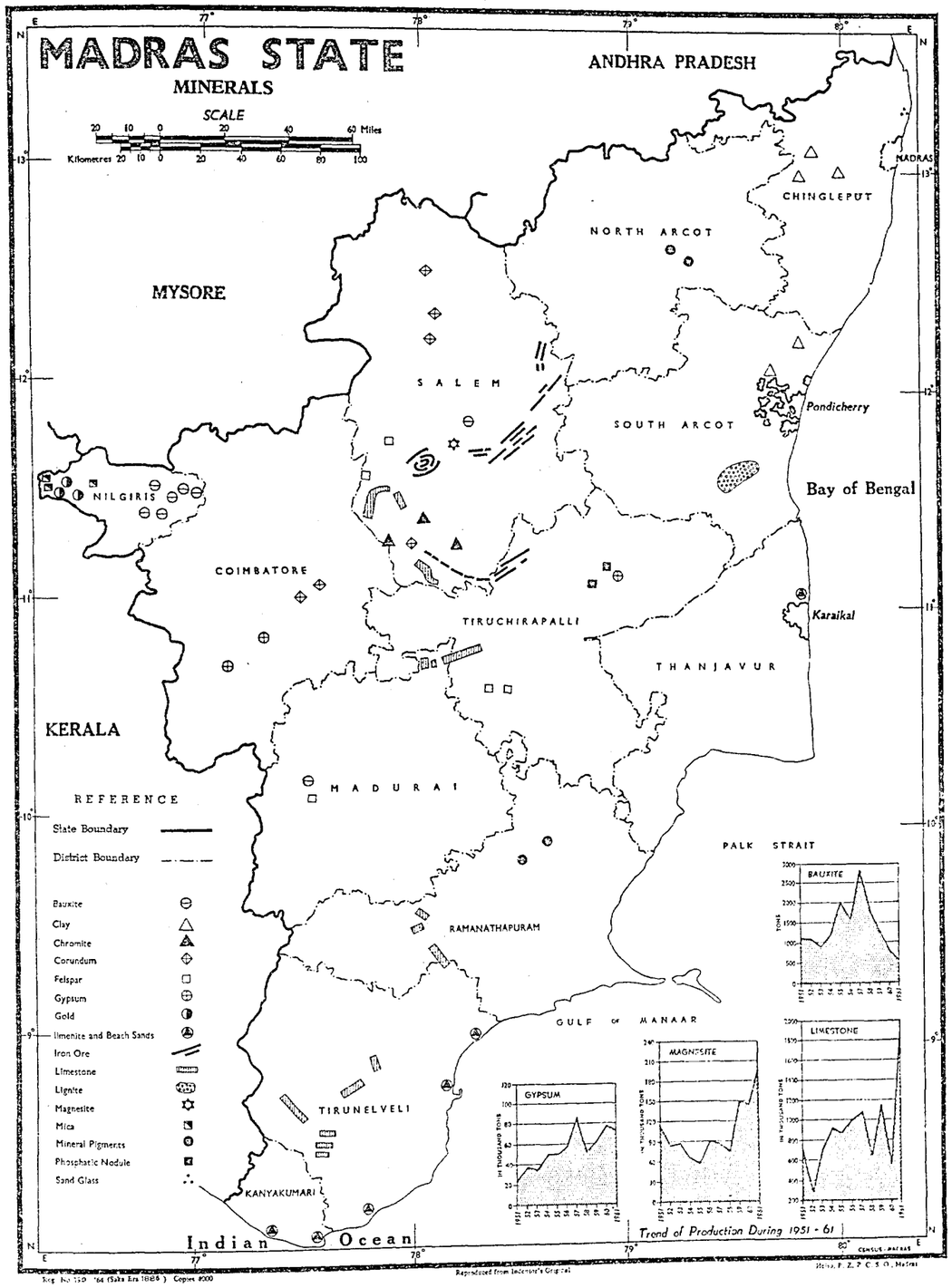
Arenaceous limestone is also available at the bed of Ulatur cretaceous rock. This is used as building stone as also in the manufacture of portland cement at Dalmiapuram.

The reserves of magnesite are very long. The Chalk hills between Salem and Shevaroys contain large quantities of magnesite and the Salem deposits are the largest in the country. The main deposits at the Chalk hills are estimated at 82 million tons while the smaller deposits in Sriangamer and Sirapalli are estimated at 100,000 tons and 325,000 tons respectively. The quality of the ore is high. The crude material has over 95% carbonate. The lightly calcined magnesia is used in making cement of a very high order, in the manufacture of paper pulp from wood, of colourless and scientific glassware and of rubber. The production of magnesite in 1951 was 113,256 tons and in 1961 it was 203,446 tons.

Gypsum is found in Tiruchirapalli, Tirunelveli, Coimbatore and Chingleput districts. The mineral is used largely in cement and fertiliser industries. The production of gypsum which was 24,699 tons in 1951 increased to 74,398 in 1961.

SOURCE

Office of the State Geologist, Madras.



MAP 7

RAINFALL

MAP 7

RAINFALL

This map shows the annual rainfall pattern in Madras State. The rainfall in the State is determined by the south-west monsoon (June to September) and the north-east monsoon (October to December). The districts of Chingleput, South Arcot, Thanjavur, Madurai, Ramanathapuram and Tirunelveli depend mainly on the north-east monsoon. The normal rainfall is 40 to 50 inches in South Arcot and Thanjavur districts and 30 to 35 inches in others. The districts of North Arcot, Salem, Coimbatore and Tiruchirapalli in the central region depend on both the monsoons and the normal rainfall in North Arcot and Tiruchirapalli districts is between 35 and 40 inches and between 30 and 35 inches in other districts. Nilgiris district in the western portion of the State depends on south-west monsoon with a normal rainfall of 60—70 inches. During the south-west monsoon, the State lies in the lee of the Cardamom hills and the plateau, so that during India's normal rainy season from May to September no part of Madras State receives more than 20 inches of rain. In October, during the change of the monsoons, severe storms occur along the Madras Coast. The average rainfall in the State varies in different areas over a wide range of 25 to 75 inches per year. The Nilgiri and other mountainous regions account for the maximum rain, most of it due to south-west monsoon. Kanyakumari district gets relatively high rainfall on account of precipitation during the two monsoon seasons as well as in summer. Of the remaining area, Coromandel coast has the highest precipitation, 40—50 inches. Rainfall decreases westward in the plateau and southward along the coastal plain, Coimbatore, and the southern districts, Ramanathapuram and Tirunelveli having the lowest rainfall. In large parts of the State, the average rainfall is low. The normal precipitation ranges between 20 to 40 inches per year in approximately 75% of the State thus resulting in semi-arid conditions. The total rainfall in the districts of North Arcot, South Arcot, Chingleput and Thanjavur is higher than the remaining districts except Nilgiris and Kanyakumari. Nilgiris and Kanyakumari districts have a much higher rainfall and a much better distribution than other districts of the State. The average annual rainfall of the Madras Division is 1008.1 millimetres with an average annual number of rainy days of 53.5. The year can be divided into the following rain periods:—

1. The hot dry period—mid-February to the end of March

2. Period of hot weather showers—beginning of April to mid-June

3. Transition to the south-west monsoon rains—second half of June

4. Period of south-west monsoon rains—beginning of July to mid-October

5. Rainy period of the retreating monsoon—mid-October to mid-December

6. Cold transition period between the rainy period and the dry period—mid-December to mid-January

7. Cold dry period—mid-January to mid-February.

These periods naturally group themselves into the following four seasons :—

1. Hot weather season—from mid-February to mid-June

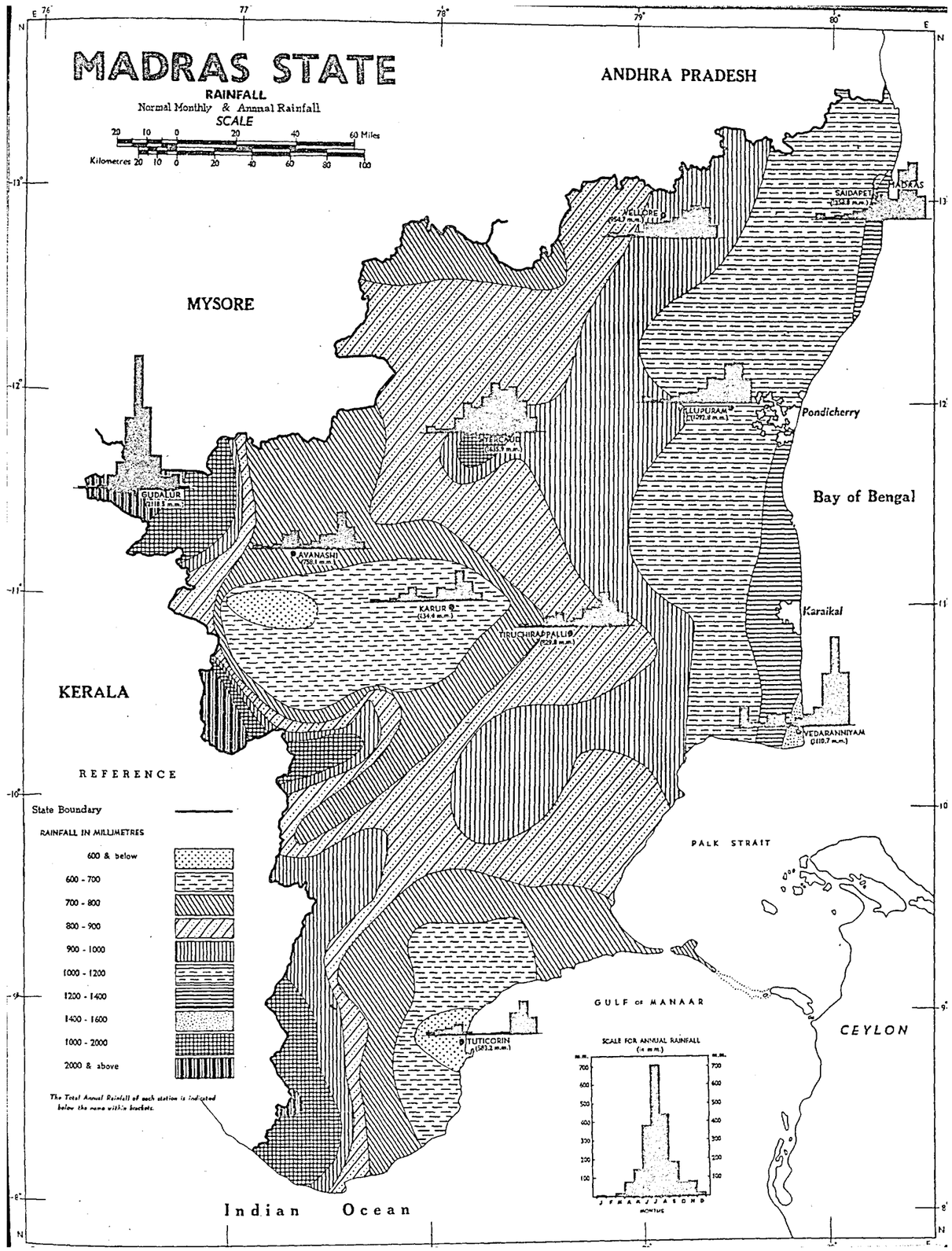
2. South-west monsoon season—from mid-June to mid-October

3. Retreating monsoon season—from mid-October to mid-December

4. Cold weather—from mid-December to mid-February.

SOURCE

Meteorological Department, Madras.



MAP 8

RAINFALL RELIABILITY

MAP 8

RAINFALL RELIABILITY

PURPOSE

This map shows the co-efficient of variability in rainfall based on the rainfall data collected in 59 stations during 1911—1960.

METHOD

The co-efficient of variability is calculated as $\frac{s}{x} \times 100$ where 's' is the standard deviation and 'x' the arithmetic mean of the rainfall during 50 years. Isopleths have been drawn on the basis of the values which have been classified into five ranges as follows: (1) Below 20% (2) 20.1—25.0% (3) 25.1—30.0% (4) 30.1—35.0% and (5) above 35.0%.

SALIENT FEATURES

The co-efficient of variability indicates the consistency or inconsistency of rainfall. Higher the co-efficient of variability, higher the inconsistency and lower the co-efficient of variability, higher the consistency.

Out of 59 stations, very low co-efficient of variability of less than 20% is recorded in Kallakurichi, Yercaud, Ootacamund, Kodaikanal and Nagercoil stations.

In 29 stations, the co-efficient of variability is between 20.0%—25.0%. Except Coimbatore district all the other districts are represented in this range.

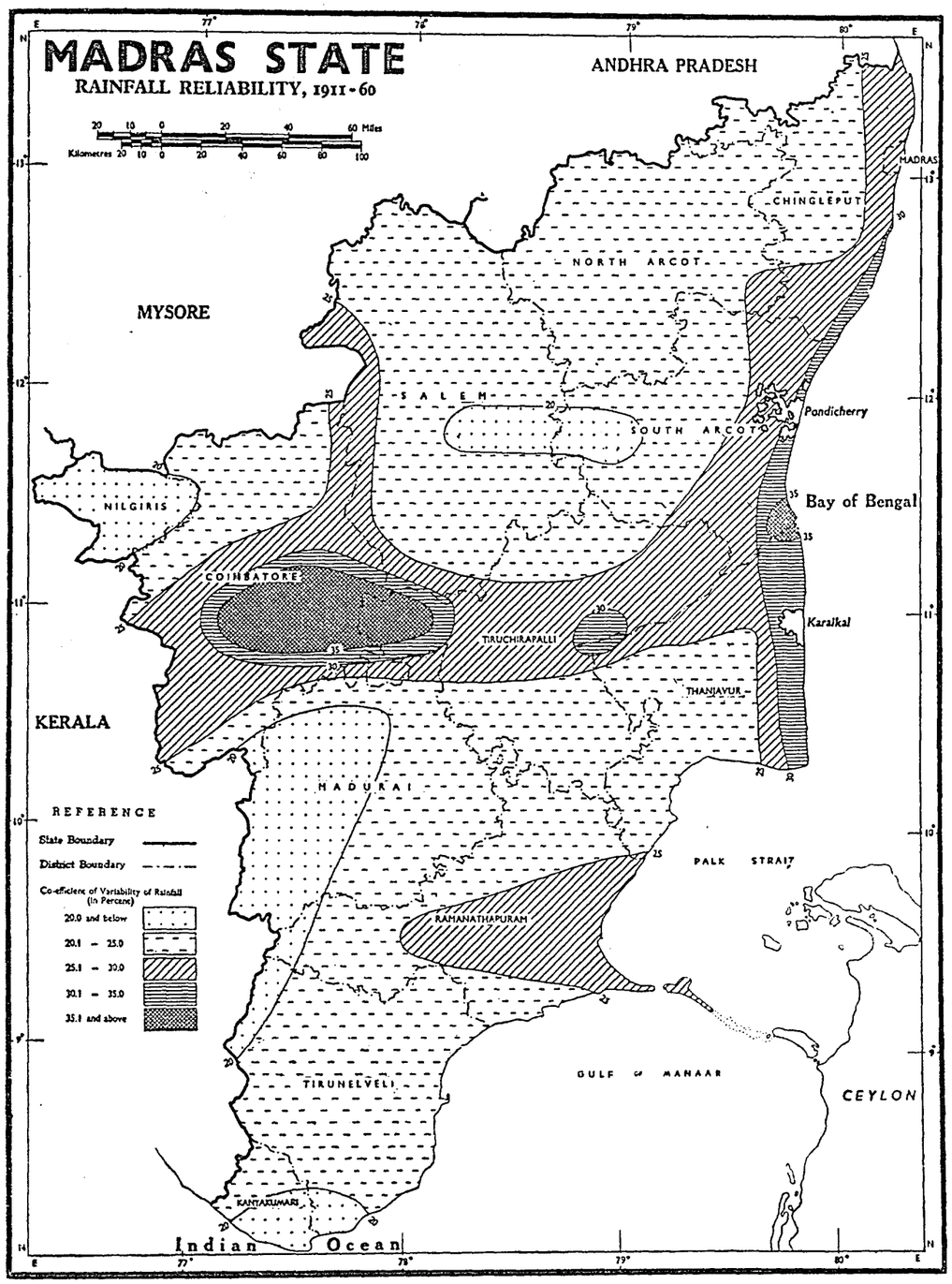
In 17 stations, the co-efficient of variability varies between 25.1% and 30.0%. South Arcot, Salem, Nilgiris, Madurai are not covered by this group.

High variability of 30.1%—35.0% is noticed in Cuddalore, Lalgudi, Sirkali and Nagapattinam stations.

Very high variability of above 35% is noticed in Chidambaram, Karur and Palladam stations.

SOURCE

Meteorological Department—Madras.



MAP 9

RAINFALL REGIONS BY EXTENT OF PRECIPITATION AND RELIABILITY (RELATED TO IRRIGATIONAL NEEDS)

MAP 9

RAINFALL REGIONS BY EXTENT OF PRECIPITATION AND RELIABILITY

(RELATED TO IRRIGATIONAL NEEDS)

PURPOSE

This map relates rainfall reliability with irrigational need and the State is delineated into regions of low, medium, high and very high need of irrigational facilities.

METHOD

The annual rainfall map is superimposed on the rainfall reliability map. The latter is based on the average of rainfall during 1911—1960 and annual rainfall relates to 1960.

SALIENT FEATURES

The usefulness of the rainfall for agriculture and for hydro-electric development is greatly limited by the normal concentration into a few months. In the northern portion of the country, this is to some extent off set by the Himalayan snow-belt which floods the rivers two months or so before the onset of rains. But the Peninsular rivers fed only by the monsoon, show much more extreme contrasts in stage.

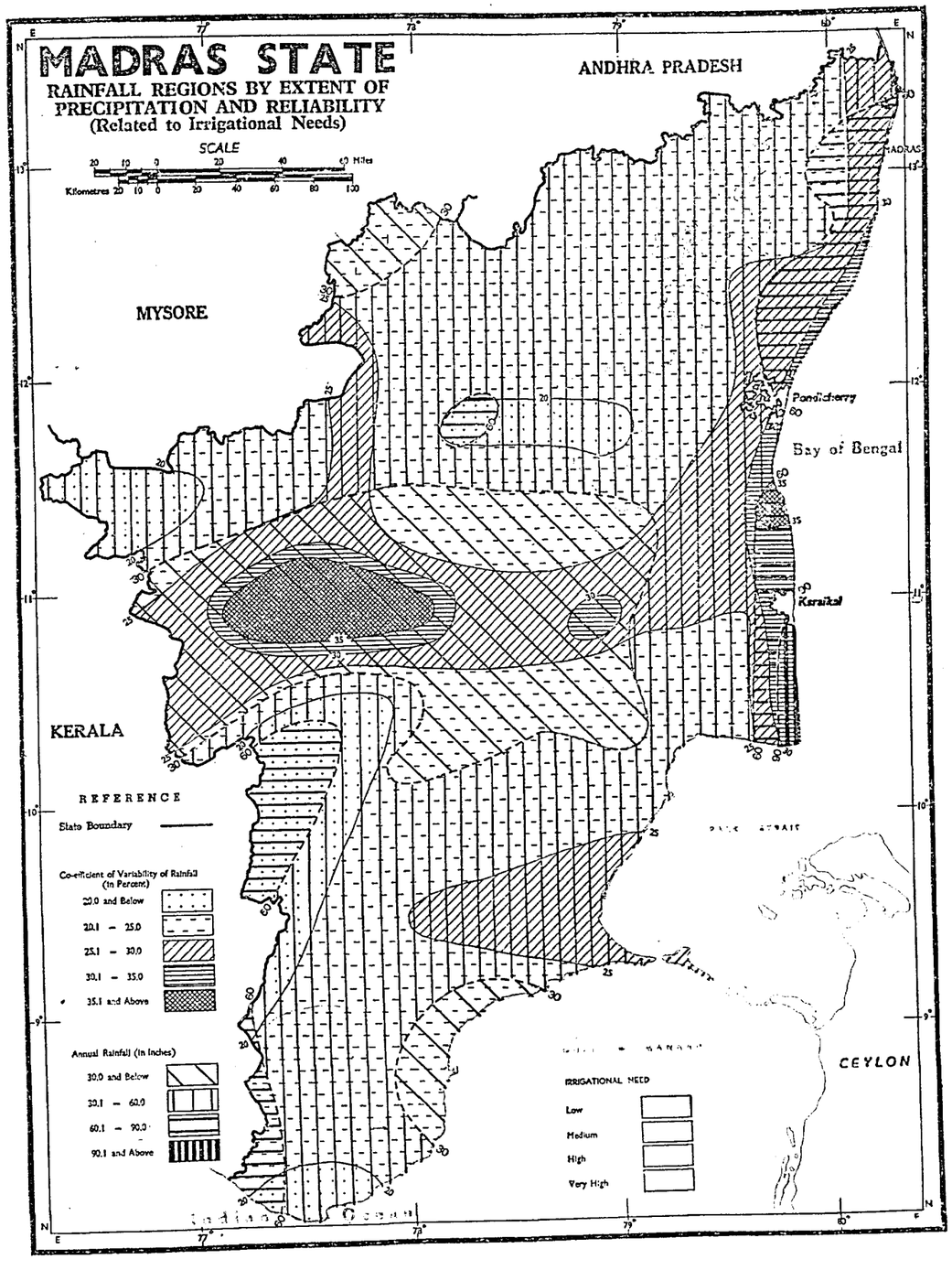
The regions have been demarcated as low, medium, high and very high requirement of irrigational facilities. Low need refers to areas with annual rainfall ranging between 60" and 90" and variability less than 25%. Medium need refers to areas with rainfall ranging between 30" and 60" with variability 20.0%—25.0% and also includes areas with rainfall 60"—90" but with variability 25%—30%.

High need of irrigation is in regions with rainfall 30"—60", and variability 25%—35%, rainfall 60"—90" with variability above 30%, rainfall above 90" and variability 30—35%.

Very high need refers to areas with rainfall less than 30" and variability above 35%.

SOURCE

Meteorological Department Madras.



MAP 127

DISTRIBUTION OF THREE STRONGEST LANGUAGES

IN THE STATE 1961

MAP 10

SOILS OF MADRAS STATE

Soils are the ultimate products of rock destruction effected by wind, water, chemical and organic agents. Soils may be formed '*in situ*' from the rocks when they are known as 'residual soils' or they may be 'transported soils' when they are removed from the places of their formation by rivers or wind.

Climate, rainfall and drainage pattern of an area influence the formation of soils and variation in conditions results in different kinds of soils.

RED SOILS

Red soils occupy quite a large part of Madras State particularly the interior districts excluding the coastal districts. These soils are derived mainly from the Archaean gneisses. There is no soluble salt like kankar or other carbonated matter and the red or brown colour of the soil is attributed to the diffusion of iron content.

LATERITE SOILS

Laterite soils are derived from laterite which is a porous crude limonite coated rock of different colours. It may be ferruginous, aluminous or manganiferous depending upon the percentage of the respective metals. The laterite soil is clayey and generally brick-red, with a little titanium present in it. In Madras State laterite soils occupy parts of Chingleput and Thanjavur districts.

ALLUVIAL SOILS

Coastal and deltaic soils comprise of alluvial soils. The coastal soils occupy almost the whole of the coast of Madras State with some breaks in Thanjavur and Ramanathapuram districts.

Alluvial soils are composed of sands mainly of silica, with negligible percentage of feldspar, magnetite, ilmenite and of monazite in Kanyakumari district. The deltaic alluvial soil is encountered among others notably in the Cauvery delta of Thanjavur district.

BLACK SOILS

The black clayey aluminia-rich soil seen in parts of Coimbatore, Madurai and Tirunelveli districts is the well known 'regur' or black cotton soil. Low nitrogen and phosphorous with high aluminium and calcium mark the composition of the black soil. Low rainfall plays a part in the formation of black soil.

SALINE SOILS

These soils are formed in regions of poor drainage and high evaporation. Efflorences of calcium, sodium and magnesium salts are other characteristics of this soil.

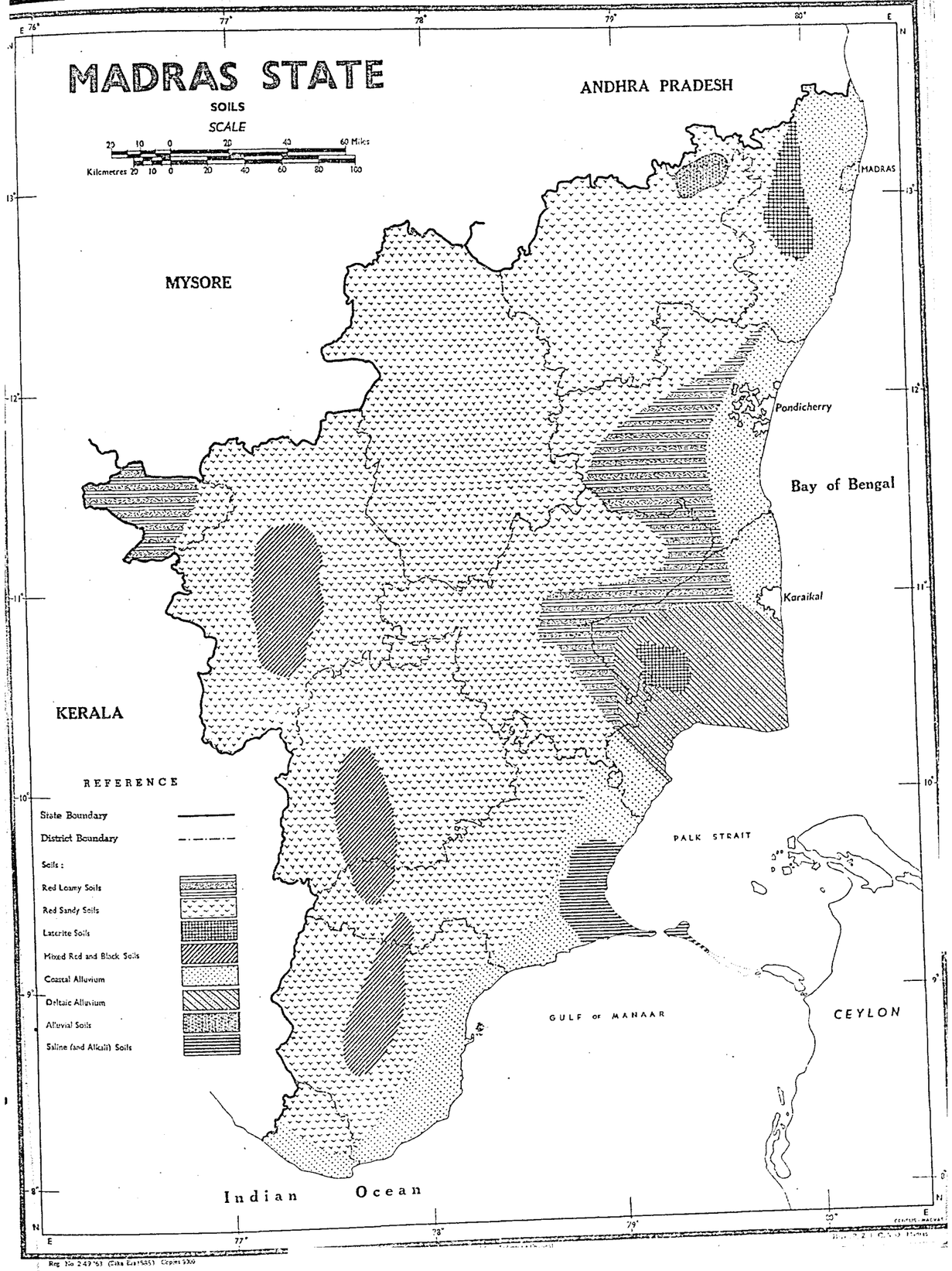
Peaty and marshy soils are very local in Madras State, restricted to hilly areas of high rainfall and low drainage.

Desert soils are rather rare in Madras State though desert conditions prevail in certain districts.

The evolution of soils is studied on the light of the original composition of parent rocks the weathering and chemical characteristics during their formation.

SOURCE

Chief Soil Survey Officer, Madras.



MAP 11

FORESTS

MAP 11

FORESTS

PURPOSE

This map shows the percentage of area under forest to total area in each district. The classification of forest in to reserved and unreserved is also made in this map.

METHOD

The districts have been hatched according to the percentage value of forest area to total area of each district. A circle proportionate to total forest area is drawn for each district and it has been divided into two segments-reserved and unreserved forests.

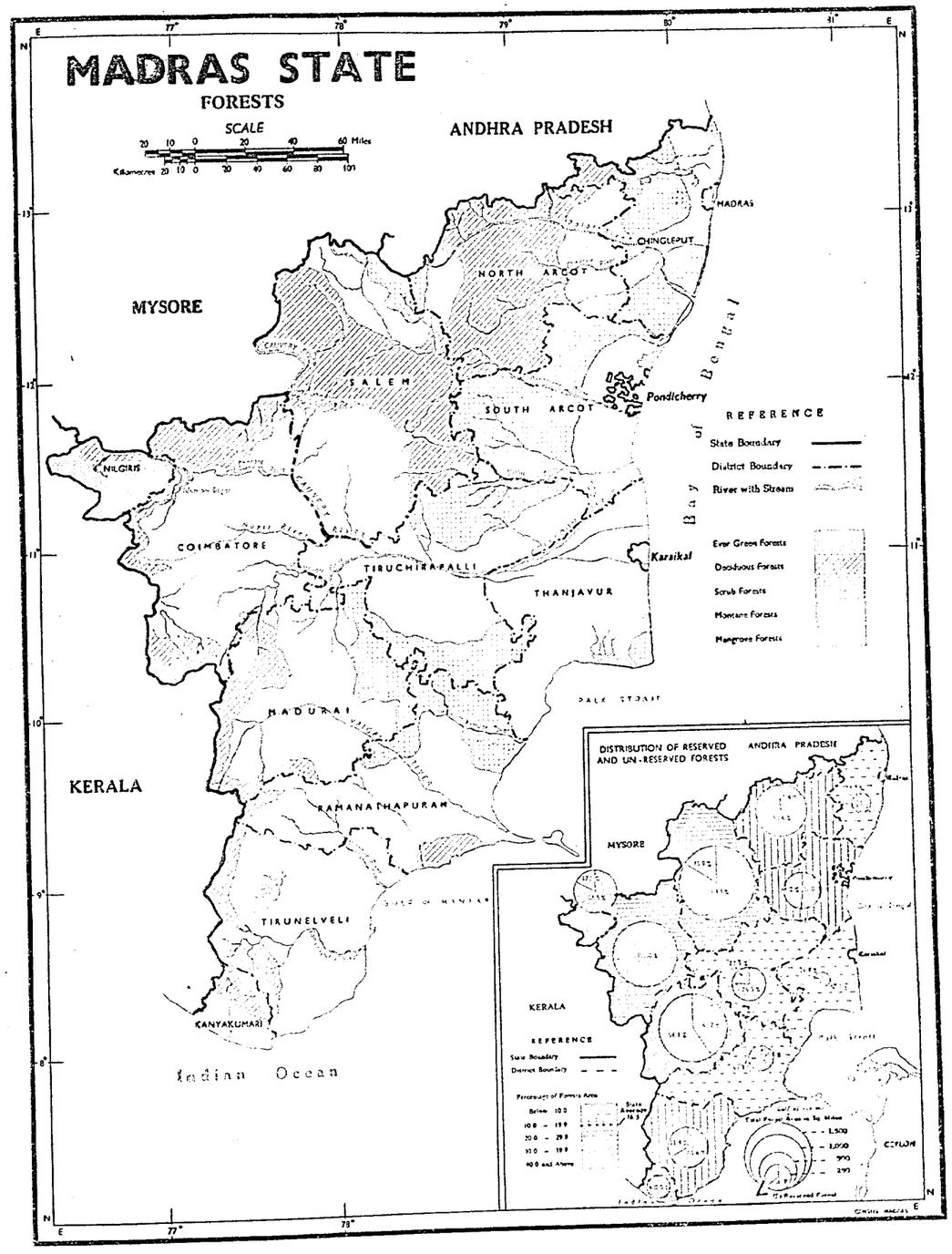
SALIENT FEATURES

About 16 percent of total geographical area of Madras State are covered by forests. The highest percentage of forest area to total district area is found in Nilgiris district where 62% of its geographical area are covered by forests. Madurai ranks second with 31.1% and Kanyakumari third with 26.6%. Only 1.8% of the geographical area of Thanjavur district is covered by forests. The hill areas with predominance of forests are the Javadi hills in North Arcot district, the Shevaroy and Kollimalai hills in Salem district, Anaimalai hills in Coimbatore district, Palni and Andipatti hills in Madurai district and Varushanad hills in Ramanathapuram district and Western Ghats foothills in Kanyakumari and Tirunelveli districts.

About 76% of total forest area are reserved forests and 24% unreserved forests in Madras State. In Coimbatore and Kanyakumari districts the entire forest area is reserved forests. In Chingleput, North Arcot, Salem and Nilgiris districts more than 80% of forests are reserved forests. The lowest percentage of reserved forests is 36.8 in Ramanathapuram district.

SOURCE

Chief Conservator of Forests, Madras.



MAP 12

DISTRIBUTION OF POPULATION 1961

MAP 12

DISTRIBUTION OF POPULATION

1961

PURPOSE

This map gives a picture of the degree of concentration of rural and urban population in Madras State.

METHOD

Rural population has been indicated by dots, each representing 10,000 persons and urban population has been shown by spheres, which are drawn proportionate to urban population.

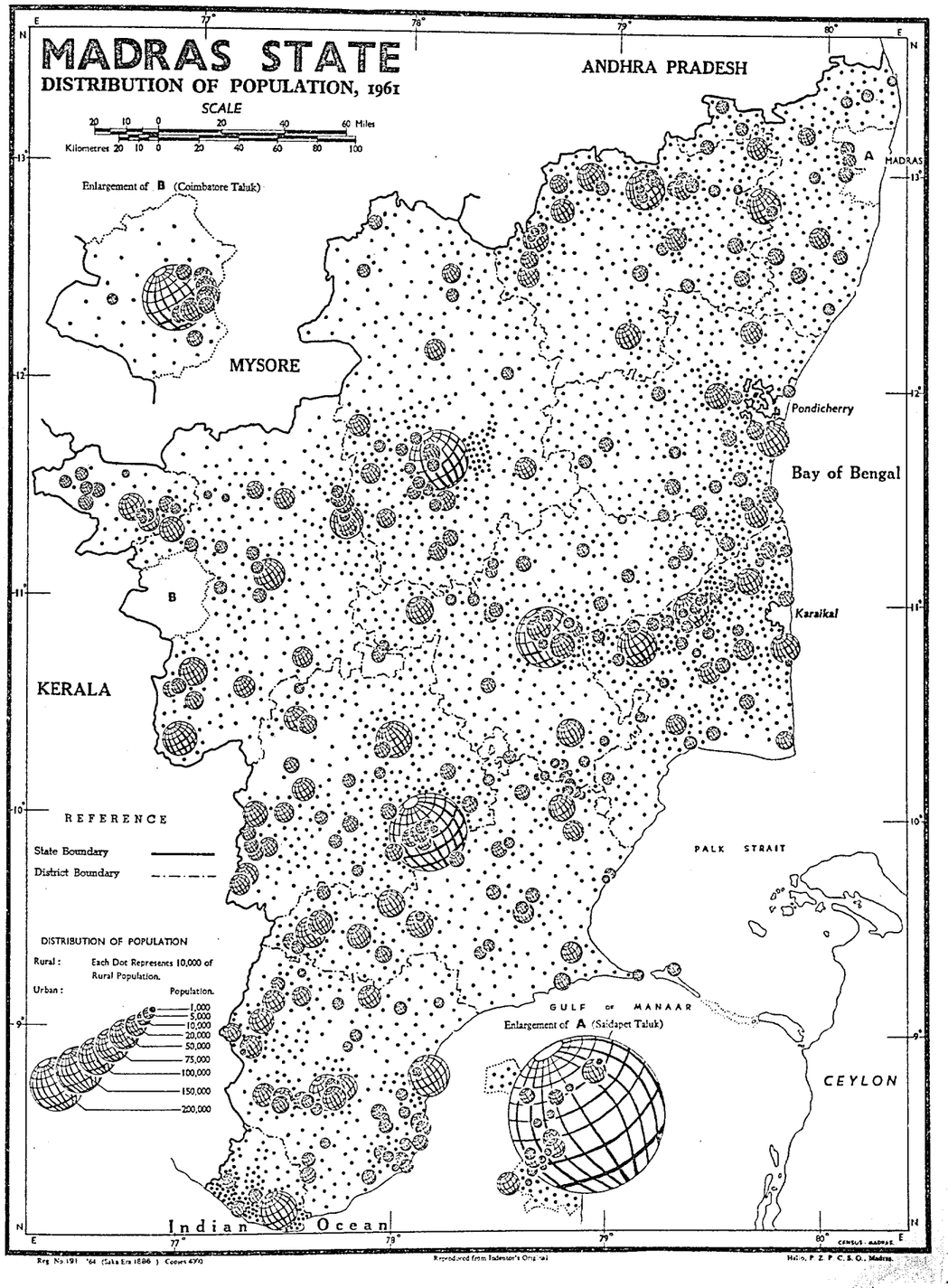
SALIENT FEATURES

The percentage of urban population to total population is 26.7 in Madras State. Madras City is entirely urban and the highest percentage among other districts is 43.9 in Nilgiris district. More than 25% of district population live in urban areas in Coimbatore, Madurai and Tirunelveli districts. Less than one fifth of the population of South Arcot, Salem and Kanyakumari districts live in urban areas. The number of towns in each district is as follows:

Madras	1
Chingleput	34
North Arcot	30
South Arcot	20
Salem	25
Coimbatore	34
Nilgiris	13
Madurai	32
Tiruchirapalli	33
Thanjavur	34
Ramanathapuram	35
Tirunelveli	44
Kanyakumari	4
	339

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



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Maps, P. Z. P. C. S. O., Madras.

MAP 13

DENSITY OF POPULATION PER SQ. KM. 1961

MAP 13

DENSITY OF POPULATION PER SQ. KM.

1961

PURPOSE

This map shows the population per square kilometre in different taluks of Madras State.

METHOD

The data are grouped into seven categories—five above and two below the State average. The taluks are then shaded by seven grades of hatching ranging from high to low. The seven ranges that have been adopted are–less than 100, 101-259, 260-410, 411-560, 561-710, 711-860, and above 860.

SALIENT FEATURES

The density of population per square kilometre in Madras State is 259. A glance at the map reveals that there are only three distinct pockets of very high density. These are, Madras City which records a density of 13,648 persons per sq. km., Madurai taluk recording 966 persons per sq. km., and Agastheeswaram taluk of Kanyakumari district with 997 persons per sq. km.

More than 50% of the taluks have a density less than that of the state average. The taluks which show the lowest density range are Yercaud in Salem district, Gudalur in Nilgiris district and Kodaikanal in Madurai district.

In the second category of density 101-259 persons per sq. km., there are 55 taluks belonging to various districts.

Forty six taluks exhibit density figures above the state average. While all the districts have one or more taluks in the next range 260-410 persons per sq. km., North Arcot district has the maximum number of taluks in this range.

There are only seven taluks in the range 411-560 shared by four districts.

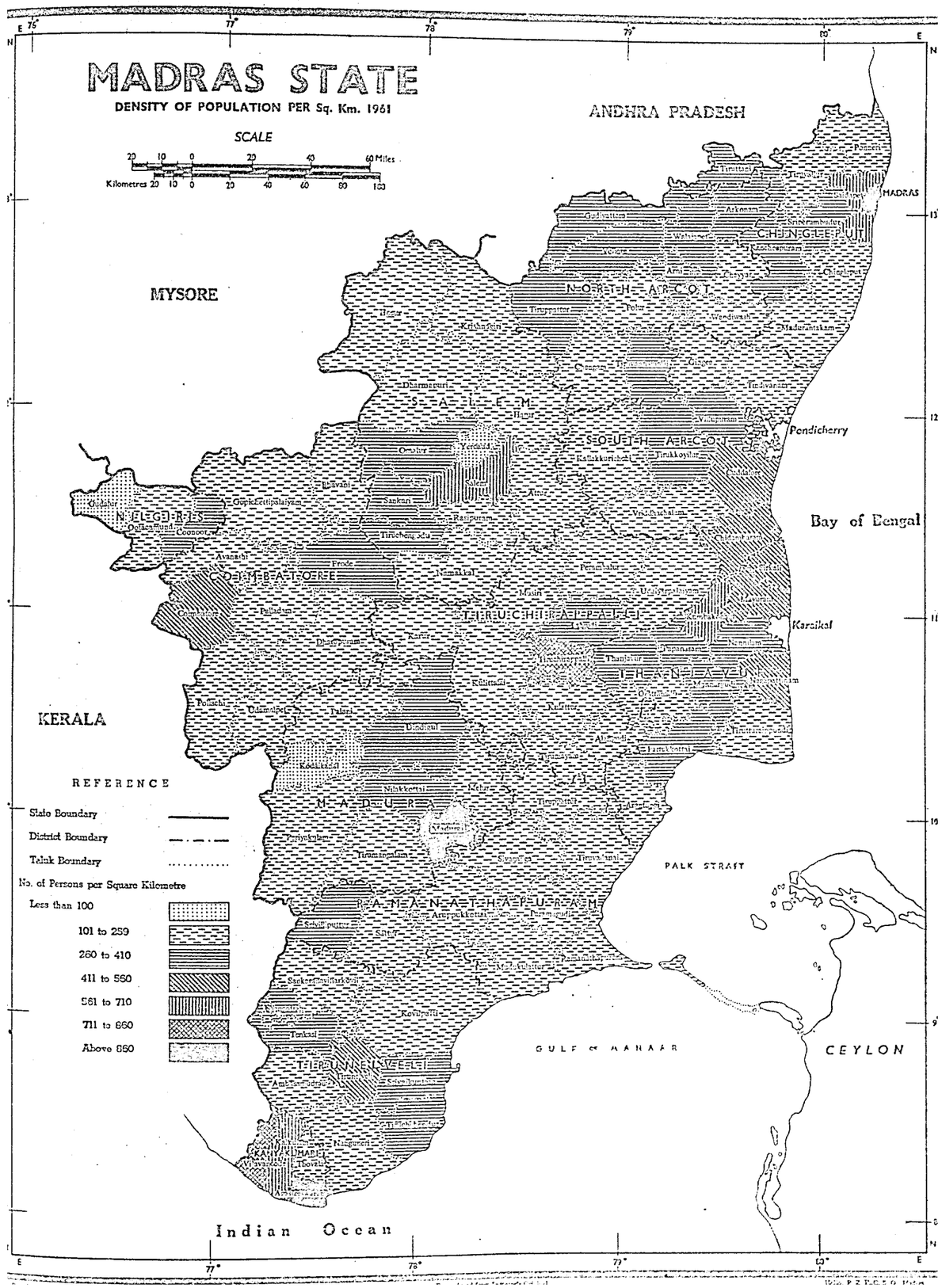
Saidapet, Salem, Kumbakonam and Kalkulam taluks fall under the density range 561-700. Tiruchirapalli and Vilavancodi have density figures 700-800.

TABLE

Rank	District	Population Per Square Kilometer
	MADRAS STATE	259
1.	Nilgiris	161
2.	Ramanathapuram	194
3.	Salem	208
4.	Tiruchirapalli	223
5.	Coimbatore	228
6.	Tirunelveli	239
7.	Madurai	255
8.	North Arcot	259
9.	Chingleput	269
10.	South Arcot	280
11.	Thanjavur	335
12.	Kanyakumari	596
13.	Madras	13,648

SOURCE

Census of India, 1961, Madras State, Part II-A General Population Tables.



MAP 14

CHANGING PATTERN OF DENSITY OF POPULATION PER SQ. KM. 1951—1961

MAP 14

CHANGING PATTERN OF DENSITY OF POPULATION PER SQ. KM. 1951—1961

PURPOSE

Two maps—indicating density of population per square Kilometer in the various districts of Madras State–one for 1961 and the other for 1951 are presented.

METHOD

The data have been grouped into five categories and the districts have been shaded by five grades of hatching. The density of each district has also been shown below the name of the district.

SALIENT FEATURES

A comparative study of these two maps indicates that there has been no major change between 1951 and 1961. Only two districts have undergone changes in density pattern and they are Salem and Kanyakumari. In 1951 the density of Salem district was in the range "less than 200 persons per sq. km." while in 1961 it comes under the range of 200 to 300 persons per sq. km. The other district which has undergone change is Kanyakumari which in 1951 had a density of 494 thereby falling under the range 401-500 but in 1961, has a density of 596 and is included in the range above 500.

The density has been classified into five ranges :

Less than 200 persons per sq. km.

200—300 ,,
301—400 ,,
401—500 ,,
Above 500 ,,

The number of districts in each range in 1951 and 1961 is shown below :

Persons per sq. km.	1961	1951
Less than 200	2	3
200—300	8	7
301—400	1	1
401—500	—	1
Above 500	2	1

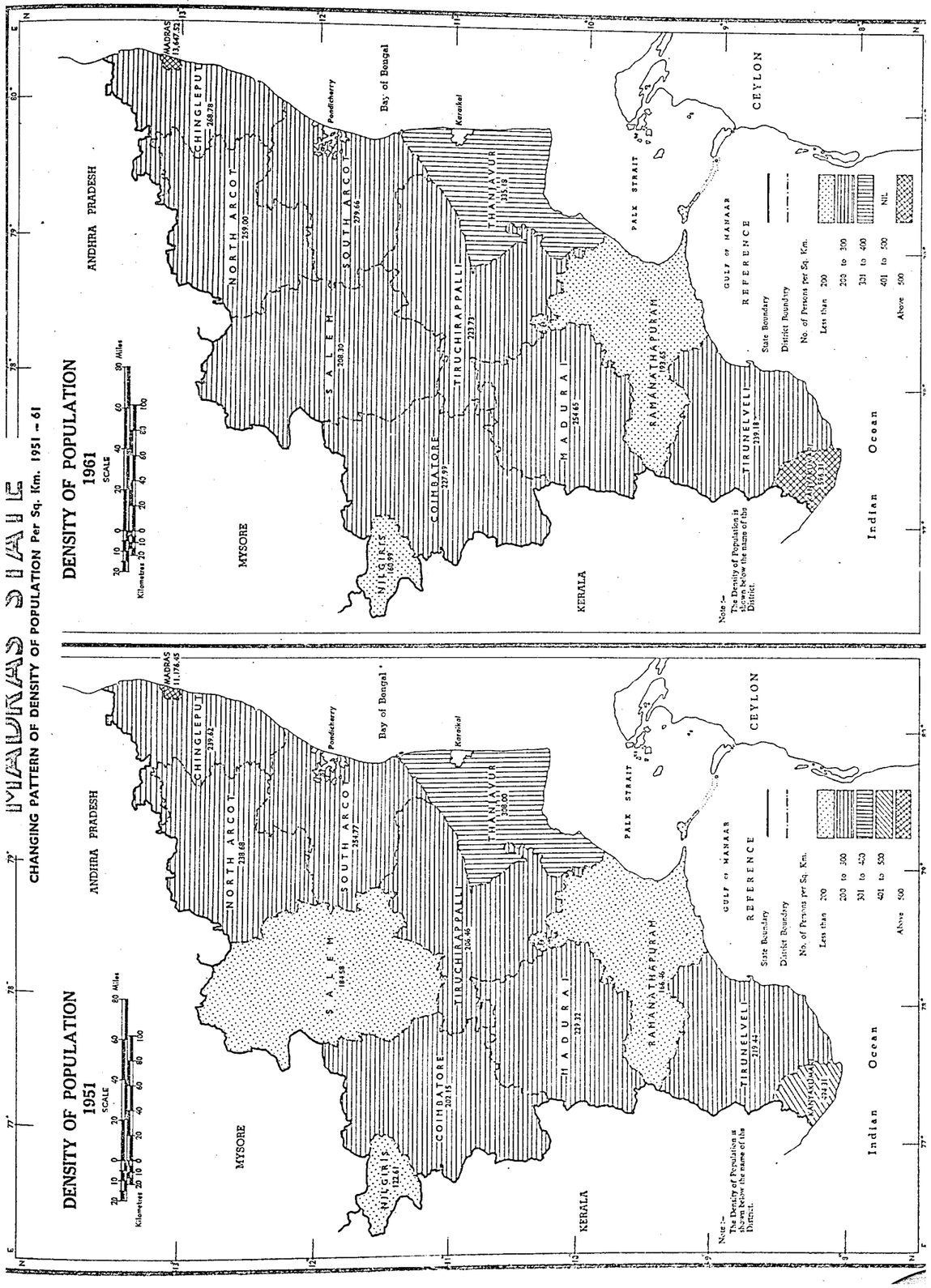
The highest density in 1961 is recorded in Madras and Kanyakumari districts while the lowest is in Nilgiris and Ramanathapuram district.

TABLE

District	Density per Sq. Kilometer 1951	1961
Madras State	**232**	**259**
Madras	11,176.45	13,647.52
Chingleput	239.62	268.78
North Arcot	238.68	259.00
South Arcot	254.77	279.66
Salem	184.58	208.30
Coimbatore	202.15	227.99
Nilgiris	122.61	160.99
Madurai	229.32	254.65
Tiruchirapalli	206 46	223.73
Thanjavur	308.00	335.18
Ramanathapuram	166.46	193.65
Tirunelveli	219.44	239.18
Kanyakumari	494.31	596.31

SOURCE

Census of India, 1961, Madras State, Part II-A General Population Tables.



MAP 15

INTER CENSAL CHANGE IN POPULATION 1901—1921

MAP 15

INTER CENSAL CHANGE IN POPULATION

1901—1921

PURPOSE

This map shows the percentage variation in population in the taluks of Madras State during the period 1901—1921.

METHOD

The percentages have been grouped in to four categories and the taluks have been shaded by four grades of hatching ranging from high to low.

SALIENT FEATURES

The population of Madras State increased by 12.3% during the period 1901—1921 i. e. at the rate of 0.6% per annum which is very low compared to the annual increase of 1.19% during the decade 1951—1961. In six taluks, the population in 1921 was less than that of 1901. The taluks are: Cuddalore in South Arcot district, Krishnagiri, Harur, Salem and Yercaud in Salem district and Nannilam in Thanjavur district. The decline in population in Krishnagiri taluk was 4.25% and in Harur 4.19%. All these four taluks in Salem district form a contiguous belt.

In Madras city and in 31 taluks the population increase was less than 10.0% during this period. As many as eight taluks of Thanjavur district belong to this category of taluks recording less than 0.5% increase per annum. In Chingleput district four out of eight taluks belong to this group. All the districts except Kanyakumari are represented in this category.

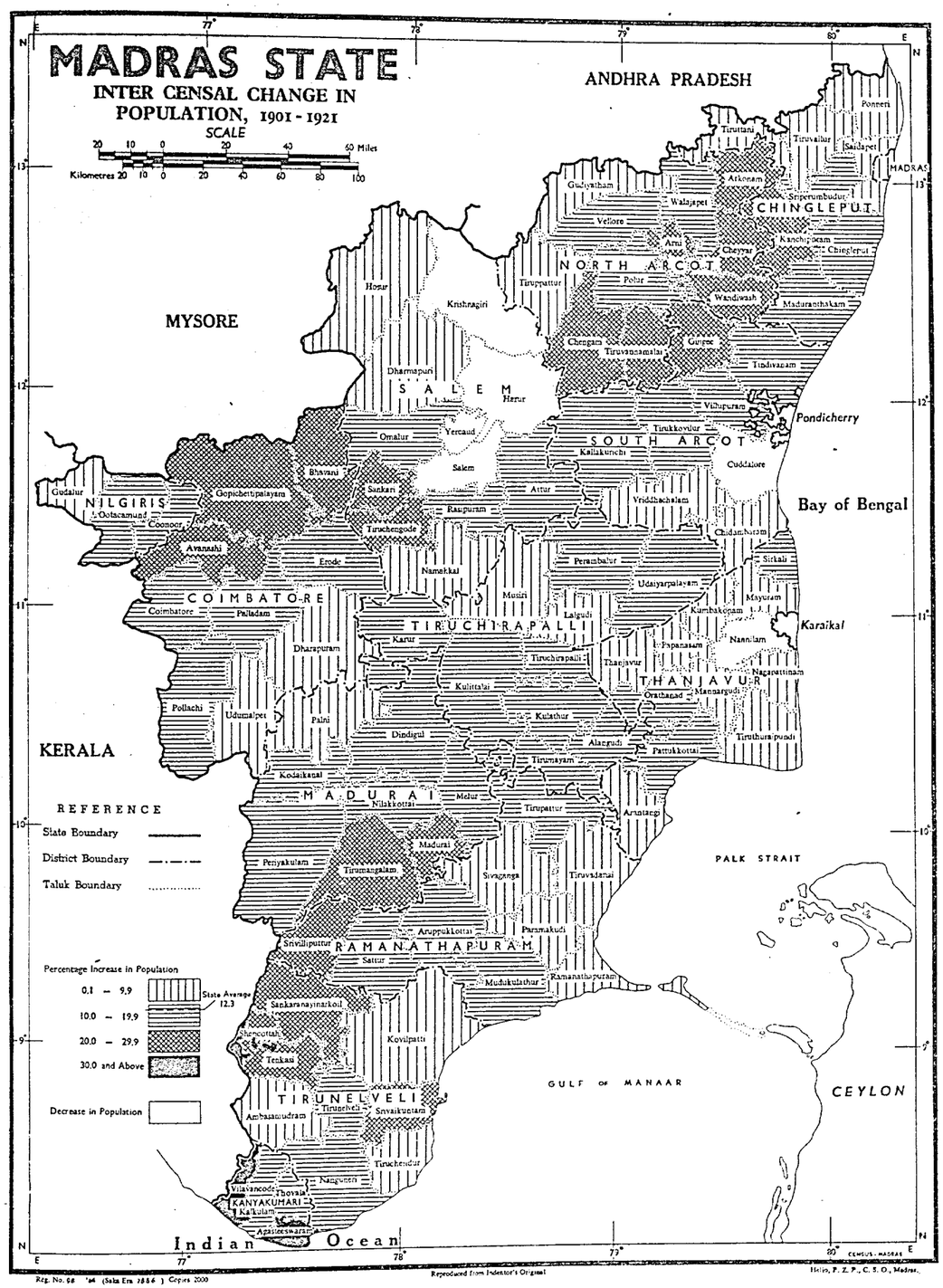
In the taluks, the variation is between 10.0% and 19.9% i. e. an average increase of 0.5%—1.0% per annum. There is a concentration of taluks of this category in Tiruchirapalli district which has 8 out of 10 taluks in this range. Madurai and Thanjavur districts have five taluks each, and South Arcot and Coimbatore districts have four taluks each. All the districts are represented in this range.

In 19 taluks the percentage increase during the period 1901—21 varied between 20.0% and 30.0%. A glance at the map indicates three clusters of taluks belonging to this range. One cluster which lies in north eastern part of the State is composed of seven taluks five of which are in North Arcot district and one each in Chingleput and South Arcot districts. The second cluster lies in north west covering Tiruchengode and Sankari taluks of Salem district and Bhavani, Gobichettipalayam and Avanashi taluks of Coimbatore district. The third cluster lies in south west covering Madurai and Tirumangalam taluks of Madurai district, Srivilliputhur taluk of Ramanathapuram district and Tenkasi, Shencottah and Sankaranayanarkoil taluks of Tirunelveli district.

Three taluks have registered increase of over 30.0% during 1901—21. The highest rate is 84.9% in Vilavancode taluk. The other two taluks of this range are Shencottah of Tirunelveli district and Agastheeswaram of Kanyakumari district.

SOURCE

Census of India, 1961, Madras State—District Census Handbooks.



MAP 16

INTER CENSAL CHANGES IN POPULATION 1921—51

MAP 16

INTER CENSAL CHANGES IN POPULATION

1921—51

PURPOSE

This map shows the variation in population in the taluks of Madras State during the period 1921—1951.

METHOD

The percentage variations have been grouped in to four categories and the taluks have been shaded by four grades of hatching ranging from high to low.

SALIENT FEATURES

The population of Madras State increased by 39.3% during the period 1921—1951 i. e. It increased at the rate of 1.31% per annum which is a slightly higher growth rate compared to 1.19% per annum registered during 1951—1961. In spite of this high growth rate in the State, two taluks—Yercaud in Salem district and Mudukulathur in Ramanathapuram district have recorded a decrease in population.

Forty seven taluks have recorded increase of less than one percent per annum. The entire north eastern portion of the State and almost all the coastal taluks except Pattukottai, Ramanathapuram and Srivaikuntam taluks have recorded increase of less than one percent per annum. All the 8 taluk of South Arcot district fall under this category.

Six out of eight taluks of Chingleput district , 8 out o 10 taluks of Tiruchirapalli district and nine out of twelve o Thanjavur district belong to this range.

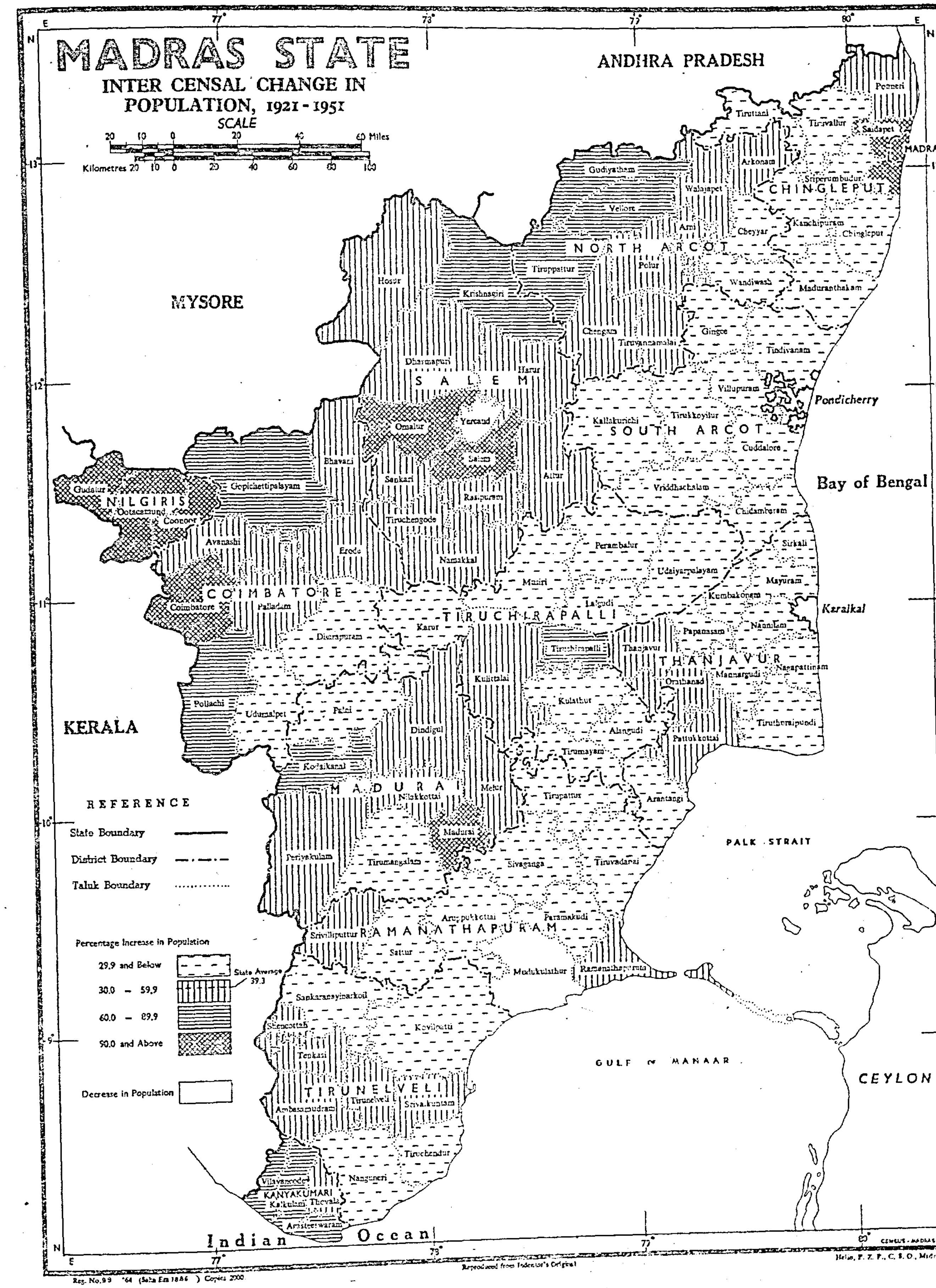
Thirty five taluks have recorded increase of one to tw percent per annum. Largest number of taluks is found i Salem district wherein 8 taluks belong to this group. Nort Arcot has six taluks and except Nilgiris and South Arcot, al the districts are represented in this range.

Eleven taluks have registered increase of 2% to 3% pe annum. North Arcot and Kanyakumari districts have thre taluks each, Coimbatore district has two taluks, and Salem Madurai and Tiruchirapalli districts have each one taluk.

Madras City and eight taluks have recorded increase o more than 90% during the period 1921—51. The highes increase is 175.4% in Ootacamund taluk. All the three taluk of Nilgiris district have registered an increase of over 3% per annum.

SOURCE

Census of India, 1961, Madras State—District Censu Handbooks.



MAP 17

INTER CENSAL CHANGES IN POPULATION 1901—61

MAP 17

INTER CENSAL CHANGES IN POPULATION

1901—61.

PURPOSE

This map shows the variation in population in the taluks of Madras State during the period 1901—61.

METHOD

The percentage variations have been grouped into five categories and the taluks have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

The population of Madras State in 1961 has increased by 75.0% over that of 1901 population. The number of taluks in each of the five categories into which percentage variations have been classified is as follows :

Below 50.0%	=	38
50.0 — 99.9%	=	44
100.0—149.9%	=	10
150.0—199.9%	=	6
200.0-& above	=	6
		104

The highest percentage of increase is 307.9% in Ootacamund taluk and the other two taluks of Nilgiris district also have recorded increase above 200.0%. Madras City, Coimbatore and Vilavancode taluks have registered increase above 200.0%.

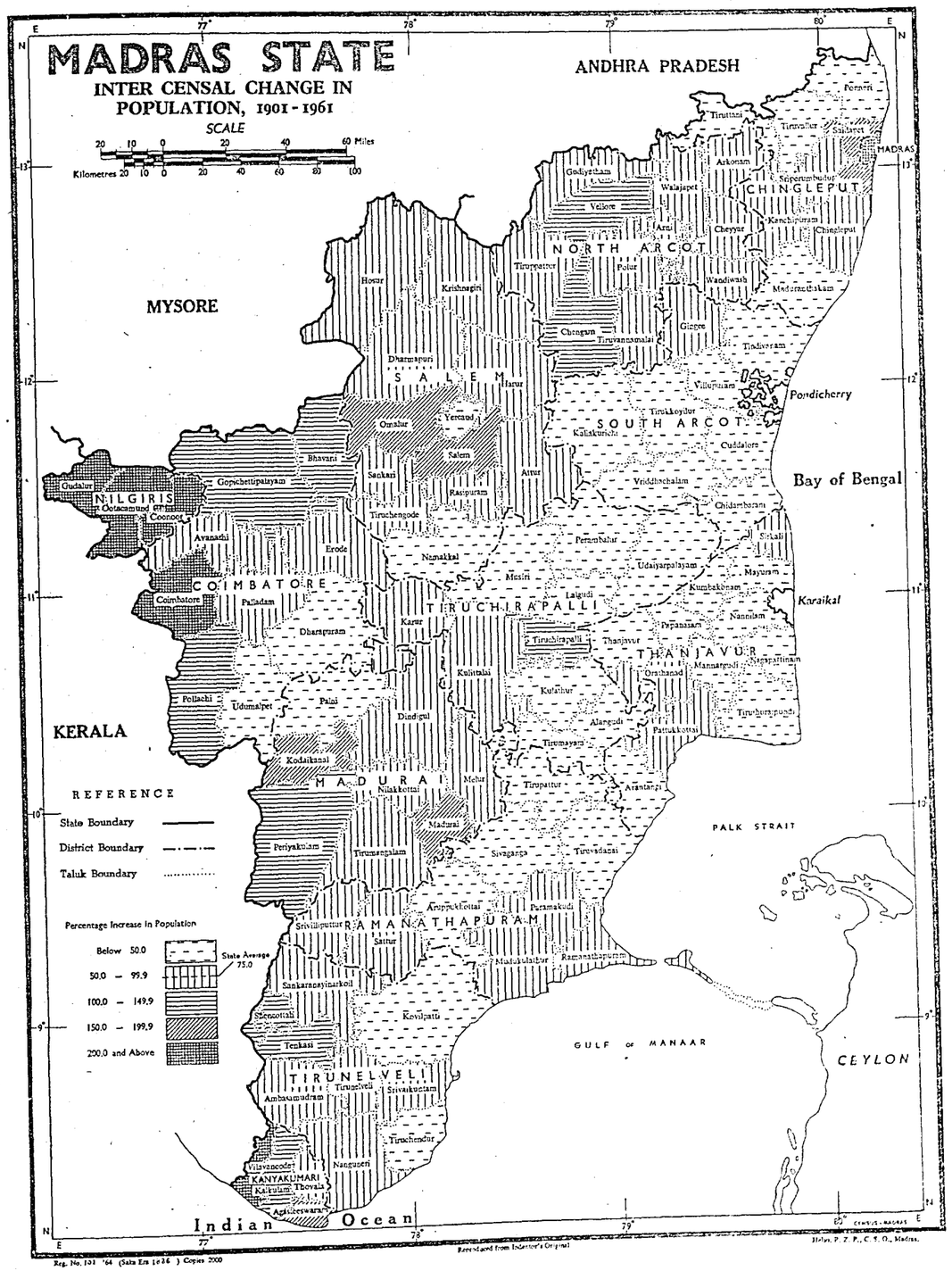
In six taluks, the population has increased by 150.0% to 199.9%. Saidapet, Omalur, Salem, Kodaikanal, Madurai and Agastheeswaram taluks belong to this range.

Of the ten taluks falling in the range 100.0% to 149.9%, three are in Coimbatore, two each in North Arcot and Tirunelveli and one each in Madurai, Tiruchirapalli and Kanyakumari.

Low increase of less than 50% during the period 1901-61 or less than 0.8% per annum has been recorded in 38 taluks most of which are located in eastern part of the State. There is a large continuous belt from Madurantakam in north to Tiruthuraipoondi in south and Namakkal in west representing low increase of population.

SOURCE

Census of India, 1961, Madras State — District Census Handbooks.



MAP 18

INTER CENSAL CHANGES IN POPULATION 1951—61

MAP 18

INTER CENSAL CHANGES IN POPULATION

1951—61.

PURPOSE

This map shows the percentage variation in the population in the taluks of Madras during the decade 1951—61.

METHOD

The percentages have been grouped into five categories and the taluks have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

The population of Madras State increased by 11.9% during the decade 1951—61. Fifteen taluks have recorded an increase of less than 5% for the decade or an annual rate of less than 0.5%. Such a low rate of growth is observed in all districts except Nilgiris, Madurai, Ramanathapuram and Kanyakumari districts. Of the fifteen taluks in this range five taluks are geographically contiguous. They are Polur, Wandiwash, Gingee, Tirukkoilur and Kallakuruchi. All the other taluks are dispersed. Namakkal taluk of Salem district is the only taluk to register a decline in population.

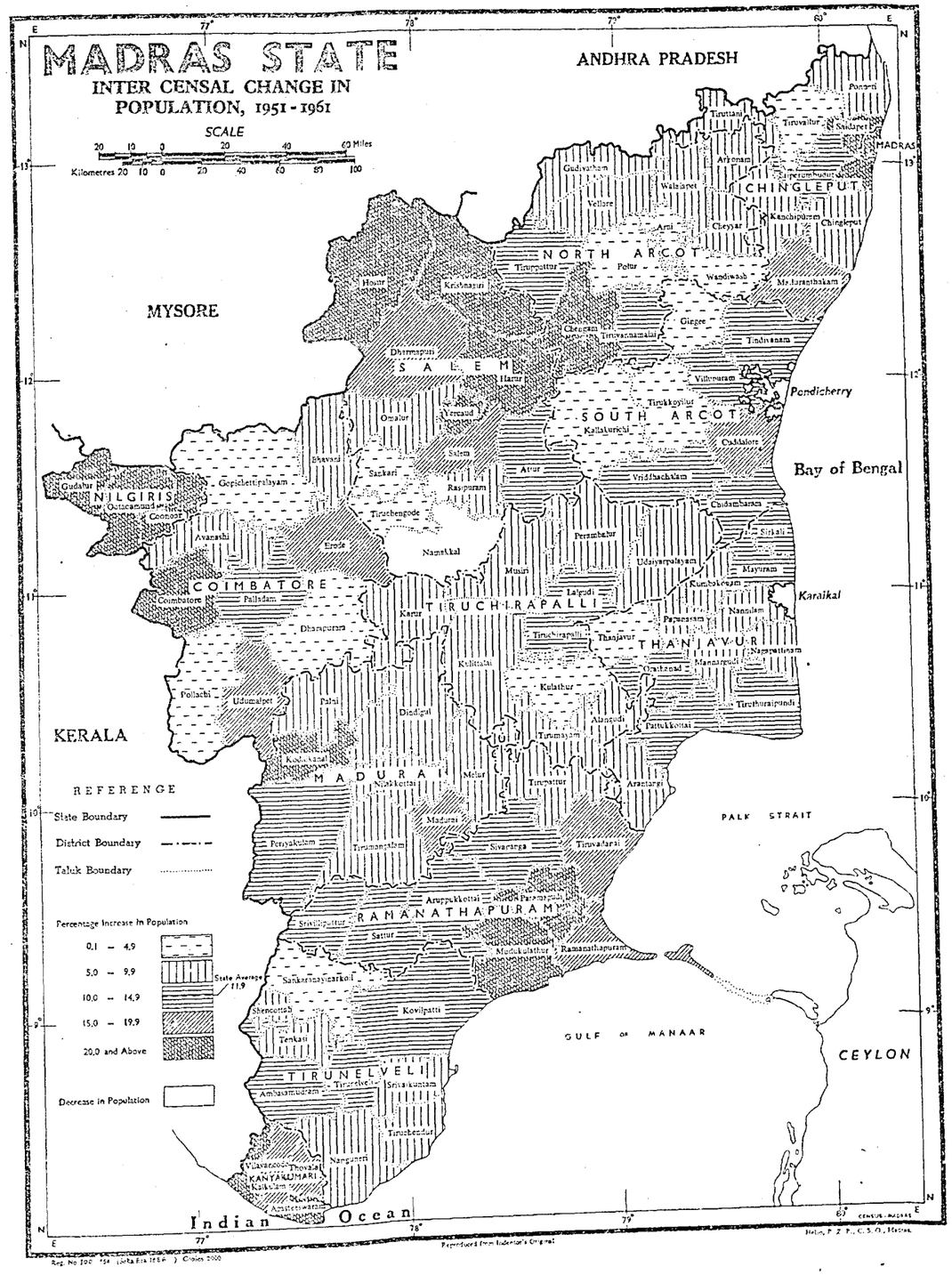
Thirty six taluks have recorded a population increase of 5% to 10.0% during the decade. Seven taluks of Tiruchirapalli district, six taluks of Thanjavur district and five taluks of Madurai district are represented in this range. None of the taluks of South Arcot, Nilgiris and Kanyakumari districts fall under this range.

Twenty five taluks have recorded percentage variation close to the State average of 11.9 and in eleven taluks population has increased by 15.0% to 19.9%.

An increase of more than 2% per annum has been registered in Madras City and 14 taluks and biggest concentration of taluks of this category is noticed in north western portion. Hosur, Krishnagiri, Harur and Yercaud of Salem district and Chengam of North Arcot district form one group of taluks with more than 20.0% increase during the decade. All the three taluks of Nilgiris have recorded more than 20.0% increase. The other six taluks belonging to this range are: Coimbatore, Kodaikanal, Paramakudi, Mudukulathur, Vilavancode and Agastheeswaram.

SOURCE

Census of India, 1961, Madras State—District Census Handbooks.



MAP 19

GROWTH OF POPULATION 1951—61

MAP 19

GROWTH OF POPULATION

1951—61

PURPOSE

This map shows the intercensal growth rate of population in different districts of Madras State.

METHOD

The data are grouped into five categories-four above and one below the State average. The districts are then shaded by five grades of hatching ranging from high to low. The increase in population between 1951-61 is further shown by pie charts—the figures in the shaded portion representing the intercensal increase as percentage of the total 1951 population.

SALIENT FEATURES

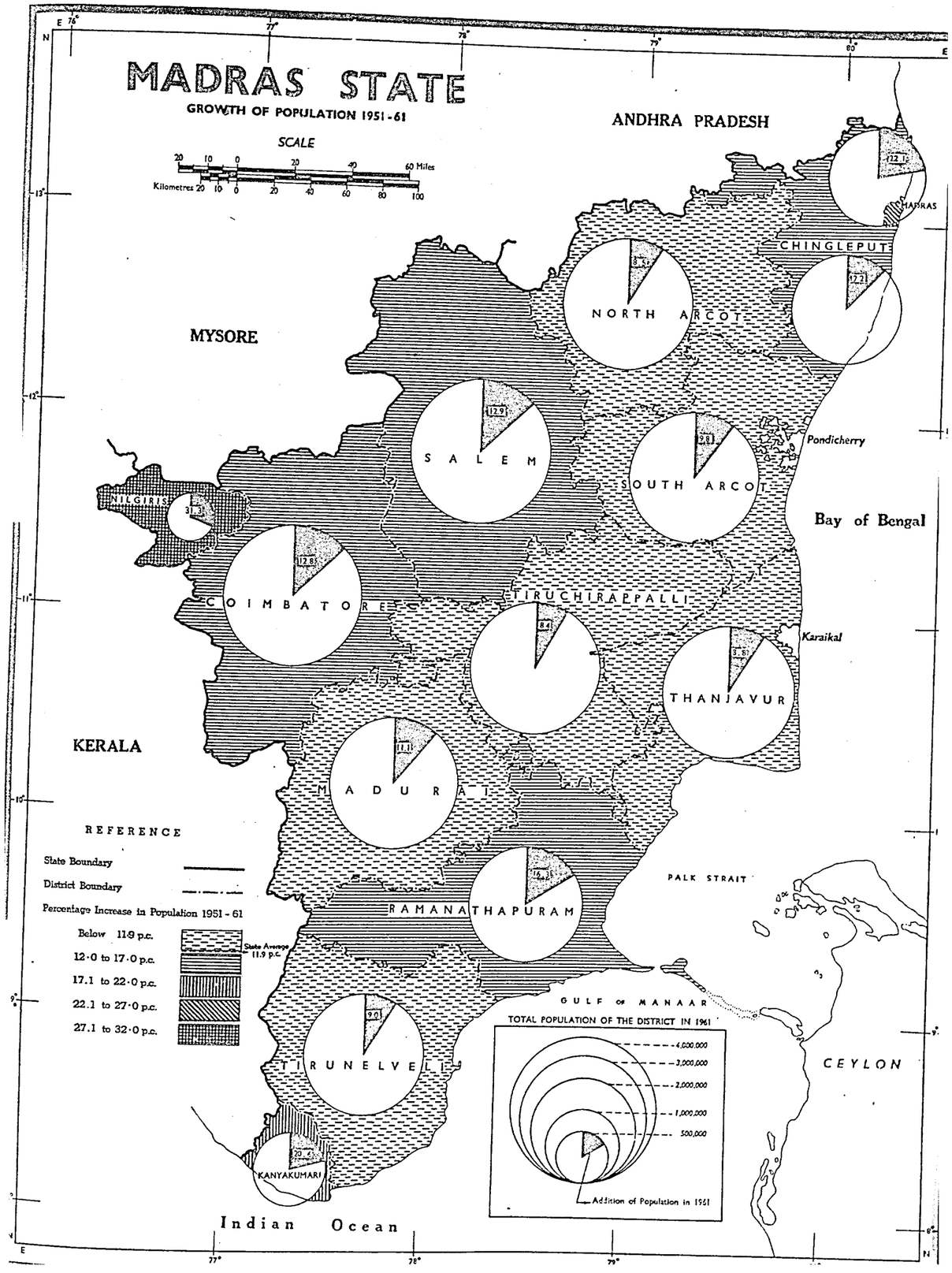
The highest growth rate 31.3% during the decade was recorded in Nilgiris district and the lowest growth rate was 8.4% recorded in Tiruchirapalli district. The five contiguous districts—North Arcot, South Arcot, Thanjavur, Tiruchirapalli and Madurai—exhibit their growth rates below the state average. In the south only the district—Tirunelveli shows its growth rate below the state average. The districts recording the higher growth rates form four distinct regions—(i) Chingleput—Madras districts in the north-east (ii) Salem-Coimbatore-Nilgiris districts in the west (iii) Ramanathapuram in the South-east (iv) Kanyakumari in the extreme south.

TABLE

Rank	District	Intercensal 1951-61 Variation as Percentage of 1951 Population
	MADRAS STATE	11.9
1.	Nilgiris	31.3
2.	Madras	22.1
3.	Kanyakumari	20.6
4.	Ramanathapuram	16.3
5.	Salem	12 9
6.	Coimbatore	12.8
7.	Chingleput	12.2
8.	Madurai	11.1
9.	South Arcot	9.8
10.	Tirunelveli	9.0
11.	Thanjavur	8.8
12.	North Arcot	8.5
13.	Tiruchirapalli	8.4

SOURCE

Census of India, 1961, Madras State, Part II-A General Population Tables.



MAP 20

INTER CENSAL CHANGES IN RURAL POPULATION 1951-61

MAP 20

INTER CENSAL CHANGES IN RURAL POPULATION

1951-61

PURPOSE

This map shows the variation in rural population during the decade 1951-61 represented as precentage change to 1961 population.

METHOD

Circles proportionate to total rural population have been drawn for each district and in each circle, a sector proportionate to the addition of rural population in 1961 over that of 1951 has been indicated. The percentage variation has been classified in to four categories and the districts have been shaded by four grades of hatching ranging from high to low.

SALIENT FEATURES

The rural population of Madras State has increased by 6. 9% during the decade 1951-61. The highest percentage of addition is 16.3 in Kanyakumari district and the next highest is 14.1% in Ramanathapuram district.

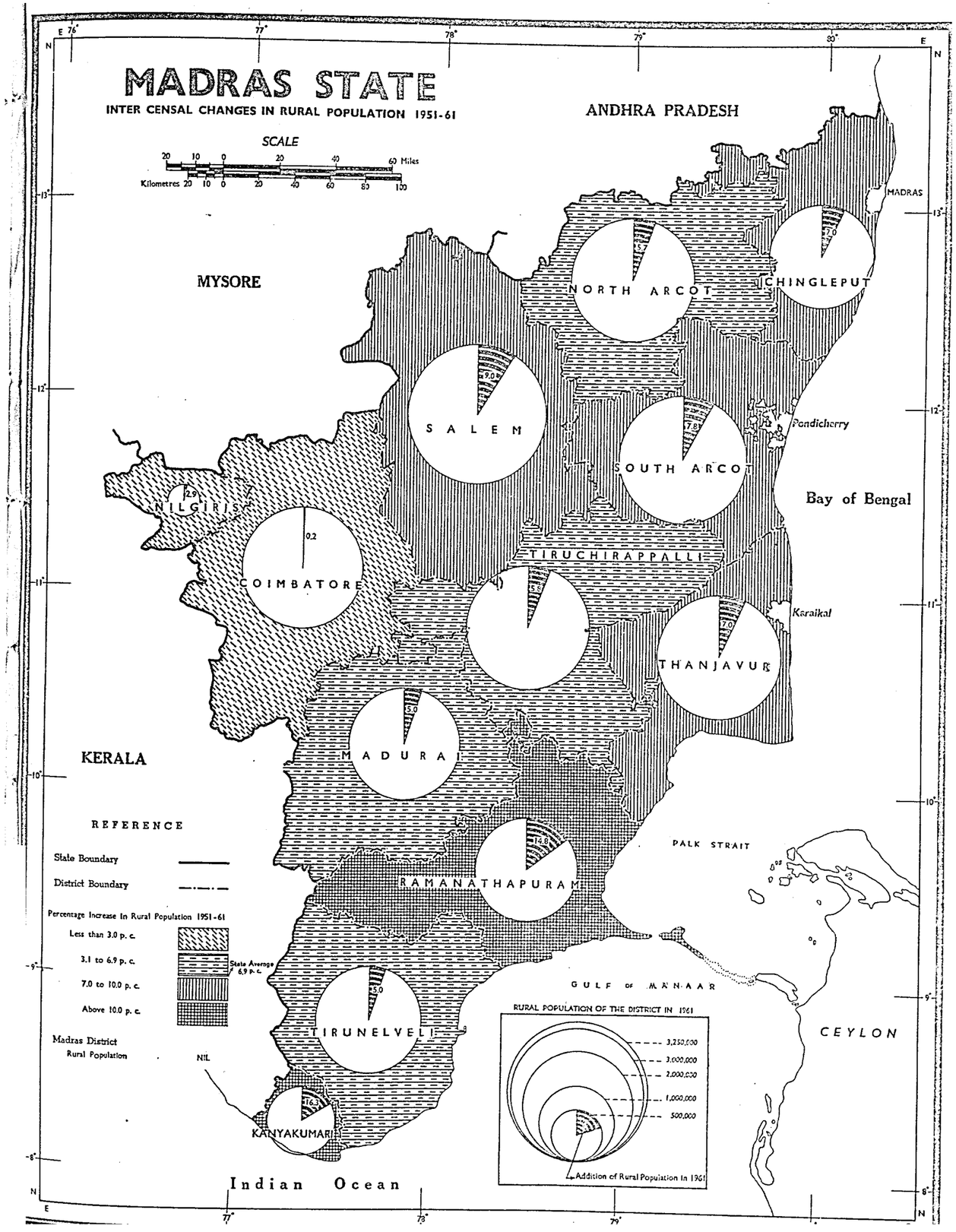
The lowest percentage is 0.2 in Coimbatore district. Six districts have record increase above the state average and six districts have recorded increase lower than the state average.

TABLE

Rank	State-District	Percentage variation
	MADRAS STATE	6.9
1.	Kanyakumari	16.3
2.	Ramanathapuram	14.8
3.	Salem	9.0
4.	South Arcot	7.8
5.	Chingleput	7.0
6.	Thanjavur	7.0
7.	Tiruchirapalli	5.8
8.	North Arcot	5.7
9.	Madurai	5.0
10.	Tirunelveli	5.0
11.	Nilgiris	2.9
12.	Coimbatore	0.2

SOURCE

Census of India, 1961, Madras State—Part II-A General population - Tables.



MAP 21

INTER CENSAL CHANGES IN URBAN POPULATION

PURPOSE

This map shows the percentage increase of population in the urban areas of Madras State during the decade 1951-61.

METHOD

Circles proportionate to total urban population have been drawn for each district and in each circle a sector proportionate to the addition of urban population in 1961 over that of 1951 has been drawn. The percentage variation has been classified in to five categories and the districts have been shaded by five grades of hatching ranging from high to low. The percentage variation has been worked out with reference to 1961 population.

SALIENT FEATURES

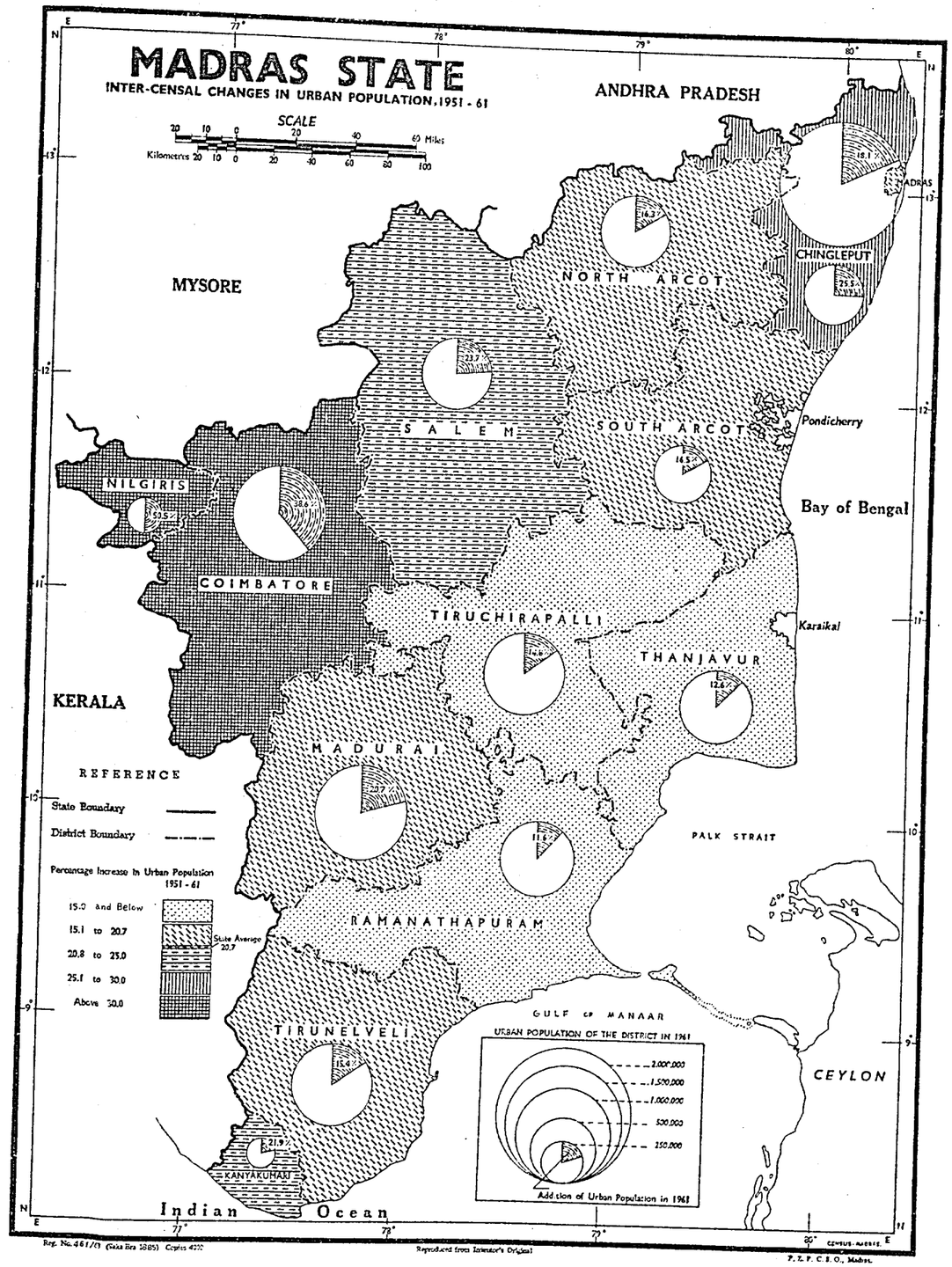
The urban population of Madras State has increased by 20.7% during the decade 1951-61. Five districts have recorded percentage higher than the State average and eight districts have recorded increase less than the State average. The highest increase has been recorded in Nilgiris district where urban population has increased by 50.5% during the decade 1951-61. Coimbatore district which is second in rank has recorded 38.6% increase. The lowest increase is 11.6% in Ramanathapuram district. The three contiguous districts of Tiruchirapalli, Thanjavur and Ramanathapuram have recorded less than 15.00% increase.

TABLE

Rank	State-District	Percentage variation
	MADRAS STATE	20.7
1.	Nilgiris	50.5
2.	Coimbatore	38.6
3.	Chingleput	25.5
4.	Salem	23.7
5.	Kanyakumari	21.9
6.	Madurai	20.7
7.	Madras	18.1
8.	South Arcot	16.5
9.	North Arcot	16.3
10.	Tirunelveli	15.4
11.	Tiruchirapalli	14.8
12.	Thanjavur	12.6
13.	Ramanathapuram	11.6

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



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P. T. P. C. I. O., Madras.

MAP 22

IMMIGRANTS

MAP 22

IMMIGRANTS

PURPOSE

This map shows the percentage of immigrants to Madras State and their districtwise distribution.

METHOD

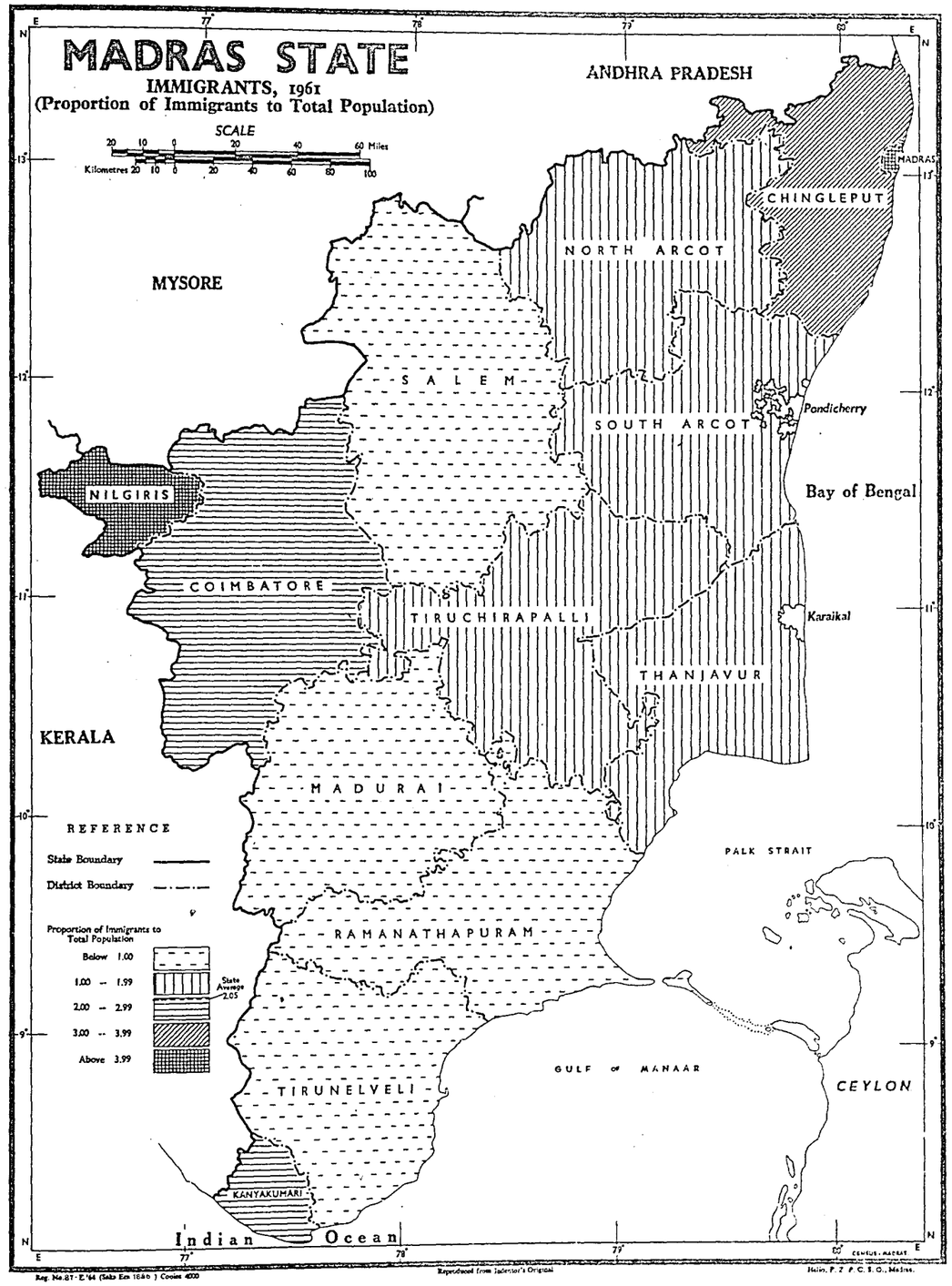
The percentages have been classified into five categories and the districts have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

691,560 persons out of a total population of 33.68 millions are immigrants to Madras State and thus they form 2.05% of population. Maximum number of migrants have settled down in Madras City and there are 1.95 lakhs of persons in Madras City who are born outside Madras State. But the percentage is highest in Nilgiris district where the immigrants form 15.6% of district population. In Madras City they form 11.3% of the total population. In Chingleput district, which ranks third, the immigrants form 3.2%. Salem and the three southern districts, Madurai, Ramanathapuram and Tirunelveli have immigrants who constitute less than 1% of their respective district population. In four other continuous districts—North Arcot, South Arcot, Tiruchirapalli and Thanjavur, the percentage of immigrants varies between one and two percent.

SOURCE

Census of India, 1961, Madras State—Part II-C (ii), Migration Tables.



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Photo. P. I. P. C. S. O., Madras.

MAP 23

FERTILITY RATE 1961

MAP 23

FERTILITY RATE

1961

PURPOSE

This map shows the proportion of children in age group 0-4 to all women of 15-49.

METHOD

The district-wise proportions of children aged 0-4 to women aged 15-49 have been classified into five categories and the districts have been shaded by five grades of hatching. This proportion is expressed as fertility rate.

SALIENT FEATURES

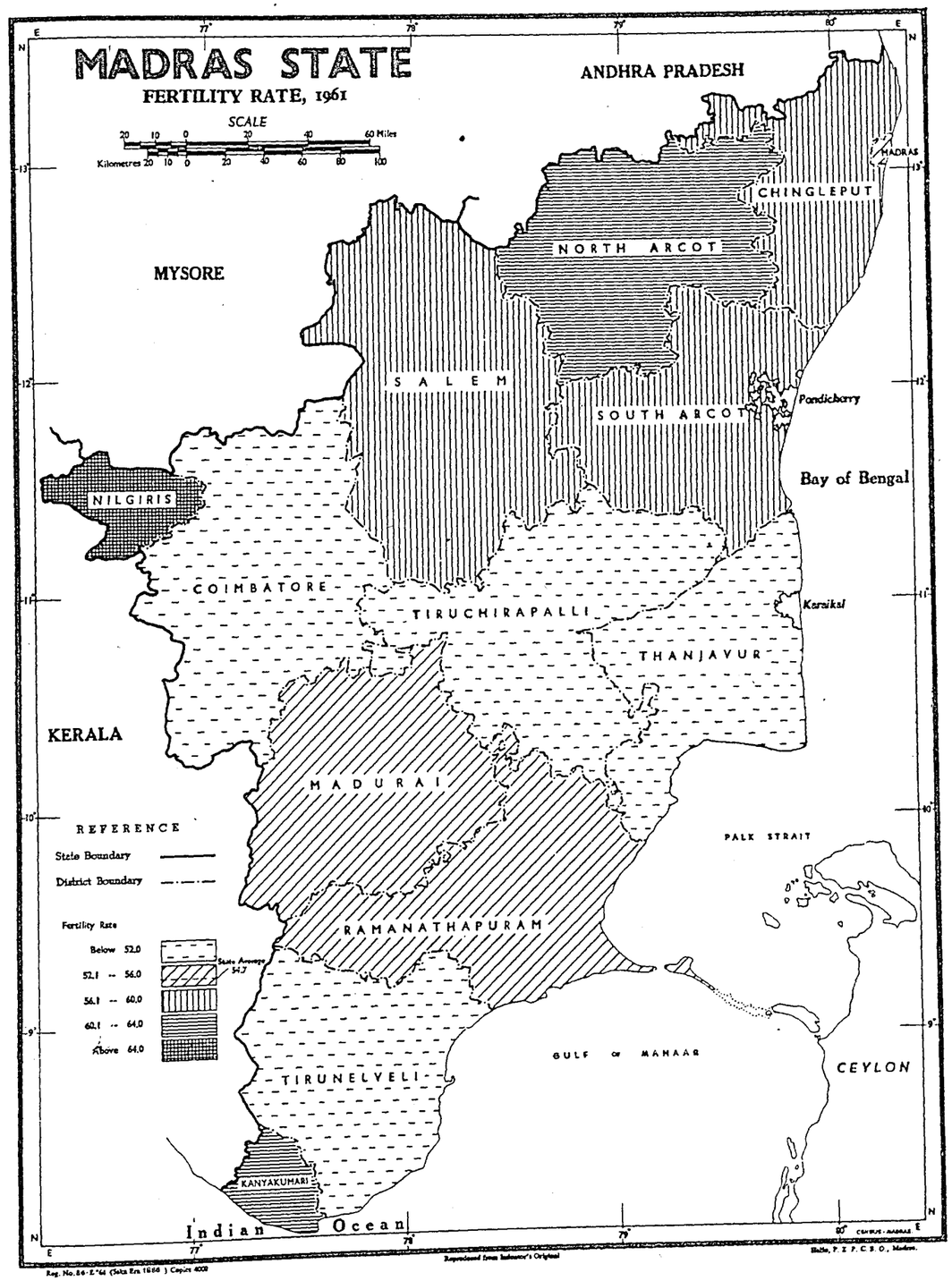
The fertility rate in Madras State is 55 and the highest rate is 64 in Nilgiris district and the lowest is 50 in Tiruchirapalli district. Except Kanyakumari all the southern districts have fertility rate below 56.

TABLE

Rank	State/District	Fertility Rate
	MADRAS STATE	54.68
1.	Nilgiris	64.17
2.	North Arcot	60.86
3.	Kanyakumari	60.32
4.	Salem	58.34
5.	Chingleput	58.03
6.	South Arcot	57.60
7.	Madurai	54.76
8.	Madras	53.07
9.	Ramanathapuram	53.05
10.	Coimbatore	51.27
11.	Thanjavur	50.94
12.	Tirunelveli	50.78
13.	Tiruchirapalli	50.20

SOURCE

Census of India, 1961, Madras State—Part II-C (i) Cultural Tables.



MAP 24

BIRTH RATE 1961

MAP 24

BIRTH RATE

1961.

PURPOSE

This map shows the number of births per 1,000 population in the taluks of Madras State.

METHOD

The proportions have been classified into six ranges, three below and three above the State average. The taluks have been shaded by six grades of hatching ranging from high to low.

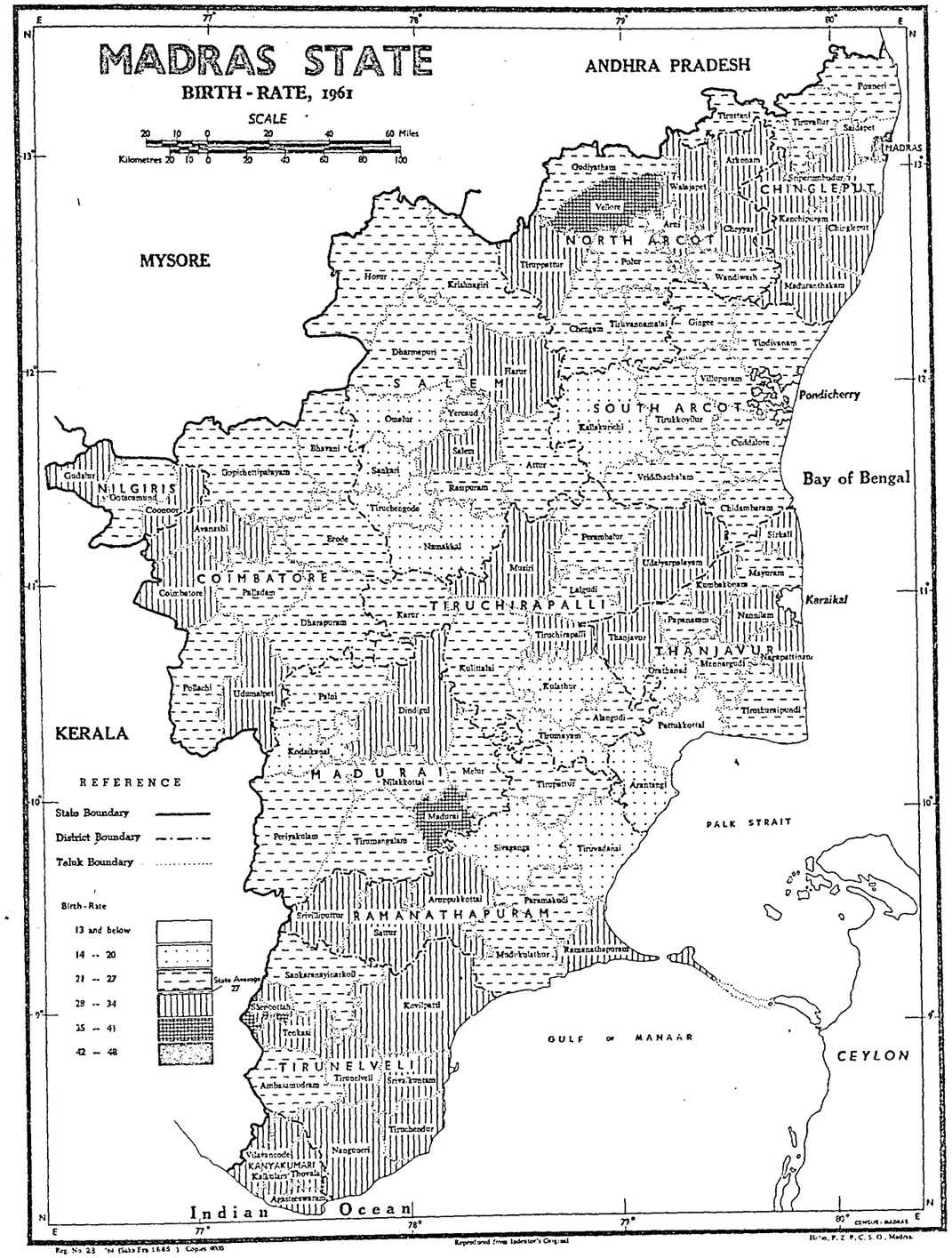
SALIENT FEATURES

The birth rate in Madras State is 27 and the highest is 42 in Madras City. It is interesting to note that the Saidapet taluk which is adjacent to Madras City records the lowest birth rate of 11. Possibly the availability of greater Medical facilities in Madras City leading to large inflow of patients to City hospitals is responsible for this two extremely wide variation.

Sixty one taluks have recorded birth rates lower than the State average. Kanyakumari is the only district in which all the taluks have recorded birth rate above the State average. On the other hand in South Arcot district, all the eight taluks have recorded birth rate below the State average. In Salem district ten out of twelve taluks have birth rate lower than the State average. But in Tirunelveli district seven out of nine taluks have higher birth rate than the State average.

SOURCE

Director of Public Health, Madras.



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Photo, P. I. P. C. S. O., Madras.

MAP 25

DEATH RATE 1961

MAP 25

DEATH RATE

1961

PURPOSE

This map shows the number of deaths per 1000 persons in each taluk of Madras State.

METHOD

The death rates have been classified into five ranges—two below and three above the State average and taluks have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

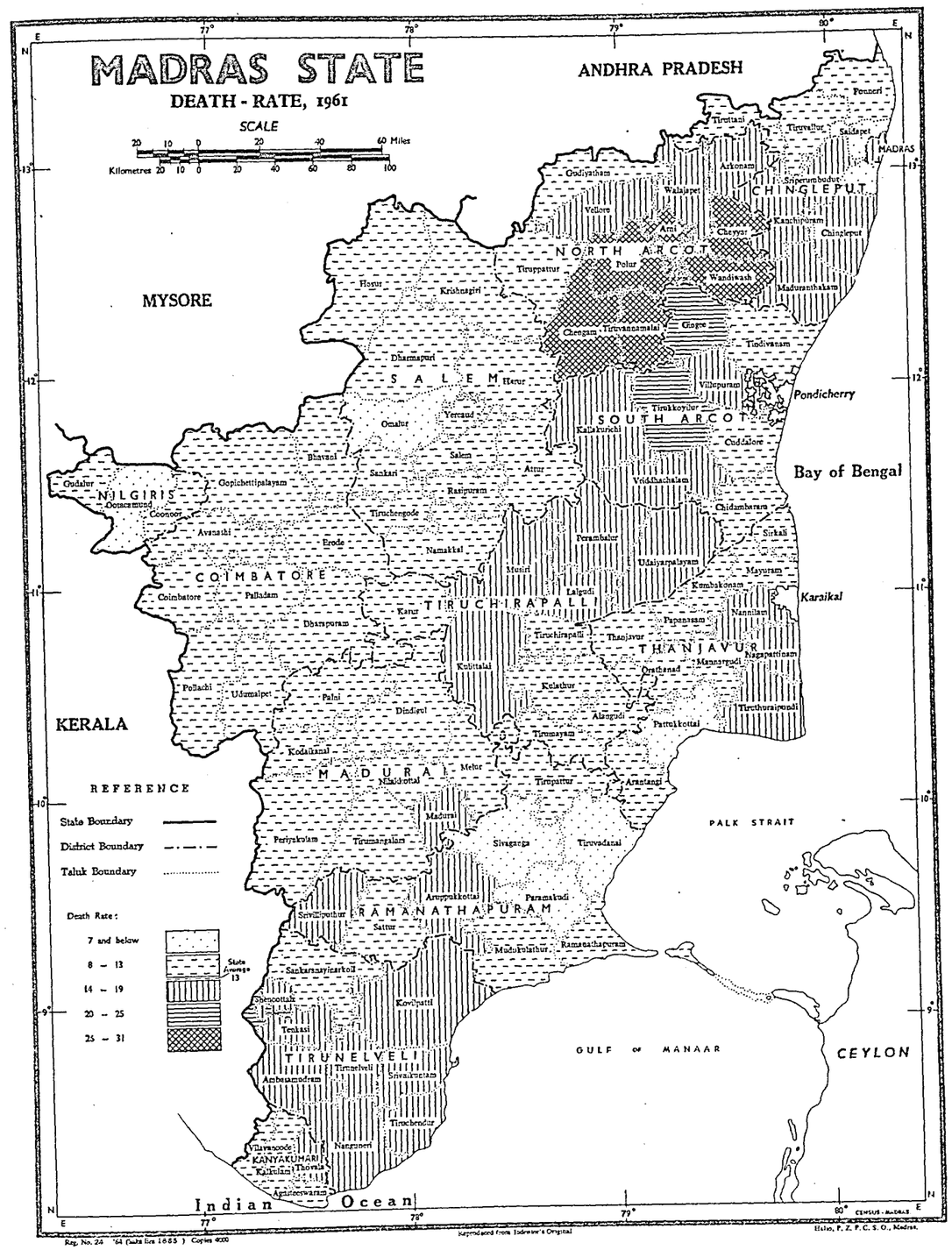
The death rate in Madras State is 13 and 65 taluks have recorded death rates below 13 and 38 taluks and Madras City have registered death rate above 13. The lowest death rate is 6 registered in Saidapet, Omalur and Tiruvadanai taluks of Chingleput, Salem and Ramanathapuram districts respectively.

The highest death rate is 31 in Wandiwash and Tiruvannamalai taluks both of North Arcot district. All the six taluks where death rate is above 26 belong to North Arcot district. They are Arni, Cheyyar, Wandiwash, Polur, Chengam and Tiruvannamalai. There are only three taluks with death rate between 20 and 25 and they are Gingee and Tirukkoilur of South Arcot district and Shencottah of Tirunelveli district. The map clearly indicates a distinct continuous portion in the western part of the State where death rate is below the State average. Salem, Coimbatore and Madurai district excluding Madurai taluk enjoy better health conditions as reflected by lower death rate than State average.

Entire portion of Tirunelveli district except Sankaranainarkoil taluk falls under the range 14—19. In Ramanathapuram district, all the taluks except Srivilliputhur and Aruppukottai have death rate below the State average.

SOURCE

Director of Public Health, Madras.



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MAP 26

NATURAL INCREASE

MAP 26

NATURAL INCREASE

PURPOSE

This map shows difference between birth rate and death rate in the taluks of Madras State during the year 1961.

METHOD

This difference between birth and death rates has been classified into five ranges two above and three below the State average. The taluks have been shaded by five grades of hatching. The taluks which have recorded a decrease i. e. excess of death over birth have been shaded separately.

SALIENT FEATURES

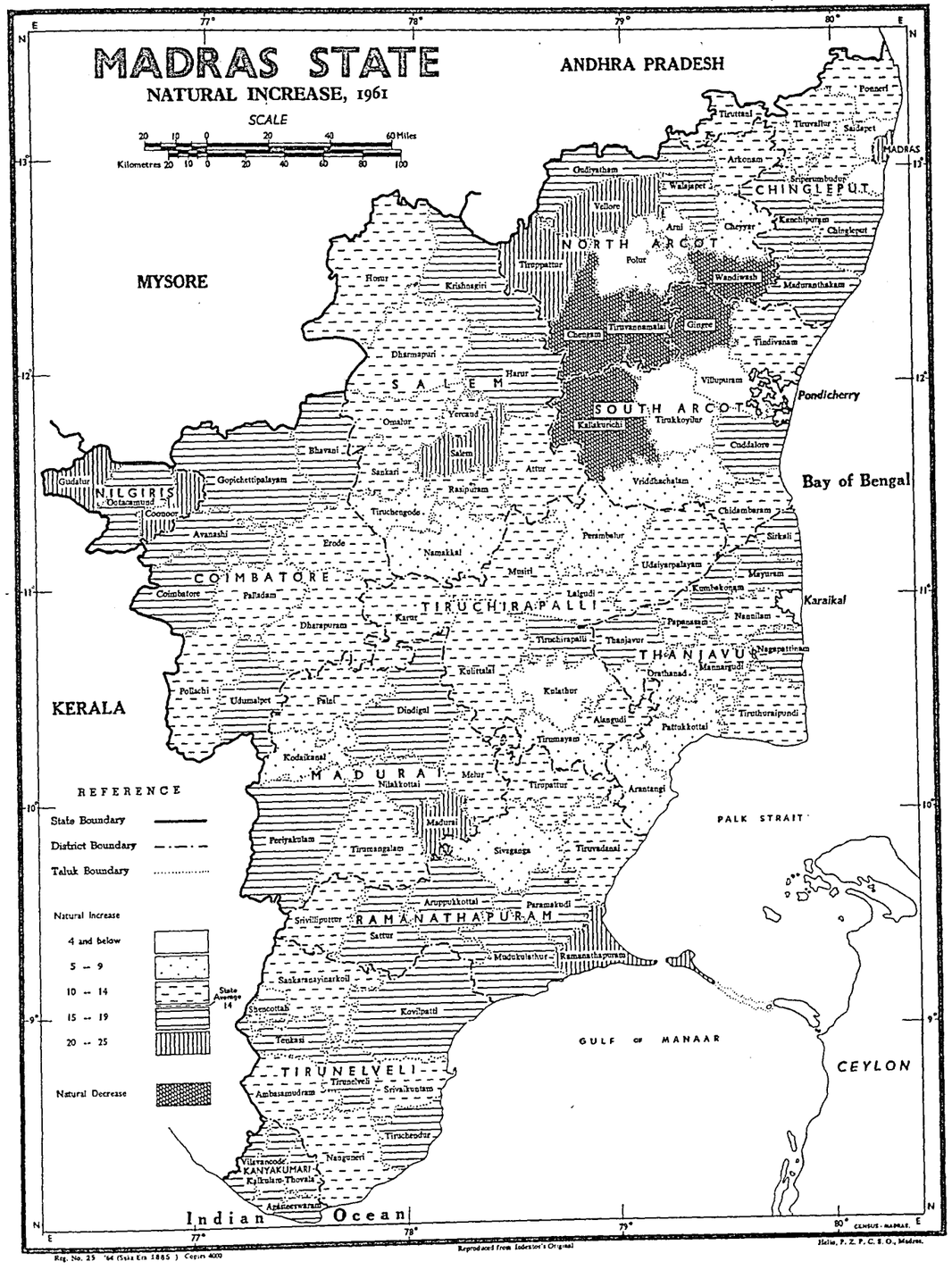
The natural increase in population of Madras State as reflected by excess of birth over death rate is 14 per 1,000.

55 Taluks of Madras State have registered a natural increase below the State average and five taluks have recorded a decrease. These five taluks form one continuous belt—Wandiwash, Gingee, Tiruvannamalai, Chengam and Kallakurichi. Of the 55 taluks which have registered increase lower than the State, the lowest is 1 in Polur taluke and Tirukkoilur taluk of South Arcot district has recorded increase of 2 per thousand. Six taluks have an increase of less than 5 and 11 taluks have natural increase between 5 and 9. Of the 74 taluks which have increased between 10 and 19, 38 are below and 36 above the state average of 14.

High increase of over 20, is noticed in seven taluks and Madras City and the highest is however 23 in Madras City and Gudalur taluk of Nilgiris distrlct. The other taluks with increase above 20 are: Tirupattur and Vellore of North Arcot district, Salem in Salem district, Coonoor in Nilgiris district, Madurai taluk in Madurai district and Ramanathapuram taluk in Ramanathapuram district.

SOURCE

Director of Public Health, Madras.



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MAP 27

SEX RATIO

MAP 27

SEX RATIO

PURPOSE

This map shows the sex ratio i.e. number of females per 1000 males in the various taluks of Madras State. The taluk boundaries however are indicated in the map only when a taluk has a sex ratio different from that of the surrounding taluks.

METHOD

Data have been grouped into four categories two above and two below the line of equality i.e., 1000 females per 1000 males. The map has been drawn on isopleth method showing the line of equality and at an interval 100. The intervening spaces between two isopleths have been hatched according to the gradation.

SALIENT FEATURES

The sex ratios have been grouped in to four ranges :

Below 900 females per 1000 males

900— 999 " " " "
1000—1100 " " " "
Above 1100 " " " "

The average sex ratio of Madras State is 992. Out of 103 taluks in Madras State, 58 taluks have their sex ratio less than 1000 and 45 taluks above 1000. The lowest sex ratio (less than 900) is recorded only in two taluks—Gudalur (895) and Ootacamund (899) both in Nilgiris district.

56 taluks have sex ratio ranging between 900 and 999. All the taluks of Chingleput and Coimbatore districts fall in the second range 900—999. Ten out of eleven taluks of North Arcot district also come under this group — the only exception being Arni which has a sex ratio of 1010. All the taluks of South Arcot district except Chidambaram belong to this category. In Salem district ten out of twelve taluks have a sex ratio varying between 900 and 999, the two exceptions being Tiruchengode and Namakkal. Three taluks of Madurai viz., Kodaikanal, Periyakulam and Madurai; four taluks of Tiruchirapalli—Udaiyarpalayam, Tiruchirapalli, Alangudi and Kulathur; two taluks of Thanjavur—Thanjavur and Pattukottai and two taluks of Kanyakumari—Vilavancode and Kalkulam have sex ratios ranging between 900 and 999. Another interesting aspect is that no taluk of Ramanathapuram and Tirunelveli districts falls under this range. Two taluks have however recorded a sex ratio of 1000 and they are Alangudi and Kulathur of Tiruchirapalli district.

The next range of sex ratio 1000—1100 accounts for 42 taluks. However Chingleput, Coimbatore and Nilgiris districts do not come under this range. North Arcot and South Arcot districts have one taluk each in this range and Salem and Kanyakumari have two each. The number of taluks falling in this range are distributed in the following districts as shown below :

District	No. of taluks
Madurai	5
Tiruchirapalli	6
Thanjavur	10
Ramanathapuram	8
Tirunelveli	7
Kanyakumari	2

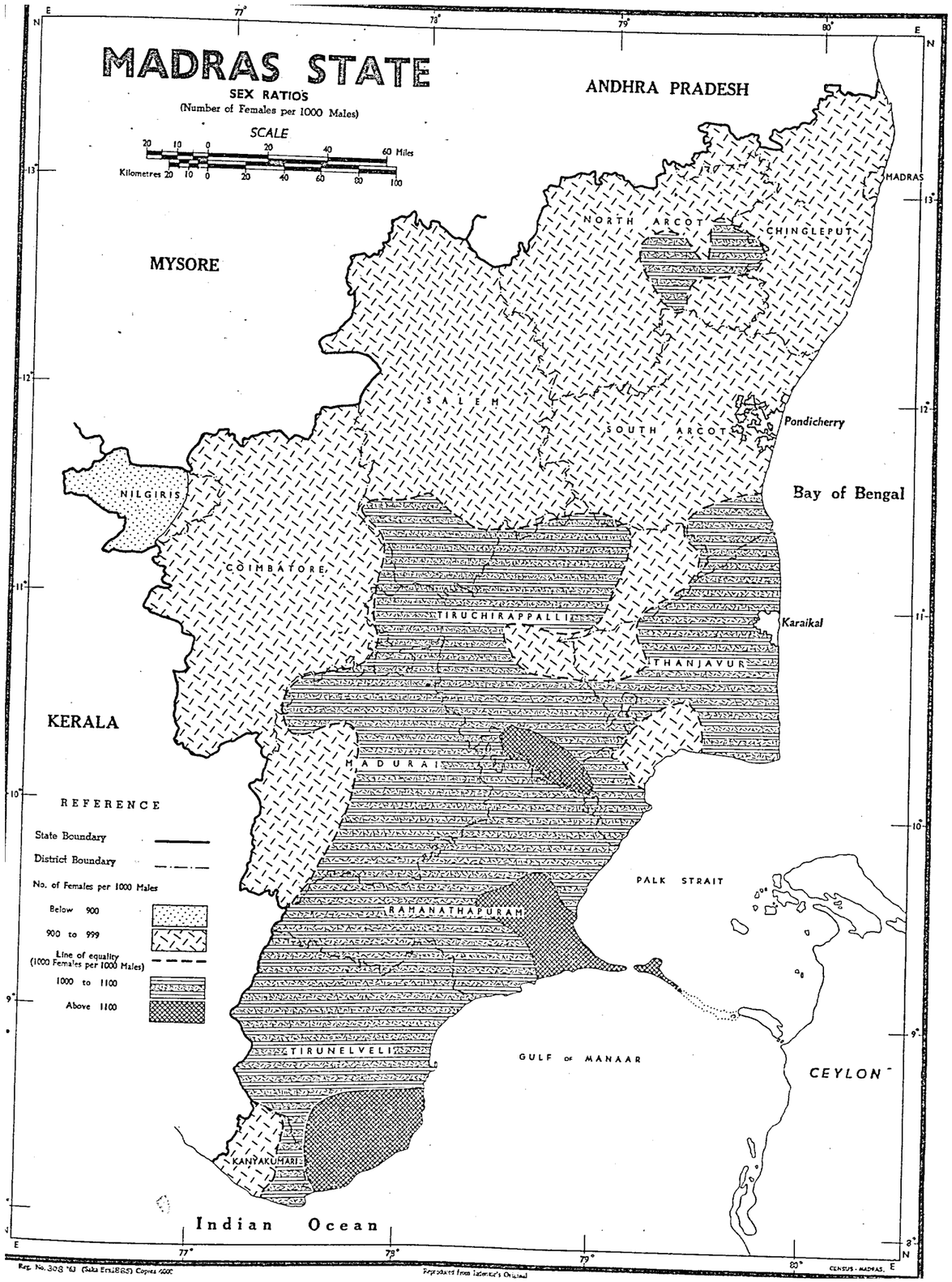
There are only three taluks in the extreme south with a sex ratio above 1100 and they are Ramanathapuram taluk (1120), Nanguneri (1104) and Tiruchendur (1141) taluks of Tirunelveli district.

TABLE

Rank	District	Sex Ratio
	MADRAS STATE	992
1.	Ramanathapuram	1060
2.	Tirunelveli	1053
3.	Thanjavur	1016
4.	Tiruchirapalli	1008
5.	Madurai	998
6.	North Arcot	989
7.	South Arcot	984
8.	Kanyakumari	979
9.	Salem	977
10.	Coimbatore	965
11.	Chingleput	960
12.	Nilgiris	914
13.	Madras	901

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 28

CHANGING PATTERN OF SEX RATIO 1951

MAP 28

CHANGING PATTERN OF SEX RATIO

1951

PURPOSE

This map shows the number of females per 1,000 males in the taluks of Madras State in 1951.

METHOD

The sex ratios have been grouped into four categories:- less than 900, 901-1,000, 1,001-1,100 and above 1,100. The taluks have then been shaded by four grades of hatching.

SALIENT FEATURES

In 1951, the sex ratio of Madras State was 1,007. The highest sex ratio of 1,199 was recorded in Ramanathapuram taluk and the lowest sex ratio of 851 was recorded in Gudalur taluk. Only two taluks recorded sex ratio below 900 and they are Ootacamund and Gudalur both in Nilgiris district. Madras City and 41 taluks recorded sex ratio between 901 and the parity ratio of 1,000. A glance at the map indicates that most of the northern part of the State except for a small pocket in North Arcot district, have recorded less than 1,000.

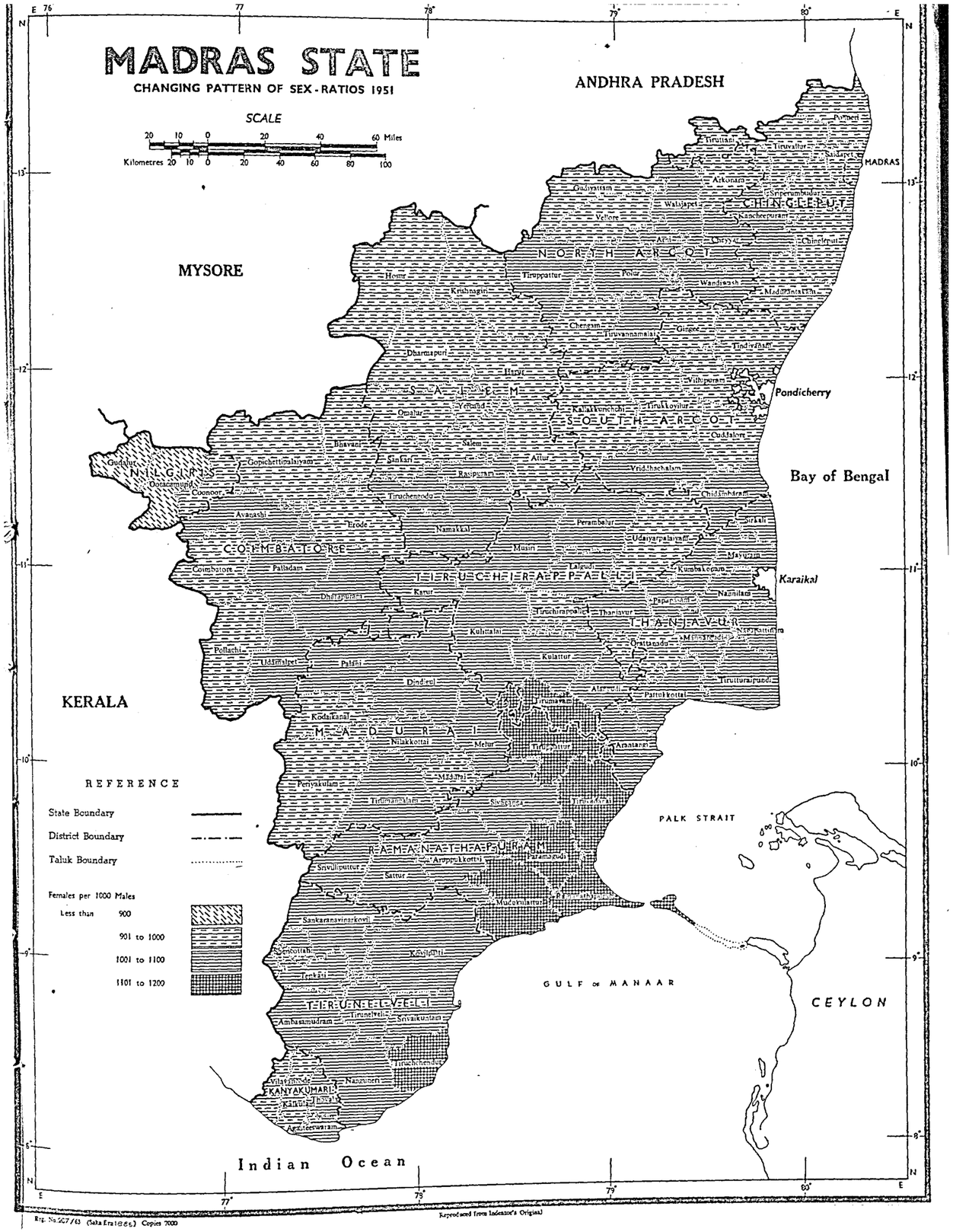
Seven out of eight taluks of Chingleput district, six out of eight taluks of South Arcot district, nine out of 12 of Salem district are the important areas of sex ratio below 1,000.

Most of the southern portion of the State have recorded ratio above 1,000 but a significant exception is noticed in the southern most part where Vilavancode and Kalkulam taluks of Kanyakumari district record sex ratio below 1,000.

In 52 taluks, the sex ratio ranges between 1,001-1,100 and in seven taluks the ratio is above 1,100. All the taluks of Tirunelveli and Ramanathapuram districts have recorded sex ratio above 1,000.

SOURCE

Census of India, 1961, Madras State—District Census Handbooks.



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MAP 29

CHANGING PATTERN OF SEX RATIO 1961

MAP 29

CHANGING PATTERN OF SEX RATIO

1961

PURPOSE

This map shows the number of females per 1,000 males in the various taluks of Madras State. The previous map refers to 1951 whereas this map refers to 1961.

METHOD

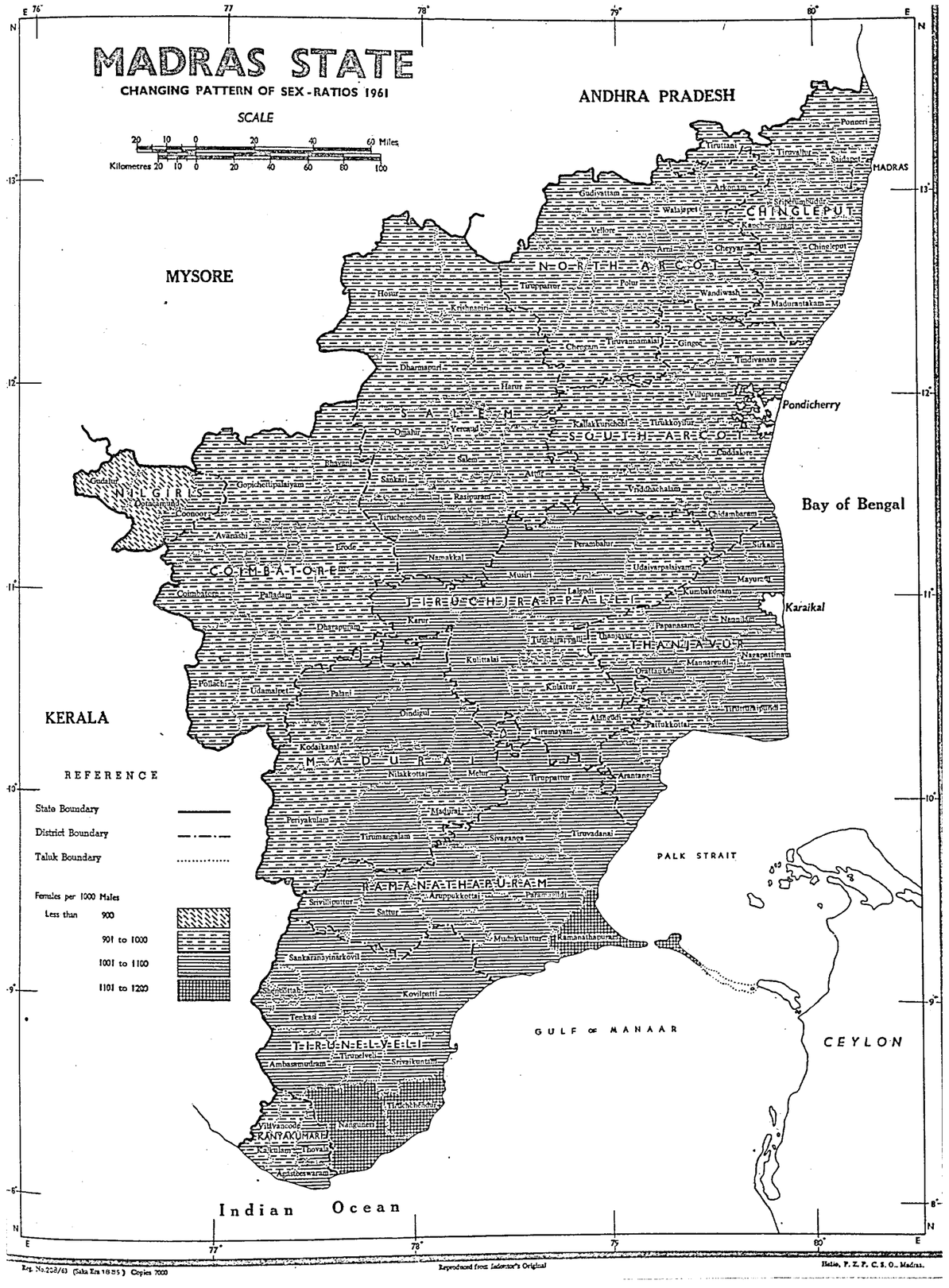
The sex ratios have been grouped into four categories—two below and two above the parity ratio of 1,000 females per 1,000 males. The taluks have then been hatched by four different shades.

SALIENT FEATURES

The sex ratio of Madras State in 1961 is 992. Compared to 1951 as reflected in the previous map, the pattern of sex ratio has considerably changed between 1951 and 1961. Unlike in 1951 when there was a small pocket of high sex ratio in the midst of a large area with sex ratio below 1,000 in the northern part of the State, in 1961, the northern portion is distinctively without exception an area of low sex ratio. From Madras city in the east to Gudalur in west covering the whole of Chingleput, North Arcot, Coimbatore, Nilgiris and most of the areas of South Arcot and Salem districts, the sex ratio is below 1,000. Cheyyar, Alangudi and Kulathur taluks have sex ratio of 1,000 In 1961 the number of taluks with sex ratio less than 1,000 is larger than the number of taluks with sex ratio above 1,000 whereas in 1951 the reverse was the position.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 30

SEX RATIO IN RURAL POPULATION 1961

MAP 30

SEX RATIO IN RURAL POPULATION 1961

PURPOSE

This map shows the number of females per 1,000 males in the rural areas of the taluks of Madras State.

METHOD

The talukwise ratios have been grouped in to four categories and the taluks have been shaded by four shades of hatching ranging from high to low.

SALIENT FEATURES

There are 1,003 females per 1,000 males in the rural areas of Madras State. There are only two taluks which have recorded a sex ratio less than 900 and they are Gudalur and Ootacamund, both in Nilgiris district.

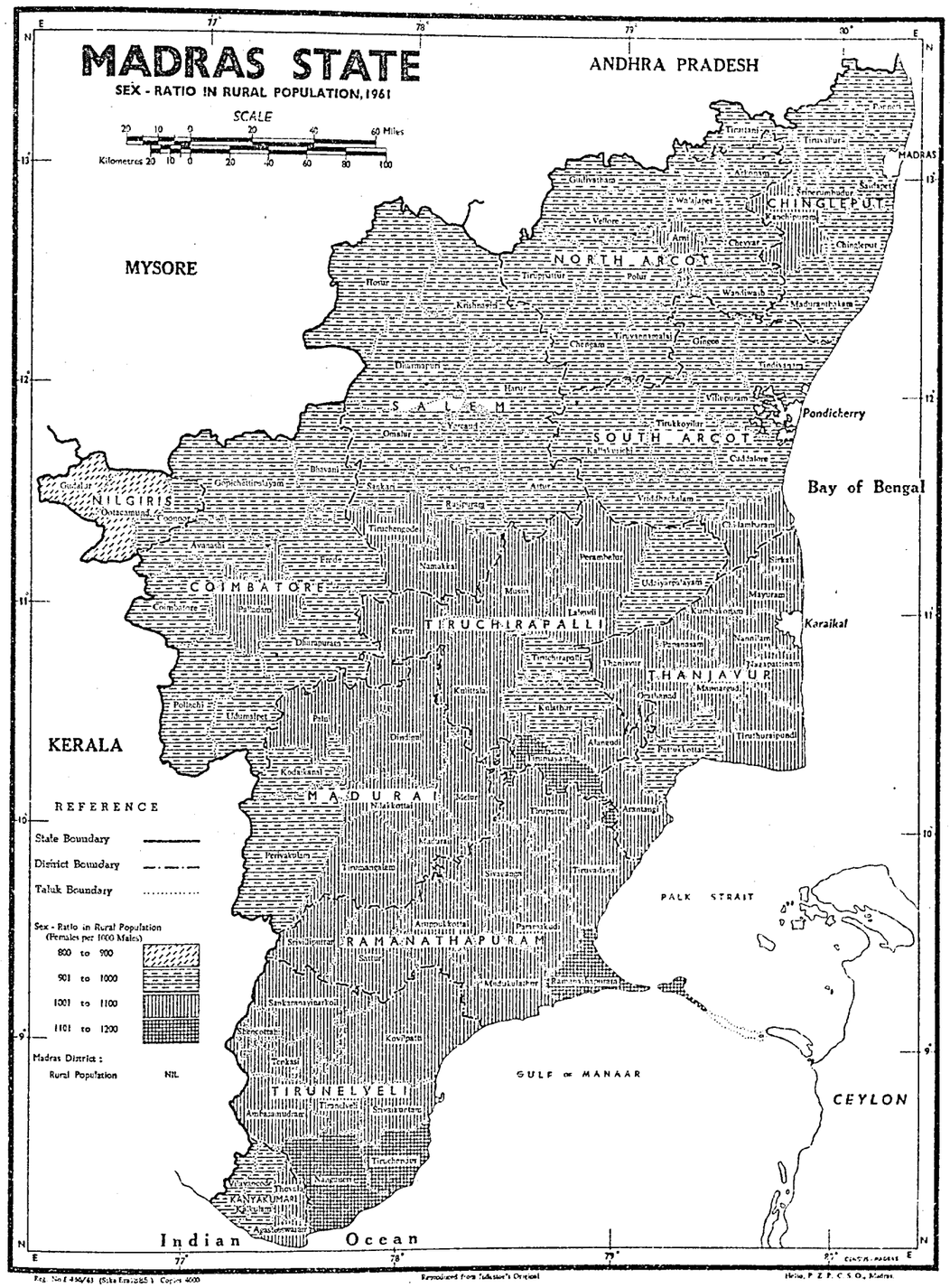
Fifty one taluks have a sex ratio ranging between 901 and 1,000. Ramanathapuram and Tirunelveli districts do not have any taluk with a sex ratio less than 1,000. Thanjavur district has only one taluk, Pattukottai, and Madurai district has two taluks, Kodaikanal and Periakulam with sex ratio less than 1,000.

Forty six taluks have sex ratio between 1,001 and 1,100. Only Nilgiris District does not have any taluk with sex ratio above 1,000. Chingleput, North Arcot, South Arcot and Coimbatore districts have only one taluk each in this range. They are Kancheepuram, Arni, Chidambaram and Palladam respectively. Salem and Kanyakumari districts have two taluks each with sex ratio between 1,001 and 1,100. The taluks are Tiruchengode and Namakkal in Salem district and Thovala and Agastheeswaram in Kanyakumari district.

Only four taluks have recorded very high sex ratio of above 1,100. They are Tirumayam taluk in Tiruchirapalli district, Ramanathapuram taluk in Ramanathapuram district and Nanguneri and Tiruchendur taluks in Tirunelveli district.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



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MAP 31

SEX RATIO IN URBAN POPULATION 1961

MAP 31

SEX RATIO IN URBAN POPULATION 1961

PURPOSE

This map shows the number of females per 1,000 males in the urban areas of the taluks of Madras State.

METHOD

The sex ratio has been classified into five categories and the taluks have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

There are 963 females per 1,000 males in the urban areas of Madras State. Very low sex ratio of less than 900 is observed in Sriperumbudur, Coimbatore, Gudalur and Orthanad taluks.

Sixty four taluks have sex ratio ranging between 901 and 1,000. In all the districts except Thanjavur, Ramanathapuram and Tirunelveli, large number of taluks are represented in this range. In Thanjavur district only three taluks—Sirkali, Thanjavur and Arantangi fall under this range. Sivaganga and Sattur taluks of Ramanathapuram district and Kovilpatti and Srivaikuntam taluks of Tirunelveli district belong to this range having a sex ratio of 901-1,000. In Kanyakumari district only three taluks have urban areas and all the three belong to this range.

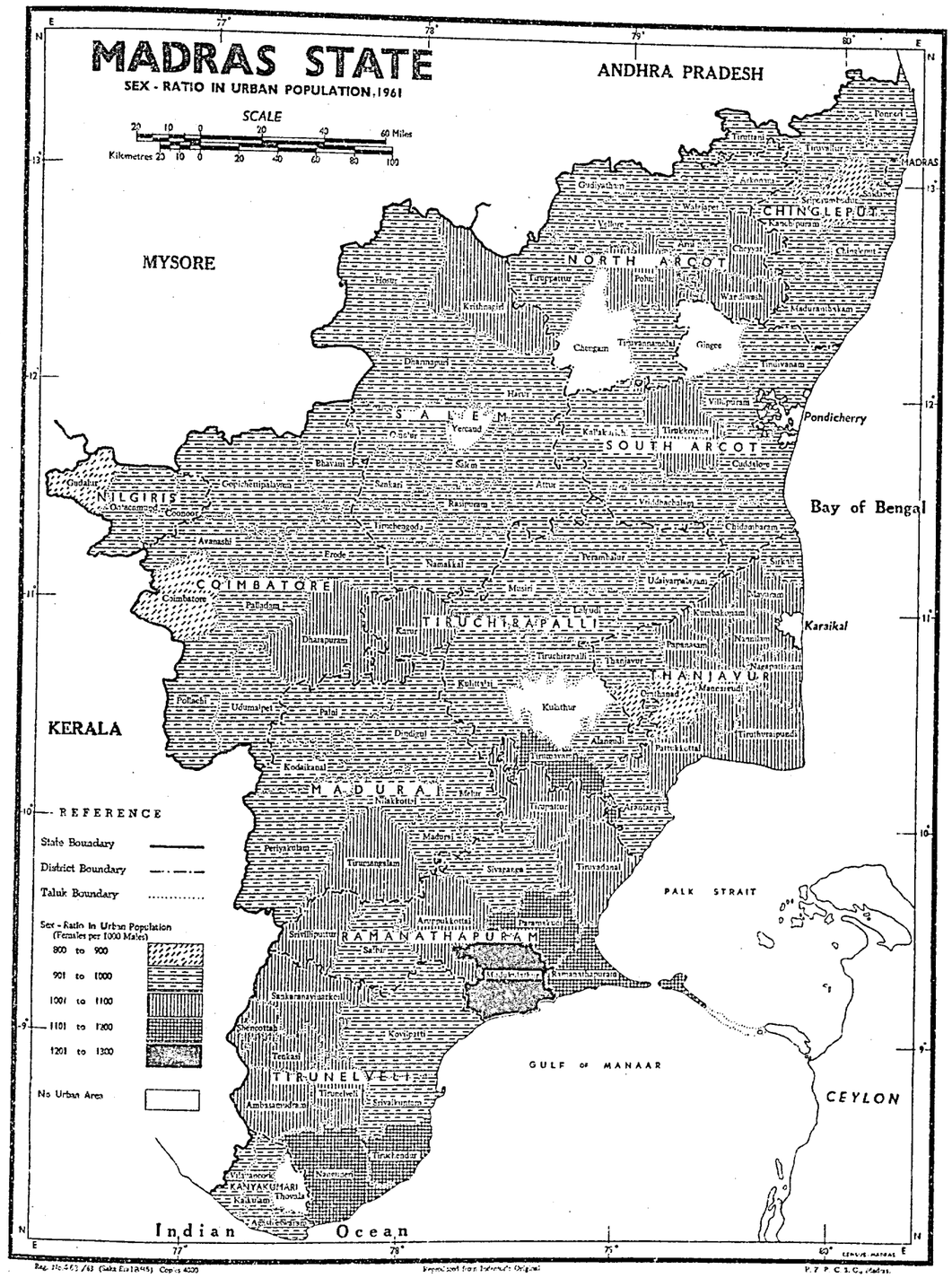
There are 25 taluks with a sex ratio ranging between 1,001 and 1,100. Chingleput, Nilgiris and Kanyakumari districts do not have any taluk coming under this range. South Arcot, Salem, Coimbatore, Madurai and Tiruchirapalli districts have each one taluk with a sex ratio of 1,001-1100. Thanjavur district is represented by as many as eight taluks. Ramanathapuram district has four and Tirunelveli district has five taluks.

There are five taluks with sex ratio ranging between 1,100 and 1,200. Of these five, three are coastal taluks—Nanguneri, Tiruchendur and Ramanathapuram and the other two taluks are Paramakudi and Tirumayam.

Only Mudukulathur taluk of Ramanathapuram district has an abnormal sex ratio of 1258.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



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MAP 32

SEX AND AGE STRUCTURE 1961

MAP 32

SEX AND AGE STRUCTURE 1961

PURPOSE

This map indicates the percentage of males and females in each of the ten age groups in to which the population has been divided.

METHOD

The ten age groups which have been adopted for this map are :— 0-4, 5-9, 10-14, 15-19, 20-24, 25-29, 30-34, 35-44, 45-59, and 60+. These ten age groups have been classified in to five categories.

(i) Infants (0-4)

(ii) Boys and girls (5-14)

(iii) Young men and women (15-34)

(iv) Middle aged men and women (35-59)

(v) Old men and women (60+)

The data have been presented by pyramids for each district. A vertical column with age group figures inside it has been drawn and horizontal lines proportionate to the percentage figures have been drawn on either side of the vertical column for males and females.

SALIENT FEATURES

In Madras State 6.9% of the male population and 6.8% of the female population are infants. The highest percentage of infants is observed in Nilgiris district where male and female infants each constitute 7.6% of their respective population. The lowest percentage is in Coimbatore district where 6.4% of male and 6.3% of female population are infants. In only two districts—Chingleput and South Arcot, the percentage of female infants is higher than the percentage of male infants. In North Arcot, Nilgiris, Tiruchirapalli and Thanjavur districts the percentage among males and females is equal and in the remaining seven districts male infants exceed female infants.

Boys and girls who belong to the age group 5-14, constitute 12.1% and 11.8% respectively. Nilgiris district records the highest percentage of both boys and girls - the former accounting for 13.2% and the latter 12.9%. The lowest percentge is recorded in Tiruchirapalli district where boys form 11.4% and girls form 11.2% of the respective total population. In all the districts the percentage of females in the age group 5-14 is less than the percentage of males in the same age group.

The third category relates to young men and women of the age group 15-34. 16.1% of males and 16.9% of females belong to this category. The highest percentage is 19.6% among males and 18.0% among females in Madras city.

Among males the lowest percentage is 14.8 in Tirunelveli district and among the females the lowest is 15.9% in Kanyakumari district. In only three districts the percentage among females is less than the percentage among males. These three districts are Madras, Coimbatore and Nilgiris. In all the other districts, the percentage of females is higher than that of males.

12.3% of males and 11.5% of females are middle aged i. e. in the age group 35—59. The highest percentage among males is 13.0 in Tiruchirapalli district and the highest percentage among females is 12.5 in Ramanathapuram district.

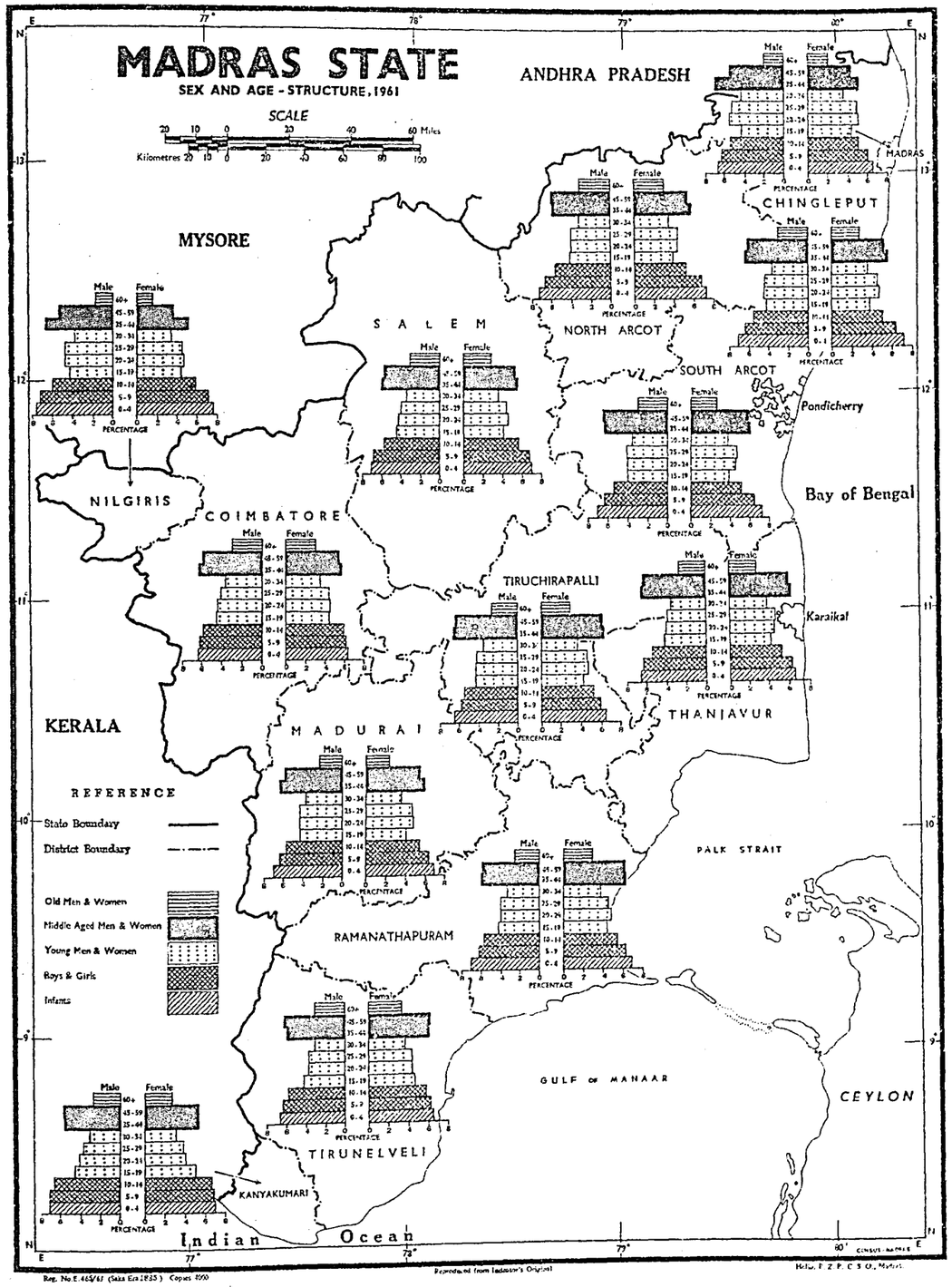
In all the districts except Ramanathapuram and Tirunelveli, the percentage among females is less than the percentage among males.

Old men and women who are above 60 years of age form 2.8% of their respective total population. The highest percentage of old men is 3.2 in North Arcot district and the lowest is 1.7 in Nilgiris district. Among women, the highest percentage is 3.3 in Tirunelveli district and the lowest is 1.5 in Nilgiris district.

In the contiguous disiricts of Madurai, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli, the percentage of old women is higher than the percentage of old men

SOURCE

Census of India, 1961, Madras State—Part II-C (i) Cultural Tables.



MAP 33

YOUTHFULNESS OF POPULATION

MAP 33

YOUTHFULNESS OF POPULATION

PURPOSE

This map shows the districtwise percentage of population in the age group 5-14 to the total district population.

METHOD

The percentages have been grouped into five categories—two below and three above the state average. The districts have then been shaded into five ranges of hatching from high to low.

SALIENT FEATURES

Out of a total population of 33,686,953, the number of persons in the age group 5-14 is 8,057,402. i.e. 23.92% of the population are in the age group 0-14.

The districtwise pattern indicates that the percentage ranges between 22.66 in Tiruchirapalli district and 27.14 in Kanyakumari district. Tiruchirapalli and Madras belong to one category recording the lowest percentage. Maximum number of districts are found in the second range 23.01%—24.00% under which come the five districts of South Arcot, Chingleput, Thanjavur, Madurai and Ramanathapuram.

Thus seven districts have recorded percentages below the state average.

Four districts: Tirunelveli, Coimbatore, North Arcot and Salem belong to the group 24.01%—25.00%.

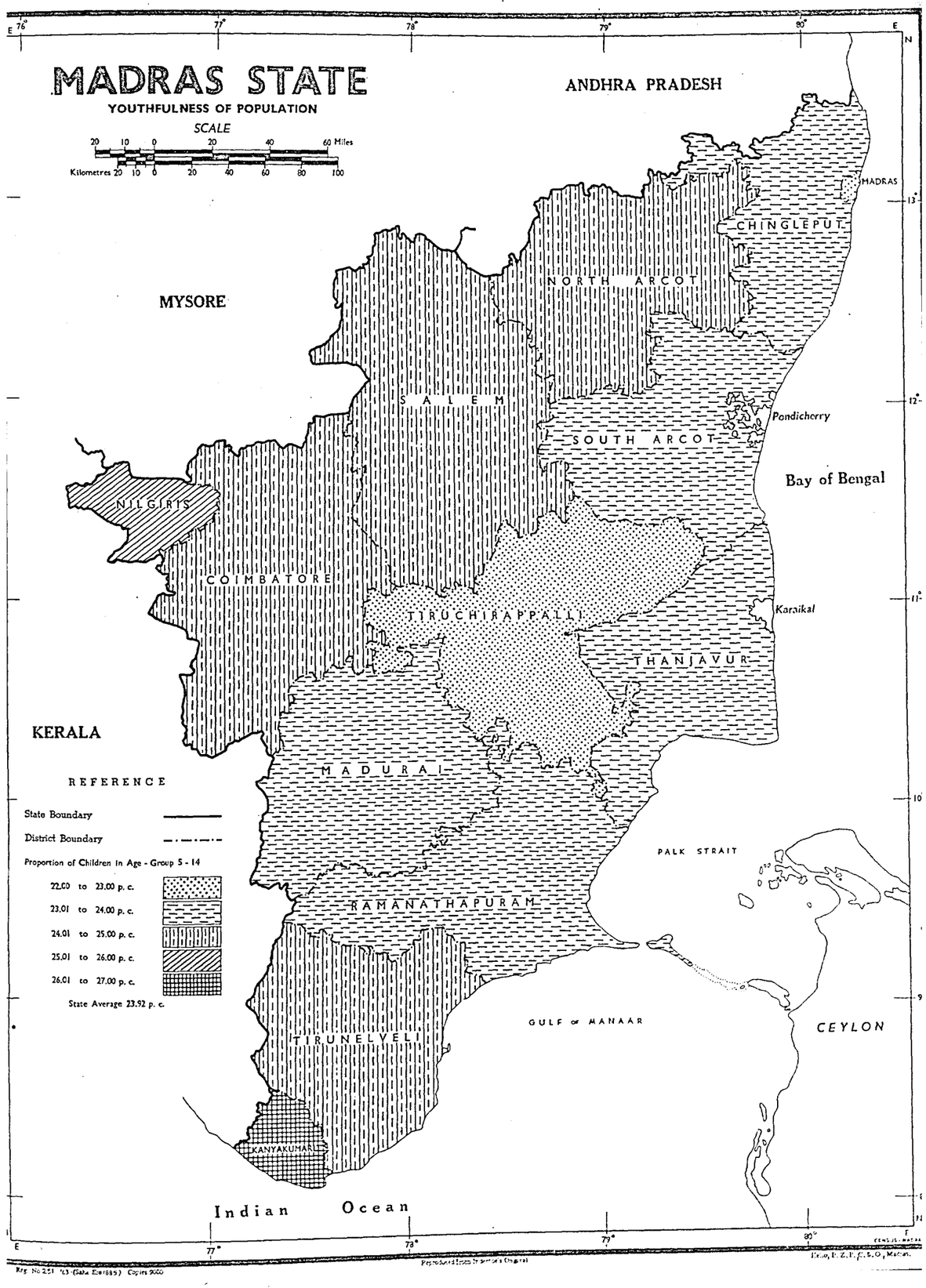
Kanyakumari district which has the maximum percentage of 27.14 is followed by Nilgiris with 26.08%.

TABLE

Rank	District	Percentage
	MADRAS STATE	23.92
1.	Kanyakumari	27.14
2.	Nilgiris	26.08
3.	Salem	24.99
4.	North Arcot	24.44
5.	Coimbatore	24.10
6.	Tirunelveli	24.06
7.	Madurai	23.99
8.	Ramanathapuram	23.57
9.	Thanjavur	23.41
10.	Chingleput	23.38
11.	South Arcot	23.33
12.	Madras	22.99
13.	Tiruchirapalli	22.66

SOURCE

Census of India, 1961, Madras State, Part II-B Economic Tables.



MAP 34

PERCENTAGE OF MALE POPULATION OF AGE GROUP 15—59

TO THE TOTAL MALE POPULATION 1961

MAP 34

PERCENTAGE OF MALE POPULATION OF AGE GROUP 15—59 TO THE TOTAL MALE POPULATION 1961

PURPOSE

This map shows the percentage of male population in the age group 15-59 to the total male population. In otherwords, it shows the total available working force among the male population.

METHOD

Circle has been drawn for each district, proportionate to its total male population and the percentage of male population in the age group 15-59 is indicated in each circle. The percentages of male population in the age group 15-59 to total male population have been grouped into six categories—three above and three below the state average. The districts are shaded by six grades of hatching ranging from high to low.

SALIENT FEATURES

In Madras State out of the total 16,910,978 male population, 56.7% belong to this age group 15-59. Seven districts have recorded average above the state average of 56.7%. They are Madras, Chingleput, Coimbatore, Nilgiris, Madurai, Thanjavur and Tiruchirapalli. Madras has recorded the highest percentage of 61.0.

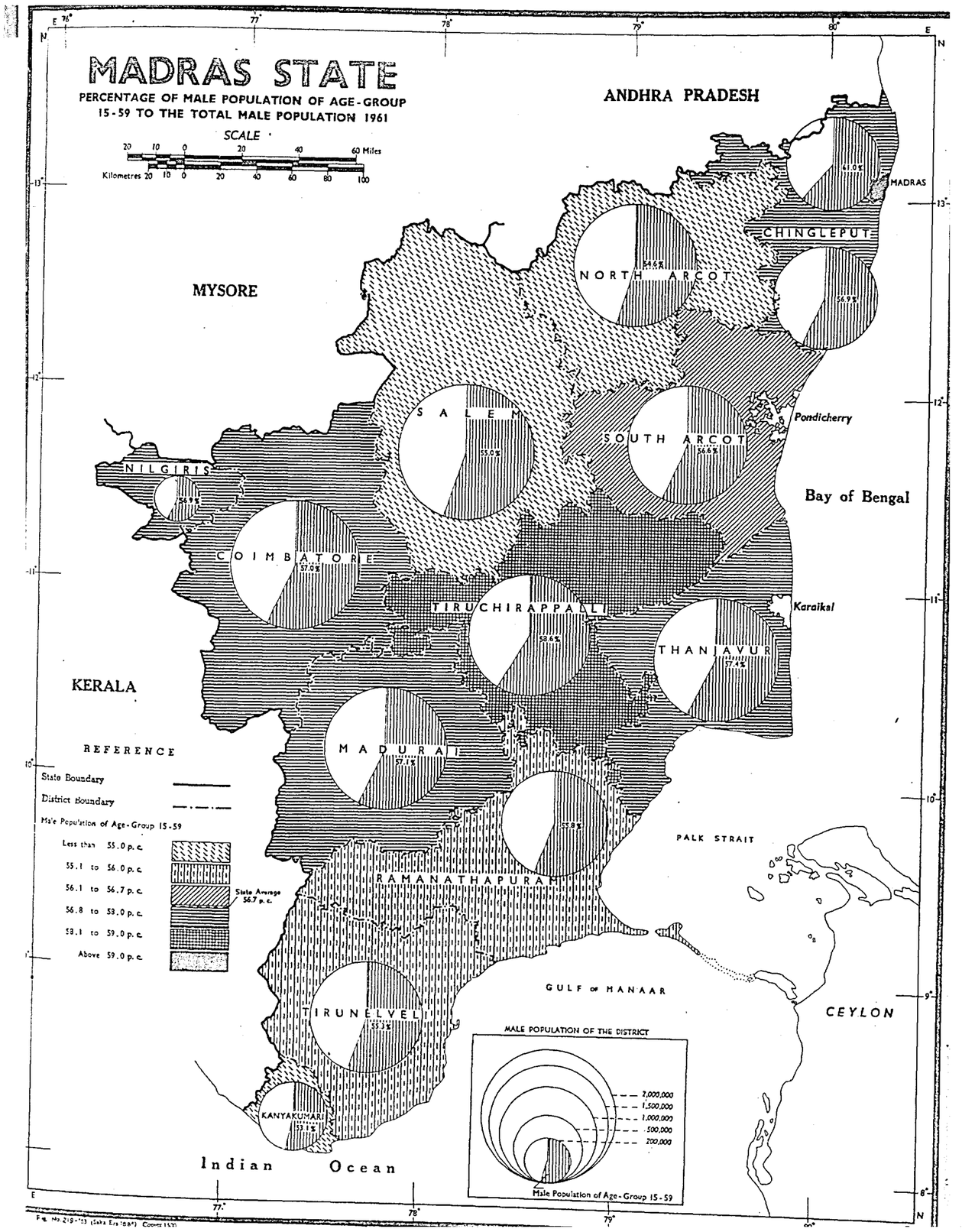
The lowest percentage is 53.1 recorded in Kanyakumari district. North Arcot, Salem, Ramanathapuram and Tirunelveli have recorded percentages lower than the State average. South Arcot has 56.6%, only very slightly below the state average. On the whole, the districtwise variation is not high; the difference in percentages between the highest and the lowest is only 7.9.

TABLE

Rank	District	Percentage
	MADRAS STATE	56.7
1.	Madras	61.0
2.	Tiruchirapalli	58.6
3.	Thanjavur	57.4
4.	Madurai	57.1
5.	Coimbatore	57.0
6.	Nilgiris	56.9
7.	Chingleput	56.9
8.	South Arcot	56.6
9.	Ramanathapuram	55.8
10.	Tirunelveli	55.3
11.	Salem	55.0
12.	North Arcot	54.6
13.	Kanyakumari	53.1

SOURCE

Census of India, 1961, Madras State, Part II-B Ecnomic Tables.



MAP 35

PERCENTAGE OF FEMALE POPULATION OF AGE GROUP 15—59

TO THE TOTAL FEMALE POPULATION 1961

MAP 35

PERCENTAGE OF FEMALE POPULATION OF AGE GROUP 15—59 TO THE TOTAL FEMALE POPULATION 1961

PURPOSE

This map shows the percentage female population in the age group 15-59 to the total female population. In otherwords, it shows the total available working force among the female population.

METHOD

Circles has been drawn for each district proportionate to its total female population and the percentage of females in the age group 15-59 is indicated within each circle.

The percentages of female population in the age group 15—59 to total female population have been grouped into six categories—two above and four below the state average. The districts are shaded by six grades of hatching ranging from high to low.

SALIENT FEATURES

About 56.9% of the total female population is in the age group 15-59 which is very close to the corresponding percentage of male population in this age group. The variation between the highest and the lowest is only 5.5. The lowest percentage is 53.4 at Kanyakumari district and the highest is 58.9% at Tiruchirapalli district. Five districts have recorded percentages below 56.9 and six above this state average. Two districts South Arcot and Coimbatore have percentages equal to state average.

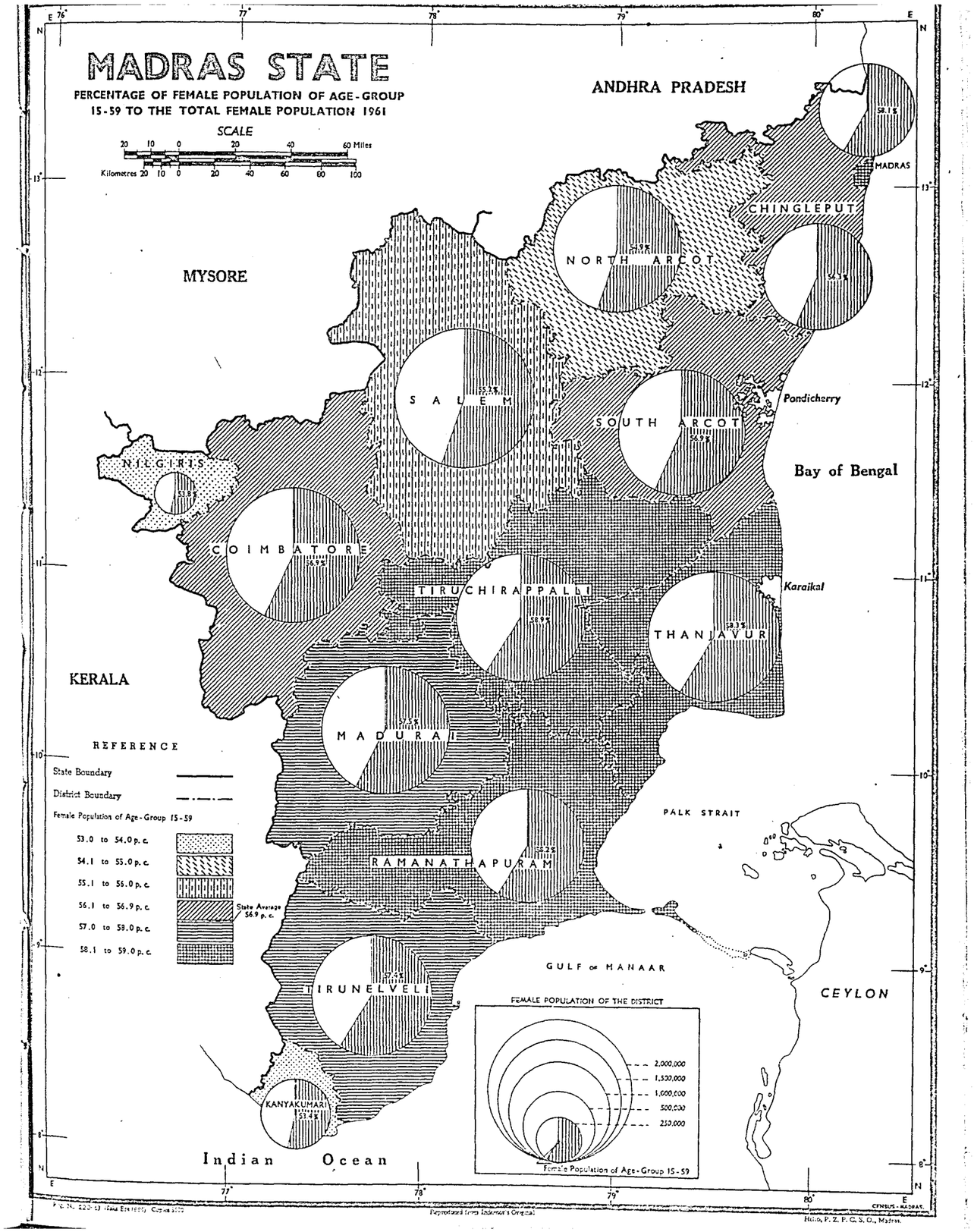
A glance at the map indicates that three contiguous districts of Tiruchirapalli, Thanjavur and Ramanathapuram have recorded high percentages thereby indicating availability of maximum female labour force.

TABLE

Rank	District	Percentage
	MADRAS STATE	56.9
1.	Tiruchirapalli	58.9
2.	Thanjavur	58.3
3.	Ramanathapuram	58.2
4.	Madras	58.1
5.	Madurai	57.5
6.	Tirunelveli	57.4
7.	Coimbatore	56.9
8.	South Arcot	56.9
9.	Chingleput	56.3
10.	Salem	55.2
11.	North Arcot	54.9
12.	Nilgiris	53.8
13.	Kanyakumari	53.4

SOURCE

Census of India, 1961, Madras State, Part II-B Economic Tables.



MAP 36

PERCENTAGE OF RURAL MALE POPULATION OF AGE GROUP 15—59

TO THE TOTAL RURAL MALE POPULATION 1961

MAP 36

PERCENTAGE OF RURAL MALE POPULATION OF AGE GROUP 15—59 TO THE TOTAL RURAL MALE POPULATION 1961

PURPOSE

This map shows the percentage of male population in the age group 15-59 to the total rural male population in each district.

METHOD

Circle has been drawn for each district proportionate to total rural male population. The percentage of males in the age group 15-59 has been indicated in each circle. The data are grouped into five categories—two above and three below the State average. The districts are then shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

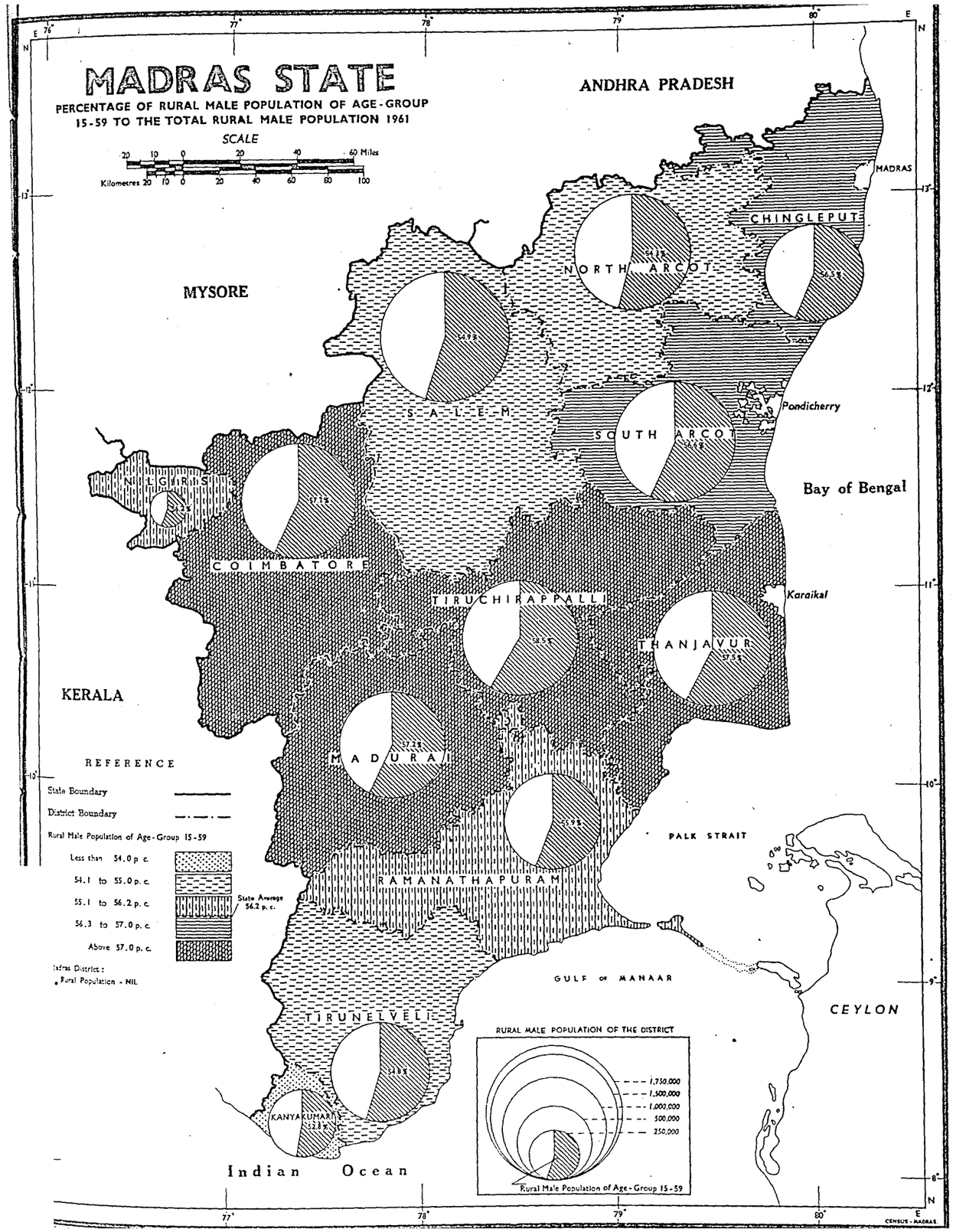
The State average is 56.2% and the lowest percentage is 52.8% in Kanyakumari district and the highest is 58.5% in Tiruchirapalli district. Six districts have percentages less than the state average and six districts have percentages above the state average. The map indicates that high percentage is recorded in contiguous districts. Coimbatore, Madurai, Tiruchirapalli and Thanjavur follow uniform pattern. Similarly Chingleput and South Arcot districts also follow uniform pattern and North Arcot and Salem belong to another pattern. On the whole the variation between one district and another is not high.

TABLE

Rank	District	Percentage
	MADRAS STATE	56.2
1.	Tiruchirapalli	58.5
2.	Thanjavur	57.5
3.	Madurai	57.2
4.	Coimbatore	57.2
5.	South Arcot	56.6
6.	Chingleput	56.5
7.	Nilgiris	56.2
8.	Ramanathpuram	55.9
9.	Salem	54.9
10.	Tirunelveli	54.8
11.	North Arcot	54.3
12.	Kanyakumari	52.8

SOURCE

Census of India, 1961, Madras State, Part II-B Economic Tables.



MAP 37

PERCENTAGE OF FEMALE RURAL POPULATION OF AGE GROUP 15—59

TO THE TOTAL RURAL FEMALE POPULATION 1961

MAP 37

PERCENTAGE OF FEMALE RURAL POPULATION OF AGE GROUP 15—59 TO THE TOTAL RURAL FEMALE POPULATION 1961

PURPOSE

This map shows the percentage of female population of the age group 15-59 to total rural female population in each district.

METHOD

Circle has been drawn for each district proportionate to its rural female population. The percentage of females in the age group 15—59 is indicated in each circle. The data are grouped into five categories—two above and three below the state average. The districts are then shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

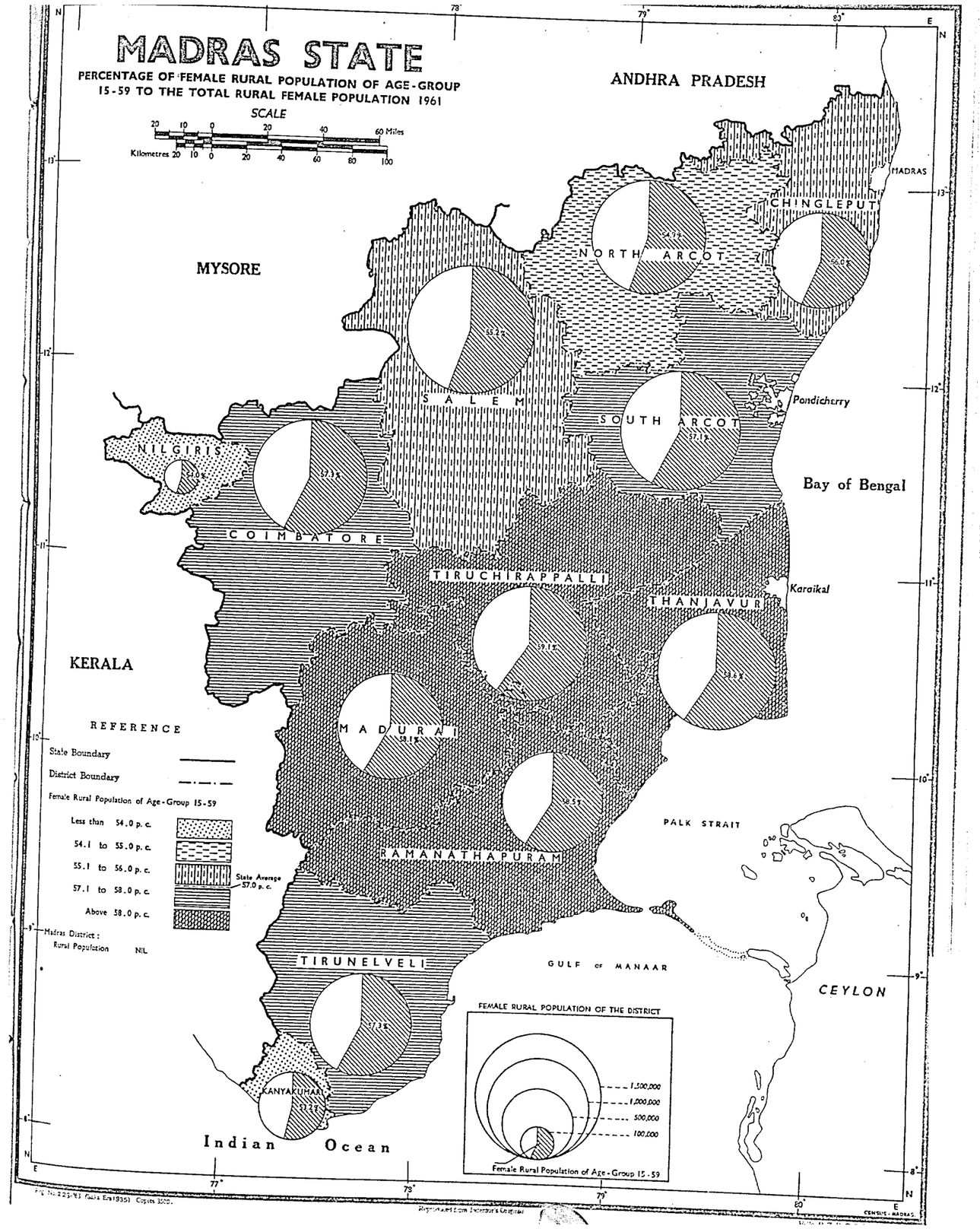
About 57% of rural female population belong to this age group 15-59 and the variation from one district to another ranges between 53.2% and 59.1%. The lowest percentage (53.2) is recorded in Kanyakumari district and the highest percentage (59.1) is in Tiruchirapalli district. Five districts: Kanyakumari, Nilgiris, North Arcot, Chingleput and Salem come below the state average, while the following seven districts—South Arcot, Coimbatore, Tirunelveli, Madurai, Tiruchirapalli, Thanjavur and Ramanathapuram come above it. It is seen that the highest percentage is concentrated in contiguous districts such as Madurai, Tiruchirapalli, Thanjavur and Ramanathapuram districts.

TABLE

Rank	District	Percentage
	MADRAS STATE	57.0
1.	Tiruchirapalli	59.1
2.	Thanjavur	58.6
3.	Ramanathapuram	58.5
4.	Madurai	58.1
5.	Tirunelveli	57.3
6.	Coimbatore	57.3
7.	South Arcot	57.1
8.	Chingleput	56.0
9.	Salem	55.2
10.	North Arcot	54.9
11.	Nilgiris	54.0
12.	Kanyakumari	53.2

SOURCE

Census of India, 1961, Madras State, Part II-B Economic Tables.



MAP 38

PERCENTAGE OF URBAN MALE POPULATION OF AGE GROUP 15—59

TO THE TOTAL MALE URBAN POPULATION 1961

MAP 38

PERCENTAGE OF URBAN MALE POPULATION OF AGE GROUP 15—59

TO THE TOTAL MALE URBAN POPULATION 1961

PURPOSE

This map shows the percentage of urban male population in the age group 15-59 to the total urban male population in each district.

METHOD

Circle has been drawn for each district proportionate to its total urban male population. The percentage of urban male population of age group 15-59 is indicated in each circle. The data are grouped into six categories—two above and four below the state average. The districts are then shaded by six grades of hatching ranging from high to low.

SALIENT FEATURES

The lowest percentage is 54.9 in Kanyakumari district and the highest is 61.0% in Madras. The next highest is 58.8% recorded in Tiruchirapalli district. Salem, North Arcot and Ramanathapuram districts come under the range 55.1% to 55.6%.

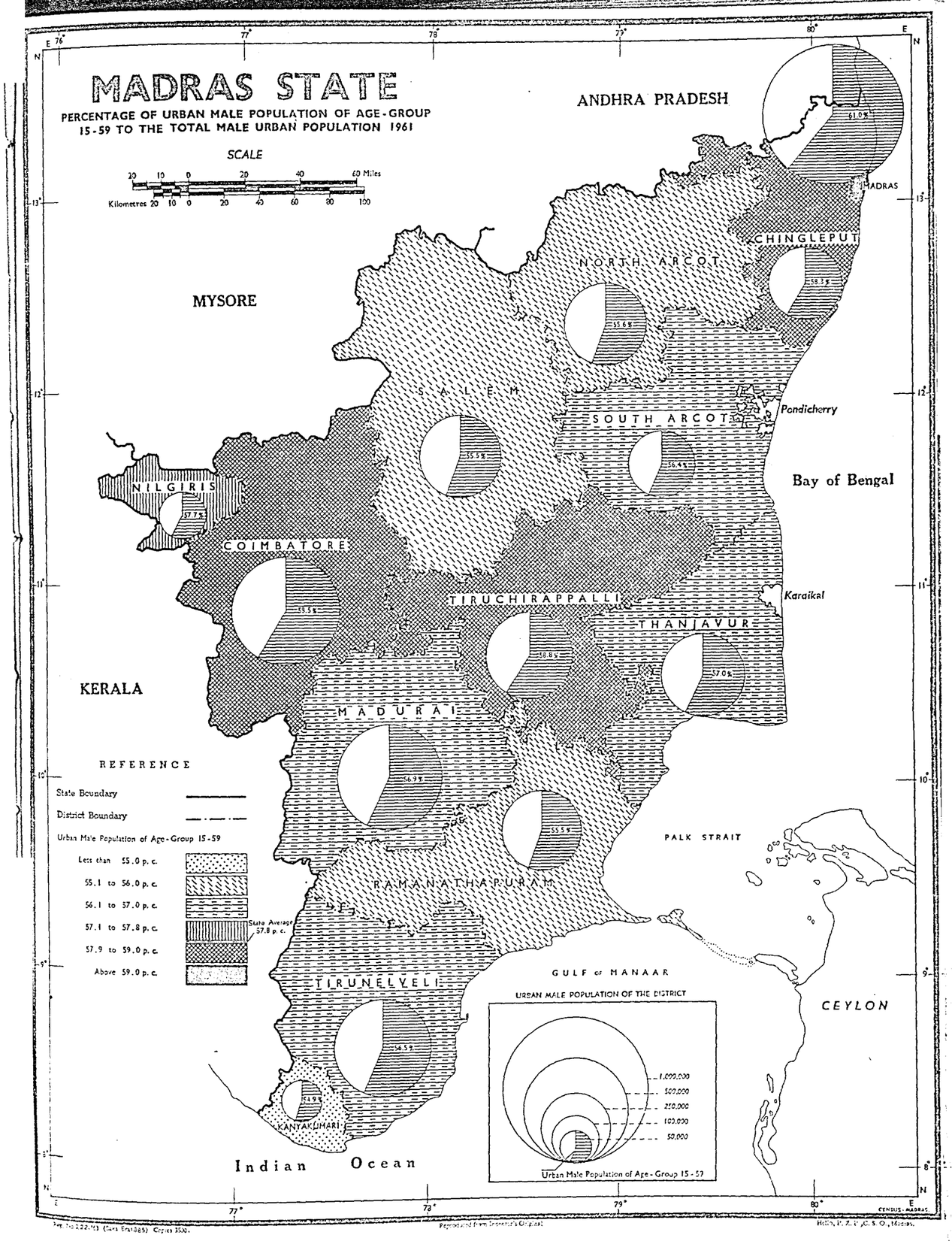
Nine districts have percentages less than the State average of 57.8 and four districts have percentages above the state average.

TABLE

Rank	District	Percentage
	MADRAS STATE	57.8
1.	Madras	61.0
2:	Tiruchirapalli	58.8
3.	Coimbatore	58.5
4.	Chingleput	58.3
5.	Nilgiris	57.7
6.	Thanjavur	57.0
7.	Madurai	56.9
8.	Tirunelveli	56.5
9.	South Arcot	56.4
10.	North Arcot	55.6
11.	Ramanathapuram	55.5
12.	Salem	55.5
13.	Kanyakumari	54.9

SOURCE

Census of India, 1961, Madras State, Part II-B Economic Tables.



MAP 39

PERCENTAGE OF FEMALE URBAN POPULATION OF AGE GROUP 15—59 TO THE TOTAL FEMALE URBAN POPULATION 1961

MAP 39

PERCENTAGE OF FEMALE URBAN POPULATION OF AGE GROUP 15—59 TO THE TOTAL FEMALE URBAN POPULATION 1961.

PURPOSE

This map shows the percentage of female population in the age group 15—59 to total female population in the urban areas of the districts of Madras State.

METHOD

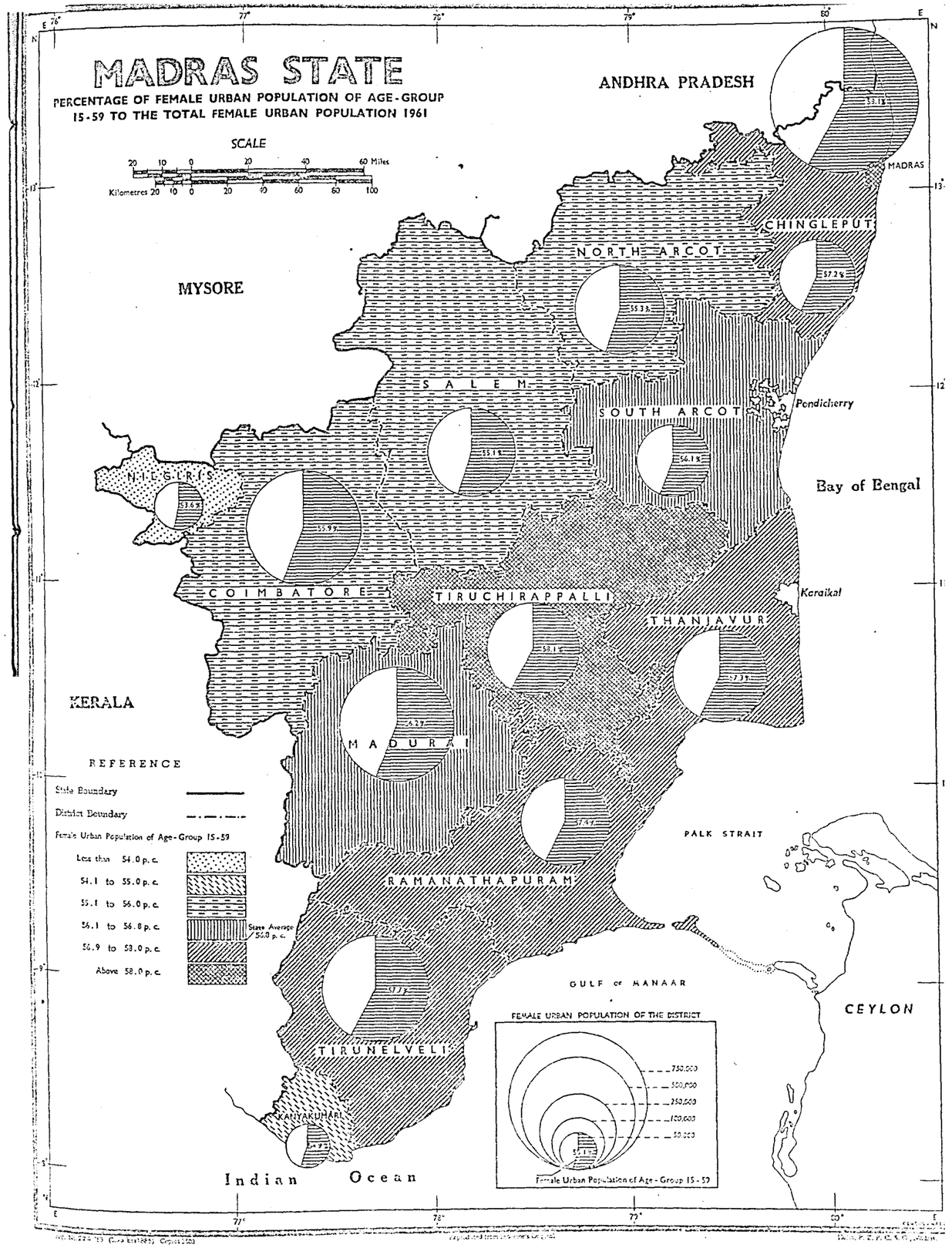
Circles proportionate to total urban female population have been drawn for each district and the shaded portion in each circle indicates population in the age group 15—59. The percentages have been grouped into six ranges—two above and four below the State average. The districts have been shaded by six grades of hatching ranging from high to low.

SALIENT FEATURES

Out of the total female urban population of 4,411,136 in Madras State, 2,506,222 or 56·8% belong to the age group 15—59. The highest percentage is 58.1 in Madras and Tiruchirapalli districts and the lowest is 53.6% in Nilgiris district. The variation between one district and another is very small. Six districts have percentage above the State average and seven districts below the State average. Of these six districts which have higher percentages than the State average, four districts—Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli form one continuous belt on the south eastern portion of the State.

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 40

RURAL AND URBAN POPULATION 1961

MAP 40

RURAL AND URBAN POPULATION 1961

PURPOSE

This map indicates the percentage of rural and urban population to the total population of each district. The map also indicates the distribution of urban population into two classes. (a) percentage of population living in towns with population of 20,000 and above (b) percentage of population living in towns with population below 20,000.

METHOD

Circles proportionate to total population have been drawn for each district and within each circle, population distribution among large and small towns have been shown in two different shades. The unshaded portion refers to rural population.

SALIENT FEATURES

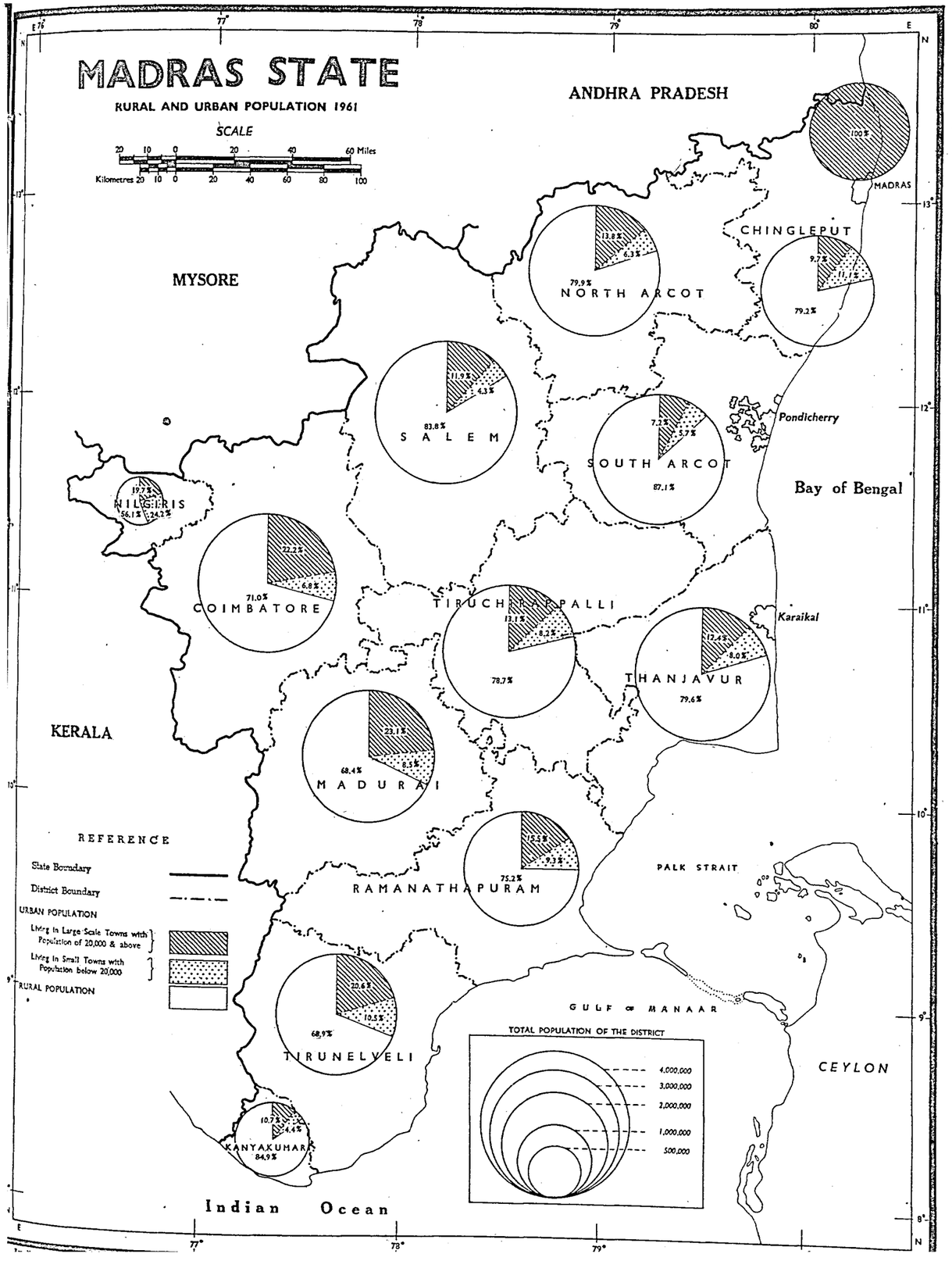
In 1961, the population of Madras State was about 33.68 millions of which 24.69 millions were rural and 8.99 millions were urban. About 26.69% of the total population reside in urban areas and 73.31% in rural areas. Urban population is distributed in all the districts. Madras district is fully urbanised. Excluding this district, the highest percentage of urban population is recorded in Nilgiris district (43.9%). Next to Nilgiris, Madurai district accounts for a high percentage of urban population (31.63%) followed by Tirunelveli district (31.05%). Only five districts have got an urban population above 26.69% which is the average for the state. These five districts are Madras, Nilgiris, Madurai, Coimbatore and Tirunelveli.

The lowest percentage is recorded in South Arcot district wherein urban population forms 12.87% of total population. Kanyakumari and Salem districts have comparatively low percentages of 15.05 and 16.23 respectively.

It is also seen from the map that in most of the districts the percentage of urban population living in towns of over 20,000 population is greater than the percentage of urban population living in towns with population less than 20,000. There are only two exceptions to this pattern. In Chingleput out of 20.8% of total urban population, 9.7% reside in towns with more than 20,000 population, while 11.1% live in smaller towns with population below 20,000. The other district is Nilgiris where the percentages are 19.7% for larger towns and 24.2% for smaller towns. The highest percentage of urban population living in larger towns is 23.1% in Madurai followed by Coimbatore with 22.2%. As regards population in towns with less than 20,000 the highest is Nilgiris with 24.2% of total population but the next highest is only 11.01% in Chingleput.

SOURCE

Census of India, 1961, Madras State, Part II-A General Population Tables.



MAP 41

PROGRESS OF URBANIZATION 1901—1961

MAP 41

PROGRESS OF URBANIZATION 1901—1961

PURPOSE

The changes since 1901 in population in each of the six classes of towns into which towns have been classified are indicated in this map.

METHOD

The towns have been broadly classified into six classes on the basis of population as follows :—

Class I —One lakh and over
Class II —50,000—99,999
Class III—20,000—49,999
Class IV—10,000—19,999
Class V — 5,000— 9,999
Class VI— Below 5,000

Seven histograms to represent seven censuses from 1901 have been drawn for each district and in each bar the six classes have been demarcated by different shades.

SALIENT FEATURES

338 places in Madras State were treated as towns in 1961 and the number in each class is as follows :

	1961	1951
Class I	9	7
Class II	19	11
Class III	62	56
Class IV	118	99
Class V	94	97
Class VI	36	27
	338	297

The differences in the number of towns and the consequent difference in population in each class between one census and another may arise from any of the following four causes : 1. movement of a town of a particular class to a different class 2. elevation of a formerly rural area to a township 3. elimination of places regarded as towns in earlier census 4. amalgamation of a number of satellite towns with big towns.

Madras City has been class I town continuously from 1901—1961. There has been no class I town in any of the censuses in Chingleput, South Arcot and Ramanathapuram districts. It appeared in Kanyakumari district and also in Tirunelveli district only in 1961. In North Arcot and Thanjavur districts there was no class I town prior to 1951. Apart from Madras, only in Madurai and Tiruchirapalli districts has there been a continuous existence of class I town since 1901.

Class II town has progressed considerably in Coimbatore and Ramanathapuram districts between 1951 and 1961. In Tirunelveli district there has been an irregular trend. In 1941 there was a fall in population living in this class of town but it increased in 1951 only to decline again in 1961. In Thanjavur district also population of Class II town declined in 1921 and increased again in 1941.

In Chingleput district class III town population in 1931 was less than that of 1901 and there were no class III towns in 1911, 1921 and 1941. In North Arcot district, class III town population declined in 1921 but thereafter maintained a steady increase. South Arcot district maintained a steady increase between 1911 and 1941 and registered a steep rise in 1951. In Salem, there was no class III town till 1951 while in Nilgiris it made its appearance only in 1931. In Thanjavur, Ramanathapuram and Tirunelveli it has maintained low but steady increase. In Kanyakumari district class III town existed only till 1931. Class V town population has declined gradually since 1941 in Chingleput, South Arcot, Ramanathapuram and Tirunelveli districts. In Salem and Thanjavur it has increased gradually from 1941 while in North Arcot, Madurai and Coimbatore it declined in 1951 only to increase again in 1961. In Tiruchirapalli the class V population increased upto 1951 and declined in 1961.

Towns with a population below 5,000 existed continuously from 1911 in Chingleput, Thanjavur and Tirunelveli districts and from 1921 —51 in Kanyakumari district. Till 1961, there was no class VI town in North Arcot and Nilgiris districts. In South Arcot there were two class VI towns in 1921. In Salem there was one town in 1911, 1921 and 1941 while in Coimbatore it existed in 1921 and 1961.

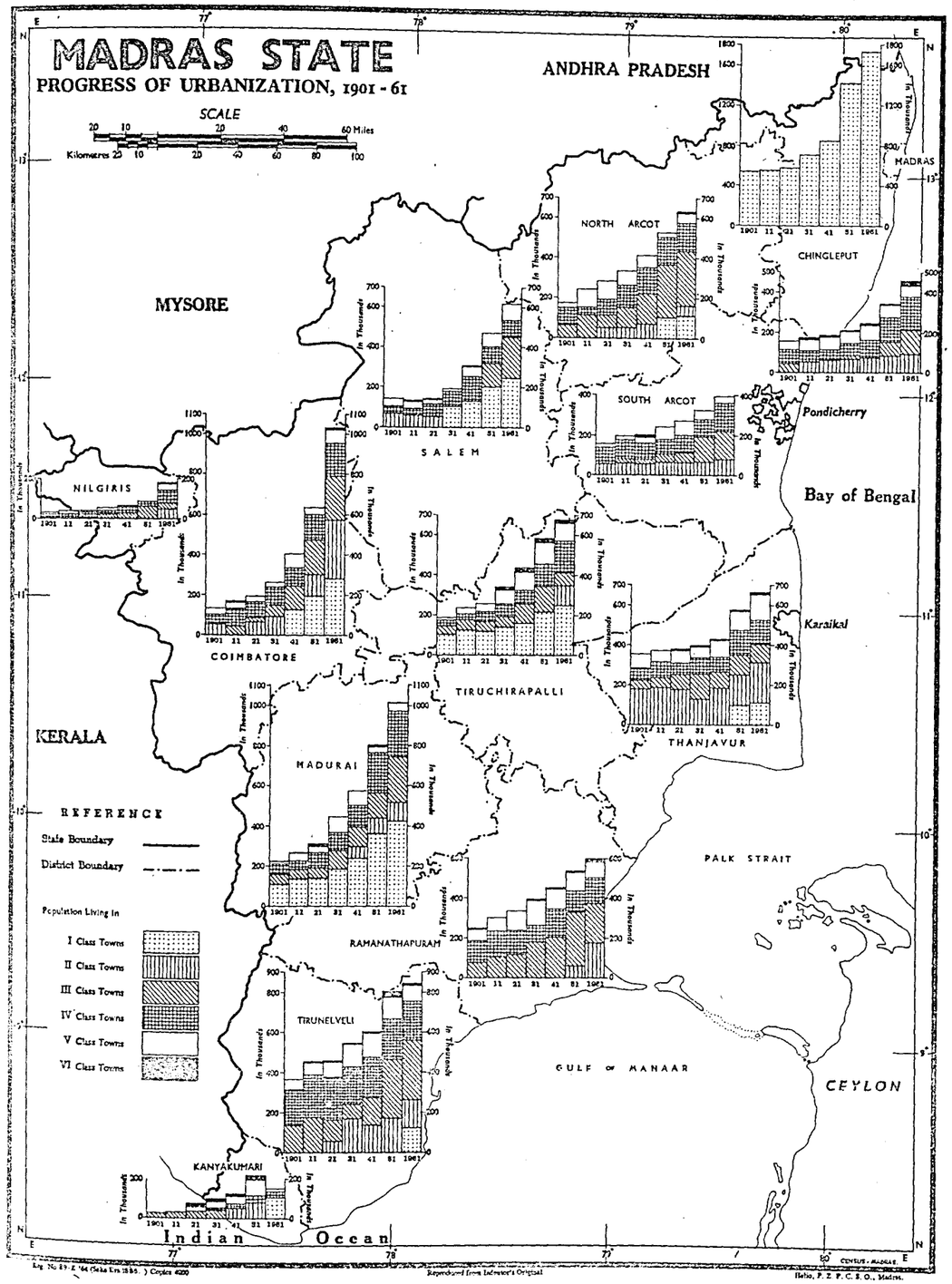
The statement below furnishes the percentage of population in each class to total urban population 1901—61.

	1961	1951	1941	1931	1921	1911	1901
I	37.8	35.5	29.3	26.9	24.4	25.8	27.6
II	14.1	10.9	12.3	13.6	14.8	11.3	12.9
III	20.8	23.4	18.6	19.2	16.1	20.4	17.7
IV	18.1	18.6	22.7	22.2	26.3	26.3	28.6
V	8.0	10.2	15.9	16.9	16.5	15.3	12.9
VI	1.2	1.4	1.2	1.2	1.9	0.9	0.3

Thus taking Madras State as a whole it is seen that share in population of class I and class II towns to total urban population is higher in 1961 than in 1951 and earlier censuses while the share of class III, IV, V and VI towns is less in 1961 than in 1951.

SOURCE

Census of India, 1961, Madras State, Part II-A General Population Tables.



MAP 42

DEGREE OF URBANISM

MAP 42

DEGREE OF URBANISM

PURPOSE

This map brings out the location and concentration of towns in Madras State. The map also indicates the extent to which the towns exert influence on surrounding areas.

METHOD

The towns have been represented by circles. The radius of the circle varies with reference to the size of the town. Thus cities with a population above ten lakhs are assumed to influence surrounding areas lying within a radius of 40 kms. The radius of other class of towns are as follows :—

100,000—499,999	=	24Kms
50,000— 99,999	=	16 ,,
10,000— 49,999	=	8 ,,

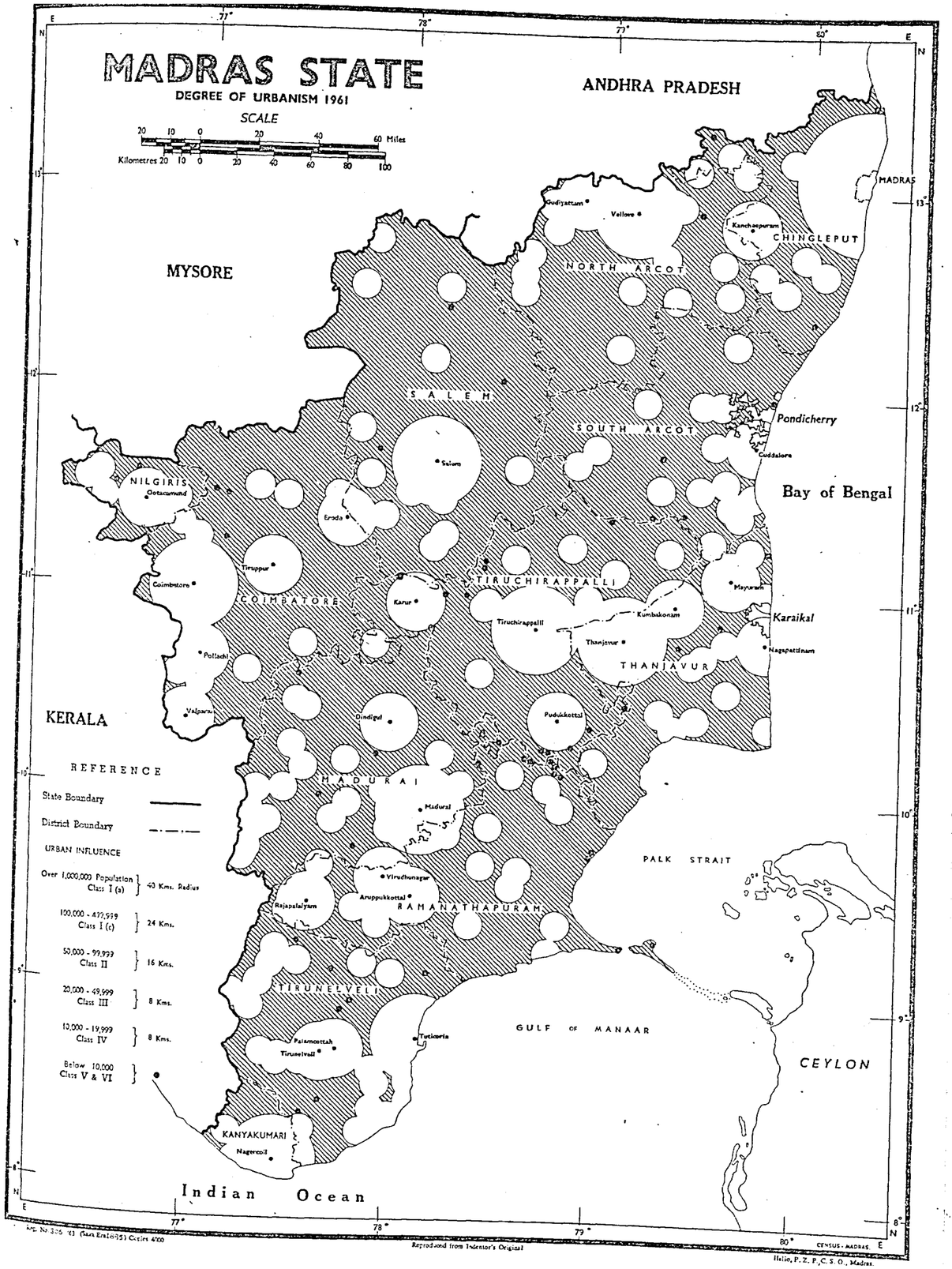
Towns with a population below 10,000 are presented by a dot. Wherever the circles overlap ares are formed to demarcate the contiguous urban area. The area outside the circl has been hatched to differentiate the rural from urban.

SALIENT FEATURES

A glance at the map reveals that the towns are scattere throughout the state with a slightly greater concentration i the south west portion of the State. The biggest urban bel is in Nilgiris-Coimbatore districts connecting Ootacamund Coimbatore, Pollachi and Valparai. Another noticeabl concentration is the link between Tiruchirapalli an Nagapattinam connecting Thanjavur, Kumbakonam, Mayuram Tuticorin with Palayamcottah and Tirunelveli form another prominent important belt of urban concentration.

SOURCE

Census of India, 1961, Madras State—Part II-A Genera Population Tables.



Art. No 305 '63 (Sara Eralis95) Cycles 4000
Reproduced from Indentor's Original
CENSUS - MADRAS
Hello, P. Z. P. C. S. O., Madras.

MAP 43

CONCENTRATION OF URBAN POPULATION 1961

MAP 43

CONCENTRATION OF URBAN POPULATION 1961

PURPOSE

This map shows the talukwise distribution of urban population. The percentage of urban population in each taluk to total population of the taluk is presented in the map.

METHOD

The map has been prepared on isopleth method. The percentage of urban population to total population has been grouped into six categories and the values are plotted approximately in the centre of the taluk. The six categories are :—Less than 15.00%, 15.00—27.00%, 27.01—43.00% 43.01—59.00%, 59.01—75.00% and above 75.00 %. Isopleths have been drawn for these values at intervals according to the grouping of the data. The intervening spaces between two isopleths have been shaded from high to low.

SALIENT FEATURES

This map shows talukwise distribution of the percentage of urban population to total population. In Madras State the urban population forms 26.69% of total population. Madras district is completely urban and the pattern of urban concentration among the 103 taluks of the other districts is described hereafter.

38 taluks belong to the first category. All the districts except Nilgiris have one or more taluks represented in this range. Salem district accounts for the maximum number of taluks in this range. Eight out 12 taluks of Salem have less than 15% of its population as urban.

32 taluks come under the range 15.00—27.00 percent. None of the taluks of Nilgiris and Kanyakumari districts come under this range. The important districts in this range are North Arcot (six taluks) Thanjavur (5 taluks) and Ramanathapuram (4 taluks).

Only 19 taluks fall under the range—(27.01%—43.00%). North Arcot and Salem have no taluk under this range. Chingleput, South Arcot, Madurai, Tiruchirapalli and Kanyakumari have one taluk each (Kancheepuram, Cuddalore, Periyakulam, Alangudi and Agastheeswaram respectively), Coimbatore (Palladam, Pollachi) and Nilgiris (Ootacamund, Coonoor) have two taluks each. The other taluks are distributed among Tirunelveli, Kanyakumari, Thanjavur and Ramanathapuram districts.

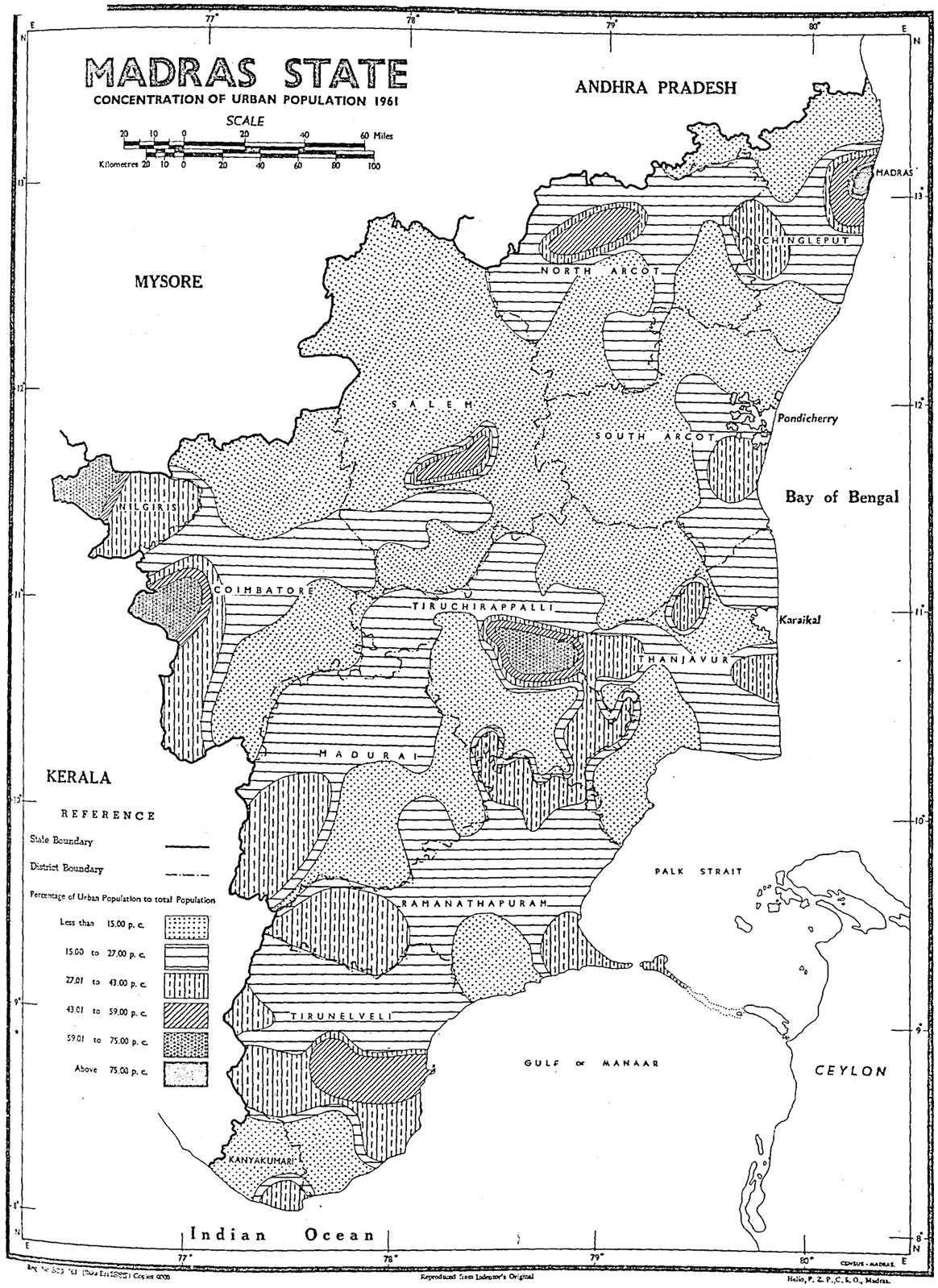
Only five taluks-Saidapet, Vellore, Salem, Srivaikuntam and Tirunelveli—have urban population between 43.01 and 59.00 percent of their respective total population, and 4 taluks —Coimbatore, Gudalur, Madurai, and Tiruchirapalli—have urban population ranging between 59.01 and 75.00 percent of their respective total population.

TABLE

Rank	District	Percentage of urban population to total population.
	MADRAS STATE	26.69
1.	Madras	100.00
2.	Nilgiris	43.94
3.	Madurai	31.63
4.	Tirunelveli	31.05
5.	Coimbatore	29.01
6.	Ramanathapuram	24.75
7.	Tiruchirapalli	21.26
8.	Chingleput	20.75
9.	Tanjavur	20.38
10.	North Arcot	20.06
11.	Salem	16.23
12.	Kanyakumari	15.05
13.	South Arcot	12.87

SOURCE

Census of India, 1961, Madras State, Part II-A General Population Tables.



MAP 44

TOWNS AND TOWN-GROUPS 1961

MAP 44

TOWNS AND TOWN-GROUPS

PURPOSE

This map indicates the names and location of all towns and town-groups in Madras State.

METHOD

Circles proportionate to population have been drawn for each town and town-group.

SALIENT FEATURES

In Madras State, 339 places were treated as towns in 1961 census. A new concept—'town-group' has been introduced in 1961 census. Towns which are either contiguous or near each other having separate legally constituted civic administration like municipality, panchayat, cantonment or a township have been grouped together to form a town-group which will serve as a unit for statistical purposes. Thirty four such town-groups have been formed in Madras State.

It would be of interest to know how a census town was defined in previous decades.

In 1901, every municipality was treated as census town. Every other continuous collection of houses, permanently inhabited by not less than 5,000 persons was treated as a census town by the State Superintendent of Census Operations after taking into consideration the character, the relative density of its population, its importance as a centre of trade and its historical association. In 1911, the same standard was maintained, cantonments also being treated as towns. The definition of census town remained unchanged in 1921, 1931 and 1941. In 1951, the fundamental criterion for classification of any local area as a town was declared as the presence of urban features which could be judged by the way in which the towns have been built and the availability of urban amenities such as a bazaar where one could buy one's normal requirements throughout the year, facilities for education, recreation and medical treatment. Subject to this criterion, the State Superintendent had full discretion in declaring an area as urban.

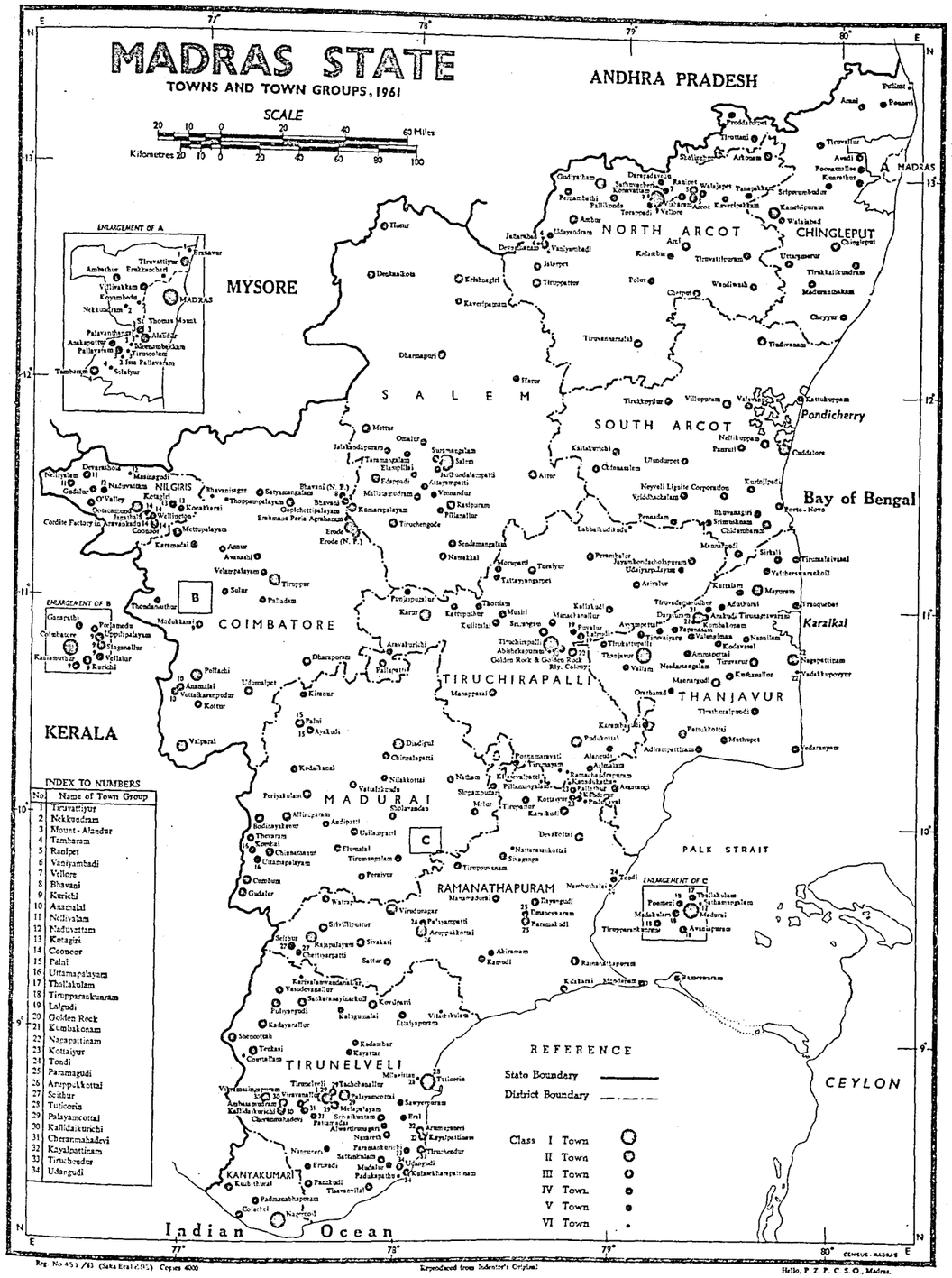
In 1961, a more precise definition of urban area was attempted. All municipalities, cantonments and townships were deemed to have urban characteristics and declared as towns. For other areas, three tests were applied. (1) The population of area should not be less than 5,000, (2) 75% of the male population should depend on non-agricultural resources for their livelihood and (3) there should be a density of 1,000 persons per sq. mile. All places which satisfied these three conditions were declared as urban. All places to which two of the three tests applied and which in the opinion of the Collector of the district had urban characteristics were also declared by the State Superintendent as urban. This applied chiefly to newly founded industrial areas, large housing settlements, places of tourist importance with all civic amenities, areas surrounding the municipal or cantonment limits, but outside their jurisdiction and having definite urban characteristics.

The number of towns and town-groups in each district is indicated below :

District	Towns	Town-groups
Madras	1	...
Chingleput	34	4
North Arcot	30	3
South Arcot	20	...
Salem	25	...
Coimbatore	34	3
Nilgiris	13	4
Madurai	32	4
Tiruchirapalli	33	2
Thanjavur	34	2
Ramanathapuram	35	5
Tirunelveli	44	7
Kanyakumari	4	...
Total	339	34

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 45

CHRONOLOGICAL DISTRIBUTION OF TOWNS 1901—61

MAP 45

CHRONOLOGICAL DISTRIBUTION OF TOWNS

1901—61

PURPOSE

This map indicates the census year in which the present 1961 towns attained urban status for the first time.

METHOD

Three different circles have been drawn to represent (a) towns with a population below 20,000 (b) towns with 20,000—50,000 and (c) towns with 50,000 and above population. Seven different symbols (corresponding to 1901—61) have been drawn to indicate the census year in which they gained urban status.

SALIENT FEATURES

339 places were declared as towns in 1961 census. Out of this, 73 places were declared as towns for the first time in 1961 census. This the largest number of newly treated towns in any census since 1901.

The number of places treated for the first time as towns in each of the earlier censuses are as follows :—

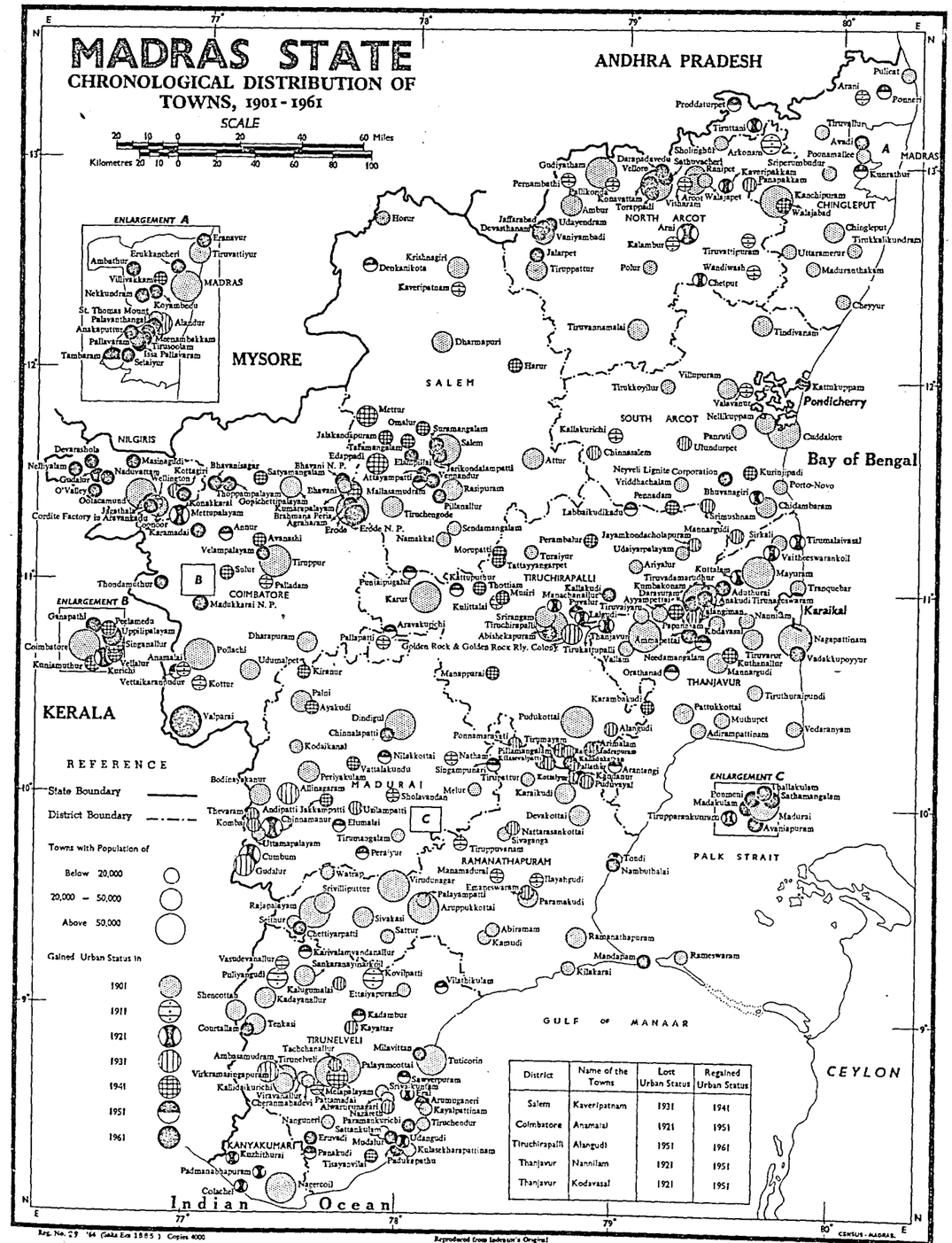
1901	... ...	125
1911	... ...	26
1921	... ...	23
1931	... ...	32
1941	... ...	33
1951	... ...	27
1961	... ...	73

Of the 339 towns, five towns did not have continuity of urban status. They are (1) Kaveripatnam in Salem district which lost its urban status in 1931 and regained it in 1941; (2) Anamalai of Coimbatore, Nannilam and Kodavasal of Thanjavur all of which were declassified as rural in 1921 and restored to urban status in 1951 and (3) Alangudi of Tiruchirapalli district was declassified in 1951 but treated as town again in 1961.

All the towns with a population of more than 50,000 except Valparai as per 1961 census, were treated as towns for the first time in 1901. Valparai in spite of large population, gained urban status only in 1961.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 46

CHRONOLOGICAL DISTRIBUTION OF DECIMATED TOWNS 1901—61

MAP 46

CHRONOLOGICAL DISTRIBUTION OF DECIMATED TOWNS

1901—61

PURPOSE

This map shows places which were treated as towns in any of the earlier Censuses but subsequently declassified as rural.

METHOD

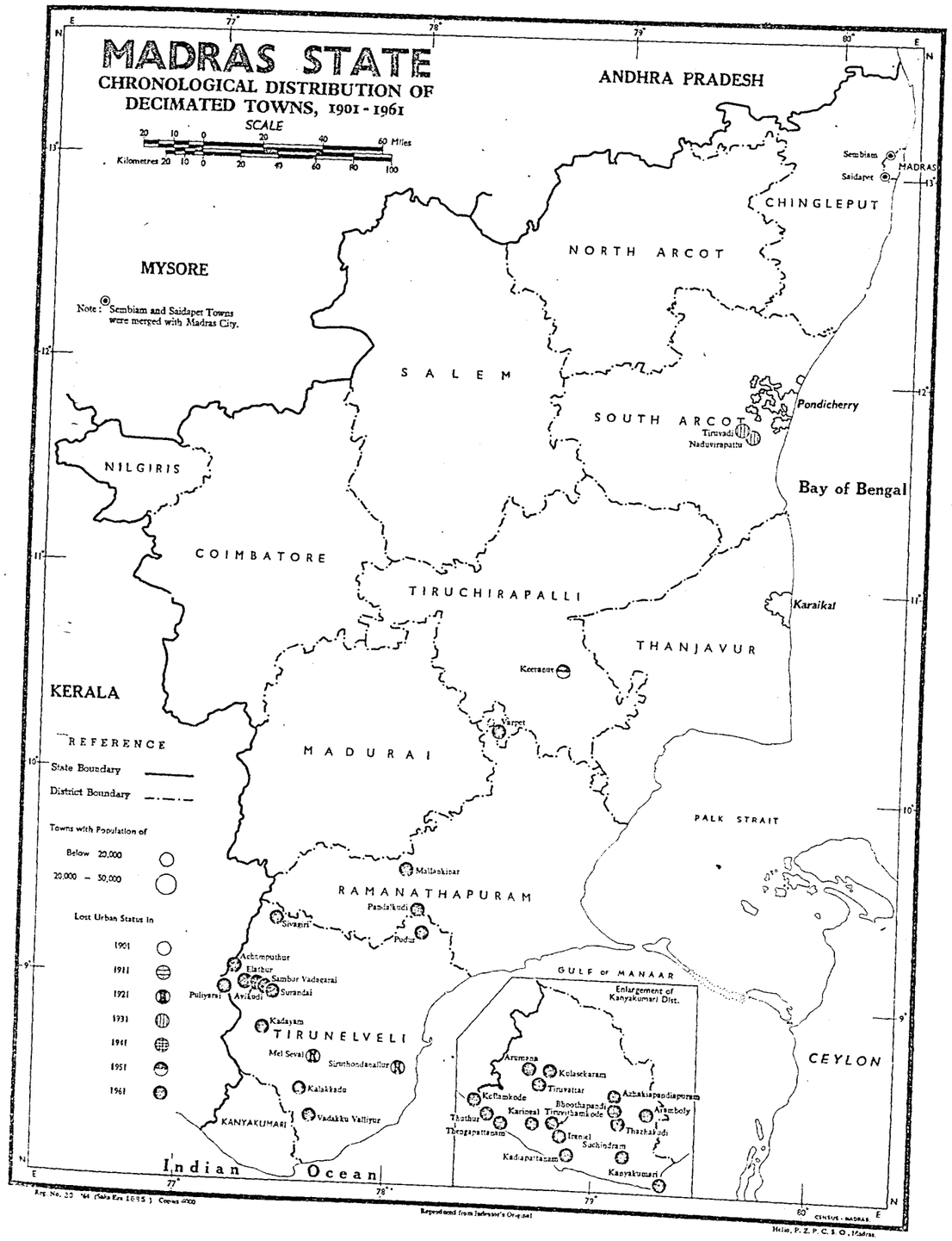
Circles of two sizes—one to represent towns with a population below 20,000 and the other for towns with a population between 20,000 and 50,000 have been drawn and seven different symbols, each one representing one census from 1901—1961, in which they were declassified, have been given.

SALIENT FEATURES

Thirty towns of earlier censuses were declassified into rural in 1961. Of this, 16 are in Kanyakumari district, 11 in Tirunelveli district, two in Ramanathapuram district and one in Tiruchirapalli district. One town, Keeranur in Tiruchirapalli district was declassified in 1951. Two towns of South Arcot district, Naduvirapattu and Tiruvadai lost urban status in 1931. Mel Servai and Siruthondanallur of Tirunelveli district and Kumaramangalan of Coimbatore district were declassified in 1921. Sembiam and Saidapet towns were merged with Madras City in 1951.

SOURCE

Census reports and Tables 1901—1961.



MAP 47

CITIES AND TOWNGROUPS WITH POPULATION OVER 50,000 ACCORDING TO THEIR PREDOMINANT FUNCTIONAL CHARACTER 1961

MAP 47

CITIES AND TOWNGROUPS WITH POPULATION OVER 50,000 ACCORDING TO THEIR PREDOMINANT FUNCTIONAL CHARACTER 1961

PURPOSE

This map shows the nature of industry predominant in each city or town group with a population of over 50,000.

METHOD

The nine industrial categories adopted for general tabulation have been grouped in to five categories as follows:

1. Agriculture and its allied activities covering cultivators, agricultural labourers and workers in mining, quarrying, livestock, fishing, hunting, plantations and allied activities.

2. Industries including construction covering manufacturing other than household industry, household industry and construction.

3. Commerce and Trade.

4. Transport.

5. Other services.

For each city, the percentage of workers under these five groups to total workers has been calculated and according to the percentage values the cities have been classified. If one sector of the economy absorbs more than two fifth of the total workers then the city has been designated by that occupation as industrial, service etc. If the percentage figure is less than 40% then the next predominant occupation is taken so that the total reached three fifth of the working population and it is designated as industry cum service or commerce cum transport etc. according to the result. If even two industries do not add up to 60% then three industries are taken as the basis.

Different symbols of hatching have been used to differentiate different categories of towns. If a town has two predominant occupations, two symbols have been used and three symbols if three occupations are predominant.

Towns which attained class I or class II status in 1961 have been shown by dotted lines.

SALIENT FEATURES

There are 33 cities and town groups with a population over 50,000 out of which only 15 qualify for a single predominant occupation. Of this 15, eleven places are classified as industrial. They are Kancheepuram, Gudiyatham, Salem, Coimbatore, Tiruppur, Nagercoil, Madurai, and Palayamcottai cities, Kurichi town group, Kallidaikurichi town group and Aruppukottai town group.

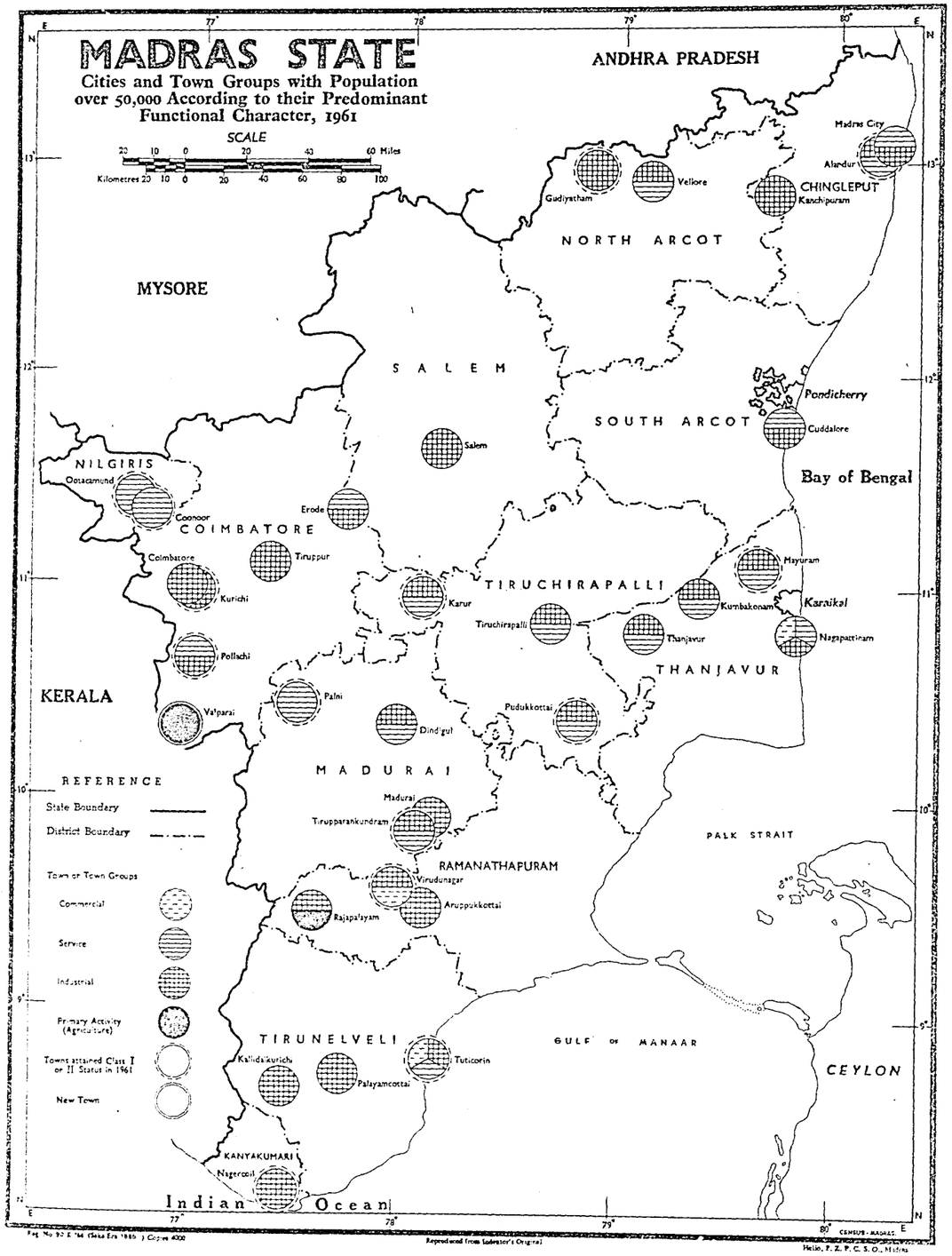
There is no city however of purely commercial importance. Coonoor, Ootacamund and Palni are the three cities wherein 'Service' is the predominant type of occupation. The only other city with a single predominant function is Valparai which belongs to the category "Primary Activity."

In sixteen cities, two occupations are predominant and 14 of these have service cum industry as the predominant function. Out of the remaining two cities, one has industry cum agriculture and the other industry cum commerce. Rajapalayam belongs to the former category and Virudunagar to the latter.

Tuticorin town group and Nagapattinam are the only two places having three predominant occupations and in both the places, service, industry and commerce are all equally important.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 48

TOWNS WITH POPULATION 20,000—50,000 ACCORDING TO THEIR PREDOMINANT FUNCTIONAL CHARACTER 1961

MAP 48

TOWNS WITH POPULATION 20,000—50,000 ACCORDING TO THEIR PREDOMINANT FUNCTIONAL CHARACTER

1961

PURPOSE

This map shows the nature of industry predominant in each of the towns with a population of 20,000 - 50,000.

METHOD

The nine industrial categories adopted for general tabulation have been grouped in to five categories as follows :

1. Agriculture and its allied activities covering cultivators, agricultural labourers and workers in mining, quarrying, livestock, fishing, hunting, plantations and allied activities.

2. Industries including construction covering manufacturing other than household industry, household industry and construction.

3. Commerce and Trade.

4. Transport.

5. Other services.

For each city the percentage of workers under each of these five groups to total workers has been calculated and according to the percentage values the cities have been classified. If one sector of the economy absorbs more than two fifth of the total workers then the city has been designated by that occupation as industrial, service etc. If the percentage figure is less than 40%, then the next predominant occupation is taken so that the total reached three fifth of the working population and it is designated as industry cum service or commerce cum transport etc, according to the result. If even two industries do not add up to 60%, then three industries are taken as the basis.

Different symbols of hatching have been used to differentiate different categories of towns. If a town has two predominant occupations, two symbols have been used and three symbols if three occupations are equally important.

Towns which attained Class I or Class II status in 1961 have been shown by dotted lines and new towns have been shown by a ring around the circle.

SALIENT FEATURES

Out of 63 towns having a population of 20,000 - 50,000 seven towns may be classified as predominantly agricultural or of primary activity. They are Nelliyalam, Naduvattam and Kotagiri in Nilgiris district, Lalgudi in Tiruchirapalli district Gudalur in Madurai district, Puliyangudi and Cheranmaladevi in Tirunelveli district. Towns which are predominantly industrial are Mettur, Komarapalayam, Tiruchengode and Rasipuram in Salem district, Paramakudi, Sivakasi and Srivilliputtur in Ramanathapuram district, Sankaranainarkoil, Koilpatti, Kadayanallur, Udangudi and Tenkasi in Tirunelveli district, Ranipet and Arni in North Arcot district and Goldenrock in Tiruchirapalli district.

As in the case of towns with population of over one lakh, in this group of towns with a population 20,000 — 50,000 also, there is no town of purely commercial importance.

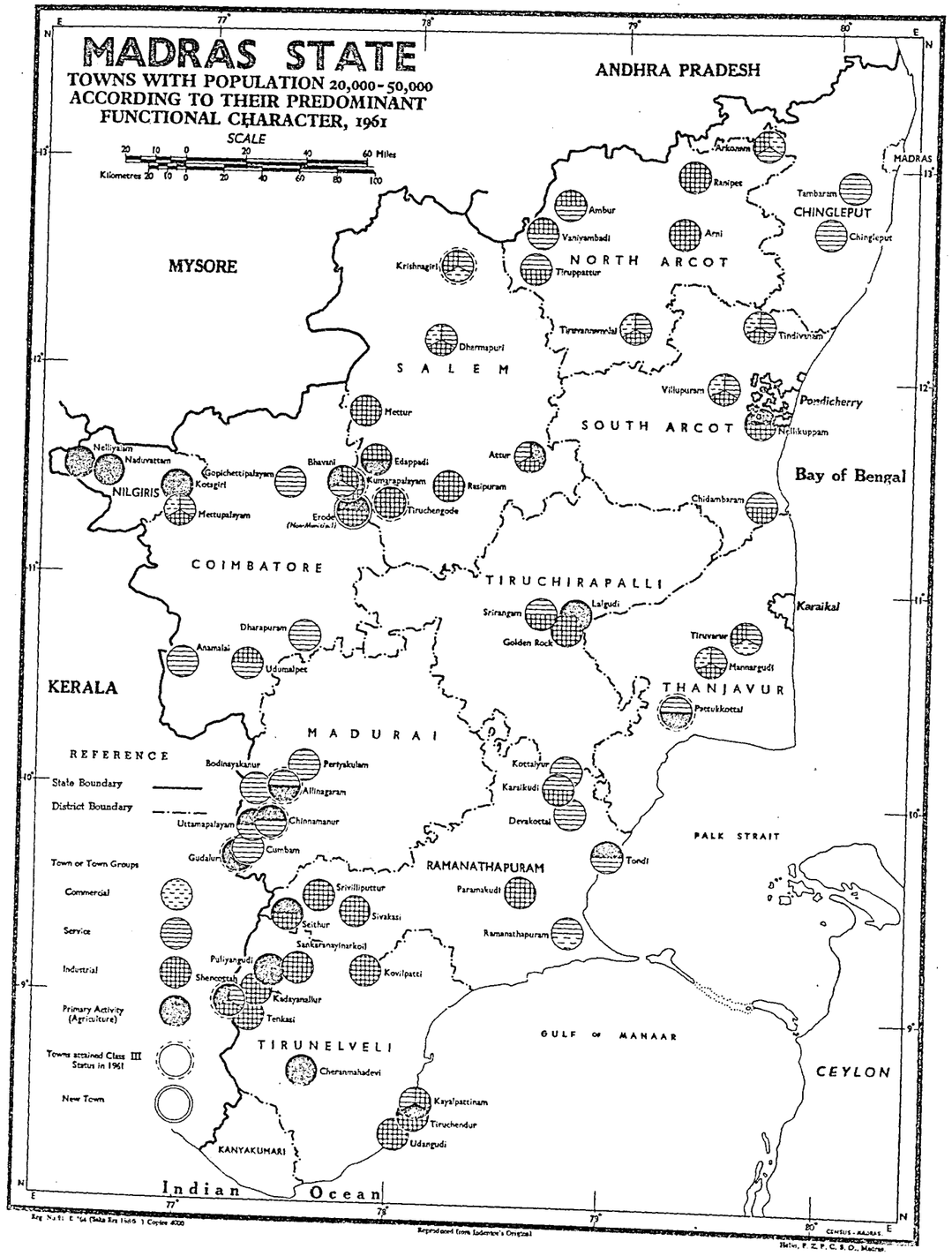
Service forms the predominant activity in ten towns. They are : Chingleput, Gobichettipalayam, Dharapuram, Periyakulam, Bodinaikanur, Cumbum, Devakottai, Tambaram, Anaimalai and Kottaiyur.

In 18 towns, two types of activity are important and in 13 towns three types of activity are of equal importance. Of the 18 towns with two activities, service cum industry is predominant in seven towns. Agriculture cum industry in five towns, Agriculture cum service in five towns, and service cum commerce in one town are the predominant activities.

Of the 13 towns with three occupations, in 8 towns Commerce, Service and Industry, in four towns Industry, Agriculture and Service and in one town Commerce, Trade and Service are important.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 49

TOWNS WITH POPULATION 20,000 ACCORDING TO THEIR PREDOMINANT FUNCTIONAL CHARACTER 1961

MAP 49

TOWNS WITH POPULATION BELOW 20,000 ACCORDING TO THEIR PREDOMINANT FUNCTIONAL CHARACTER 1961

PURPOSE

This map shows the nature of industries or activity predominant in each of the towns with a population of below 20,000.

METHOD

The nine industrial categories adopted for general tabulation have been grouped into five categories as follows:

1. Agriculture and its allied activities covering cultivators, agricultural labourers and workers in mining, quarrying, livestock, fishing, hunting, plantations and allied activities.
2. Industries including construction covering manufacturing other than household industry, household industry and construction.
3. Commerce and Trade.
4. Transport.
5. Other Services.

For each town, the percentage of workers under each of these five groups to total workers has been calculated and according to the percentage values the towns have been classified. If one sector of the economy absorbs more than two fifth of the total workers, then the town has been designated by that occupation as industrial, service etc. If the percentage figure is less than 40% (i.e. 2/5th) then the next predominant occupation is taken, so that the total reached three-fifth of the working population and it is designated as industry cum service, or transport cum service etc., according to the result. If even two industries do not add up to 60%, then three industries are taken as the basis for classifying towns.

Different symbols of hatching have been used to differentiate the five categories. If a town has two predominant occupations, two symbols have been used and three symbols if three occupations are equally important. New towns of 1961 have been indicated by dotted lines around the circle.

SALIENT FEATURES

Among the towns in Madras State which come under the population group of less then 20,000, fifty two have agriculture as predominant occupation, forty towns are industrial in character and twenty one towns have 'service' as the most important type of activity. There is only one town which is of purely commercial importance and there is no town at all wherein transport forms the predominant occupation. Thus out of a total of 191 towns and towngroups which have a population less than 20,000, 114 towns can be distinguished by a single predominant occupation. 44 towns are characterised by two occupations and 33 towns by three occupations.

Of the 40 towns which are mainly industrial, 9 towns are in Salem district and 8 towns are in Chingleput district. Tirunelveli and North Arcot districts have each five industrial towns and Coimbatore and Thanjavur each have four towns. There is no purely Industrial town in Nilgiris and Kanyakumari district.

Of the 52 towns which are predominantly agricultural, 11 towns are in Tiruchirapalli district. All the districts except Kanyakumari have at least one town with agriculture as its predominant occupation. South Arcot and Tirunelveli districts also have fairly large number of towns—eight and seven respectively which are agricultural in character. The number of agricultural towns in other districts is as follows: Madurai and Chingleput - 5 each, North Arcot - 3; Salem, Coimbatore and Nilgiris - one each, and Thanjavur - 4. 21 Towns, wherein service is the important single occupation, are shattered over the State with a slight concentration in Ramanathapuram district where 6 towns are of this category. Important towns of this category are Kodaikanal, Courtallam, Rameswaram - all the three being of tourist importance.

Two industries are important in 44 towns in 26 of which service and agriculture are important. Maximum concentration of towns having two equally important industries is noticed in Thanjavur district where ten towns have service and agriculture as important industries. These towns are Sirkali, Vaitheeswarankoil, Tranquebar, Tiruvadamarudur, Nannilam, Papanasam, Tiruvaiyar, Tiruthuraipundi and Vedaranyam. Each of the following districts have two towns of this category :— Chingleput, North Arcot, Salem, Madurai and Tiruchirapalli.

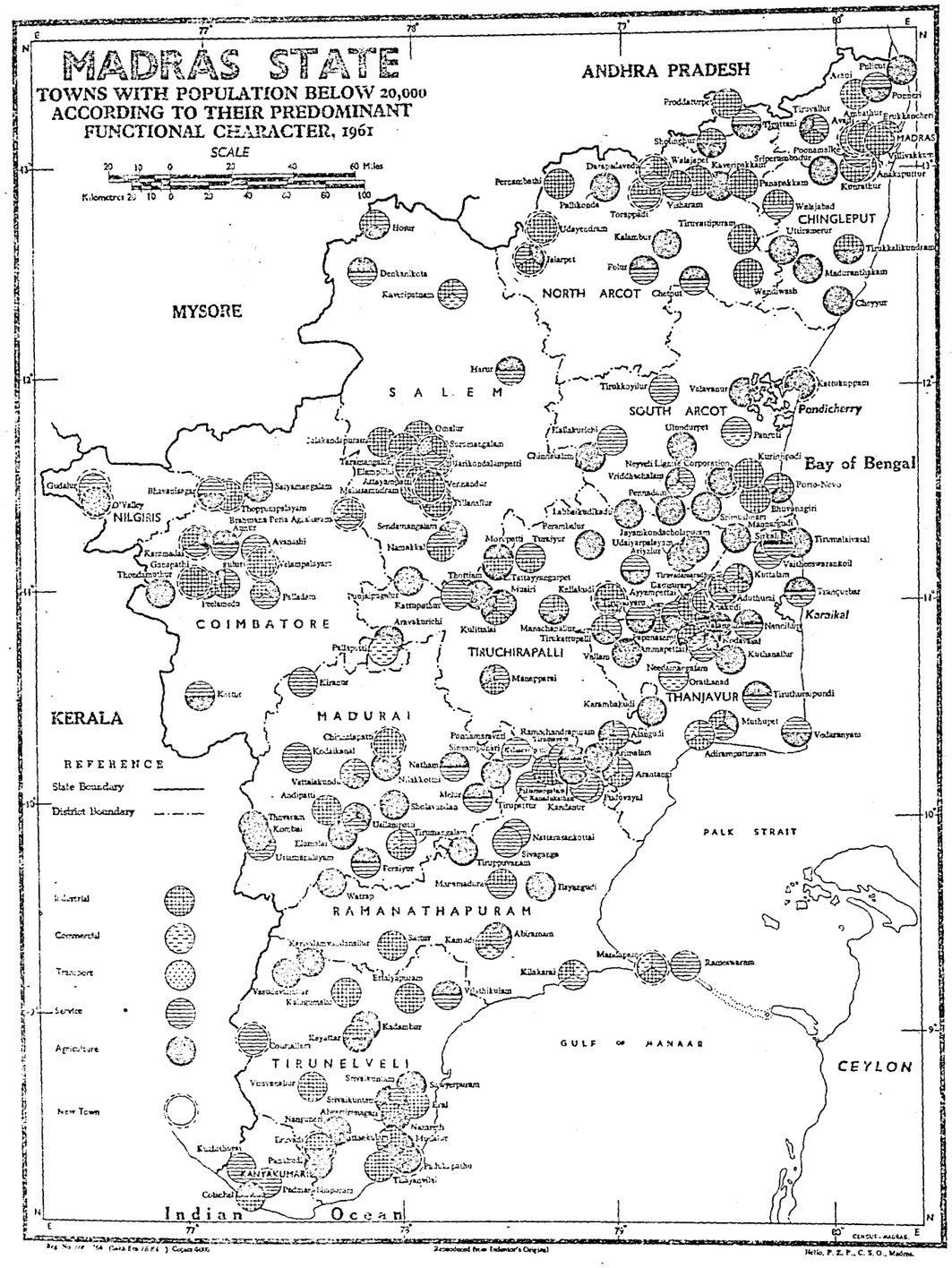
In eight towns industry and agriculture are of equal importance. They are :— Tirukkalikundram, Sholingur, Morupatti, Ammapettai, Kayattar, Eruvadi, Mudalur and Colachel.

Service-cum-commerce is the predominant type of activity in Panruti in South Arcot district and Orthanad town in Thanjavur district.

Of the 33 towns with three occupations, 19 have service, industry and agriculture, 9 towns have industry, service and commerce, 4 towns have service, commerce and agriculture and one town has service, industry and transport. Thus in all these 33 towns, service is a common factor and industry also is a common factor for 32 towns.

SOURCE

Census of India 1961, Madras State — Part II-A General Population Tables.



MAP 50

LAND UTILISATION 1960—1961

MAP 50

LAND UTILISATION

1960—1961

PURPOSE

The various purposes for which lands are used are indicated in this map.

METHOD

Two circles have been drawn for each district—one to represent agricultural land and the other to represent non-agricultural land. Agricultural area has been classified into (a) net sown area (b) current fallows and other fallows (c) culturable waste. Non-agricultural area has been classified into (a) forest (b) barren and unculturable waste, (c) land put to non-agricultural uses such as settlements, communication and (d) permanent pastures and grazing grounds, (e) Miscellaneous. The two circles are drawn one above the other proportionate to agricultural and non-agricultural land. Each circle is divided into sections according to percentage share of each of the classifications indicated above.

SALIENT FEATURES

It is seen from the map that in Madras State, 72.3% of agricultural area is net sown area, 19.2% is current and other fallows and 8.5% is culturable waste. Net sown area is highest in Kanyakumari district where 94.2% of agricultural area is net sown area. The lowest percentage is 55.7% in Nilgiris district. Current fallows is as high as 27.8% in Tirunelveli district and very low (2.6%) in Kanyakumari district. Culturable waste is highest in Nilgiris district with 31.9% and the lowest is 3.2% in Kanyakumari district.

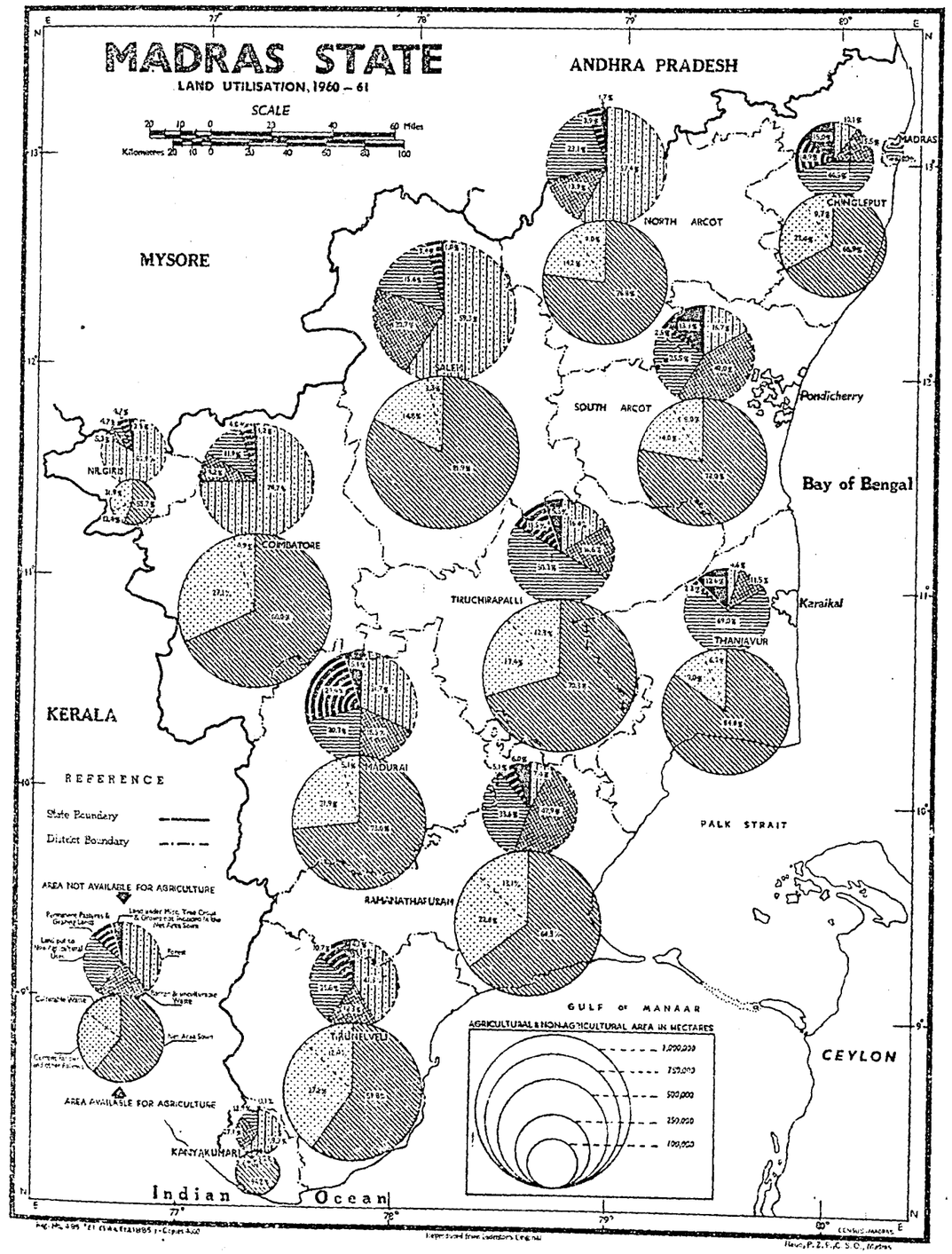
In Madras State, forest accounts for 41.6% of non-agricultural land. Land put to settlements and communications accounts for 29.3%, barren and unculturable waste forms 21.1% and permanent pastures and grazing grounds account for 8.0%. Forest area is at a maximum of 75.6% in Coimbatore district and it is very low in Thanjavur district where the share of forest is only 5.02%. Ramanathapuram district also has very low percentage of 7.9. Barren and unculturable waste is more than double the State average in Ramanathapuram and South Arcot districts and lowest in Nilgiris district.

Entire Madras City is under the category of settlement and communications. There are only four districts where percentage under this category is higher than the State average of 29.3%. These four districts are Chingleput, Tiruchirapalli, South Arcot and Ramanathapuram districts.

Permanent pasture and grazing grounds accounts for 8.0% in the State. While the highest is 25.7% in Madurai the lowest is 2.8% in South Arcot. In Kanyakumari district there is no land of this category.

SOURCE

Season and Crop report—Madras State 1960—61. Issued by the Department of Statistics, Madras.



MAP 51

INTENSITY OF CROPPING 1959—60

MAP 51

INTENSITY OF CROPPING

1959—60

PURPOSE

This map shows the relationship between net sown area and gross sown area in each district.

METHOD

In order to calculate this intensity index, gross sown area was divided by net sown area and multiplied by 100. The districts were then shaded by choropleth method from high to low.

SALIENT FEATURES

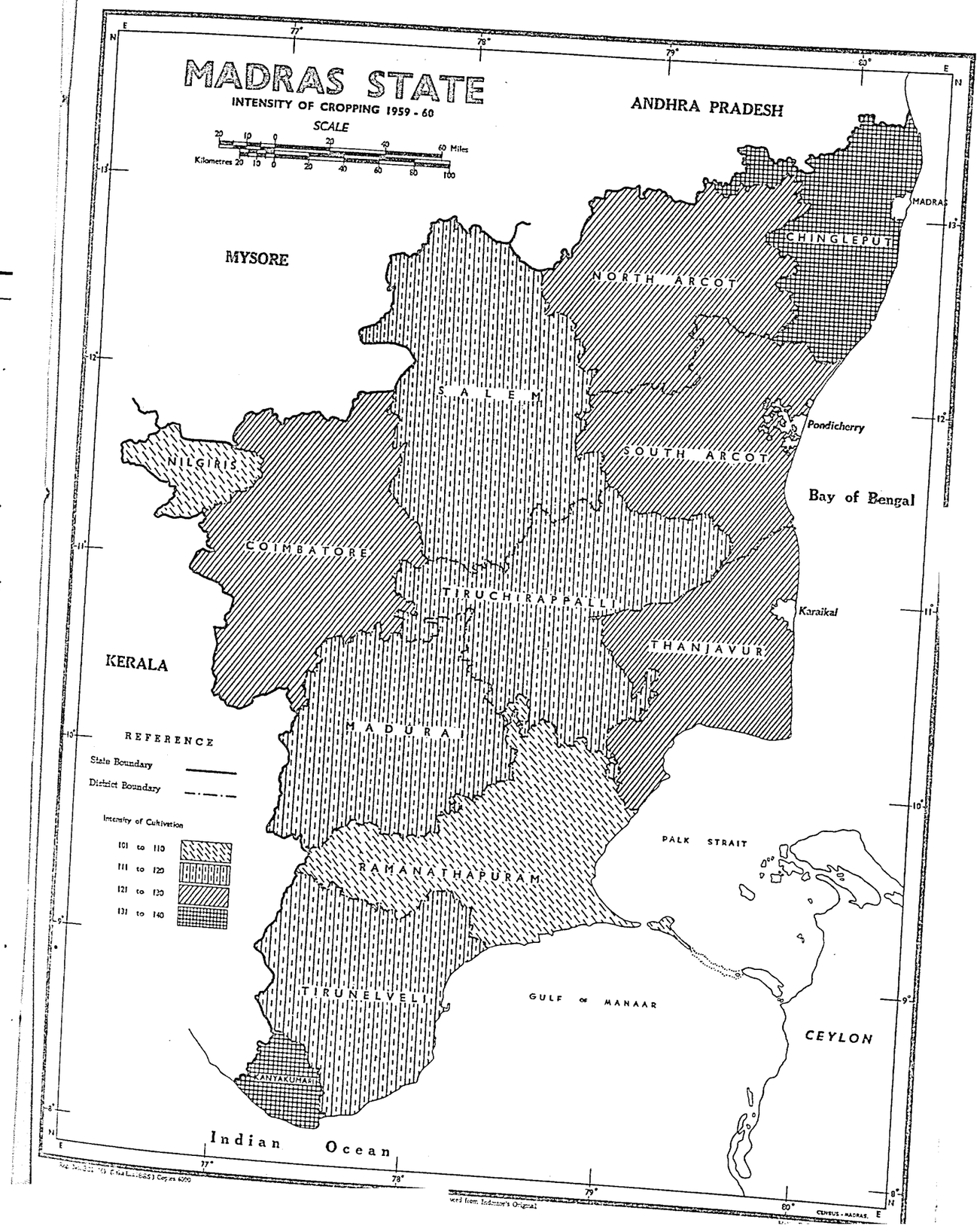
The intensity of cultivation is high in Chingleput and Kanyakumari districts and medium in North Arcot, Coimbatore, South Arcot and Thanjavur districts. It is low in Salem, Madurai, Tiruchirapalli and Tirunelveli districts. It is very low in Nilgiris and Ramanathapuram districts. The intensity indicates the extent of utilisation of available area under cultivation more than once a year.

TABLE

Rank	State/District	Percentage
1.	Kanyakumari	139
2.	Chingleput	136
3.	Thanjavur	130
4.	Coimbatore	124
5.	South Arcot	122
6.	North Arcot	121
7.	Tirunelveli	119
8.	Salem	114
9.	Tiruchirapalli	114
10.	Madurai	113
11.	Ramanathapuram	108
12.	Nilgiris	104

SOURCE

Season & Crop Report 1959—60 issued by Department of Statistics, Madras.



MAP 52

ACREAGE UNDER VARIOUS CROPS 1960–61

MAP 52

ACREAGE UNDER VARIOUS CROPS

PURPOSE

This map shows the distribution of major food crops and commercial crops.

METHOD

Dots, each representing 5,000 acres have been plotted.

SALIENT FEATURES

There is a very heavy concentration of paddy cultivation in the east coast region because of higher rainfall and better irrigational facilities. The densest concentration of paddy is in the Cauvery delta conforming to Thanjavur district. Millets are more important in the western region and wide spread in central and southern region.

Pulses are grown as a second crop to millet or paddy. Among pulses, green gram, horse gram, black gram and red gram are important. Horse gram accounts for the maximum area under pulses. It is grown mainly in Salem and Coimbatore. Green gram and black gram are grown in all districts except in Nilgiris district.

Groundnut and gingelly are the most important oilseeds and castor is also of considerable importance. Groundnut cultivation has been extended in recent years due to its export value. Sandy or loamy soils with facilities for drainage are best suited to this crop. The most important groundnut growing areas are North Arcot, South Arcot, Coimbatore and Tiruchirapalli districts. It is also grown, though not on a large scale, in Madurai, western Ramanathapuram and in non-deltaic parts of Thanjavur district. Concentration of gingelly is in Karur taluk of Tiruchirapalli district. Castor is grown in Salem and North Arcot districts. This crop is grown where rainfall is moderately light because heavy rainfall is injurious to this crop.

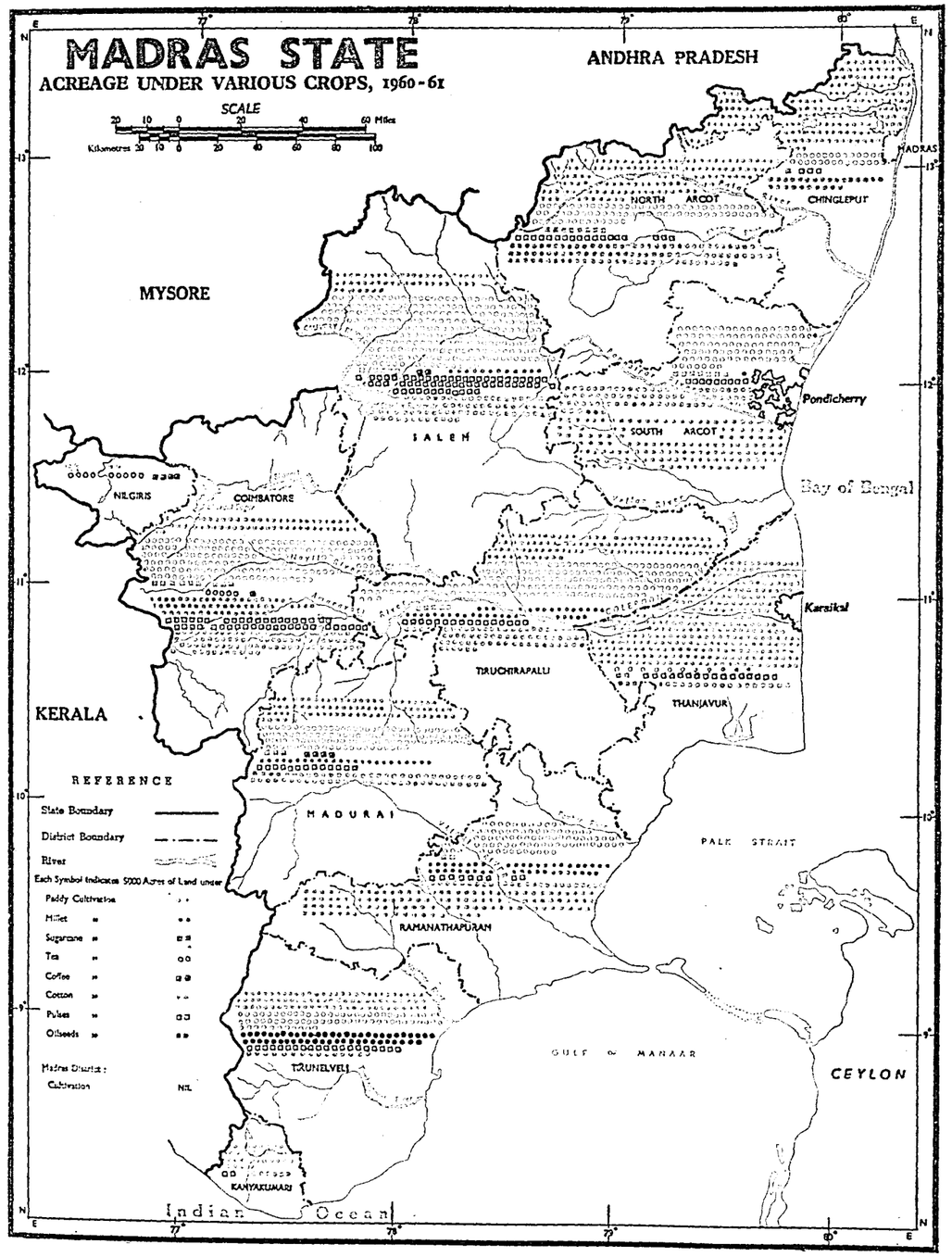
Cotton is cultivated predominantly in the black soil regions of Coimbatore, Madurai, Ramanathapuram and Tirunelveli districts.

Sugarcane is cultivated in the irrigated tracts of South Arcot, Tiruchirapalli and Thanjavur districts, the upper Palar valley in North Arcot and the Vaigai tract of Madurai district and in Coimbatore district.

Tea plantation is concentrated in the hills of Nilgiris, Coimbatore and Madurai districts but concentration is heavier in Nilgiris. Coffee is grown mainly in Nilgiri, Palni and Anaimalai hills and to some extent in Shevaroy hills of Salem and Andipatti hills of Madurai.

SOURCE

Season and Crop Report, Madras—1960-61.



MAP 53

YIELD PER ACRE OF RICE, WHEAT,
MILLET AND PULSES

MAP 53

YIELD PER ACRE OF RICE, WHEAT, MILLET AND PULSES

PURPOSE

The average yield per acre during the last five years (1956-61) for rice, wheat, millet and pulses is indicated in four maps.

METHOD

Average yield per acre for rice and millet has been classified into five ranges and districts have been shaded according to their values. Pulses has been grouped into four and wheat into two ranges.

SALIENT FEATURES

The average yield of rice during the last five years is 573 kilograms per acre. The highest average yield is 825 kilograms in Coimbatore district and Salem ranks second with 751 k.g. Ramanathapuram district has the lowest yield of 379 k. g. per acre and Chingleput district holds the penultimate position with 454 k. g. In only three districts, the yield is below the State average. They are Chingleput, Ramanathapuram and Tiruchirapalli.

The average yield of wheat is 150 k.g. per acre and wheat is produced only in four western districts. They are Nilgiris, Salem, Coimbatore and Madurai. The variation in yield in per acre among these four districts is negligible and the values centre around the State average of 150. The average values are : Madurai—149 kilograms, Salem—150 kilograms, Nilgiris—151 kilograms and Coimbatore—154 kilograms.

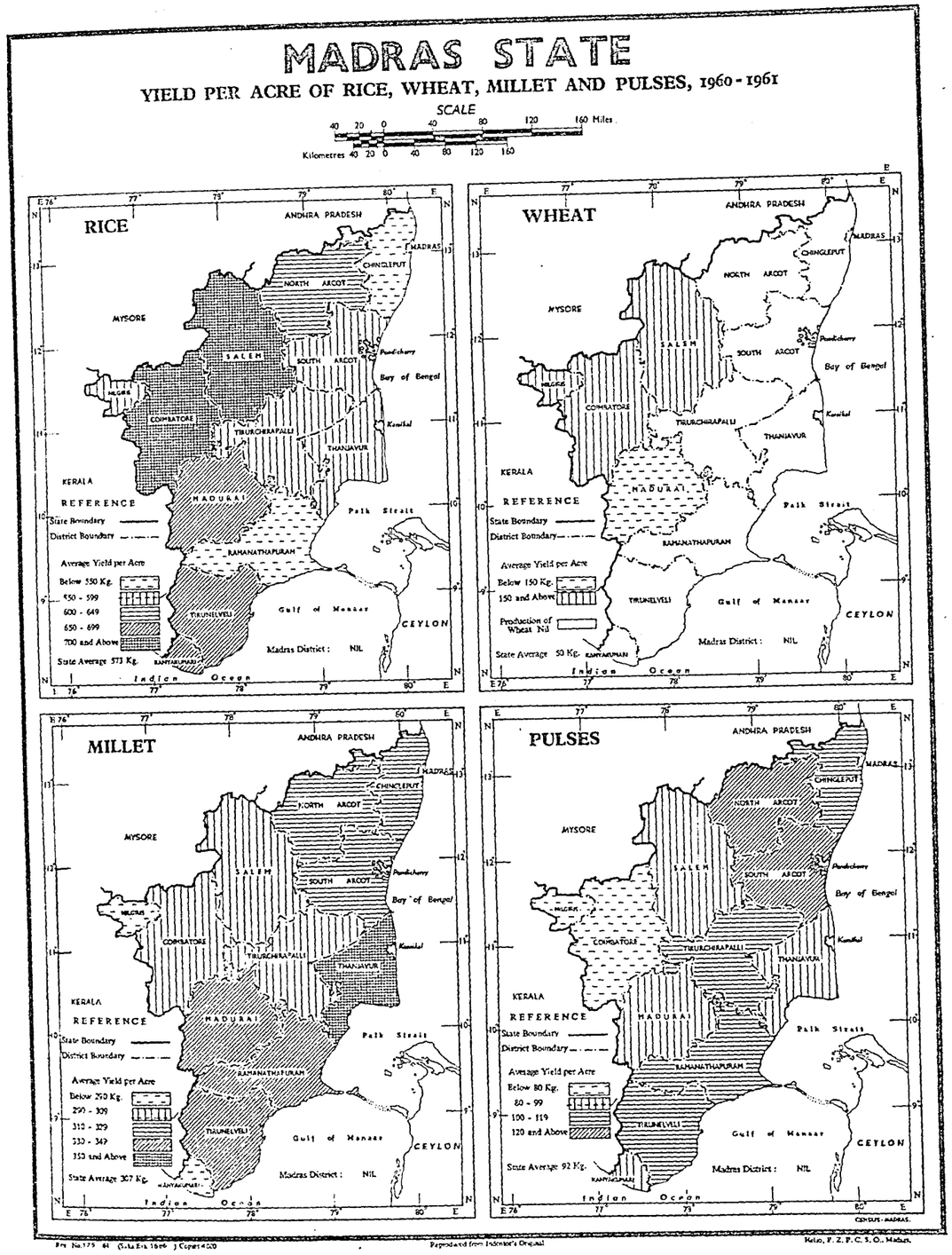
The average yield of millets is 307 kilograms. Millets include Cholam, Cumbu, Barley, Maize, Ragi, Korra, Varagu and Samai.

The average yield is at a maximum in Thanjavur district with 435 kilograms per acre. Kanyakumari district records the minimum yield of 260 kilograms per acre. In seven districts the average yield is above the State average and in five districts below the State average. Salem and Coimbatore districts which have recorded very high yield per acre for rice have recorded low yield of millets. Kanyakumari district also has recorded high yield of rice but a low yield of millet. There are three distinct contiguous pockets of millet producing centres—Tirunelveli, Madurai and Ramanathapuram districts in the south with high average yield per acre; Salem, Coimbatore and Tiruchirapalli in the centre with comparatively low yield and Chingleput, North Arcot and South Arcot in north-east with moderately high yield.

The average yield of pulses is 92 kilograms per acre. Pulses include Greeen gram, Bengal gram, Red gram, Black gram and Horse gram. The highest yield per acre of 133 kilogram is noticed in North Arcot and its neighbouring district South Arcot holds the second rank with 129 kilograms. Seven districts have recorded yield above the State average. These seven districts are contiguous and lie in the eastern part of the State. There is a continuous coastal belt from Chingleput to Tirunelveli with high output per acre and Tiruchirapalli and North Arcot are the only two slightly interior districts. Coimbatore and Nilgiris districts in the west have very low output per acre.

SOURCE

Season & Crop Report 1956—61, issued by the Director of Statistics, Madras.



MAP 54

AREA IRRIGATED BY VARIOUS SOURCES 1960—61

MAP 54

AREA IRRIGATED BY VARIOUS SOURCES

1960—61

PURPOSE

This map indicates the percentage of area irrigated to total net sown area in each district of Madras State. The share of each of the various sources of irrigation viz., well, Tank, Canal and others has also been presented in this map.

METHOD

The percentages of irrigated area to total sown area have been grouped in to six categories—three below and three above the State average. The districts have been shaded by six grades, of hatching ranging from high to low. In each district circles proportionate to total irrigated area have been drawn and each circle has been divided and shaded to indicate the source of irrigation.

SALIENT FEATURES

In Madras state, 41.1% of the total area sown are irrigated. The highest percentage of irrigated area is noticed in Thanjavur district were 85.3% of sown area are irrigated. The lowest is 1.5% in Nilgiris district. Only four districts—South Arcot, Ramanathapuram, Chingleput and Thanjavur have got an irrigated area above the average for the State and all these four form a contiguous coastal belt.

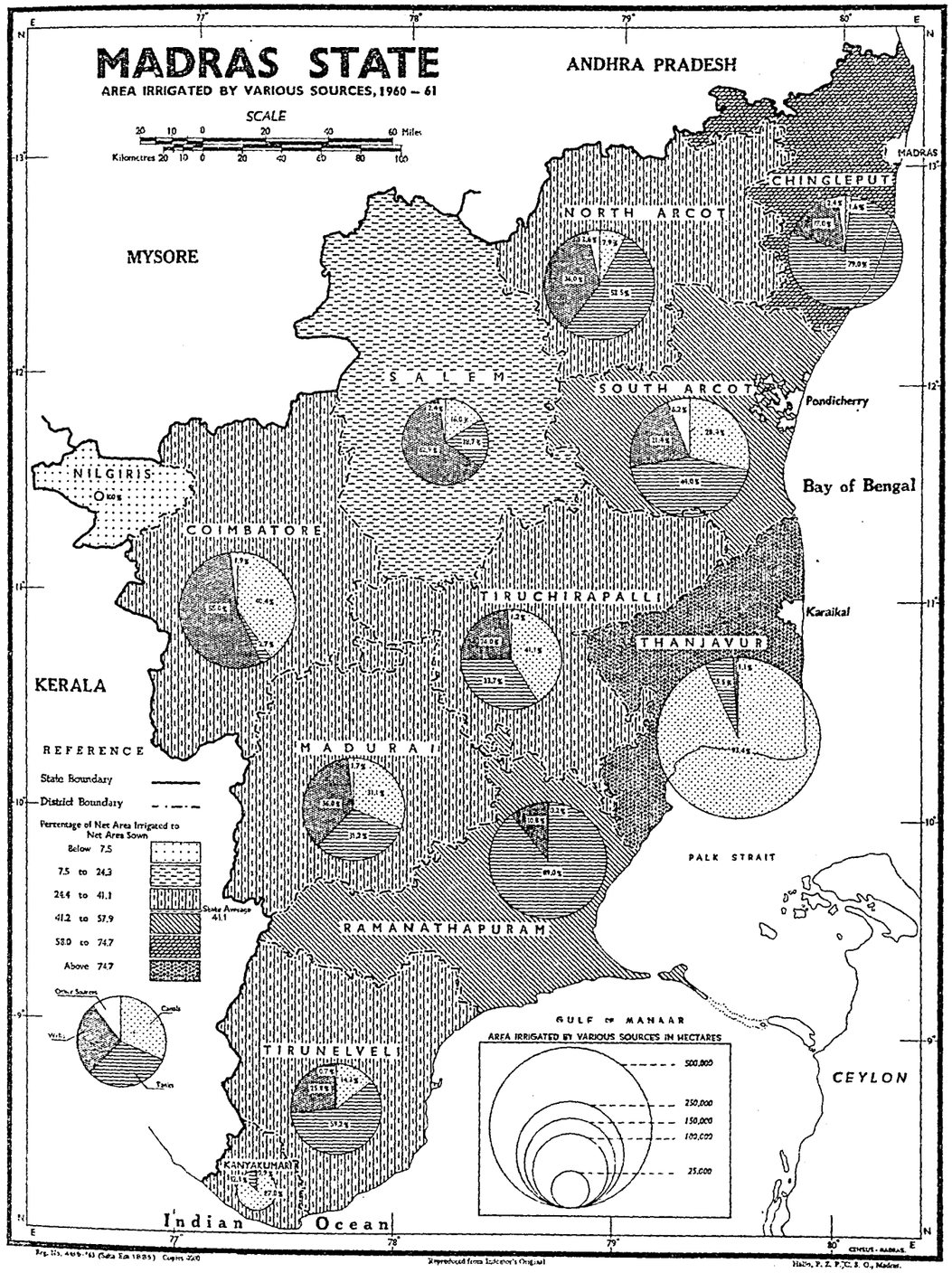
The share of the various sources of irrigation varies from district to district. In Madras State, 35.8% of sown area are irrigated by canals, 38.0% by tanks, 24.3% by wells and 1.9% by other sources. Tank irrigation is widely resorted to in Ramanathapuram district where 89% of sown area are irrigated by tanks. The second important district resorting to tank irrigation is Chingleput.

Canal irrigation assumes prominence in Thanjavur district where 93.4% of the sown area come under this category and Kanyakumari district has 87% of sown area under this category. Irrigation by wells is of importance in Salem district where 62.9% of sown area are irrigated by wells. Coimbatore district has 55% under this category.

In Nilgiris district, none of these three categories is resorted to and other sources, like spring, channels are the only source of irrigation.

SOURCE

Season and crop report for Madras State, 1960—61.



MAP 55

MAJOR IRRIGATION SYSTEMS

MAP 55

MAJOR IRRIGATION SYSTEMS

The various irrigation systems in Madras State have been shown in this map and they have been broadly classified under four categories.

1. Schemes in operation prior to first five-year plan
2. Schemes taken up for execution during first plan
3. Schemes taken up for execution during second plan
4. Schemes taken up for execution during third plan

There were 25 irrigation schemes prior to first five year plan. The biggest scheme on the basis of irrigation was Cauvery delta system located in upper anicut about 10 miles above Tiruchirapalli Grand anicut which irrigated about 10 lakhs acres. Four other schemes also resulted in benefit of irrigation for more than one lakh of acres under each system. They are (1) Periyar system regulator at the head of the canal system 25 miles from Madurai which irrigated 146,000 acres; (2) Cauvery Mettur project (Scauley reservoir) near Mettur village in Salem and canal H.W. at Grand anicut, Trichy, which irrigated 258,144 acres. (3) Lower Coleroon anicut system 12 miles from Aduthurai in Thanjavur resulting in increased irrigation to 134,427 acres and Kodayar project in Kanyakumari district, 28 miles from Nagercoil which irrigated 116,000 acres. The other systems were comparatively smaller—four in Chingleput, two in North Arcot, six in South Arcot, one in Salem, three in Coimbatore and two each in Tiruchirapalli and Tirunelveli districts.

Ten projects were taken up for execution during first five year plan. Four of these ten were intended for stabilization of the old ayacut. They are: Araniar project in Chingleput district, Amaravathi project in Coimbatore, Manimuthar project in Tirunelveli and Kodayar extension scheme in Kanyakumari district. The biggest project (from the point of area irrigated) taken up was Lower Bhavani Project. It was taken up in 1949 and completed in 1955. It has a reservoir with a capacity of about 28,000 million cubic feet of water across the Bhavani river about 20 miles below Mettupalayam. Amaravathi Irrigation Project in Coimbatore was opened for irrigation in December 1957 and Manimuthar project in Tirunelveli was opened in January 1958. These two projects which on the aggregate cost 8 crores of rupees provide assured water supply for nearly 50,000 acres of dry and wet land in addition to the strengthening of the existing ayacut. Manimuthar is the largest of the four projects (Sathanur, Krishnagiri, Amaravathi and Manimuthar) costing more than 5 crores of rupees and will irrigate 20,000 acres in Tirunelveli and Amaravathi project brings much needed relief to the chronically famine affected areas of Dharapuram and Udumalpet taluks of Coimbatore district. The object of the Manimuthar reservoir is primarily to stabilize supplies to the existing ayacut of the Tambraparni system and also to supplement supplies to about 320 precariously rainfed tanks in Ambasamudram, Nanguneri, Tirunelveli, Srivaikuntam and Tiruchendur taluks.

The Amaravathi project will stabilize existing irrigation to an extent of 32,000 acres otherwise depending upon anicut channels lower down. In addition to this there will be new irrigation of 21,000 acres of which 3,000 will be for sugarcane cultivation and 18,000 acres for dry crops.

The Araniar project consists of a reservoir across the Araniyar river four miles west of Negalapuram and a dam about 11 miles downstream in Chingleput district.

The Mettur canal scheme was envisaged to irrigate areas in Salem and Coimbatore districts. Under the second five year plan, besides continuing the execution of schemes started in the first plan, four new schemes were taken up. These were: 1. The new Kattalai high level canal scheme, 2. The Pullambadi canal scheme, 3. The Vidur reservoir project and 4. The Parambikulam reservoir project.

The new Kattalai high level canal runs on the right side of the Cauvery from above Kattalai bed regulator. The Pullambadi canal takes off above the upper anicut from the river Cauvery on its left side and runs almost parallel to and at a short distance from the existing Peruvalai channel. The total area to be irrigated by this channel is 22,114 acres of which 8,831 acres by direct ayacut and 13,283 acres under tanks. The Vidur reservoir project is across the Varahanadhi near Vidur in South Arcot district a canal on the left side for irrigation.

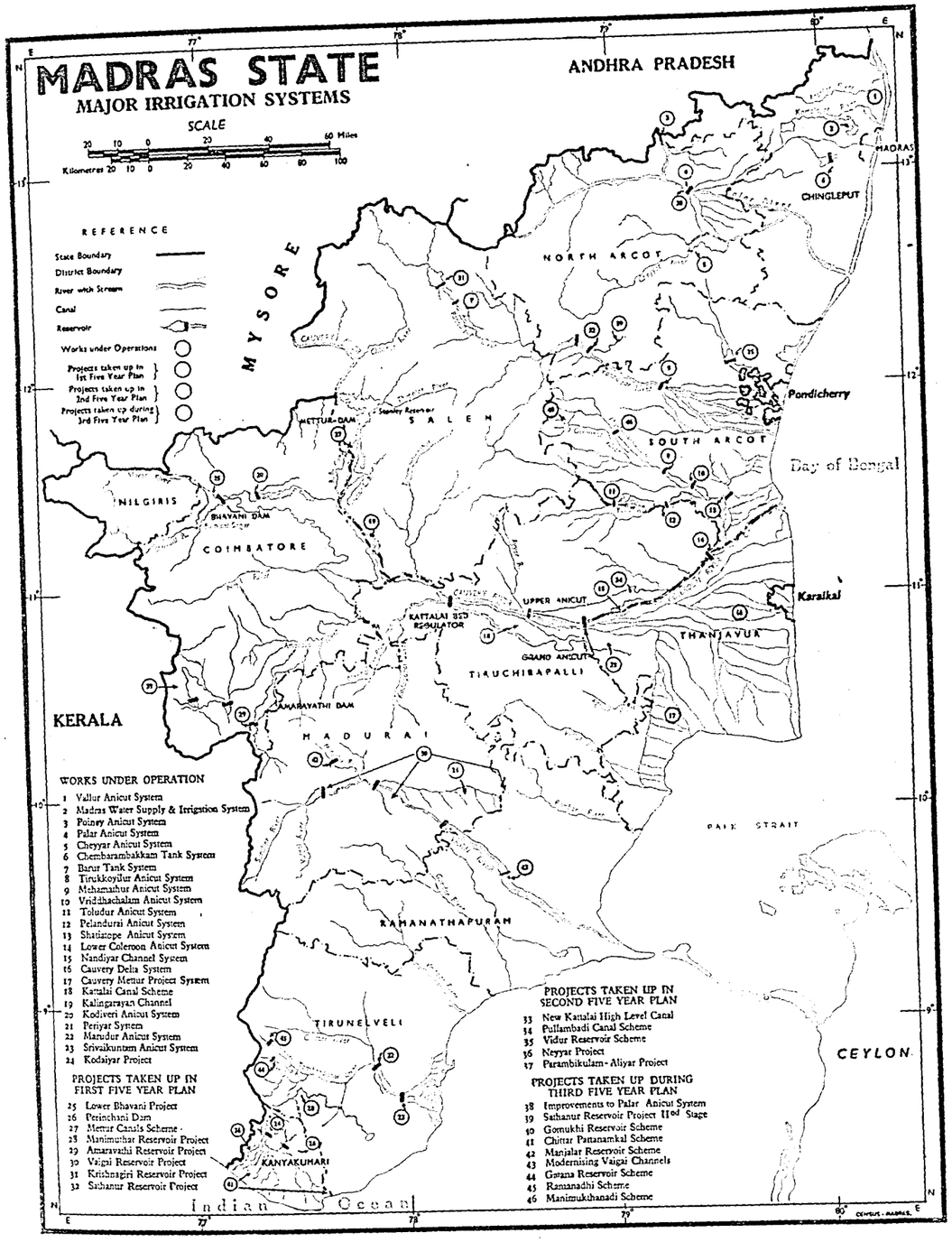
The Parambikulam-Aliyar project is the most important scheme. The multi-purpose project is designed to utilise the irrigation and power potential of the inter-State rivers in the western ghats for the benefit of Madras and Kerala States. The project envisages the provision of irrigation facilities for 2.4 lakhs of acres in the arid tracts of Coimbatore district and would besides assist Chittur area of Kerala State. The project will also render possible production of power to the tune of 189 M.Ws.

The third five-year plan covers nine schemes out of which three do not form new irrigation but only improvement over the already existing schemes. They are (1) Palar anicut (2) Sathanur project in North Arcot district and (3) modernisation of Vaigai channels in Madurai and Ramanathapuram. The other six schemes are

1. Gomuki project in South Arcot
2. Manimukthanadhi scheme in South Arcot
3. Manjalar project in Madurai
4. Chittar Pattanamkal scheme in Kanyakumari
5. Ramanadhi and
6. Gatana schemes in Tirunelveli district

SOURCE

Chief Engineer, Irrigation, Madras.



MAP 56

PERCENTAGE OF IRRIGATED AREA TO TOTAL LAND AREA CULTIVATED 1959—60

MAP 56

PERCENTAGE OF IRRIGATED AREA TO TOTAL LAND AREA CULTIVATED 1959—60.

PURPOSE

This map shows the percentage of irrigated area to total land area cultivated in the different districts of Madras State during the year 1959-1960.

METHOD

The data are grouped into five categories, three above and two below the State average. The districts are then shaded by five grades of hatching.

SALIENT FEATURES

In Madras State, 5,630,852 acres out of a total cultivated area of 14,573,618 acres, i. e. 38.6% of the total cultivated area are irrigated. The lowest percentage 1.43 is recorded in Nilgiris district followed by Salem district 16.95%. Six other districts have recorded percentages lower than the State average 38.6%. They are: North Arcot, Coimbatore, Madurai, Tiruchirapalli, Tirunelveli and Kanyakumari districts.

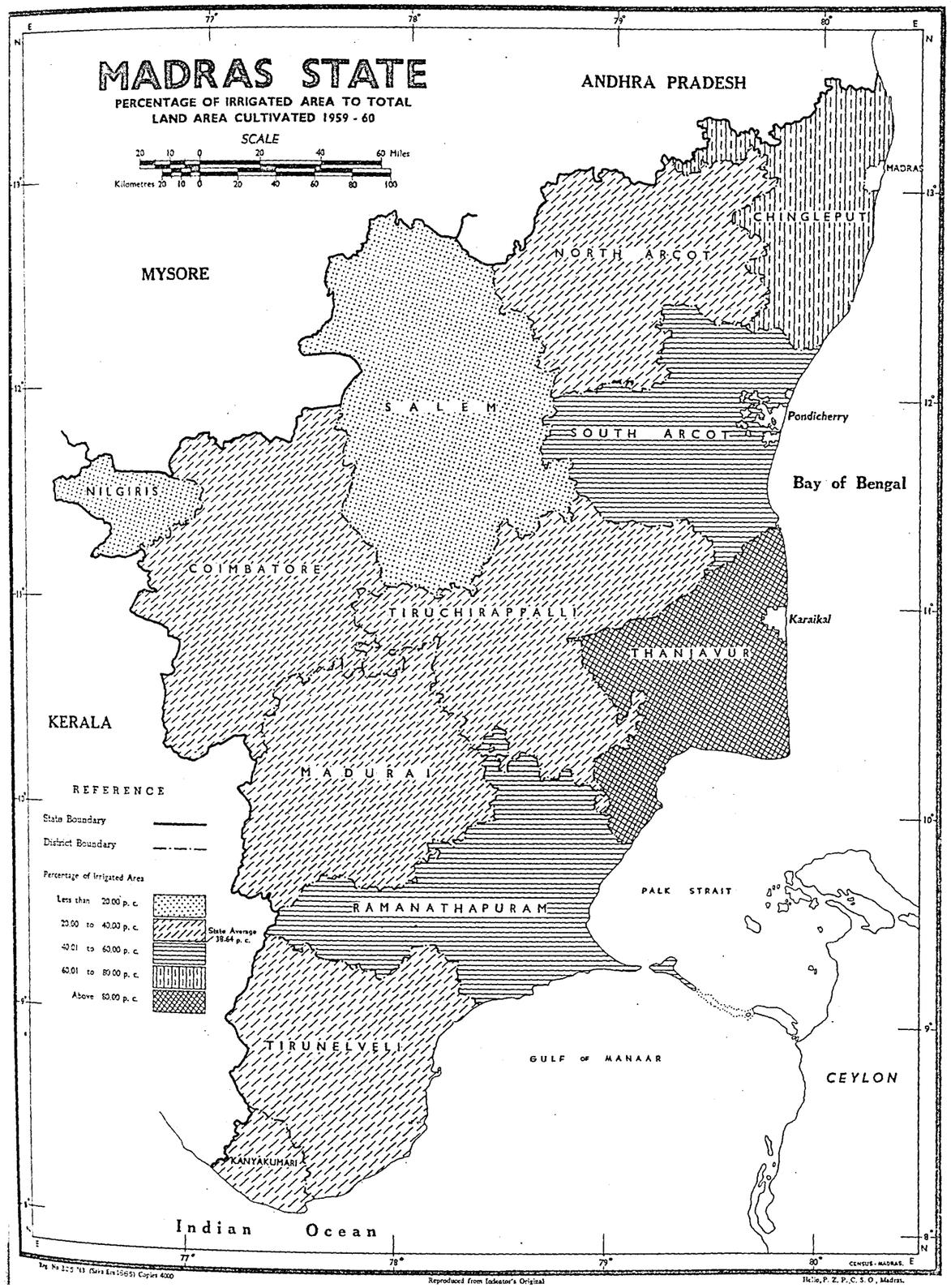
Four districts which have recorded percentages above the State average are South Arcot, Ramanathapuram, Chingleput and Thanjavur. The highest percentage (84.14) is recorded in Thanjavur district.

TABLE

Rank	District	Percentage
	MADRAS STATE	38.64
1.	Thanjavur	84.14
2.	Chingleput	61.15
3.	Ramanathapuram	45.40
4.	South Arcot	44.64
5.	Kanyakumari	35.37
6.	North Arcot	34.46
7.	Madurai	33.56
8.	Coimbatore	33.53
9.	Tirunelveli	29.71
10.	Tiruchirapalli	26.31
11.	Salem	16.95
12.	Nilgiris	1.43

SOURCE

Season and crop report of Madras State for the agricultural year 1959-1960 (July—June) issued by the Director of Statistics.



MAP 57

CROPPING PATTERN OF IRRIGATED AND NON-IRRIGATED AREAS 1960-61

MAP 57

CROPPING PATTERN OF IRRIGATED AND NON-IRRIGATED AREAS

1960-61

PURPOSE

This map shows the percentage of areas under various crops —irrigated and non-irrigated.

METHOD

Two circles have been drawn for each district—one to represent irrigated land and the other to represent non-irrigated area. The circles are proportionate to total area under cultivation. Each circle has been divided into segments each representing one crop. The crops taken into account are: Paddy, millets, pulses, oil seeds, and cotton. Tea and Cotton have been shown only under non-irrigated category.

SALIENT FEATURES

In Madras State, 77.5% of irrigated area is occupied by paddy, 14.5% by millet, 4.3% by oilseeds, 3·3% by cotton and 0.4% by pulses. In all the districts, paddy has the maximum irrigated area. This is at a maximum of 97.5% in Thanjavur and at a minimum of 38.6% in Coimbatore. In Coimbatore district, 33.7% of irrigated area is utilised for millets. In seven districts, paddy absorbs more than 70% of irrigated area. Next to paddy, millets are cultivated in irrigated area. In Salem district, 30.0% of irrigated area are under millets and in Thanjavur only 1.1% of irrigated area is under millets. Nearly a fourth of the irrigated area is under millets in Madurai district.

Irrigated area is used for oilseeds in all the districts except Nilgiris but the maximum area is in Kanyakumari where 12.4% of irrigated area is under oilseeds. South Arcot district ranks second with 9.9% and Coimbatore third with 8.6%.

Cotton is grown in irrigated lands in Coimbatore district where 18.8% of irrigated area is under this crop. In Salem, Madurai, Ramanathapuram and Tirunelveli districts about 4%—5% of irrigated area is under cotton.

Taking non-irrigated areas, it is seen that millets are the most important crop and oilseeds are second in importance The percentage distribution of non-irrigated area under various crops is as follows:—

Millets	47.4
Oilseeds	26.0
Pulses	11.6
Cotton	8.3
Paddy	5.9
Tea	0.8

Paddy is cultivated to a large extent inspite of the absence of irrigation in Chingleput and Kanyakumari districts. In Chingleput district 48.0% of non-irrigated area and in Kanyakumari district 69.4% of non-irrigaied area are under paddy. In five districts of North Arcot, Salem, Coimbatore, Madurai and Tirunelveli, less than 2.0% of non-irrigated area is under paddy. In Thanjavur 23.3% of non-irrigated area is utlised for paddy cultivation.

Millets account for more than the State average of 47.4% in South Arcot, Salem, Madurai and Tiruchirapalli districts. In Coimbatore district it is only slightly below the State average while in Kanyakumari district millet is not cultivated in non-irrigated area.

Oil seeds account for more than a fourth of the total non-irrigated area in Chingleput, North Arcot, South Arcot, Madurai, Tiruchirapalli and Thanjavur districts.

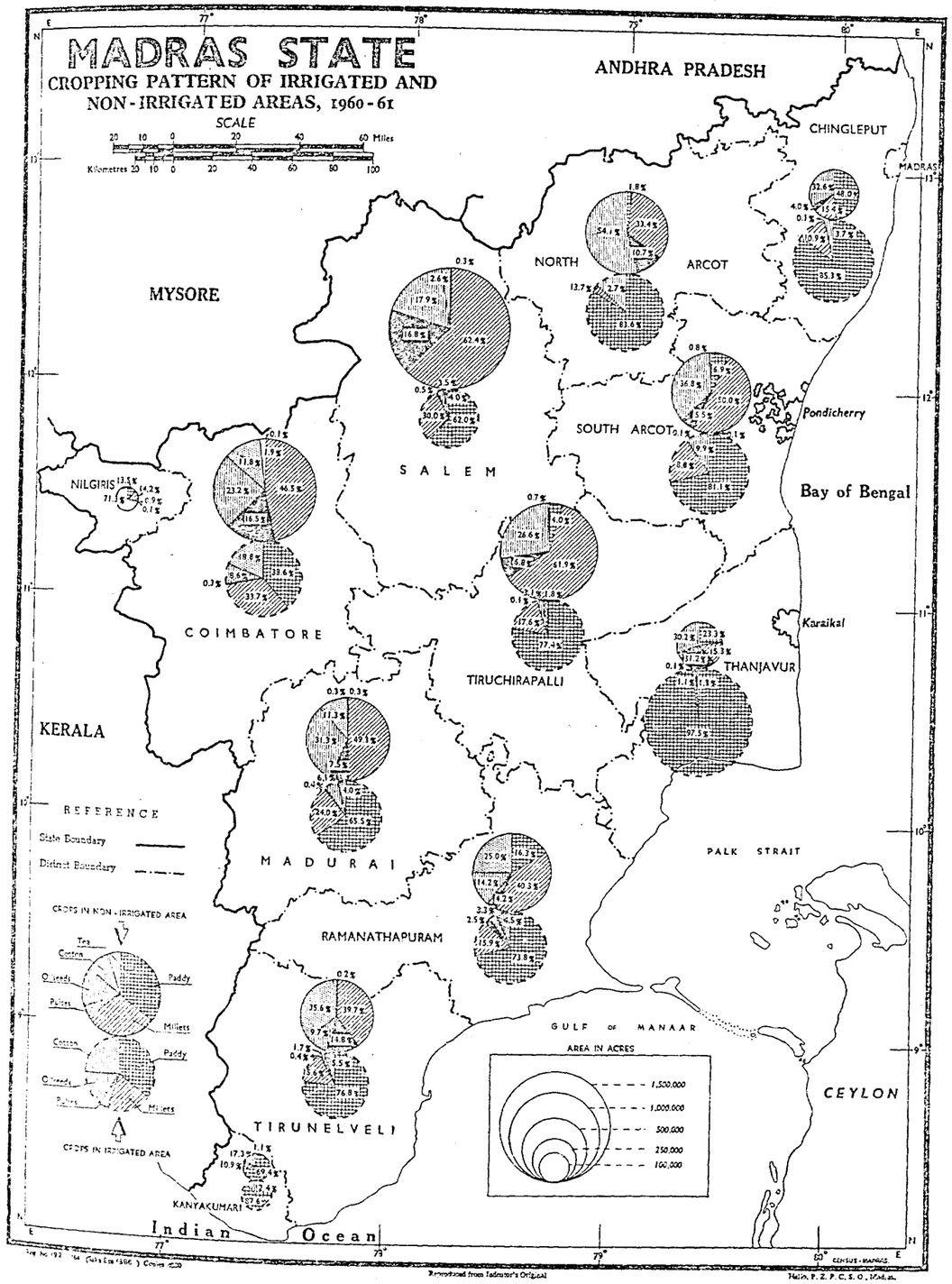
Maximum allotment of non-irrigated area for pulses is noticed in Thanjavur district where 31.2% of non-irrigated land is under pulses. More then 10% of non-irrigated land fall under pulses in North Arcot, Salem, Coimbatore, Tirunelveli and Kanyakumari districts.

35.6% of non-irrigated area in Tirunleveli is under cotton and in Ramanathapuram district the share of cotton is 25.0%. In Coimbatore and Madurai about 11% of area is under cotton and it is of negligible importance in other districts.

71.3% of non-irrigated area in Nilgiris is under Tea.

SOURCE

Season and crop Report, 1960—61 issued by the Director of Statistics, Madras.



MAP 58

GROSS VALUE OF AGRICULTURAL OUTPUT PER ACRE
OF CROPPED AREA 1960-61

MAP 58

GROSS VALUE OF AGRICULTURAL OUTPUT PER ACRE OF CROPPED AREA

1960-61

PURPOSE

This map shows the districtwise variation in productivity of agricultural land in terms of gross value of output per acre of cropped area.

METHOD

The productivity values are graded into four groups and the districts are then shaded to show the variation in productivity. For each district a polygon has been drawn, each side representing one crop. The crops taken into consideration are: rice, millet, pulses, oil seeds and sugarcane. Rectangles proportionate to the value of the crops have been drawn on each side of the polygon and the sum total value of five crops is recorded in the centre.

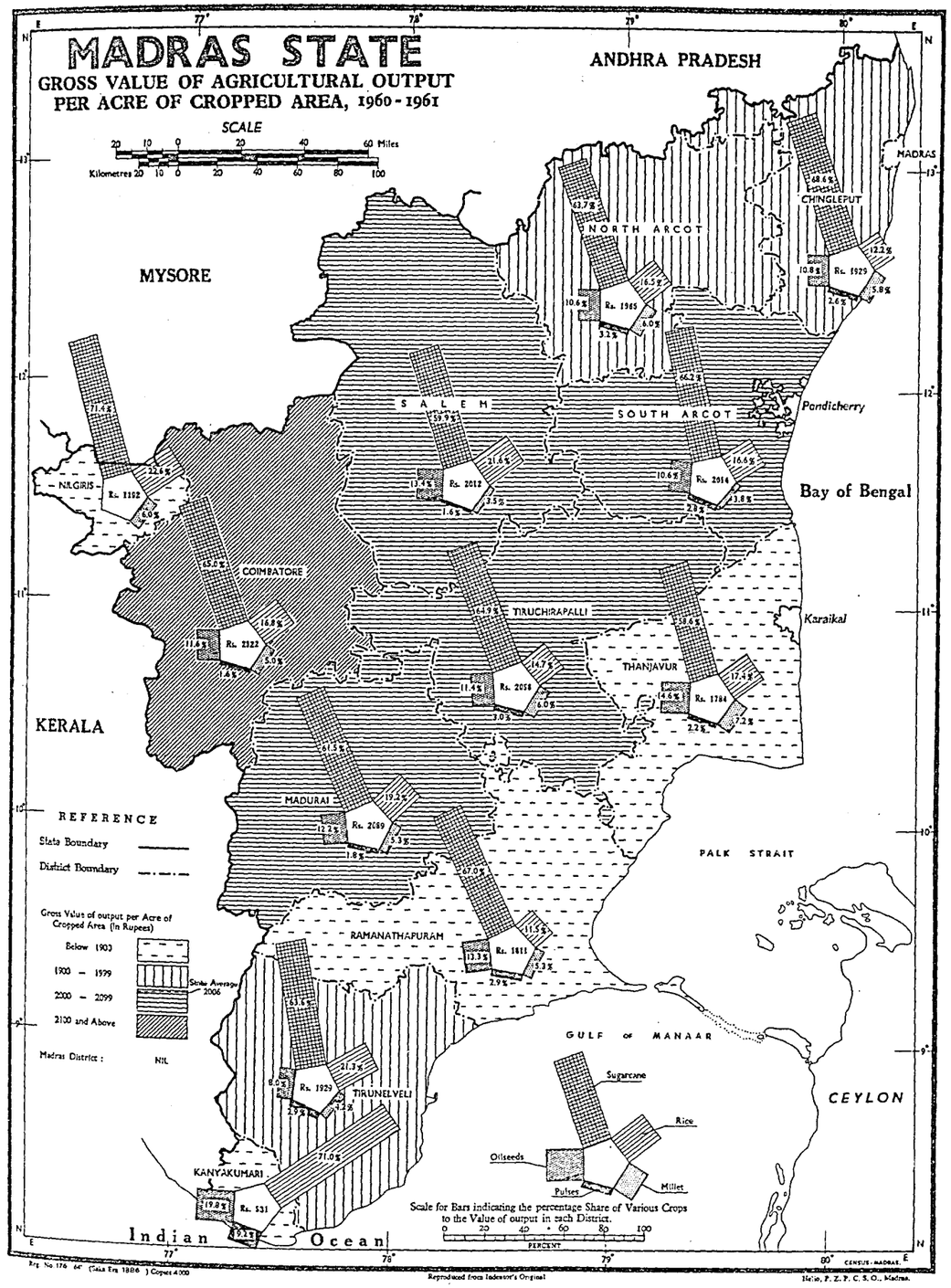
SALIENT FEATURES

The gross value of agricultural output is highest in Coimbatore district. Salem, South Arcot, Tiruchirapalli and Madurai districts have fairly high productivity value and value in Chingleput, North Arcot and Tirunelveli districts is rather low. Nilgiris, Thanjavur, Ramanathapuram and Kanyakumari districts have very low values.

In all the districts except Kanyakumari the value of agricultural output is contributed mainly by sugarcane which accounts for more than 50% of the value. In Kanyakumari district alone rice accounts for 71% of the total value. The percentage share of rice varies between 11% in Ramanathapuram to 22.6% in Nilgiris. Millets account for 5.3% of total value in the State and the highest share of 7.2% is recorded in Thanjavur district. The lowest is 3.8% in South Arcot district and in Kanyakumari district the value is nil. Pulses is comparatively more important in Kanyakumari district than in other districts. The percentage share of pulses ranges between 1.6 in Salem and Coimbatore to 3.0 in Tiruchirapalli, Kanyakumari district having 9.2%. Oil seeds which accounts for 11.7% of the value in the State accounts for 19.8% in Kanyakumari and 8.0% in Tirunelveli district.

SOURCE

Season and Crop Report, Madras, 1960—61.



MAP 59

GROSS VALUE OF AGRICULTURAL OUTPUT PER CULTIVATING HOUSEHOLD 1961

MAP 59

GROSS VALUE OF AGRICULTURAL OUTPUT PER CULTIVATING HOUSEHOLD

1961

PURPOSE

The gross agricultural productivity in terms of gross value of agricultural output per cultivating household is presented in this map.

METHOD

The data on the number of cultivating household have been compiled from the household schedule tabulated on a 20% sample of households. The total number of cultivating households as obtained from this has been multiplied by five to calculate gross value of agricultural output per cultivating household. If atleast one member of the household is engaged in cultivating the land either by actually working in the field or by supervising the cultivation then the household has been treated as cultivating household. The agricultural output includes rice, millet, pulses, oilseeds and sugarcane.

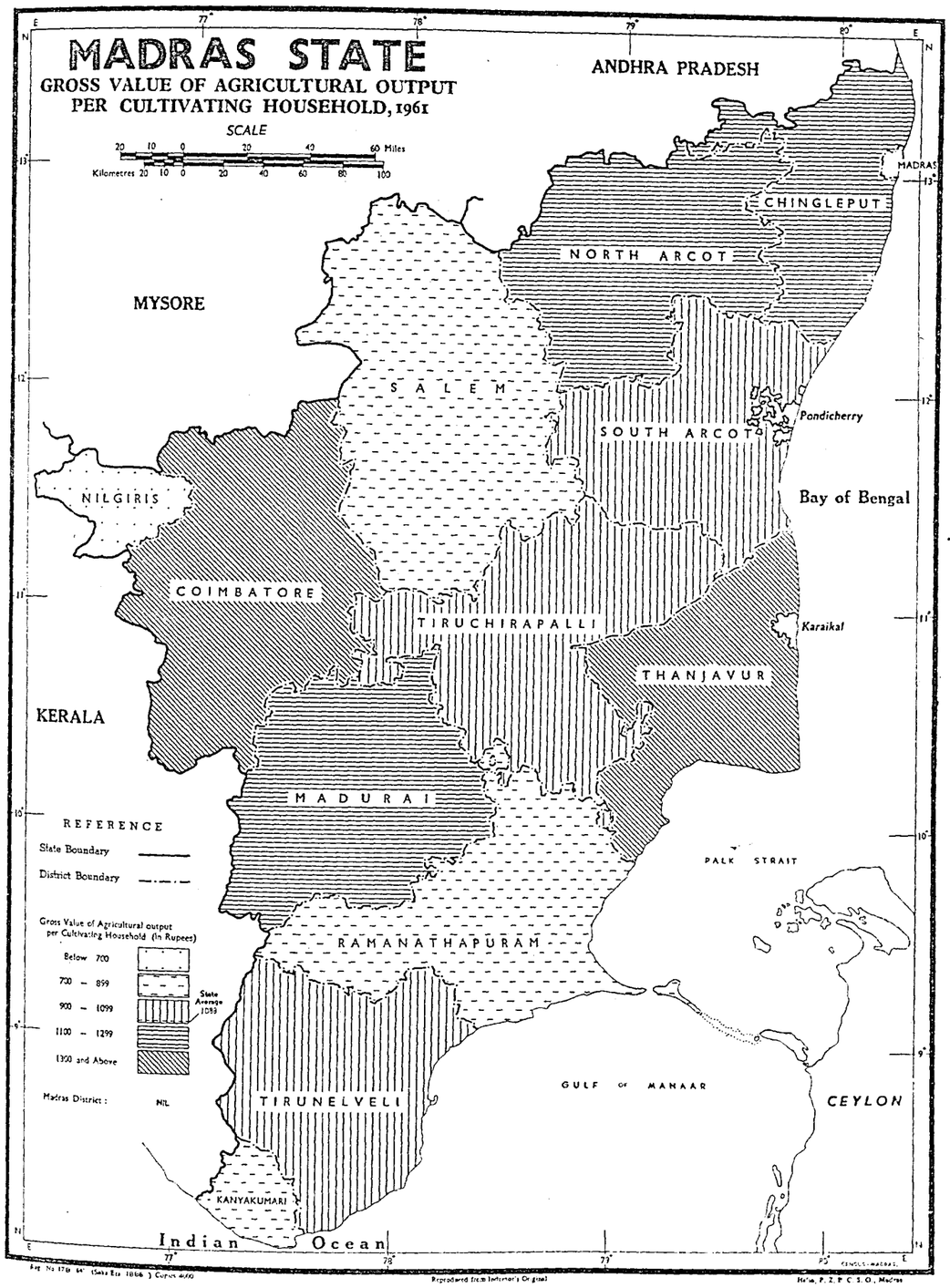
SALIENT FEATURES

The total value of agricultural output per cultivating household is Rs. 1,088 in Madras State. The pattern in the State falls into five broad ranges. (i) Very highly productive areas of Thanjavur and Coimbatore districts (ii) Highly productive area of Madurai, Chingleput and North Arcot, (iii) Area of moderate or medium productivity comprising South Arcot, Tiruchirapalli and Tirunelveli districts (iv) Area of low productivity comprising Salem, Ramanathapuram and Kanyakumari districts and (v) Area of very low productivity coinciding with Nilgiris district.

While in Thanjavur district, the high productivity is predominantly through rice production which accounts for 92% of total value, in Coimbatore district the gross value has accrued through uniform distribution though contribution of rice is greater than that of any other crop. Next to rice, millets form an important component of the value of agricultural output and oilseeds rank third though the contributions of all the three are almost equal.

SOURCE

Season and Crop Report, Madras State 1960-61. Issued by the Department of Statistics, Madras.



MAP 60

GROSS VALUE OF AGRICULTURAL OUTPUT

PER CULTIVATOR

MAP 60

GROSS VALUE OF AGRICULTURAL OUTPUT PER CULTIVATOR

PURPOSE

This map presents the regional variation in productivity of agricultural land in the State in terms of gross value of output per cultivator.

METHOD

The gross value of agricultural output refers to sum total of the value of rice, millets, pulses, oilseeds and sugarcane. Cultivators refer to number of persons under "cultivators" which is one of the nine industrial categories into which workers have been classified.

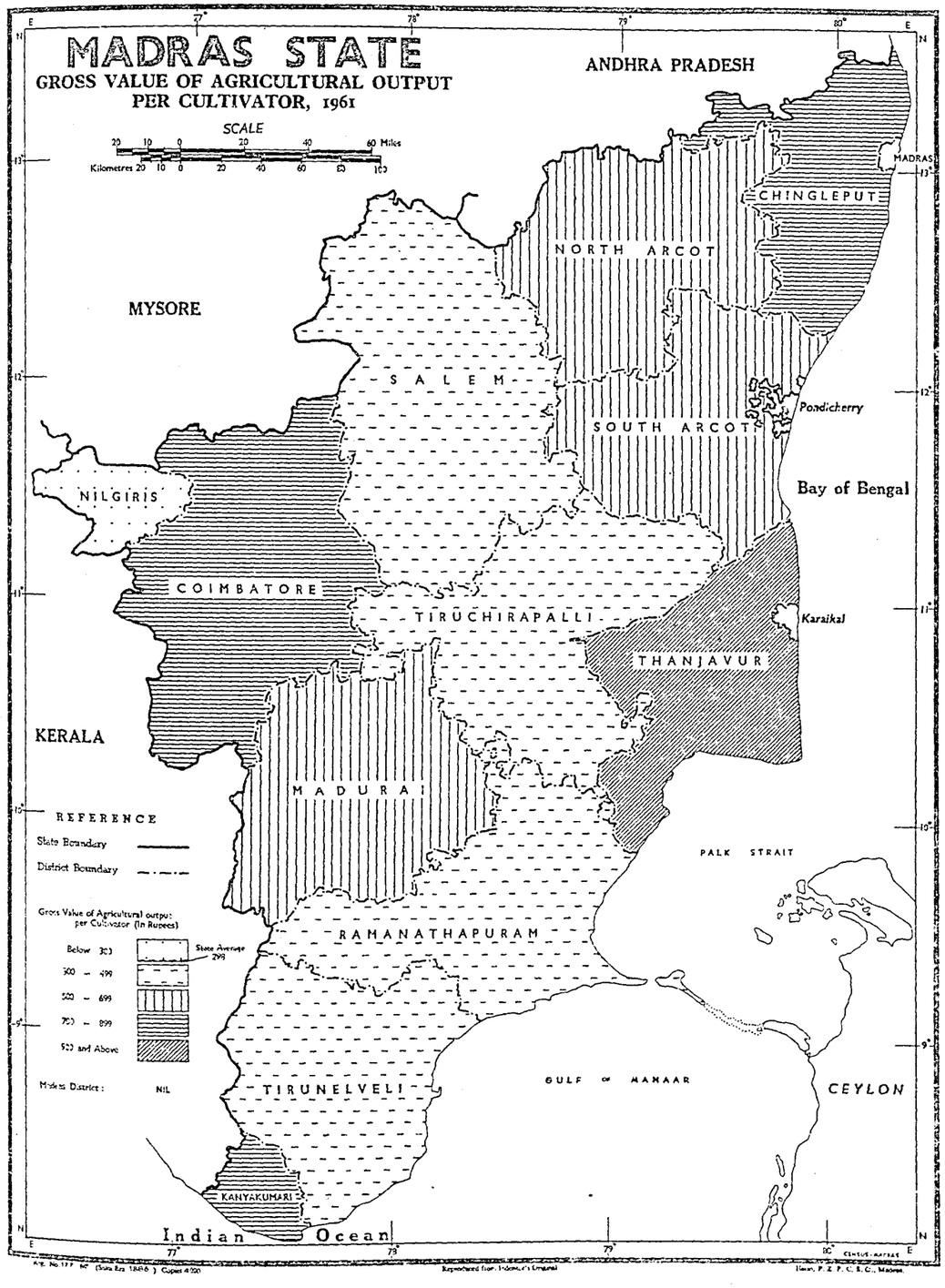
SALIENT FEATURES

The productivity per cultivator is very high in Thanjavur district, high in Chingleput, Kanyakumari and Coimbatore districts and moderately high in North Arcot, South Arcot and Madurai districts. It is medium in Salem, Tiruchirapalli, Ramanathapuram and Tirunelveli districts. It is low in only Nilgiris district.

The gross value of agricultural output per cultivator in the State is Rs. 520 per cultivator and the highest value is Rs. 1,174 in Thanjavur district. The district with second rank is Kanyakumari with Rs. 789. The lowest value is Rs. 79 in Nilgiris district and the penultimate rank is held by Salem district with Rs. 301.

SOURCE

Season and Crop Report, 1960—61.



MAP 61

AGRICULTURAL HOLDING PER CULTIVATING HOUSEHOLD

MAP 61

AGRICULTURAL HOLDING PER CULTIVATING HOUSEHOLD

PURPOSE

This map shows the average agricultural holding per cultivating household in the taluks of Madras State.

METHOD

The total area under cultivation as compiled from 20% sample of household schedule has been divided by the total number of households engaged in cultivation, data for which has also been compiled from household schedule.

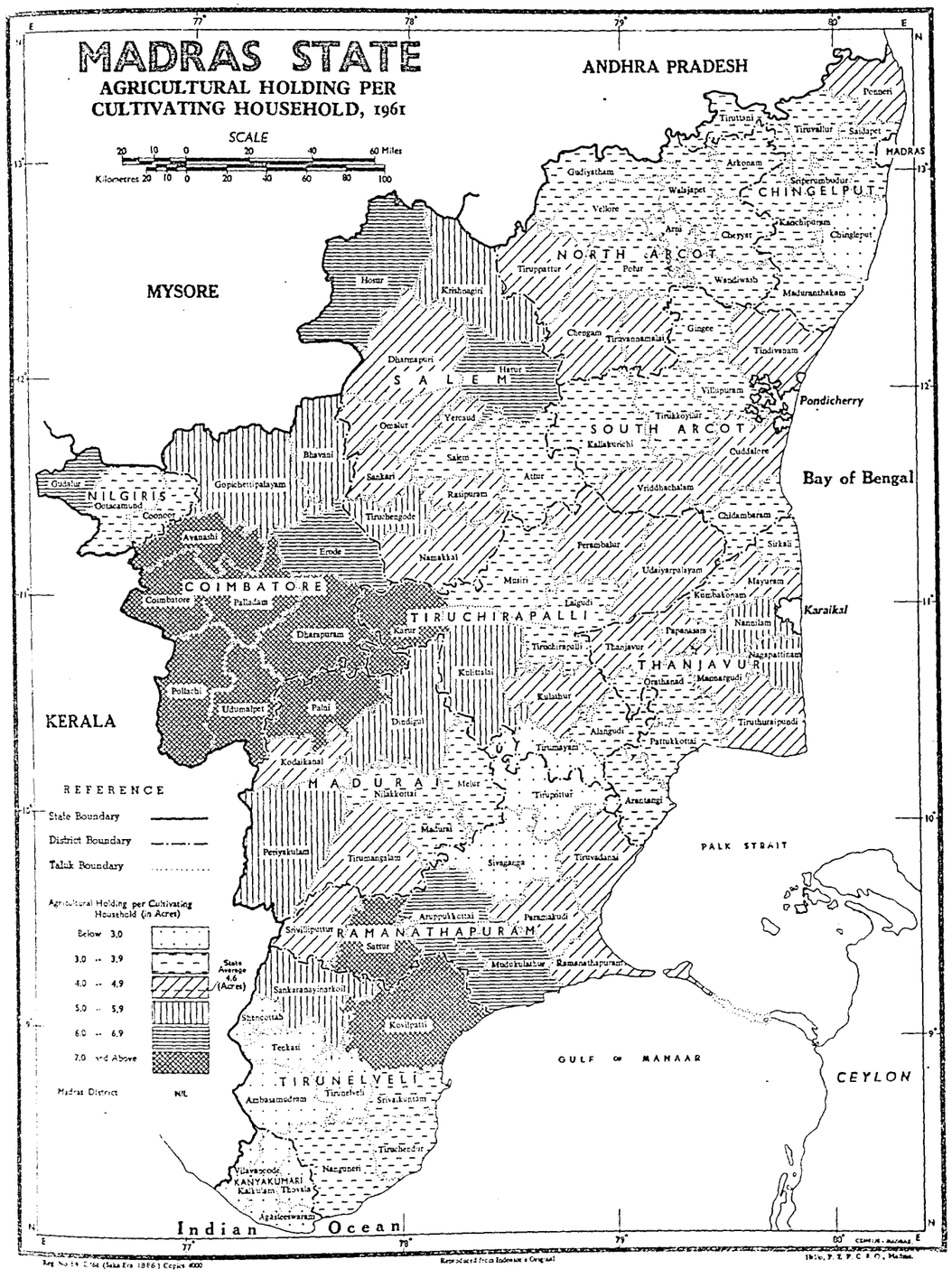
The agricultural holdings have been classified into six ranges and the taluks have been shaded by six grades of hatching.

SALIENT FEATURES

The average area under cultivation by a household in Madras State is 4.6 acres. The average area under cultivation varies from 1.3 acres in Agastheeswaram taluk in Kanyakumari district to 12.7 acres in Dharapuram taluk of Coimbatore district. Six taluks of Coimbatore district record more than 7.0 acres. All the four taluks of Kanyakumari district record less than 2.5 acres per cultivating household. Large holding of above 7.0 acres is noticed in Sattur, Kovilpatti, Palni and Karur taluks also.

SOURCE

Census of India, 1961, Madras State—Part III Household Economic Tables.



MAP 62

AGRICULTURAL HOLDING PER CAPITA IN RURAL AREA 1961

MAP 62

AGRICULTURAL HOLDING PER CAPITA IN RURAL AREA

1961

PURPOSE

This map shows the area of land under cultivation per person in rural areas of taluks of Madras State.

METHOD

The total area under cultivation has been divided by total rural population of each taluk to obtain per capita holding. The talukwise figures have been grouped into five ranges and the taluks have been shaded by five grades of hatching ranging from high to low. The total area under cultivation has been calculated from Household Economic Tables which are based on 20% sample.

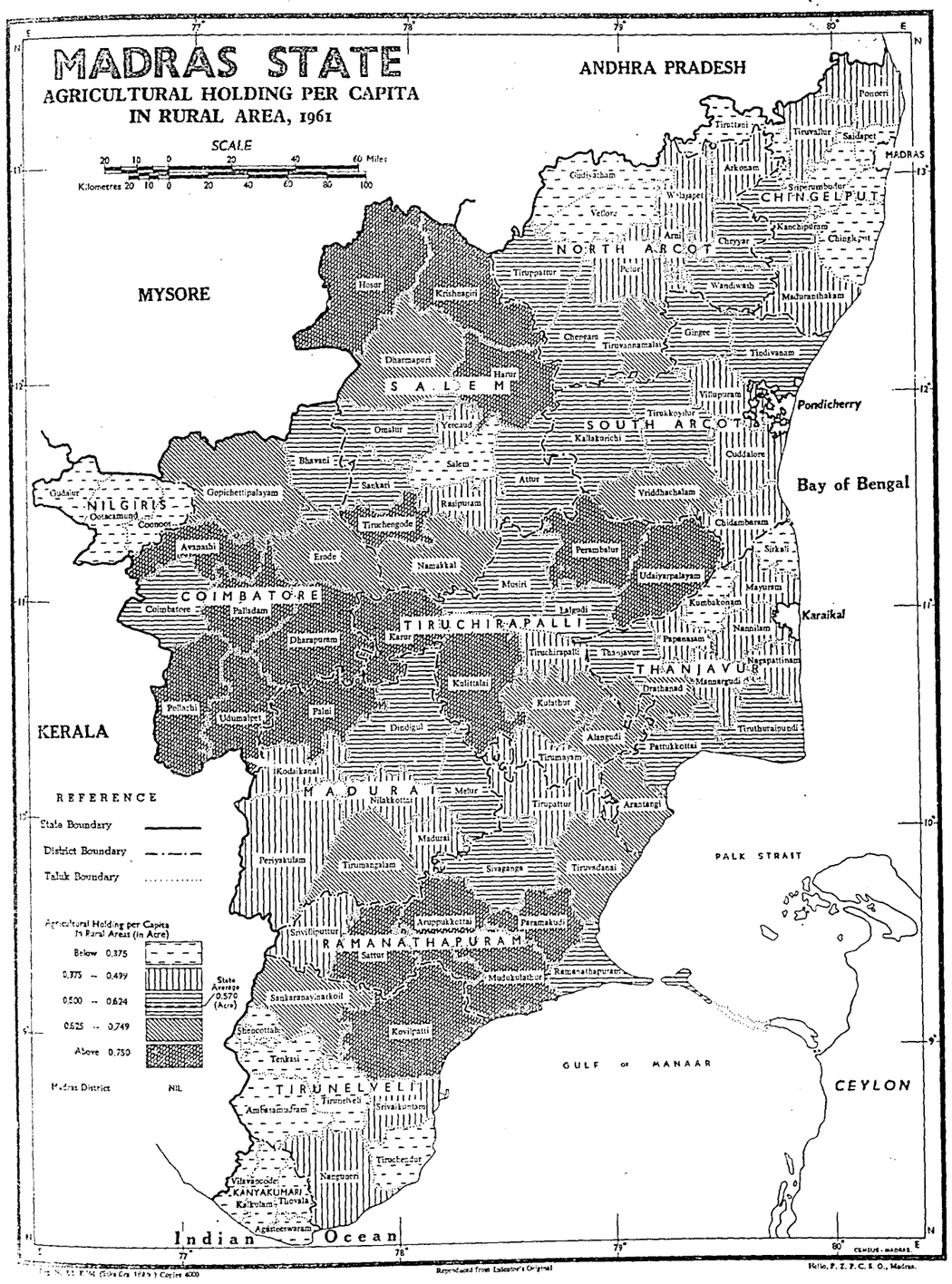
SALIENT FEATURES

The per capita agricultural holding in rural area of Madras State is 0.57 acres and the largest holding is 1.39 acres in Dharapuram taluk of Coimbatore district. The map reveals four distinct pockets of high holdings. They are Hosur, Harur and Krishnagiri in Salem district, Perambalur and Udayarpalayam in Tiruchirapalli district, Avanashi, Palladam, Pollachi, Udumalpet and Dharapuram in Coimbatore district, Palni in Madurai district, Karur and Kulitalai taluks in Tiruchirapalli district and Sattur, Paramakudi, Aruppukottai, Mudukulathur and Ramanathapuram taluks.

Taluks of small holdings are noticed in Kanyakumari district where all the four taluks have per capita holding of less than 0.375 acres. Similarly in Nilgiris district also the per capita holding is below 0.375.

SOURCE

Census of India, 1961, Madras State—Part III Household Economic Tables.



MAP 63

AGRICULTURAL HOLDING PER MALE CULTIVATOR 1961

MAP 63

AGRICULTURAL HOLDING PER MALE CULTIVATOR

1961

PURPOSE

This map shows the agricultural holding per capita of male cultivators in the various taluks of Madras State.

METHOD

The total area of land under cultivation as tabulated from 20% sample of the household schedule has been divided by number of male cultivators as recorded in Primary Census Abstract. The per capita area figures have been grouped into five ranges and taluks have been shaded by five grades of hatching from high to low.

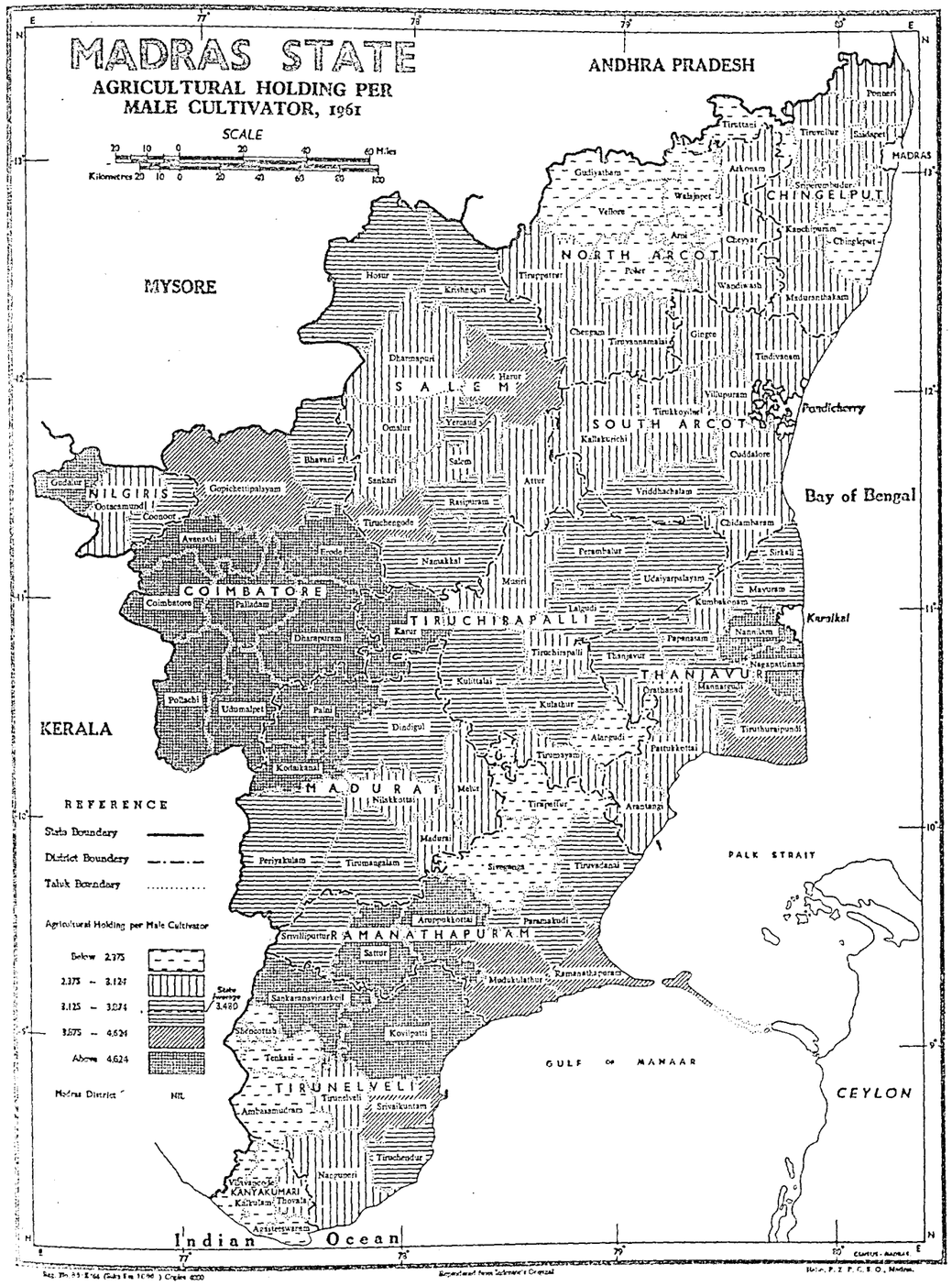
SALIENT FEATURES

The average agricultural holding per male cultivator is 3.48 acres in Madras State and the largest holding is 8.54 acres in Dharapuram taluk.

It is seen that large holdings are noticeable in Coimbatore Madurai and Ramanathapuram districts. In seven out of nine taluks of Coimbatore district the average holding exceeds 4.0 acres. In Karur, Palni and Kodaikanal taluks of Madurai district, the average holding per male cultivator is above 4.0 acres. Similarly Sattur and Aruppukottai taluks of Ramanathapuram district, Kovilpatti and Sankaranainarkoil taluk of Tirunelveli district, Gudalur taluk of Nilgiris district, Nannilam and Nagapattinam taluks of Thanjavur district also record very high average holding. In Kanyakumari district all the four taluks have recorded less than 3.1 acres of holding per male cultivator.

SOURCE

Census of India, 1961, Madras State—Part III Household Economic Tables.



MAP 64

POPULATION AND DISTRIBUTION OF

WORKING FORCE

MAP 64

PULATION AND DISTRIBUTION OF WORKING FORCE

PURPOSE

This map indicates the districtwise population distribution and the classification of workers by nature of activity. The workers have been classified as working in Primary, Secondary and Tertiary sectors.

METHOD

The population figures of the districts have been grouped into five ranges and the districts have been hatched from high to low. For each district a circle has been drawn proportionate to total working force of the district and each circle has been divided into three segments to represent primary, secondary and tertiary sectors. The three sectors have been given different hatchings.

SALIENT FEATURES

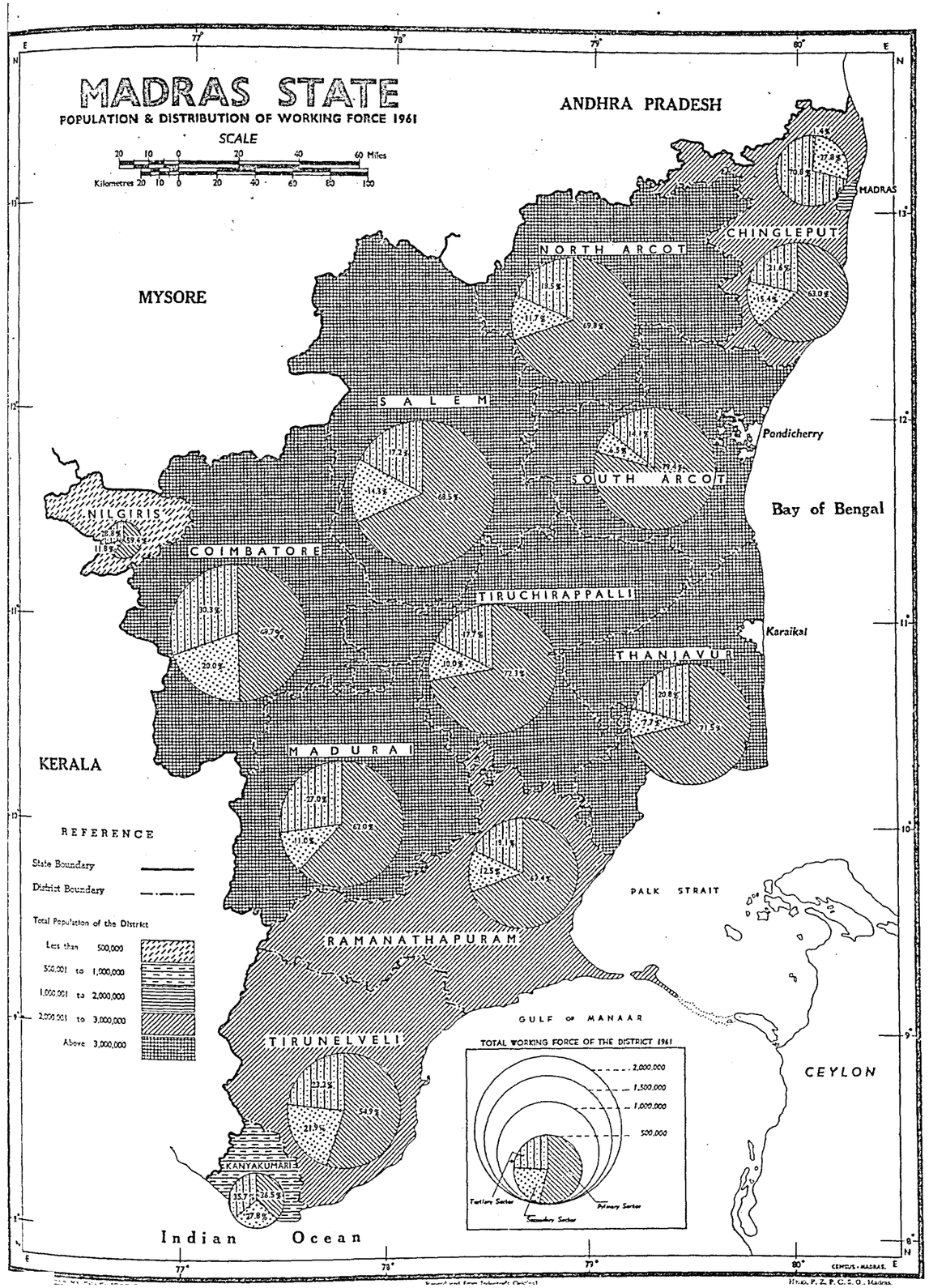
In Madras State 63.0% of the workers are engaged in primary sector, 14.0% in secondary sector and 23.0% in tertiary sector. Primary sector is insignificant in Madras. The district with highest percentage of workers under primary sector is South Arcot (79.4%). Excluding Madras, in only two districts the percentage of workers in primary sector is less than 50%. The two districts are: Coimbatore (49.7%) and Kanyakumari (36.5%).

Secondary sector wherein only 13.9% of workers are engaged in Madras State assumes importance in Madras and Kanyakumari districts both with 27.8%. The lowest percentage is 6.5 in South Arcot district.

Tertiary sector is of importance only in Madras city wherein 70.8% of workers are engaged. The next highest percentage is 35.7 in Kanyakumari district.

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 65

PROPORTION OF RURAL MALE WORKERS TO THE TOTAL RURAL MALE POPULATION 1961

MAP 65

PROPORTION OF RURAL MALE WORKERS TO THE TOTAL RURAL MALE POPULATION 1961.

PURPOSE

This map indicates the percentage of male workers to the total male population in the rural areas of the taluks of Madras State.

METHOD

The percentages have been classified into five ranges—two above and three below the State average. The taluks have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

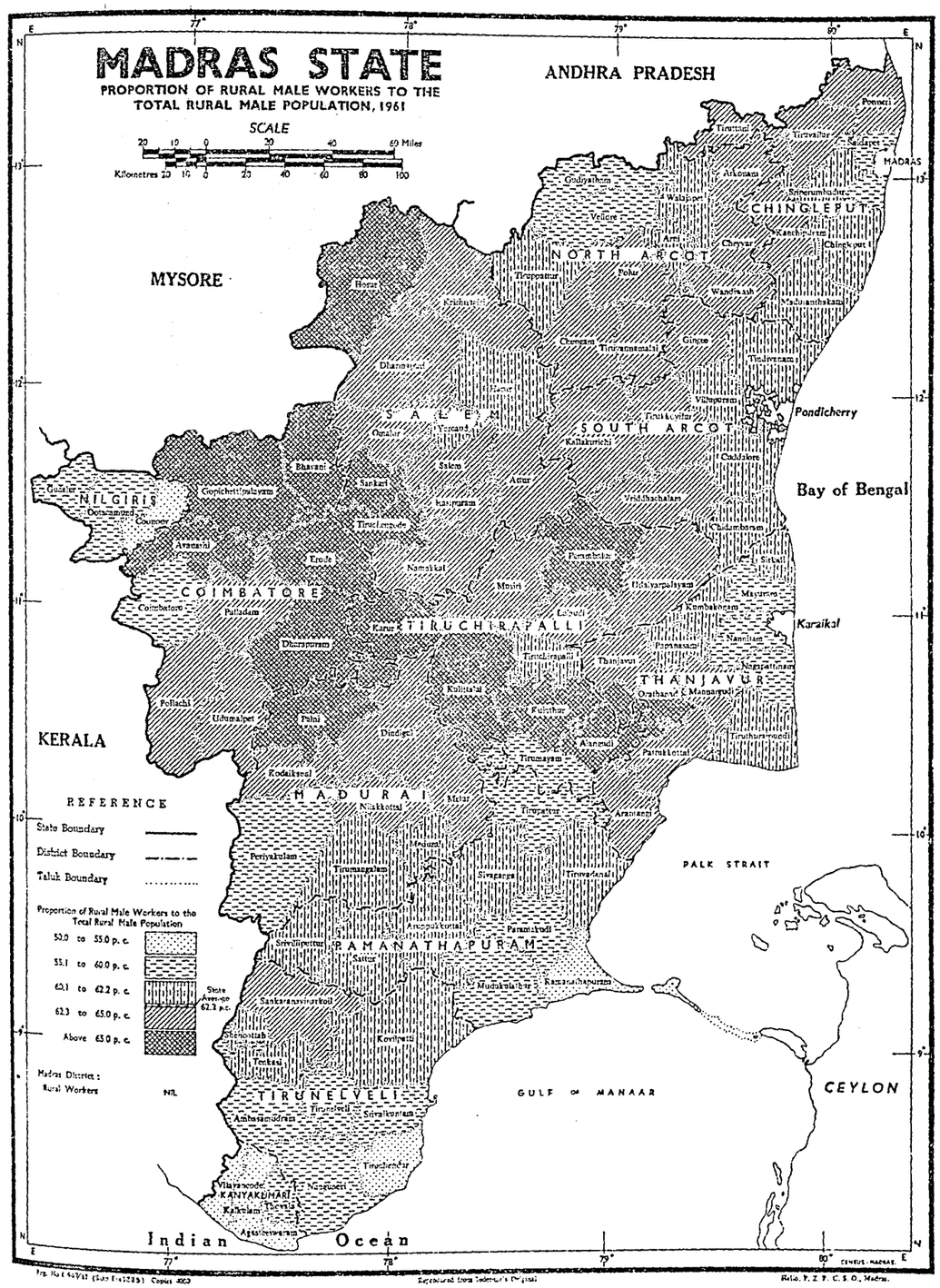
In rural areas of Madras State 62.2% of male poulation are workers. The lowest male participation is observed in Vilavancode taluk of Kanyakumari district where only 51.3% of males are workers. There are five other taluks where male participation is between 50.0% and 55%. They are—Coonoor taluk in Nilgiris district, Ramanathapuram taluk in Ramanathapuram district, Tiruchendur taluk in Tirunelveli district, Kalkulam and Agastheeswaram taluks in Kanyakumari district.

The highest percentage of male participation is 69.6 in Dharapuram taluk of Coimbatore district. There are 15 taluks in which male workers constitute more than 65.0% of male population. Almost all these taluks with the exception of Perambalur and Hosur form a continuous belt. There are three taluks in Salem, five each in Coimbatore and Tiruchirapalli and one each in Madurai and Thanjavur districts. All these fifteen taluks are surrounded by taluks which have recorded percentages above the State average.

It is interesting to note that most of the coastal areas have recorded percentage below the State average, the exceptions being Ponneri, Pattukottai and Arantangi taluks. Further, all the southern taluks (except Sankaranainarkoil taluk) beyond Kodaikanal taluk have recorded percentages below the State average. However there are equal number of taluks above and below the State average—51 above and 52 below.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 66

PROPORTION OF URBAN MALE WORKERS TO THE TOTAL URBAN MALE POPULATION 1961

MAP 66

PROPORTION OF URBAN MALE WORKERS TO THE TOTAL URBAN MALE POPULATION 1961.

PURPOSE

This map shows the percentage of male workers, to total male population in the urban areas of the taluks of Madras State.

METHOD

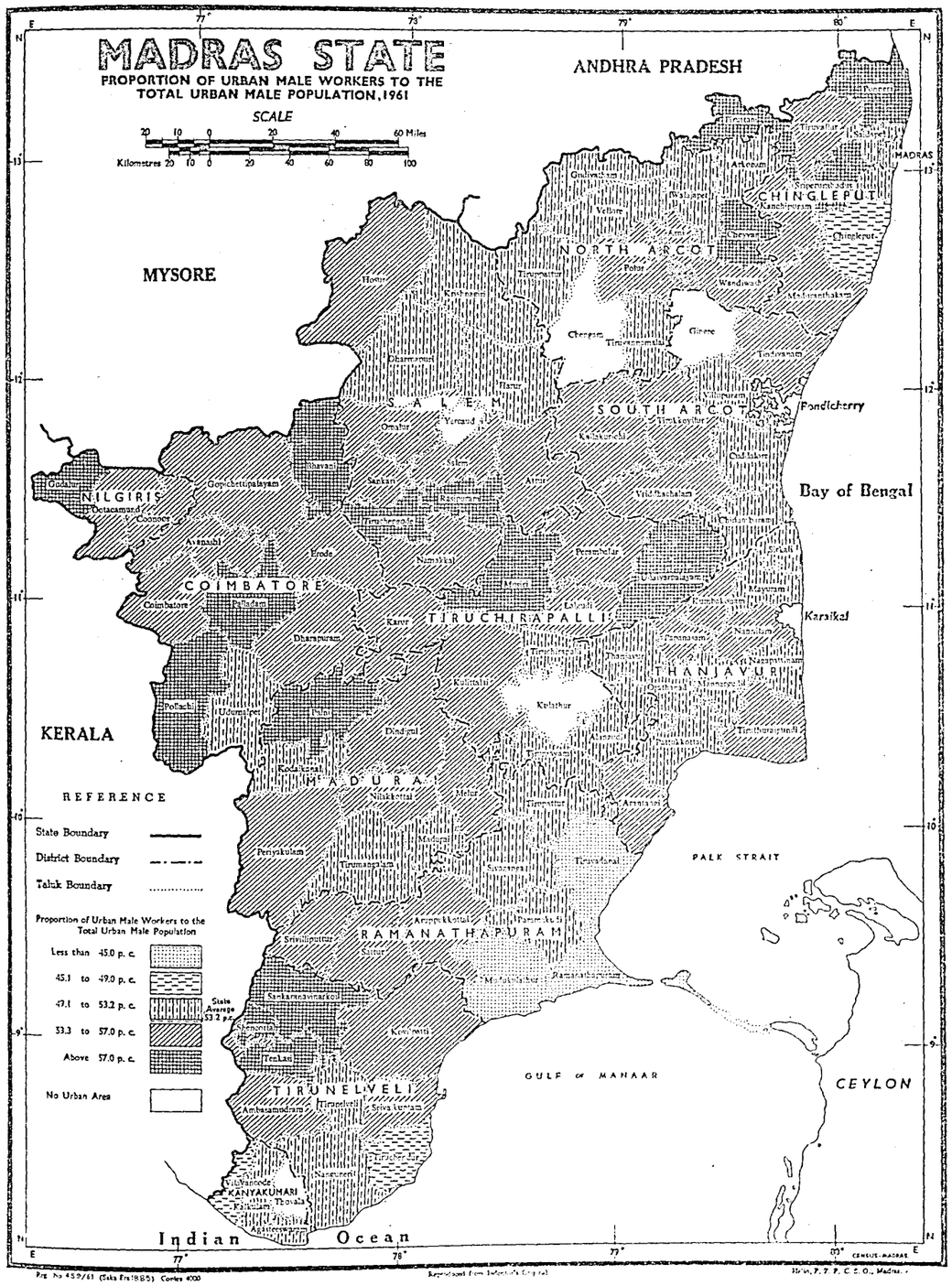
The percentages have been classified into five groups—two above and three below the State average. The taluks have then been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

In the urban areas of Madras State, 53.2% of male population are workers. The highest percentage of workers is recorded in Tiruchengode taluk where 59.6% of males are workers. The lowest percentage is 43.1 in Mudukulathur taluk of Ramanathapuram district. Out of 98 taluks which possess urban areas, 41 taluks have recorded percentages below the State average and 57 taluks are above the State average. 15 taluks have recorded percentages above 57.0%. But they are all scattered over the entire State without any large concentration. All the three taluks where male workers constitute less than 45% are in Ramanathapuram district. They are:—Tiruvadanai, Ramanathapuram and Mudukulathur taluks—all the three being contiguous coastal areas.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



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MAP 67

PROPORTION OF RURAL FEMALE WORKERS TO THE TOTAL RURAL FEMALE POPULATION 1961

MAP 67

PROPORTION OF RURAL FEMALE WORKERS TO TOTAL RURAL FEMALE POPULATION

1961.

PURPOSE

This map indicates the percentage of workers among female population in the rural areas of the taluks of Madras State.

METHOD

The percentages have been classified into seven categories-three above and four below the State average. The taluks have been shaded by seven grades of hatching ranging from high to low.

SALIENT FEATURES

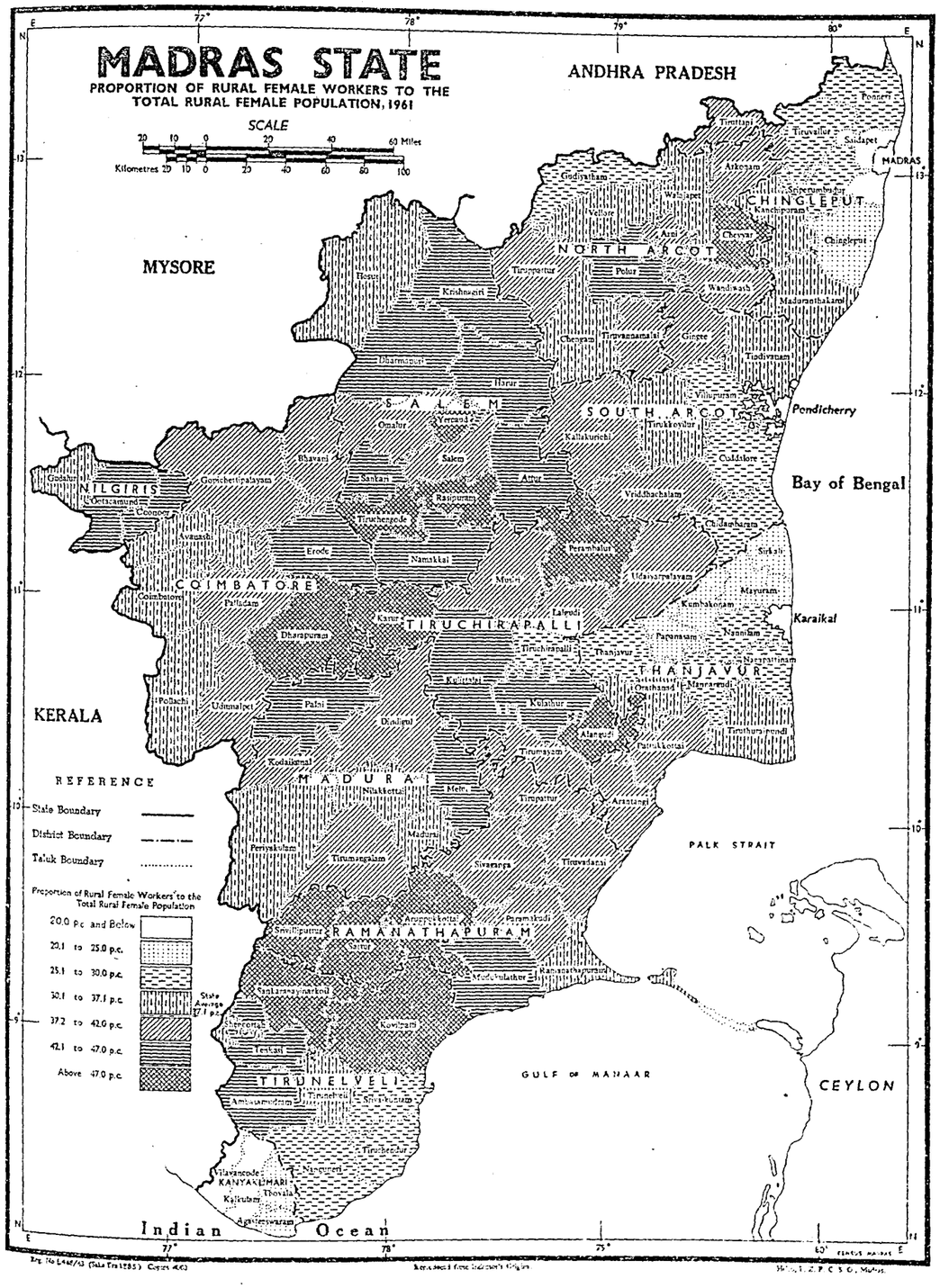
37.1% of female population in the rural areas of Madras State are workers. The highest is 53.5% in Yercaud taluk of Salem district and the lowest is 14.8% in Kalkulam taluk of Kanyakumari district.

Three taluks have percentage below 20% and they are Saidapet, Vilavancode and Kalkulam taluks. In seven taluks the percentage of female workers varies between 20% and 25%. Of these seven, one is in Chingleput district, four in Thanjavur district and two in Kanyakumari district. There are fifteen taluks in the next category 25.1% to 30.0%, 20 taluks in the category 30.1% to 37.1%. Thus 45 taluks have percentages below the State average.

Out of 58 taluks which have percentages above the State average, maximum number of taluks is in Salem district in which 11 out of 12 taluks have percentages above the State average. Tiruchirapalli and Ramanathapuram districts have nine and eight taluks respectively with percentage above the State average. Kanyakumari has no taluk in this range and Chingleput has only one.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 68

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL POPULATION WITH MALE AND FEMALE DIVISIONS 1961

MAP 68

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL POPULATION WITH MALE AND FEMALE DIVISIONS 1961

PURPOSE

This map shows the percentage of workers and non-workers in the different districts of Madras State. It also shows the distribution of these percentages by sex.

METHOD

Circles have been drawn for each district proportionate to total population. The circle has been divided in to four sectors —two for males and two for females. The sector with dots refers to workers and the sector without any hatching refers to nonworkers. The data regarding percentage of workers to total population have been grouped into five categories—three below the state and two above the state average. The districts are then shaded by five grades of hatching from high to low.

SALIENT FEATURES

In Madras State, out of a total population of 33,686,953 45.57% are workers and 54.53% are non-workers.

The highest percentage (51.3) of workers is in Salem district and the lowest percentage (30.5) is in Madras. Kanyakumari, Chingleput, Madurai, Thanjavur and Madras have percentages less than the State average while Tirunelveli has the same as the State average. Seven districts have recorded more than the State average and they are : North Arcot, South Arcot, Coimbatore, Nilgiris, Tiruchirapalli, Ramanathapuram and Salem.

Male workers constitute 30.0% of the total population. Coimbatore district ranks first with 31.7% as male workers, while Kanyakumari district ranks last (26.5%).

The percentage of female workers to total population is 15.6 for the State and the highest percentage is 19.7 at Ramanathapuram and Salem districts. The lowest percentage is 3.0 in Madras City. The variation between the lowest and highest among female workers is as high 16.6% while the corresponding difference among the male workers is only 5.2%. The percentage of male non-workers to total population is 20.2 and the highest percentage is 25.1 in Madras and the lowest is 18.9 in Tiruchirapalli and Salem Districts.

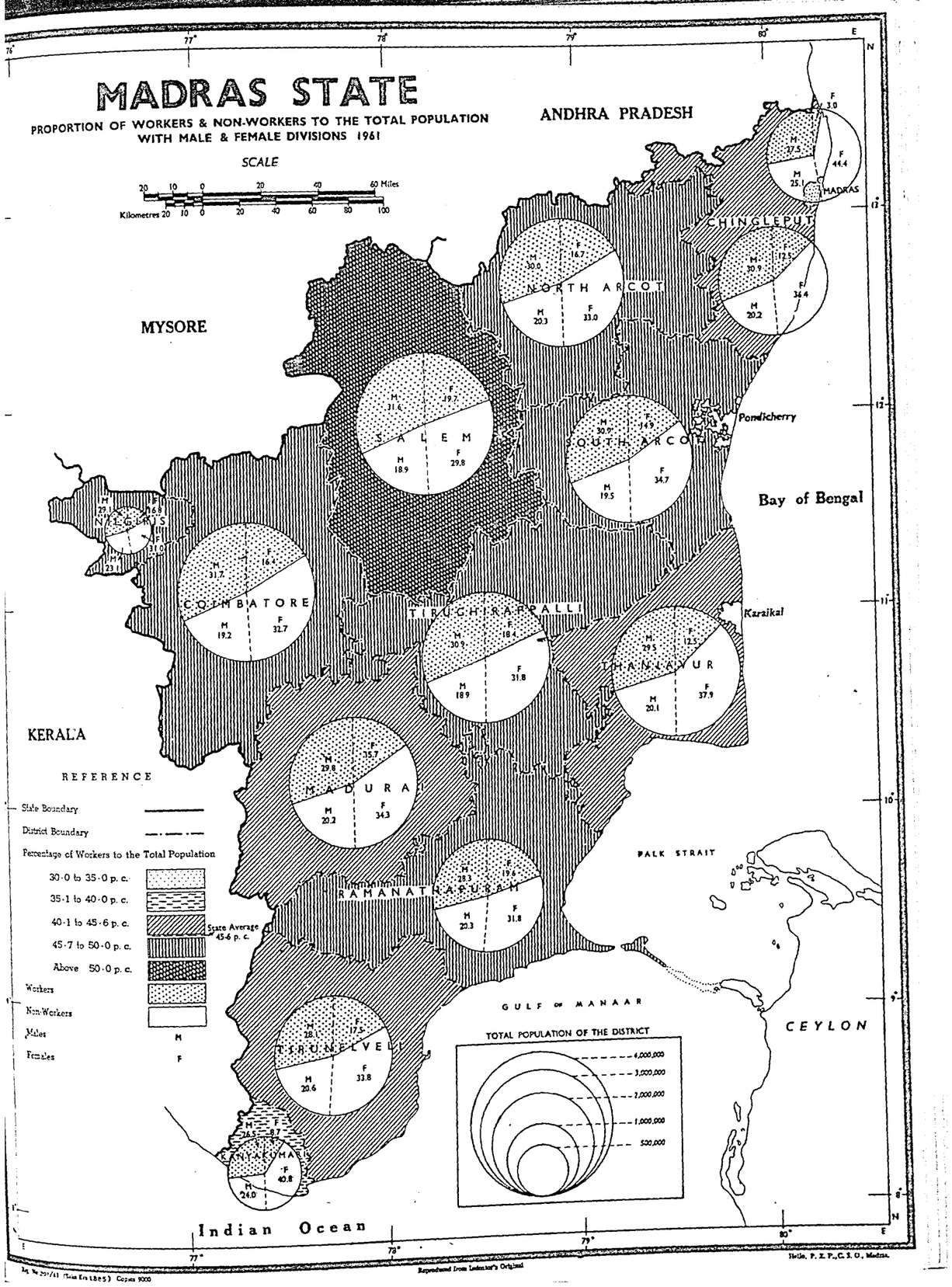
The percentage of female non-workers to total population is 34.22 for Madras State and the highest is 44.4 in Madras and the lowest is 29.8 in Salem District.

TABLE

Rank	District	Percentage of workers to total population
	MADRAS STATE	45.6
1.	Madras	30.5
2.	Kanyakumari	35.2
3.	Thanjavur	42.0
4.	Chingleput	43.4
5.	Madurai	45.5
6.	Tirunelveli	45.6
7.	South Arcot	45.8
8.	Nilgiris	45.9
9.	North Arcot	46.7
10.	Ramanathapuram	48.0
11.	Coimbatore	48.1
12.	Tiruchirapalli	49.3
13.	Salem	51.3

SOURCE

Census of India, 1961, Madras State, Part, II-A General Population Tables.



MAP 69

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL RURAL POPULATION WITH MALE AND FEMALE DIVISIONS 1961

MAP 69

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL RURAL POPULATION WITH MALE AND FEMALE DIVISIONS 1961

PURPOSE

This map shows the percentage of workers and non-workers among the rural population in the different districts of Madras State. The map also shows the distribution of workers and non-workers by sex.

METHOD

Circles have been drawn for each district proportionate to total rural population of the district. Each circle has been divided into four segments—two for workers and two for non-workers each of which has further been divided into two by sex. The segment relating to workers has been indicated by dots while the segment relating to non-workers has not been shaded.

The data regarding percentage of workers have been grouped into four categories—three below and one above the state average. The districts are then shaded by four grades of hatching ranging from high to low.

SALIENT FEATURES

The total rural population of Madras State is 24.7 millions and out of this, 12.26 millions or 49.6% are workers. The highest percentage of workers is 53.7% in Salem District followed by Tiruchirapalli where 53.6% of rural population are workers. The lowest percentage of workers is in Kanyakumari disrict where only 35.8% of the population are worker and the next district with low percentage of workers is Thanjavur with 44.8%. Out of 12 districts possessing rural population, seven districts have recorded percentages of working population to the total populotion above the State average and five have percentages less than State average.

This 49.6% of workers is composed of 31.1% of males and 18.5% of females. The percentage of male workers to total population is highest in Coimbatore district where 32.8% of rural population are male workers. The lowest percentage is 26.8 in Kanyakumari.

There are 4.59 million female workers which is 18.6% of total population. The maximum percentage of female workers to total population is found in Ramanathapuram district where 22.6% of total population are female workers. Tiruchirapali with 21.7% and Salem with 21.4% are the other important districts with large number of female workers. The lowest percentage of female workers is 9.0 in Kanyakumari district. Chingleput with 14.0% and Thanjavur with 14.4% are the other two districts with fairly low percentage of female workers. There are only four districts which have recorded psercentages lower than that of the State.

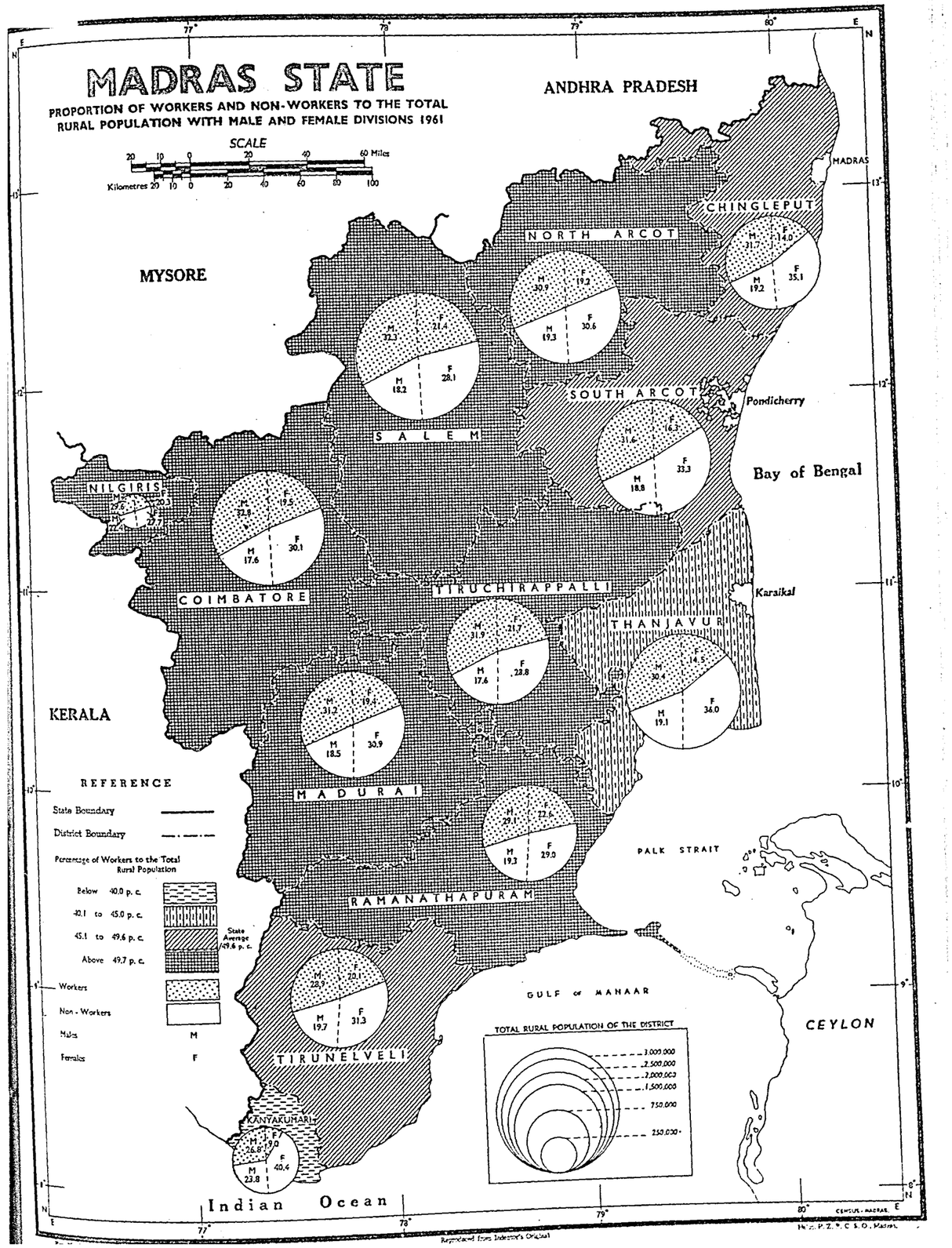
The proportion of non-workers to total rural population is highest in Kanyakumari district where 64.17% of population are non-workers, while the lowest percentage of non-workers is 46.30 in Salem District. The highest percentage of male non-workers to the total population is 23.75 in Kanyakumari district and the lowest percentage is 17.63 in Tiruchirapalli district. The percentage of female non-workers to the total population is highest in Kanyakumari district where 40.42% of population represents female non-workers. The lowest percentage is 27.67 in Nilgiris district.

TABLE

Rank	District	Percentage of workers
	MADRAS STATE	49.6
1.	Salem	53.7
2.	Tiruchirapalli	53.6
3.	Coimbatore	52.3
4.	Ramanathapuram	51.7
5.	Madurai	50.6
6.	North Arcot	50.1
7.	Nilgiris	49.9
8.	Tirunelveli.	49.1
9.	South Arcot	47.9
10.	Chingleput	45.7
11.	Thanjavur	44.8
12.	Kanyakumari	35.8

SOURCE

Census of India, 1961, Madras State, Part II-A General Population Tables.



MAP 70

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL URBAN POPULATION WITH MALE AND FEMALE DIVISIONS 1961

MAP 70

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL URBAN POPULATION WITH MALE AND FEMALE DIVISIONS 1961

PURPOSE

This map shows the percentage of workers and non-workers among the urban population in the different districts of Madras State. The map also shows the distribution of workers and non-workers by sex.

METHOD

Circles have been drawn for each district proportionate to total urban population of the district. The circle has been divided into two segments on the basis of workers and non-workers. The segment referring to workers has been indicated by dots while that of non-workers has not been shaded. The break-up figures by sex have also been indicated by dividing each segment into two by a dotted line.

SALIENT FEATURES

In Madras State, 34.4 percent of a total of 8,990,528 urban population represents workers with a break-up of 27.1 percent for males and 7.3 percent for females. The highest percentage of workers is recorded in Nilgiris district where 40.7% of urban population are workers. Salem district occupies the second rank with 39% of its urban population as workers. Chingleput, Coimbatore, Ramanathapuram and Tirunelveli are the other four districts recording a higher percentage of workers to total urban population than the State average of 34.4%.

The lowest percentage of workers is observed in Madras where only 30.5% of population are workers and Thanjavur follows closely with 30.9%.

North Arcot, South Arcot, Madurai, Tiruchirapalli and Kanyakumari are the remaining districts with working force lower than the State average.

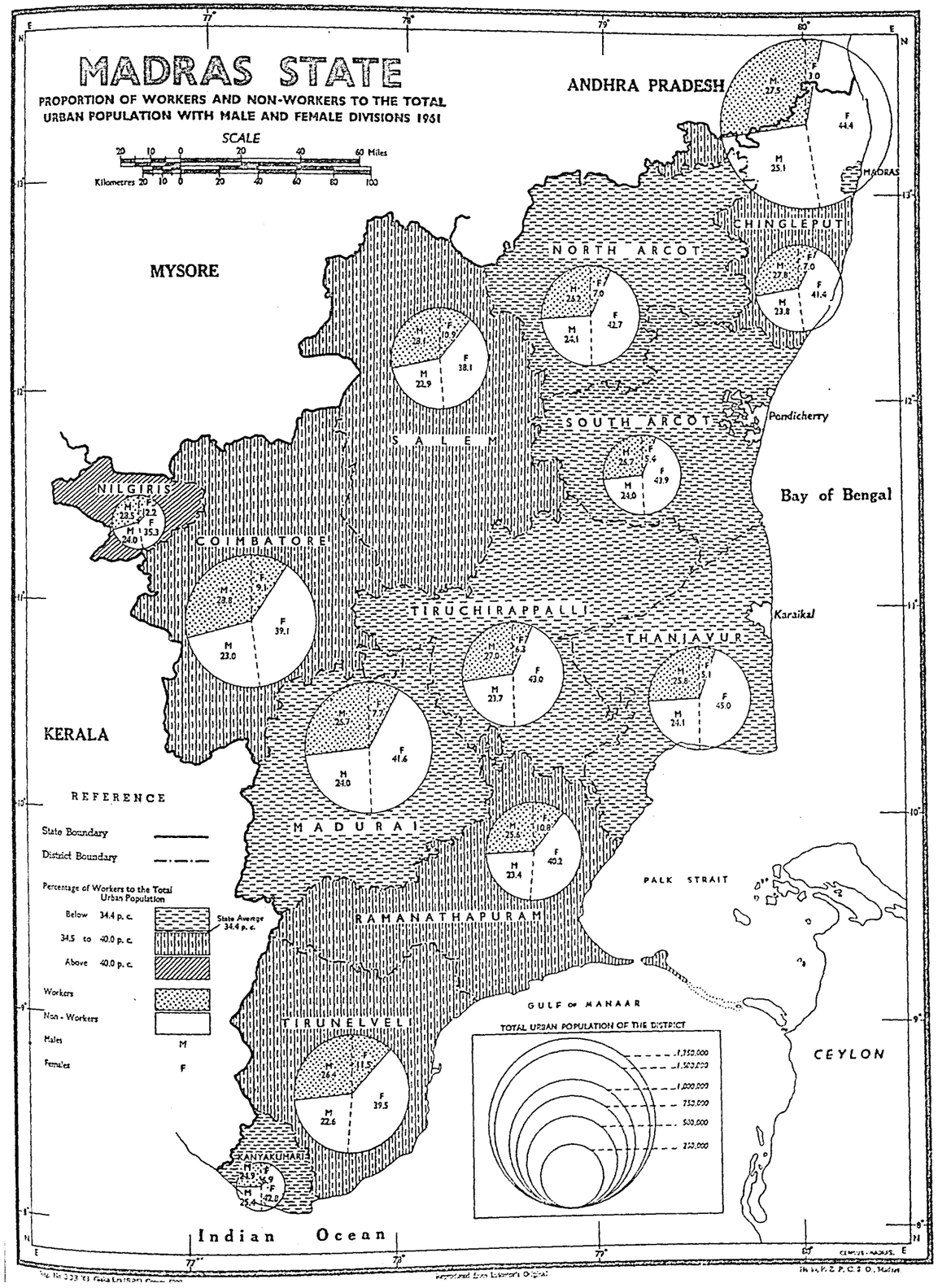
The map also indicates the percentage of male and female workers to total urban population in each district. The percentage of male workers to total urban population is highest in Coimbatore district (28.8) and Nilgiris district (28.5) occupies second place in contrast to its first rank if total workers is taken into consideration. Percentage of male workers to total population is lowest (24.9) at Kanyakumari district. Among females, as in the case of total workers Nilgiris district tops the list with the highest percentage of female workers (12.2) to total population. The second rank is occupied by Tirunelveli where 11.5% of total population are female workers and Salem district takes the third place. The lowest percentage of female participation is in Madras where only 3.0% of total population are females. Thanjavur district comes next with 5.1%. About 65.6% of the urban population are non-workers.

TABLE

Rank	District	Percentage of workers
	MADRAS STATE	34.4
1.	Nilgiris	40.7
2.	Salem	39 0
3.	Coimbatore	37.9
4.	Tirunelveli	37.9
5.	Ramanathapuram	36.4
6.	Chingleput	34.8
7.	Madurai	34.4
8.	Tiruchirapalli	33.3
9.	North Arcot	33.2
10.	South Arcot	32.1
11.	Kanyakumari	31.8
12.	Thanjavur	30.9
13.	Madras	30.5

SOURCE

Census of India, 1961, Madras State, Part II-A General Population Tables.



MAP 71

PROPORTION OF URBAN FEMALE WORKERS TO THE TOTAL URBAN FEMALE POPULATION 1961

MAP 71

PROPORTION OF URBAN FEMALE WORKERS TO THE TOTAL URBAN FEMALE POPULATION 1961.

PURPOSE

This map shows the percentage of female workers to total female population in the urban areas of the taluks of Madras State.

METHOD

The percentages have been grouped in to five categories—four above and one below the State average. The taluks have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

In the urban areas of Madras State, 14.9% of female population are workers and the highest is 45.5% in Aruppukottai and the lowest is 6.3% in Madras city.

The map indicates that percentage below the State average is recorded in almost all the eastern taluks and there is a continuous coastal belt from Tindivanam taluk in South Arcot district to Ramanathapuram taluk in Ramanathapuram district. Madras city and 49 taluks out of 98 have recorded percentages below the State average. All the districts except Nilgiris are represented in this category. All the taluks of Thanjavur district belong to this category. 6 out of 8 taluks of South Arcot district belong to this range.

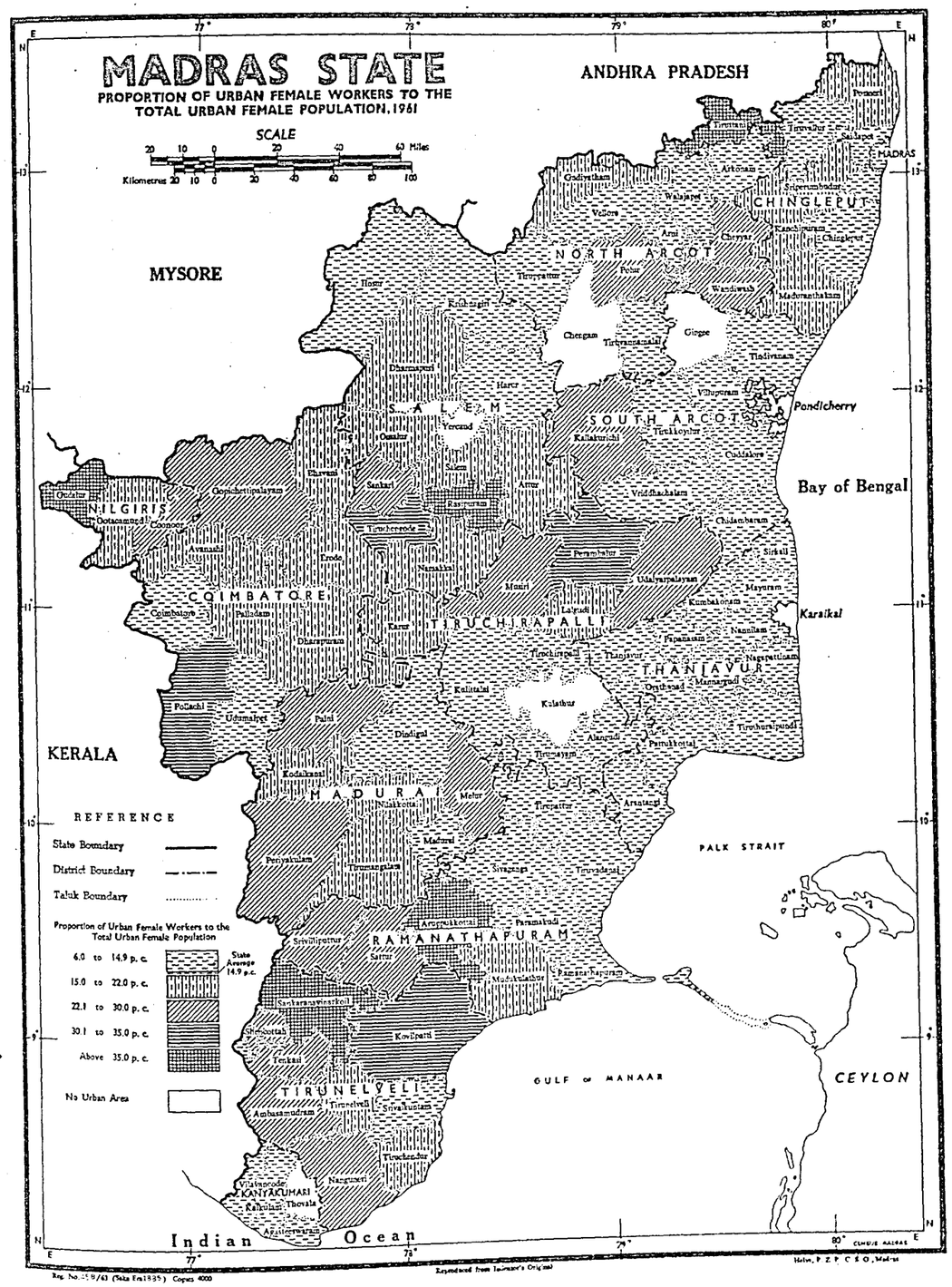
The number of taluks in other ranges are as follows:

15.0 — 22.0	= 23
22.1 — 30.0	= 17
30.1 — 35.0	= 4
Above 35.0	= 5

At least a third of the female population are workers in Tiruttani, Rasipuram, Gudalur, Aruppukottai and Sankaranainarkoil taluks.

SOURCE

Census of India, 1961, Madras State—Part II-A—General Population Tables.



MAP 72

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL EMPLOYABLE POPULATION OF AGE GROUP 15-59 WITH MALE AND FEMALE DIVISIONS 1961

MAP 72

PROPORTION OF WORKERS AND NON-WORKERS TO THE TOTAL EMPLOYABLE POPULATION OF AGE GROUP 15-59 WITH MALE AND FEMALE DIVISIONS

1961

PURPOSE

This map shows the percentage of employable persons who are actually workers. Employable persons mean to persons of the age group 15-59 and thus the map indicates the extent to which available man power is utilised.

METHOD

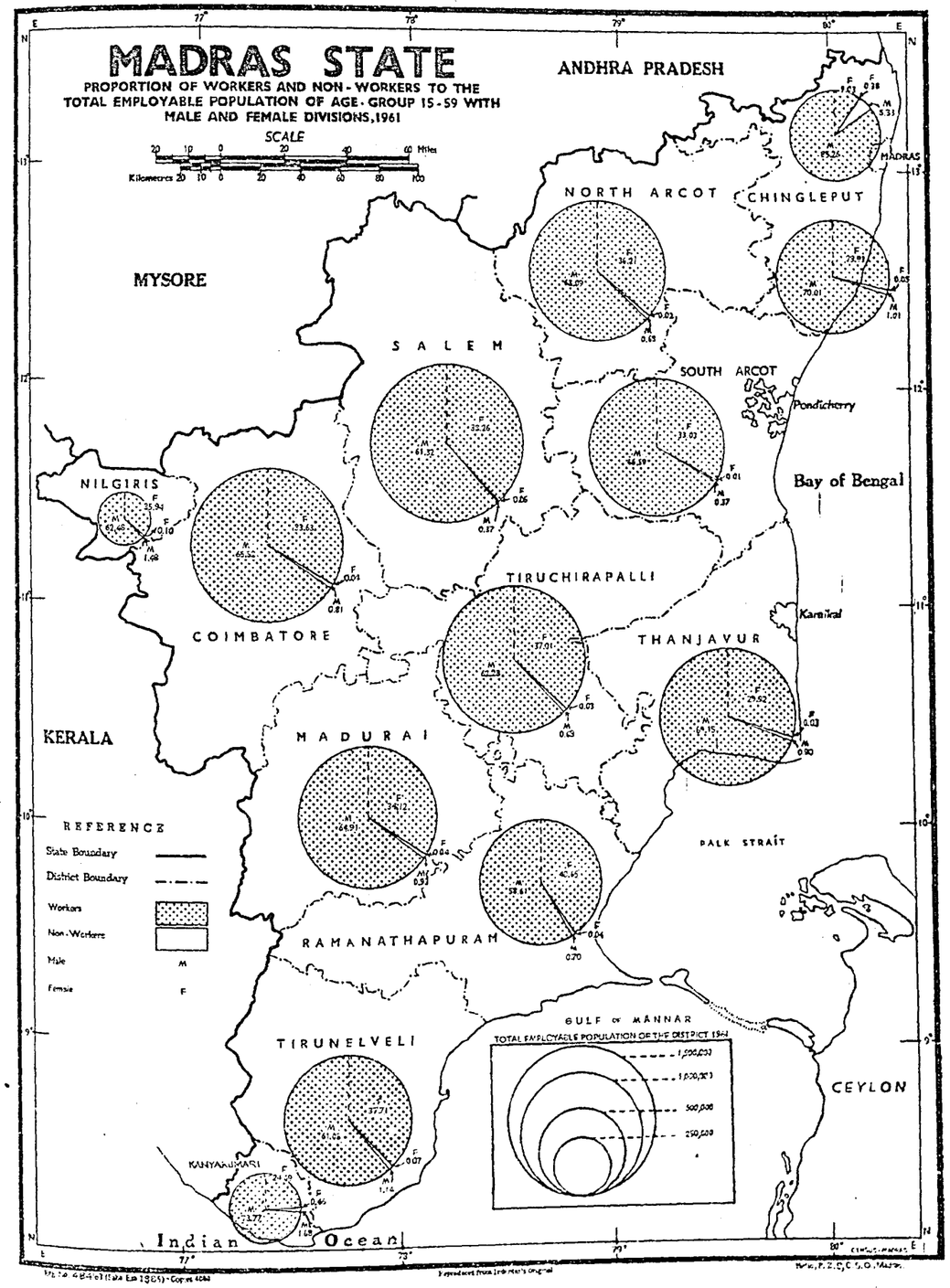
A circle has been drawn for each district proportionate to total employable population. Each circle has been divided in to two segments - one indicating workers by dots and the other unhatched portion indicating non - workers. The percentages of male and female workers and non - workers have also been recorded in each circle.

SALIENT FEATURES

Utilisation of available man power in the age group 15-59 is uniformly above 97% in all districts except Madras city where only 94.29% of employable population are actual workers. The highest percentage is 99.62% in South Arcot district. Male workers are maximum in Madras where 85.26% of total employable population are male workers and male workers are low in Ramanathapuram district where they form 58.6% of the employable population. In Madras city Female workers constitute only 9.03% but in Ramanathapuram district they form 40.65%. Non-workers are highest in Madras city and lowest in South Arcot district. Male non-workers form 5.3% in Madras city, and 0.37% in South Arcot and Salem districts. Female non-workers are higher in Kanyakumari district but the percentage is only 0.46 and the lowest is 0.01% in South Arcot district.

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 75

OCCUPATIONAL STRUCTURE OF MALE AND FEMALE POPULATION 1961

MAP 73

OCCUPATIONAL STRUCTURE OF MALE AND FEMALE POPULATION 1961

PURPOSE

This map shows the percentage of workers of each sex in the various categories into which workers have been divided.

METHOD

Workers have been divided into the following nine categories.

1. Cultivator, 2. Agricultural labourer, 3. Mining, quarrying, livestock, fishing, hunting etc. 4. Household industry, 5. Manufacturing other than household industry, 6. Construction, 7. Trade and Commerce, 8. Transport, storage and communication and 9. Other services.

The percentages have been worked out to total workers and they have been shown by bar charts drawn for each district. Three different types of hatchings have been adopted for which these nine categories have been grouped into three. Categories I, II & III have been hatched alike, categories IV, V & VI by uniform lives and categories VII, VIII & IX have been presented in dots.

SALIENT FEATURES

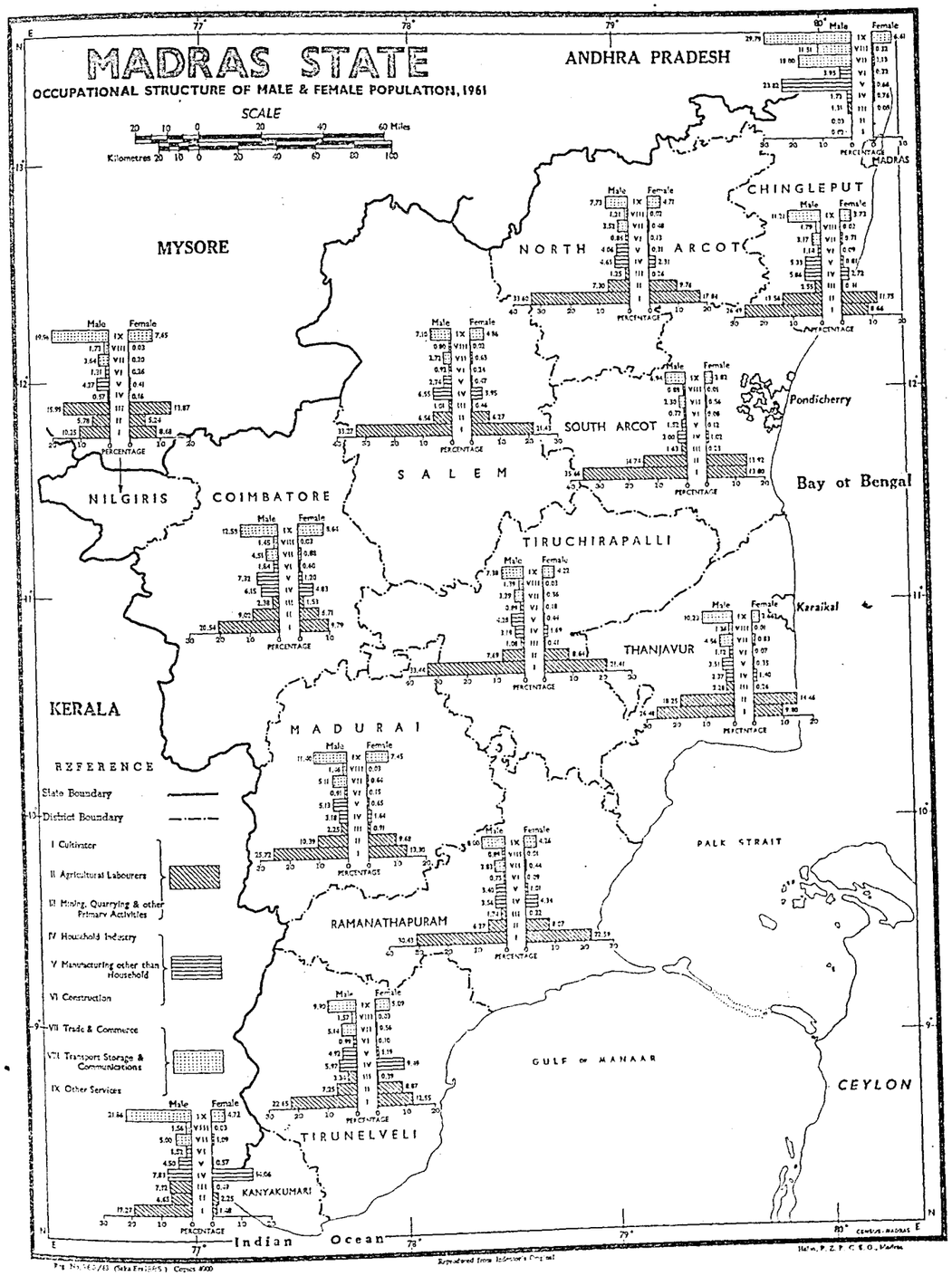
In Madras State out of every 100 workers, 27 are male cultivators and among males the next important field of activity is other services which accounts for 10.3% of total workers. Agricultural labour takes the third place by accounting for 9.4% of total workers. But among females, though cultivation is the predominant type of work, Agricultural labour is second in importance in as much as 9.01% of total workers are female agricultural labourers. The third important field is other services. Five Categories: Mining, quarrying etc., Manufacturing other than household industry, construction, Trade and Commerce and Transport and Communication record less than 1% of total workers.

The pattern varies little from district to district. Examining males, it is seen that three districts in three corners of the State record other services as the most important type of activity. The districts are Madras, Nilgiris and Kanyakumari. In all the other ten districts, cultivation is the predominant type of occupation. As regards the second important occupation, the pattern varies from district to district. In Madras, manufacturing other than household industry is second in importance. Other services takes second rank in North Arcot Salem, Coimbatore, Madurai, Ramanathapuram, Tirunelveli districts. In Chingleput, South Arcot, Trichy and Thanjavur, agricultural labour occupies second rank. In Nilgiris, Mining and quarrying is the second important activity and in Kanyakumari cultivation is the second important work for males.

As regards females, in seven districts cultivation is predominant. The districts are: North Arcot, Salem, Coimbatore, Tiruchirapalli, Madurai, Ramanathapuram and Tirunelveli. Agricultural labour dominates in Chingleput, South Arcot & Thanjavur. Other services in Madras, Mining & Quarrying in Nilgiris and Household industry in Kanyakumari are predominant. In Madras all the other categories are negligable.

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 74

PROPORTION OF FEMALE AGRICULTURAL WORKERS TO THE TOTAL FEMALE WORKERS AGE GROUP 15-59, 1961

MAP 74

PROPORTION OF FEMALE AGRICULTURAL WORKERS TO THE TOTAL FEMALE WORKERS AGE GROUP 15-59, 1961.

PURPOSE

This map indicates the percentage of females of the age group 15-59 who work as cultivators or agricultural labourers to the total female workers of the same age group.

METHOD

The percentages have been grouped into seven categories—two above and five below the state average. The districts have been shaded by seven grades of hatching ranging from high to low.

SALIENT FEATURES

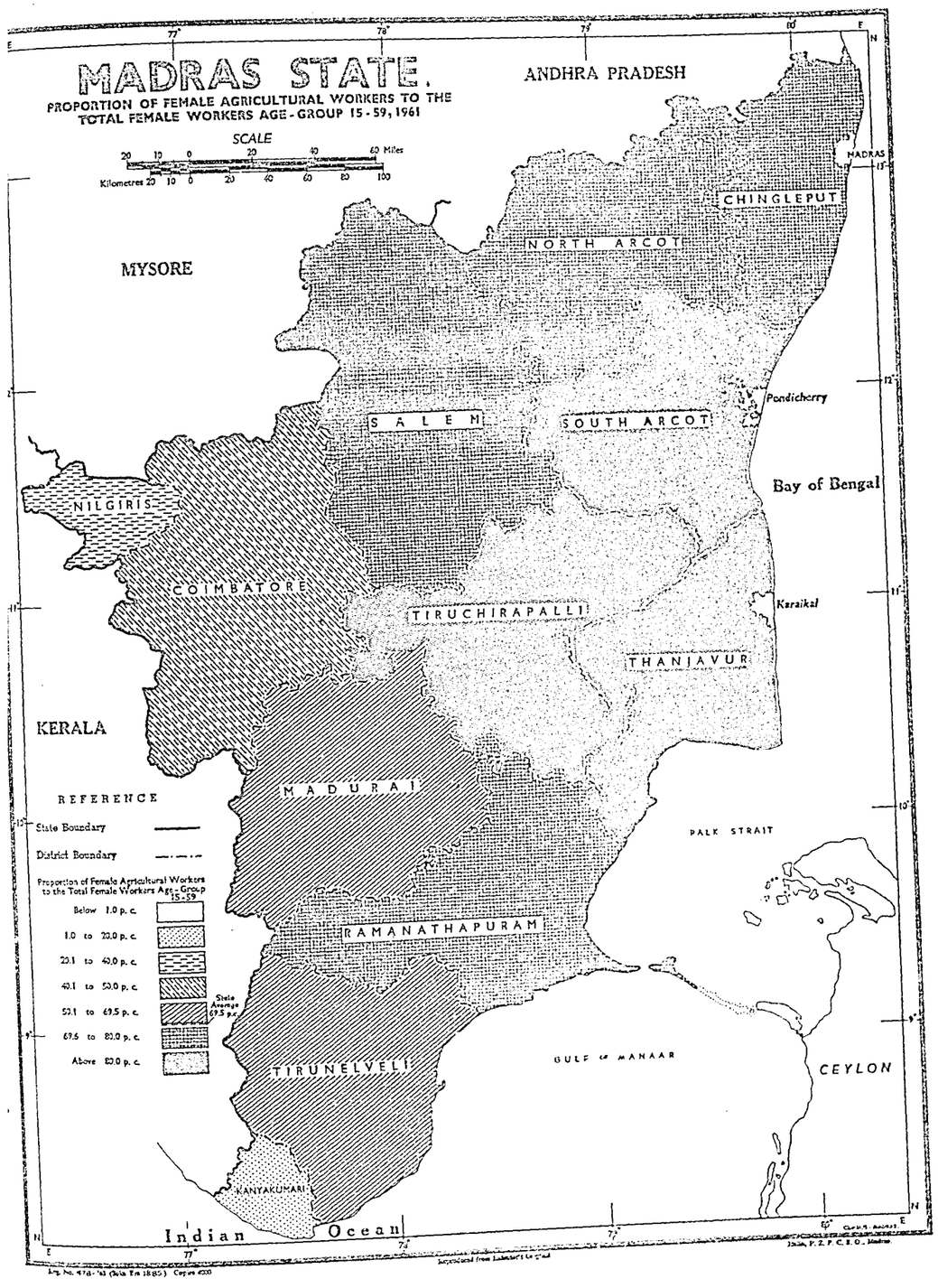
In Madras State, 69.5% of female workers of the age group 15-59 are engaged either as cultivators or as agricultural labourers. There are seven districts above the state average and they are: Chingleput, North Arcot, Salem, Ramanathapuram, South Arcot, Tiruchirapalli and Thanjavur districts. South Arcot district leads the state with 85.5% followed by Thanjavur with 82.0%. The percentage in Madras City is negligible, being 0.03 and the next lowest percentage is in Kanyakumari District. All the three districts—South Arcot, Tiruchirapalli and Thanjavur, which have recorded above 80% are contiguous.

TABLE

Rank	District	Percentage
	MADRAS STATE	69.5
1.	South Arcot	85.5
2.	Thanjavur	82.0
3.	Tiruchirapalli	81.1
4.	North Arcot	77.7
5.	Ramanathapuram	75.6
6.	Salem	72.8
7.	Chingleput	71.6
8.	Madurai	67.3
9.	Tirunelveli	56.7
10.	Coimbatore	49.0
11.	Nilgiris	38.2
12.	Kanyakumari	14.9
13.	Madras	0.03

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 75

PERCENTAGE OF LANDLESS CULTIVATORS TO THE TOTAL AGRICULTURAL WORKERS AGE GROUP 15-59, 1961

MAP 75

PERCENTAGE OF LANDLESS CULTIVATORS TO THE TOTAL AGRICULTURAL WORKERS AGE GROUP 15-59, 1961.

PURPOSE

This map shows the percentage of agricultural labourers of the age group 15-59 to total agricultural workers of the age group 15-59 engaged as cultivators and agricultural labourers.

METHOD

The percentages have been grouped into five ranges—three above and two below the state average. The districts have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

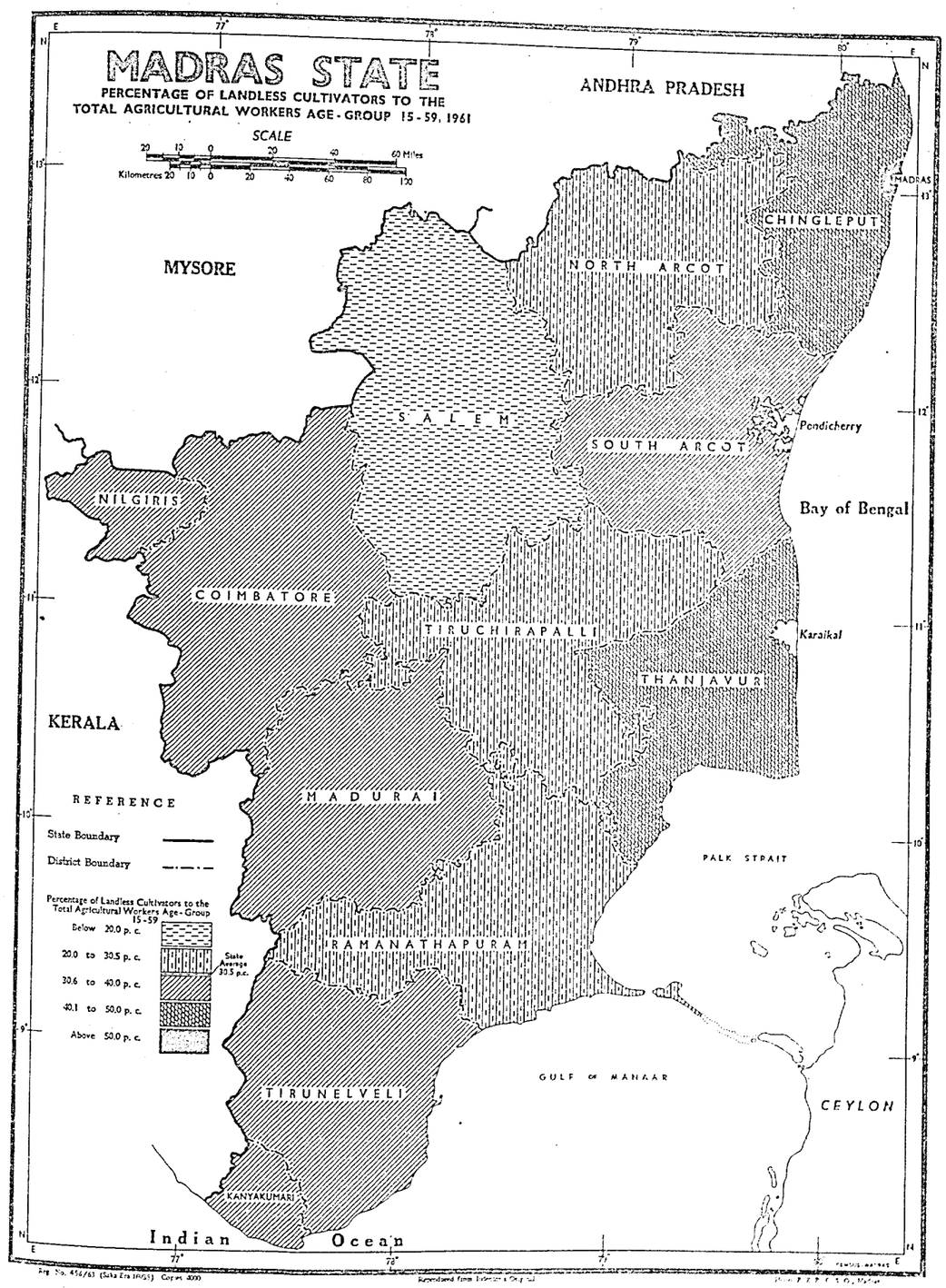
30.5% of agricultural workers of the age group 15-59 are agricultural labourers who do not own any land. The highest percentage is found in Madras City but the absolute number of workers in agriculture is very low and hence Madras should be excluded for comparison. Of the remaining 12 districts Thanjavur leads with 47.9%. The district with very low percentage of agricultural labourers to total agricultural workers is Salem with 18.4%. Only four districts have percentages below the state average and they are : Salem (18.4%), Ramanathapuram (21.3%), Tiruchirapalli (22.6%) and North Arcot (24.9%).

TABLE

Rank	State/District	Percentage
	MADRAS STATE	30.5
1.	Madras	65.2
2.	Thanjavur	47.9
3.	Chingleput	42.5
4.	Nilgiris	37.0
5.	South Arcot	36.7
6.	Madurai	33.6
7.	Coimbatore	33.4
8.	Tirunelveli	31.7
9.	Kanyakumari	31.3
10.	North Arcot	24.9
11.	Tiruchirapalli	22.6
12.	Ramanathpuram	21.3
13.	Salem	18.4

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 76

CONCENTRATION OF INDUSTRIAL POPULATION 1961

MAP 76

CONCENTRATION OF INDUSTRIAL POPULATION 1961

PURPOSE

The map shows the talukwise percentage of workers in industrial activities categorised into three: 1) mining, quarrying, livestock, forestry, fishing, hunting and plantation, orchards and allied activities 2) household industry and 3) manufacturing other than household industry.

METHOD

The data are grouped into five categories, three above and two below the state average. The taluks are then shaded by five shades of hatching ranging from high to low.

SALIENT FEATURES

If the workers in these three categories are treated as constituting industrial population, it is seen that only 7.39% of the total population form industrial working force i. e. out of a total population of 33,686,953 only 2,490,612 belong to these categories. The talukwise distribution is indicated in the map.

The percentages have been divided into five ranges as :

1) below 5.00 percent
2) 5.00 to 10.00 percent
3) 10.01 to 15.00 percent
4) 15.01 to 20.00 percent
5) Above 20.00 percent

There are only two taluks in the range above 20.00%. They are Gudalur and Yercaud. Both the taluks have plantation farming.

There are four taluks in the range 15.01 to 20.00 % The taluks are Rasipuram in Salem district, Coonoor in Nilgiris district, Kodaikanal in Madurai and Ambasamudram in Tirunelveli district.

There are 19 taluks in the next range of 10.01 to 15.00%. However, in this range the following districts have no representation : North Arcot, South Arcot, Nilgiris, Tiruchirapalli and Thanjavur and all the other districts have one or more taluks in this range.

About 32 taluks and Madras City fall under the range 5.00 to 10.00%.

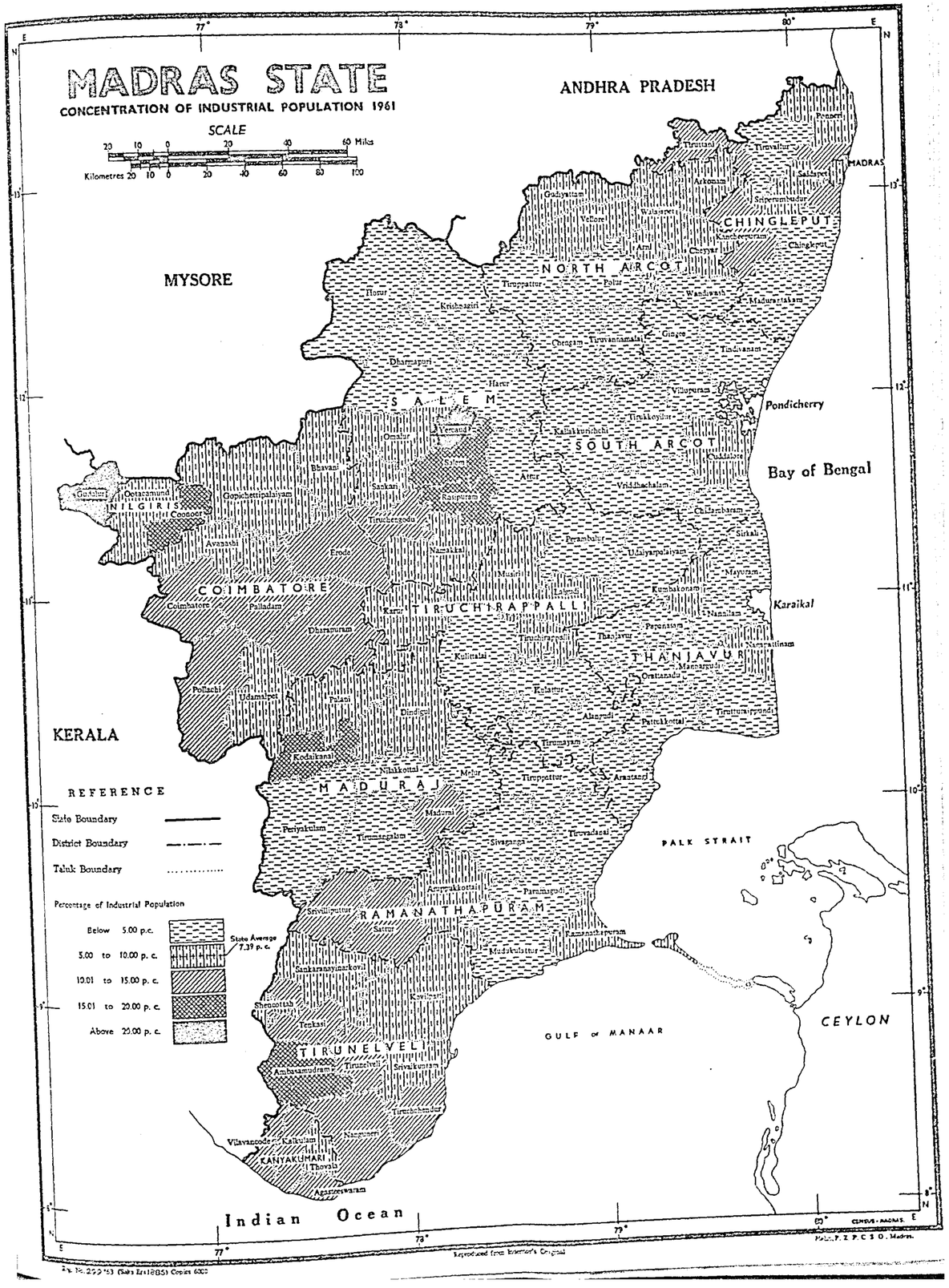
But the range less than 5.00% accounts for the largest number of taluks and there are 45 taluks in this range. The most notable feature is that seven out of eight taluks of South Arcot and 10 out of 12 taluks of Thanjavur district are in this category. Coimbatore, Nilgiris, Tirunelveli and Kanyakumari districts however do not have any taluk belonging to this range of less than 5%.

TABLE

Rank	District	Percentage of Industrial workers to total population
	MADRAS STATE	7.39
1.	Nilgiris	16.18
2.	Kanyakumari	12.18
3.	Tirunelveli	11.54
4.	Coimbatore	11.27
5.	Madras	8.63
6.	Salem	7.79
7.	Chingleput	7.67
8.	Ramanathapuram	6.84
9.	Madurai	6.25
10.	North Arcot	6.05
11.	Tiruchirapalli	5.46
12.	Thanjavur	4.27
13.	South Arcot	3.46

SOURCE

Census of India, 1961, Madras State, Part II-A Genera Population Tables.



MAP 77

PROPORTION OF NON-AGRICULTURAL WORKERS TO THE TOTAL WORKERS IN PRIMARY SECTOR 1961

MAP 77

PROPORTION OF NON-AGRICULTURAL WORKERS TO THE TOTAL WORKERS IN PRIMARY SECTOR

PURPOSE

This map shows the percentage of workers in non-agricultural primary sector to total workers in primary sector. Primary sector refers to Cultivators, Agricultural labourers and workers in Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, Plantation and other allied activities. Non-agricultural workers within this sector refer to workers engaged in Forestry, Fishing, Livestock, Mining and other allied activities.

METHOD

The percentages have been classified into four groups and the districts have been hatched in four shades. Circle proportionate to total non-agricultural primary workers has been drawn for each district and each circle has been divided into segments representing Forestry, Fishing, Mining, Livestock and others. The industrial codes of the Standard Industrial classification for these four groups are:

Forestry: 02 and 007
Fishing: 03
Livestock: 04
Mining: 10
Others: 005, 006, 008, 009 and 01.

SALIENT FEATURES

Only 3.3% of total workers in Primary sector belong to non-agricultural category. Only in Nilgiris district, a very high percentage of non-agricutural workers is noticed. There, 41.3% of workers in Primary sector are engaged in non-agricultural activities. The abnormally high percentage in Nilgiris district is due to predominance of plantation in that area. 94.5% of these non-agricultural workers belong to plantations. The lowest percentage is 1.75 in South Arcot district. The three contiguous districts of South Arcot, North Arcot and Tiruchirapalli have recorded less than 2.0% of non-agricultural workers to total workers under primary activities.

Within this non-agricultural primary activity, Livestock accounts for maximum percentage of workers. 39.3% of workers in non-agricultural primary sector are engaged in Livestock. The second important field of activity is 'Others' which accounts for 31.1%. The percentage share of other types of activities in Madras State is as follows:

Fishing: 13.0%
Forestry: 5.3%
Mining: 11.3%

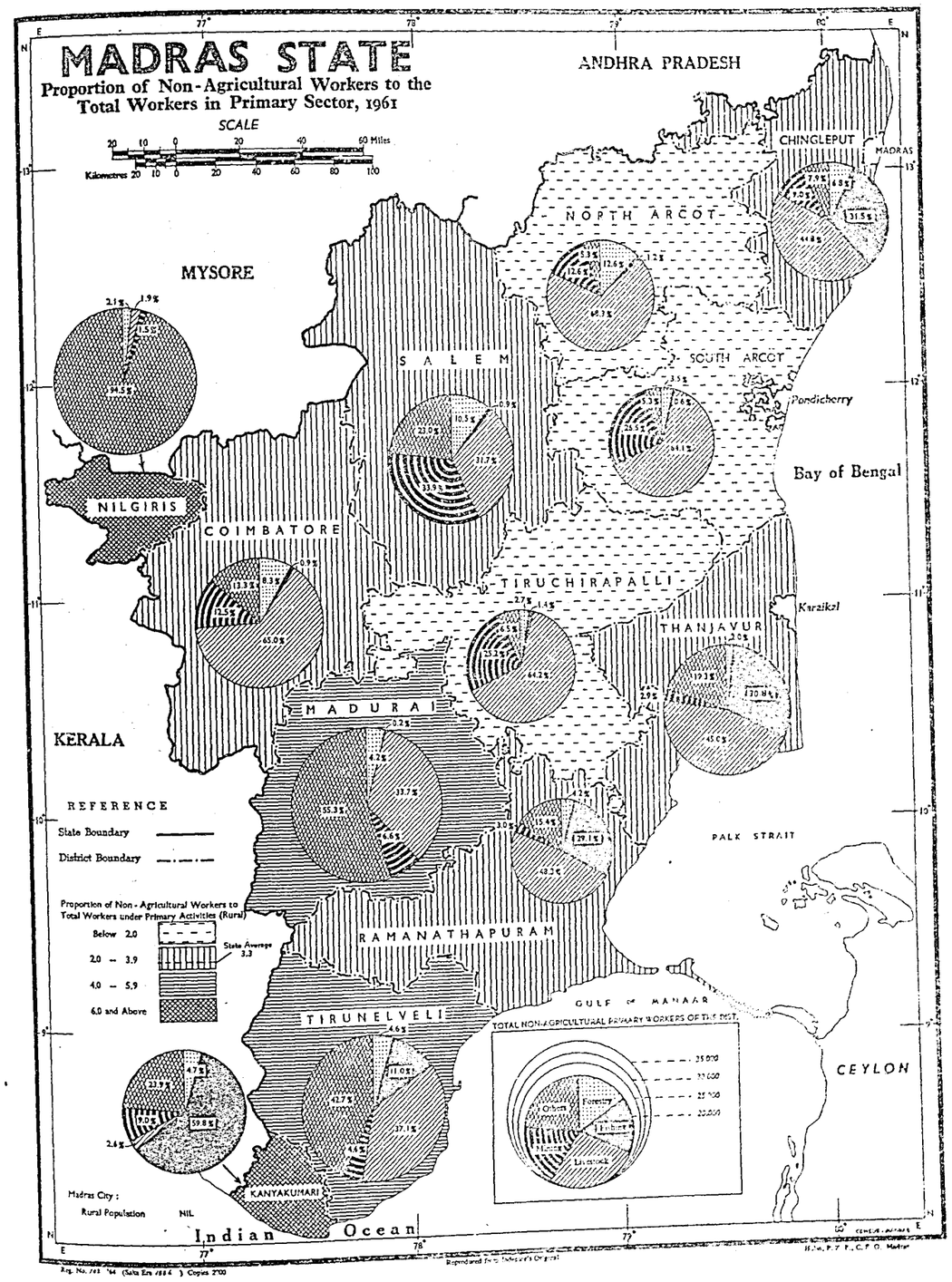
Forestry accounts for 12.6% in North Arcot district which is the highest for the State and Fishing is predominant in Kanyakumari wherein 60% of non-agricultural workers of primary sector are engaged. Chingleput district ranks second in fishing with 31.5% and Thanjavur is third with 30.8% and Ramanathapuram follows closely with 29.1%. Tirunelveli district has 10.9% and in all the other districts fishing is of insignificant importance. Livestock as a field activity accounts for 68.3% in North Arcot district. South Arcot, Coimbatore and Tiruchirapalli districts also record more than 60%. The lowest percentage of workers in Livestock is 2.6 in Kanyakumari district.

Mining which accounts for 11.3% of workers of non-agricultural primary sector in the State, is important in Salem district where the percentage of workers is 33.9. The second important district in this field is South Arcot with 26.5% and the third district is Tiruchirapalli with 25.2%.

Under the last category 'Others' Nilgiris accounts for 94.5% and Madurai accounts for 55.3%.

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 78

OCCUPATIONAL STRUCTURE OF RURAL POPULATION WITH MALE AND FEMALE DIVISIONS 1961

MAP 78

OCCUPATIONAL STRUCTURE OF RURAL POPULATION WITH MALE AND FEMALE DIVISION 1961.

PURPOSE

This table shows the percentage of workers in each industrial category to total workers.

METHOD

The industrial categories into which the workers have been classified are :

1. Cultivator, 2. Agricultural labourer, 3. Workers in Mining, quarrying, livestock, forestry, fishing, hunting and plantations, orchards and allied activities, 4. Workers at Household Industry, 5. Workers in Manufacturing other than household industry, 6. Workers in Construction, 7. Trade and Commerce, 8. Transport, storage and communication and 9. Other Services.

Percentages have been worked out with reference to total workers both males and females taken together. The data have been presented by means of bar charts. Only three different hatchings have been adopted in these bars. Thus cultivator, agricultural labourer and worker in mining, quarrying etc. have been shown in one grade of hatching. Household industry, manufacturing other than household industry and construction have been shown in one type ; trade and commerce, transports storage and communication and other services have been shown in another grade. But categories have been indicated in the chart itself.

SALIENT FEATURES

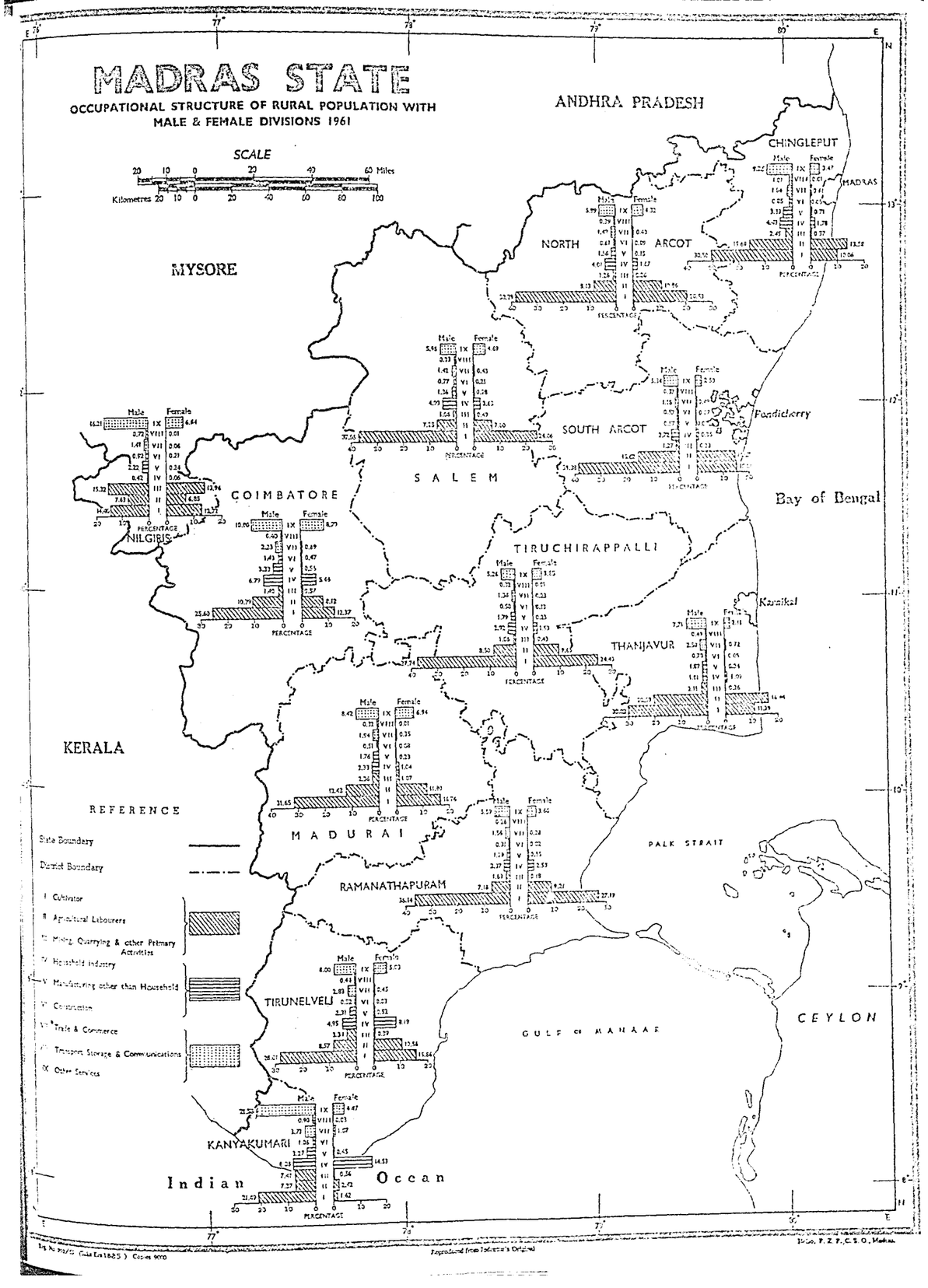
In Madras State, out of 100 workers, 63 are males and 37 are females. Among male workers, the highest percentage of 33.2 is found in category I—cultivator. The second highest is 11.1% engaged in agricultural labour. The third important field of activity is other services accounting for 7.56% of total workers. The category with lowest percentage is construction where less than one per cent of workers are engaged. Among females also the same order of importance is recorded (i.e.) cultivator, agricultural labourer of and other services. However among females, the least significant field of activity is Transport and Communication.

The same pattern is reflected in most of the districts. However, the pattern differs in the following cases. In Coimbatore district, among males, the second important category is other services and not agricultural labour which occupies third rank, though the difference in percentage between them is very small. In Nilgiris district, the most important category is other services which accounts for 16.21% of male workers to total workers. The second and third ranks are held by agricultural labourer and cultivator respectively. In Kanyakumari district also, the male workers in other services account for the maximum percentage to total workers and cultivators form second rank and the third place is held by household Industry.

Among females, in eight districts, the pattern is similar i.e. cultivators are predominant. Out of the four districts, which exhibit a different pattern, agricultural labourers are more important than other categories in Thanjavur and Chingleput district. The two other districts where the pattern is different are: Nilgiris where workers in mining and quarrying are predominant and Kanyakumari where household industy is the most important field employing more women. Household industry is important in Tirunelveli district also where it occudies third rank.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 79

OCCUPATIONAL STRUCTURE OF URBAN POPULATION WITH MALE AND FEMALE DIVISIONS 1961

MAP 79

OCCUPATIONAL STRUCTURE OF URBAN POPULATION WITH MALE AND FEMALE DIVISIONS 1961.

PURPOSE

This map shows the percentage of workers in various categories in the urban areas of each district of Madras State.

METHOD

Workers have been divided into the following nine ca egories. 1. Cultivator, 2. Agricultural labourer, 3. Mining, quarrying, livestock, fishing, hunting etc., 4. Household industry, 5. Manufacturing other than household industry, 6. Construction, 7. Trade and Commerce, 8. Transport, storage and communication and 9. Other Services.

The percentages have been worked out to total workers and they have been shown by bar charts drawn for each district. Three different types of hatchings have been adopted for which these nine categories have been grouped into three: categories I, II and III have been hatched alike, categories IV, V and VI by uniform lines and categories VII, VIII and IX by dots.

SALIENT FEATURES

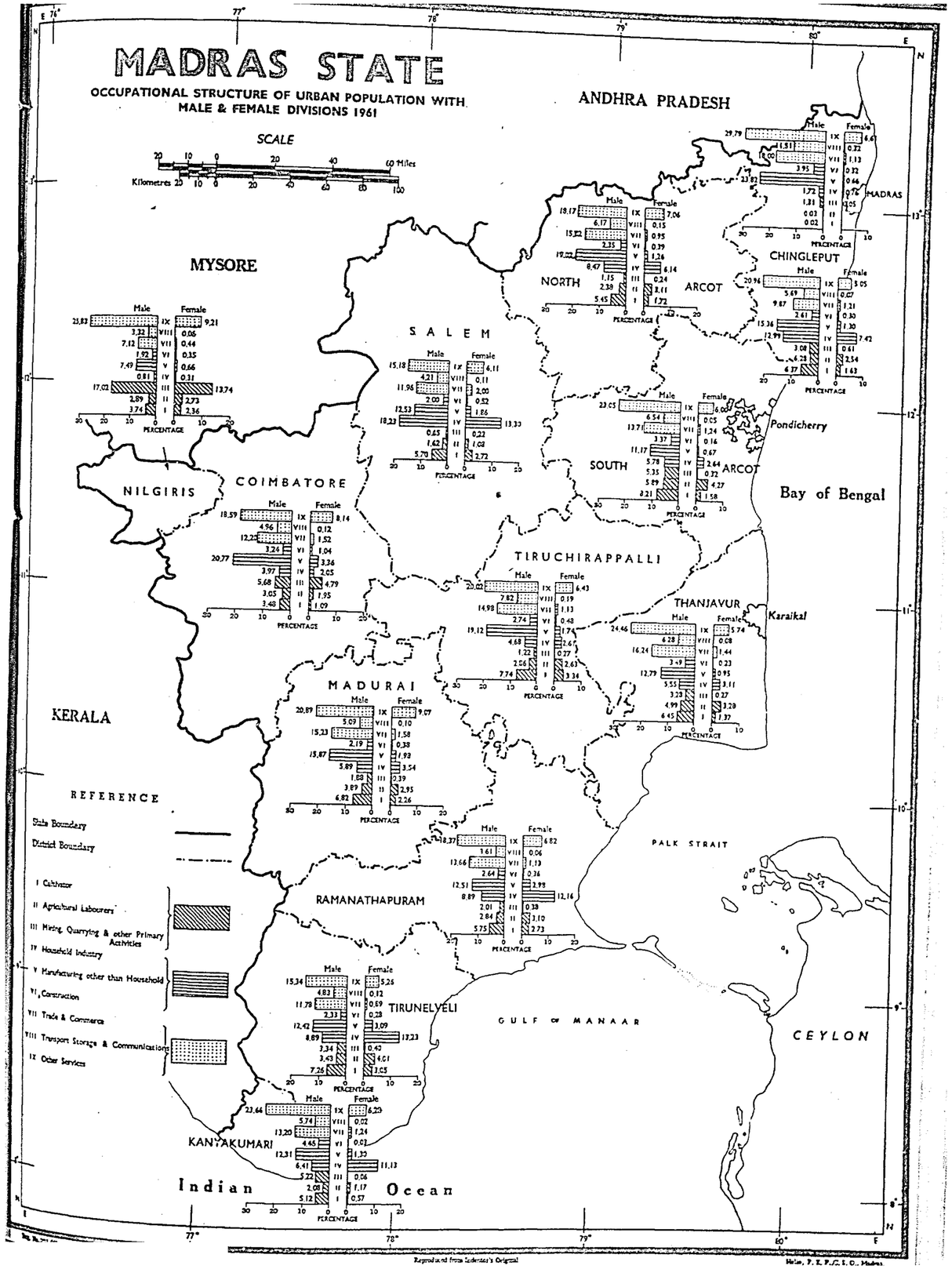
In the urban areas of Madras State, out of 100 workers, 79 are males and 21 are females. Male workers are found to be concentrated in category IX—other services wherein 21.15% of workers are engaged. The second important category is manufacturing other than household industry where 16.77% of workers are concentrated. The third important industrial category is trade and commerce which accounts for 14.12% of workers. The lowest percentage of workers is found in agricultural labourer and 'cultivator' holds sixth place. Construction, agricultural labour and Mining and Quarrying etc. each accounts for less than three percent. Among females also the highest percentage is found in other services where 6.83% of total workers are found. But the second important category is household industry with 5.54%. The third category of importance is agricultural labour and all the other categories account for less than 2% of total workers.

Examining the districts it is noticed that in ten out of thirteen districts other services is the most important category wherein majority of males are found to be working. The three districts which do not reflect this pattern are: North Arcot and Coimbatore where Manufacturing other than Household Industry is more important than other categories and Salem where household industry is predominant. Though manufacturing other than household industry is the second important category for the state, only five districts, exhibit this feature. They are Madras, Chingleput, Madurai, Tiruchirapalli and Tirunelveli. In four districts Trade and Commerce is the second important category and in 3 districts other services is second in importance and in Nilgiris alone Mining, Quarrying etc. records the second highest percentage.

Among females, in seven out of thirteen district, other services accounts for highest percentage. They are: Madras, North Arcot, South Arcot, Coimbatore, Madurai, Tiruchirapalli and Thanjavur districts. In five districts household Industry attracts maximum women workers. In Nilgiris district alone mining, quarrying etc. accounts for the highest percentage. The second important category is other services in six districts (Chingleput, Salem, Nilgiris, Ramanathapuram, Tirunelveli and Kanyakumari) Household industry in two districts—(North Arcot and Madurai) Agricultural labour in South Arcot and Thanjavur, Mining in Coimbatore and cultivator in Tiruchirapalli constitute the second important category. In Madras all the categories except other services are insignificant or very low.

SOURCE

Census of India, 1961, Madras State—Part II-A General Economic Tables.



MAP 80

PROPORTION OF AGRICULTURAL WORKERS TO TOTAL WORKERS 1961

MAP 80

PROPORTION OF AGRICULTURAL WORKERS TO TOTAL WORKERS

1961

PURPOSE

This map shows the percentage of agricultural workers to total workers in the different taluks of Madras State. Agricultural workers refer to total of cultivators and agricultural labourers.

METHOD

The data are grouped in to seven categories—three above and four below the State average. The taluks are then shaded by seven grades of hatching ranging from high to low.

SALIENT FEATURES

In Madras State 60.49% of total workers belong to this category. The map indicates the talukwise distribution of agricultural workers.

Out of 103 taluks 18 taluks, have recorded high percentage of agricultural workers to total workers. In 18 taluks the percentages range between 80.01% and 90 00%. The following contiguous taluks have got more than 80% of total workers as agricultural Hosur, Krishnagiri, Dharmapuri, Harur taluks of Salem District, Chengam of North Arcot District, Kallakurichi, Gingee, Tirukoilur and Vriddhachalam of South Arcot District and Perambalur and Udaiyarpalayam of Tiruchirapalli district. The other taluks of this range are scattered in different parts of the State. Chingleput, Coimbatore, Nilgiris, Tirunelveli and Kanyakumari do not have any taluk coming under this category.

About 26 taluks fall under the range 70.01% to 80.00% and in this group also, Coimbatore, Nilgiris and Kanyakumari districts do not have any taluk.

About 15 taluks have percentages varying between 60.01 and 70%. Thus 59 taluks have recorded percentages more than the State average of 60.49. The number of taluks in other ranges are.

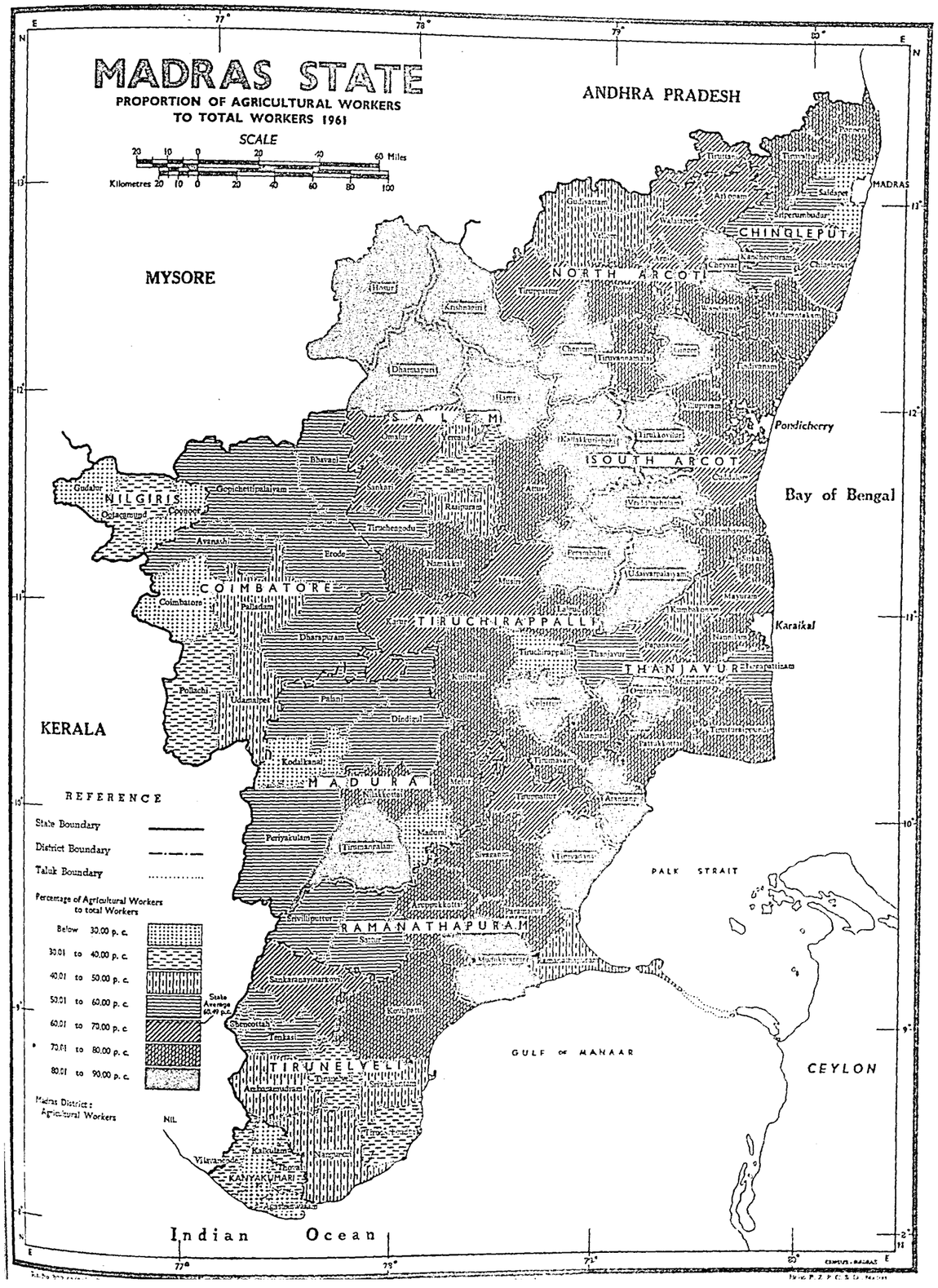
50.01	—	60.00	—	16
40.01	—	50.00	—	11
30.01	—	40.00	—	8
Below 30	—		—	9

TABLE

District	Percentage of Agricultural Workers
MADRAS STATE	60.49
Madras	0.06
Chingleput	60.45
North Arcot	68.51
South Arcot	78.11
Salem	67.53
Coimbatore	46.05
Nilgiris	29.95
Madurai	59.09
Tiruchirapalli	71.18
Thanjavur	68.99
Ramanathapuram	67.46
Tirunelveli	51.33
Kanyakumari	29.65

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 81

PROPORTION OF AGRICULTURAL WORKERS TO THE TOTAL WORKERS AGE GROUP 15-59, 1961

MAP 81

PROPORTION OF AGRICULTURAL WORKERS TO THE TOTAL WORKERS AGE GROUP 15-59, 1961

PURPOSE

This map shows the percentage of agricultural workers in the age group 15-59 to total workers of the same age group. Agricultural workers refer to cultivators and agricultural labourers.

METHOD

The percentages have been classified into five categories—two above and three below the State average. The districts have then been shaded by five grades of hatching.

SALIENT FEATURES

In Madras State 59.9% of total workers belonging to the age group 15-59 are agricultural workers. Six districts have recorded percentages above the State average and seven districts below the State average. Excluding Madras city where agricultural workers are negligible with only 0.1%, Kanyakumari district has recorded the lowest percentage of 28.5. The highest percentage of 78.0 is recorded in South Arcot district. Tiruchirapalli, the adjoining district is the only other district to record more than 70% of its workers as agricultural workers.

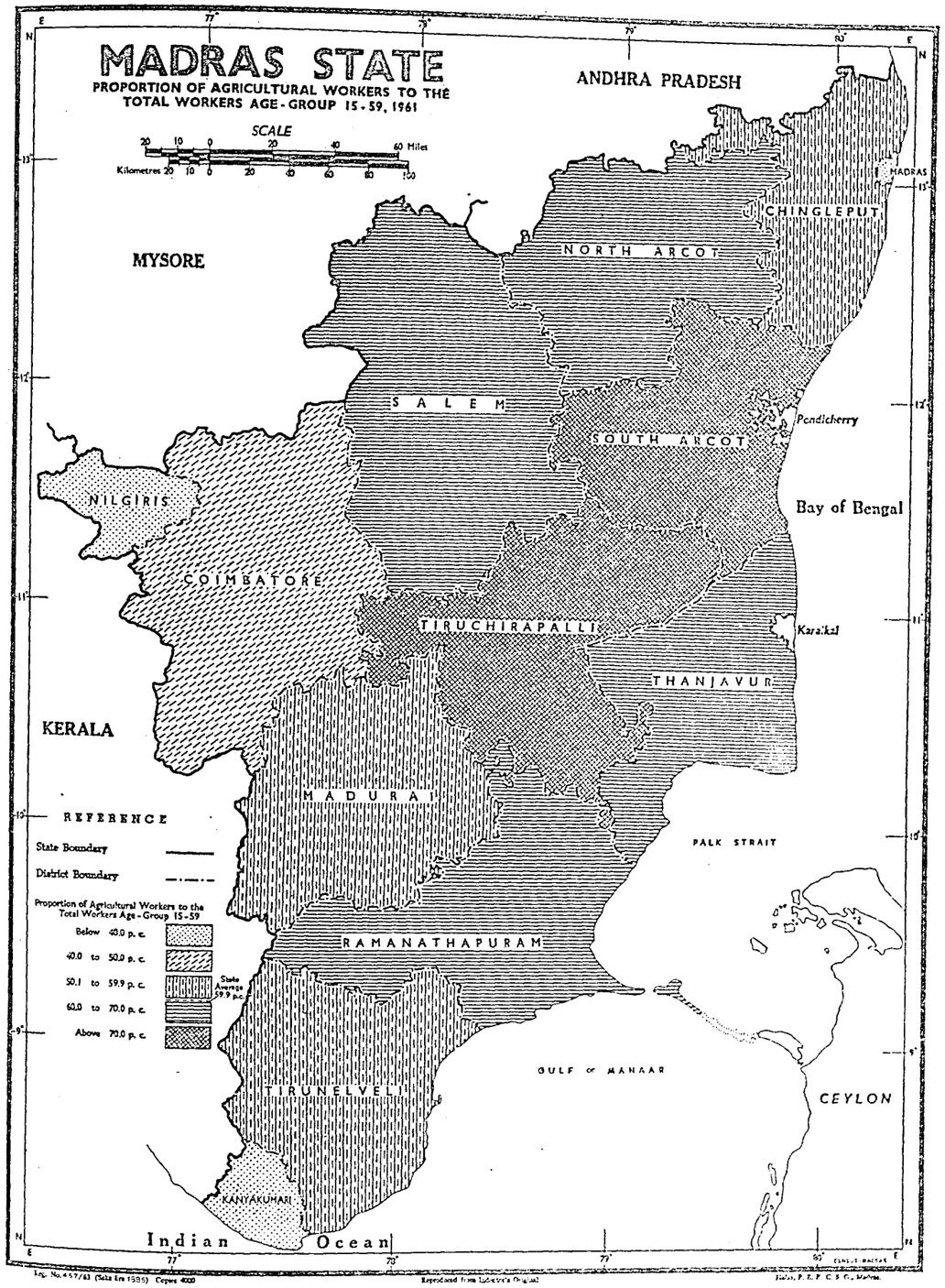
It is noticed that all the six districts with percentages above the State average are contiguous—North Arcot, Salem, South Arcot, Tiruchirapalli, Thanjavur and Ramanathapuram.

TABLE

Rank	District	Percentage
	MADRAS STATE	59.9
1.	South Arcot	78.0
2.	Tiruchirapalli	70.8
3.	Thanjavur	69.1
4.	North Arcot	68.3
5.	Ramanathapuram	67.4
6.	Salem	66.9
7.	Chingleput	59.8
8.	Madurai	58.7
9.	Tirunelveli	50.8
10.	Coimbatore	45.2
11.	Nilgiris	29.2
12.	Kanyakumari	28.5
13.	Madras	0.1

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 82

PROPORTION OF AGRICULTURAL WORKERS TO THE TOTAL RURAL POPULATION OF AGE GROUP 15-59, 1961

MAP 82

PROPORTION OF AGRICULTURAL WORKERS TO THE TOTAL RURAL POPULATION AGE GROUP 15-59, 1961

PURPOSE

This map indicates the percentage of agricultural workers in the age group 15-59 to total population in the rural areas of Madras State. Agricultural workers refer to cultivators and agricultural labourers.

METHOD

The percentages have been classified into five categories—two above and three below the state average. The districts have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

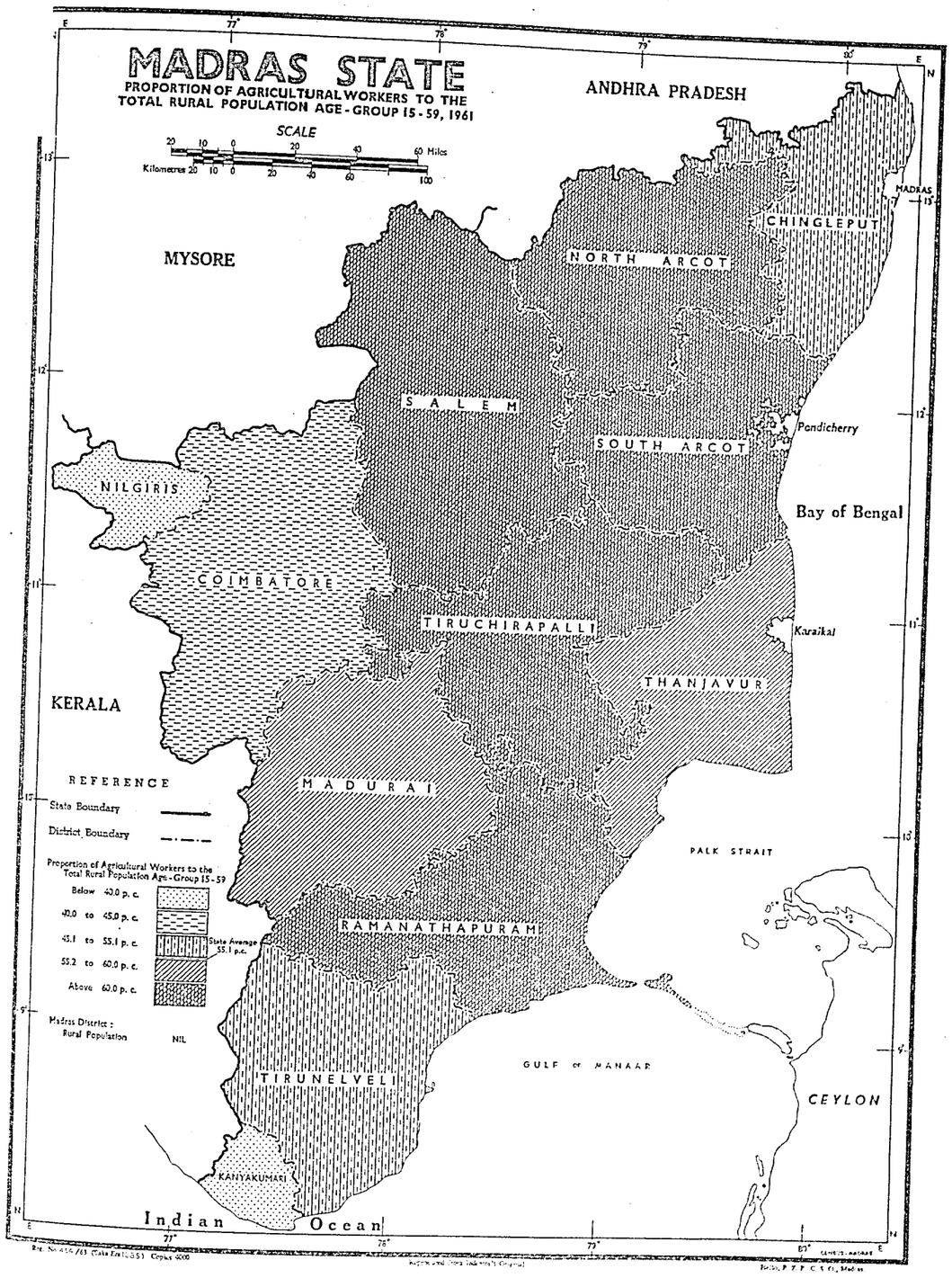
55.1% of rural population in Madras State are agricultural workers. Seven districts have percentages above the state average and five below the state average. The highest is 63.8% in Tiruchirapalli District and the lowest is 18.9% in Kanyakumari District. All the seven Districts which have recorded percentages above the state average are contiguous. They are North Arcot, South Arcot, Salem, Madurai, Tiruchirapalli, Thanjavur and Ramanathapuram Districts.

TABLE

Rank	State-District	Percentage
	MADRAS STATE	55.1
1.	Tiruchirapalli	63.8
2.	Ramanathpuram	63.3
3.	South Arcot	61.7
4.	North Arcot	61.4
5.	Salem	61.1
6.	Madurai	56.0
7.	Thanjavur	56.0
8.	Chingleput	48.9
9.	Tirunelveli	47.5
10.	Coimbatore	43.7
11.	Nilgiris	34.1
12.	Kanyakumari	18.9

SOURCE

Census of India, 1961, Madras State — Part II-B General Economic Tables.



MAP 83

PROPORTION OF MALE AGRICULTURAL WORKERS TO THE TOTAL MALE WORKERS AGE GROUP 15-59, 1961

MAP 83

PROPORTION OF MALE AGRICULTURAL WORKERS TO THE TOTAL MALE WORKERS AGE GROUP 15-59, 1961

PURPOSE

This map shows the percentage of males in the age group 15—59 and working as cultivators or agricultural labourers to total male workers of the age group 15—59.

METHOD

The percentages have been classified in to seven ranges—two above and five below the state average. The districts have been shaded by seven grades of hatching.

SALIENT FEATURES

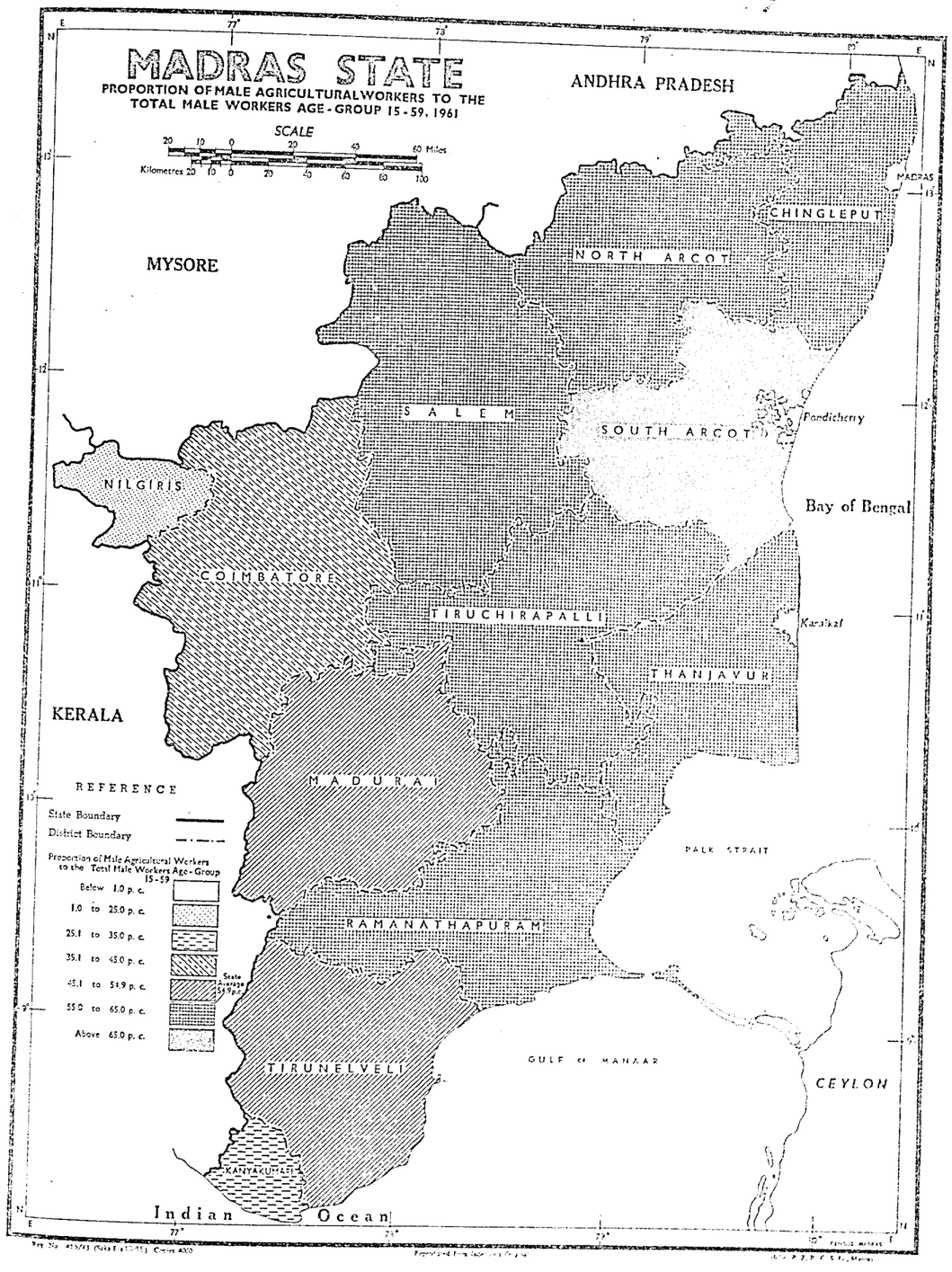
54.9% of the total male workers in the age group 15—59 are agricultural workers engaged either as cultivators or as agricultural labourers. South Arcot district ranks first by recording 74.3% and Tiruchirapalli is second in rank with 64.7%. The lowest is 0.1% in Madras and Nilgiris holds penultimate rank with 24.1%. All the seven districts with percentages above the State average form one continuous belt from Chingleput district to Ramanathapuram District.

TABLE

Rank	State-District	Percentage
	MADRAS STATE	54.9
1.	South Arcot	74.3
2.	Tiruchirapalli	64.7
3.	Thanjavur	63.5
4.	Salem	63.3
5.	North Arcot	62.9
6.	Ramanathapuram	61.8
7.	Chingleput	55.0
8.	Madurai	54.2
9.	Tirunelveli	47.2
10.	Coimbatore	43.2
11.	Kanyakumari	32.9
12.	Nilgiris	24.1
13.	Madras	0.1

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 84

PROPORTION OF WORKERS IN MINING, QUARRYING, HOUSEHOLD INDUSTRY AND MANUFACTURING TO THE TOTAL WORKING POPULATION 1961

MAP 84

PROPORTION OF WORKERS IN MINING AND QUARRYING, HOUSEHOLD INDUSTRY AND MANUFACTURING TO THE TOTAL WORKING POPULATION 1961

PURPOSE

This map shows the talukwise distribution of workers in Mining, Quarrying, Manufacturing and Household Industry.

METHOD

The percentage of workers in these groups to the total workers has been classified into six ranges. The taluks in which percentage of workers in household industry is less than the percentage of workers in manufacturing other than household industry, have been shaded separately.

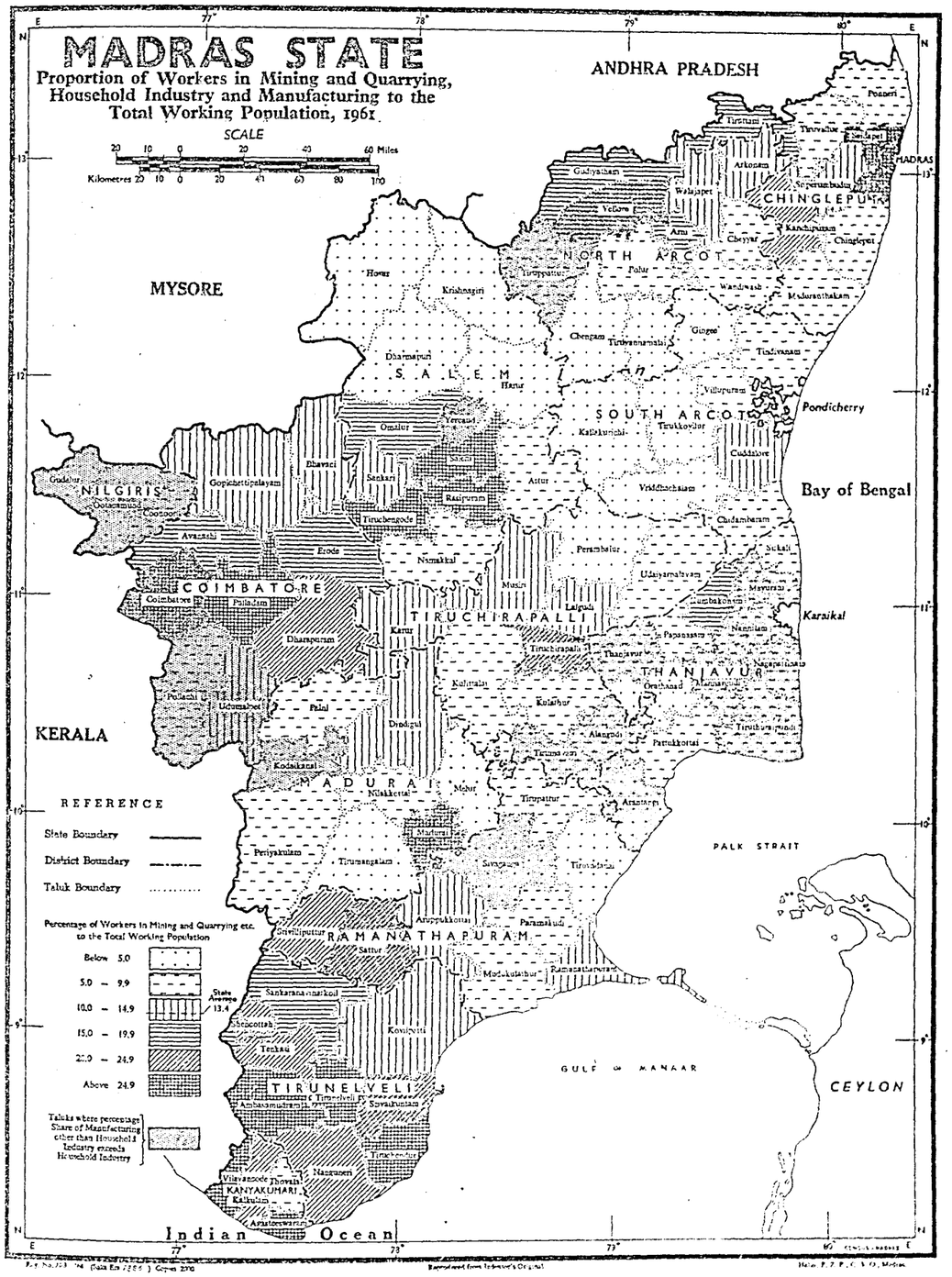
SALIENT FEATURES

In Madras State, 13.4% of total workers are employed in Household industry, Manufacturing other than household industry and in Mining and Quarrying. The highest percentage of workers in these categories is 34.2 in Salem taluk and the lowest percentage is 1.9 in Yercaud taluk. In 12 taluks the percentage is above 25%. These 12 taluks are spread out in only six districts as follows: one each in Chingleput and Madurai, two each in Kanyakumari and Coimbatore, three each in Salem and Tirunelveli districts. Madras City also has recorded more than 25%. There are 9 taluks with 20%—24.9%, 10 taluks with 15%—19.9% ; 15 taluks with 10%—14.9% ; 36 taluks with 5.0%—9.9% and 21 taluks with less than 5%.

In 26 taluks the percentage share of manufacturing other than household industry is greater than the share of household industry. Therefore in all the taluks other than these 26 taluks, household industry is more important than manufacturing other than household industry.

SOURCE

Census of India, 1961, Madras State--Part II-A General Population Tables.



MAP 38

HOUSEHOLD INDUSTRIES CLASSIFIED BY TYPES AND SIZE OF EMPLOYMENT 1961

MAP 85

HOUSEHOLD INDUSTRIES CLASSIFIED BY TYPES AND SIZE OF EMPLOYMENT

1961

PURPOSE

Household industries have been classified according to eight different types of activities and the percentage of workers in each category to total workers at household industry have been shown in this map.

METHOD

Household industries have been classified into (a) Agro based (b) Forest based (c) Livestock and Fish based (d) Textile (e) Mineral based (f) Engineering (g) Chemical and (h) Miscellaneous industries. Histograms proportionate to employment strength of each type of industry have been drawn and the bars are arranged from the highest to the lowest. The absolute figures for workers in each type of industry have been indicated above each bar.

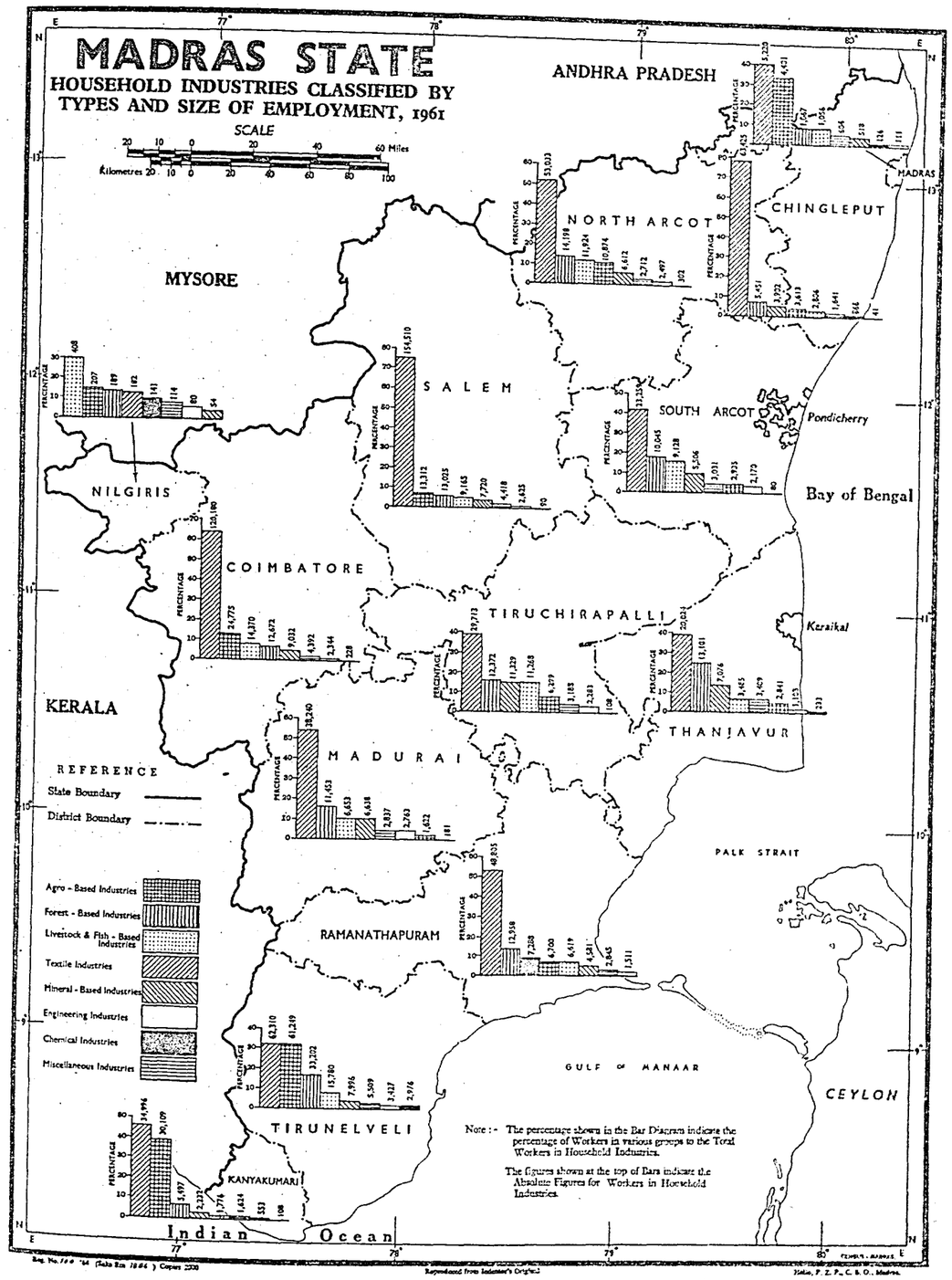
SALIENT FEATURES

In Madras State, employment in household industry is concentrated in textile industry which accounts for 54% of total workers in household industry. The second important industry with high percentage of workers is agro based industry with 14% of total workers. The household industry which accounts for very low percentage of total workers in household industry is chemical industry wherein workers form only 1%. In all the districts except Nilgiris, textile industry is the most important household industry but in Nilgiris district, Livestock and fish based industry is more important than other types of industries. In Chingleput and Salem districts, textile industry accounts for more than 75% of total household industry workers. The map indicates a more uniform distribution of workers among different types of industries in Nilgiris district than in any other district.

Agro based industry which accounts for 14% of workers in the State accounts for more than 30% in Madras, Tirunelveli and Kanyakumari districts. In Forest based industry, Thanjavur district is the most important with 25.5% of workers compared to 12.0% in the State. South Arcot and Thiruchirapalli are the two districts other than Nilgiris wherein percentage of workers in Livestock and fish based industry is of considerable importance. In mineral based industry, there are 6.07% of workers in Madras State and Tiruchirapalli and Thanjavur districts account for a high percentage of 14.8 and 13.8 respectively. Engineering industry as household industry employs 1.85% of total workers in the State and the highest among districts is 5.82% in Nilgiris district. Chemical industry is insignificant in all districts except Nilgiris (10.3%) and Ramanathapuram (8.5%). Miscellaneous industries which includes printing and publishing employs 3.0% of total workers in the State with a high percentage of 8.29% in Nilgiris district and 6.64% in Thanjavur district.

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 86

FACTORY INDUSTRIES CLASSIFIED BY TYPES AND SIZE OF EMPLOYMENT 1961.

MAP 86

FACTORY INDUSTRIES CLASSIFIED BY TYPES AND SIZE OF EMPLOYMENT 1961.

PURPOSE

This map shows the districtwise percentage distribution of workers among the various types of industries.

METHOD

The industries have been classified into 8 categories as follows : (a) Agro based (b) Forest based (c) Livestock and fish based (d) Textile (e) Mineral based (f) Engineering (g) Chemical (h) Miscellaneous industries. Histograms have been drawn for each district proportionate to the employment strength of each type of industry and the bars have been arranged from the highest to lowest.

SALIENT FEATURES

The percentage share of workers in the various types of industries in Madras State is as follows :

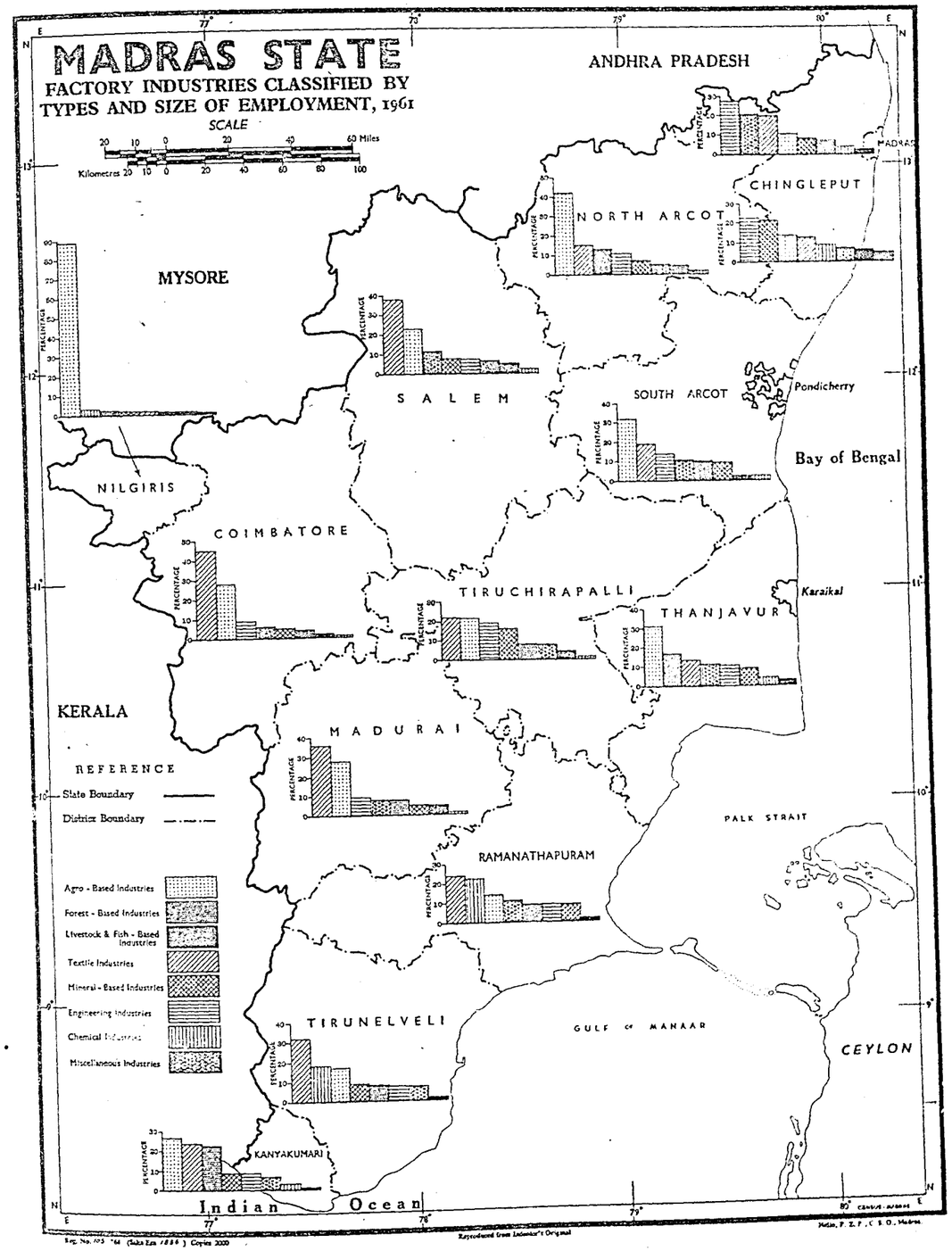
1.	Agro based industry	...	27.37%
2.	Textile ,,	...	26.71%
3.	Engineering ,,	...	12.82%
4.	Miscellaneous ,,	...	9.13%
5.	Mineral based ,,	...	8.27%
6.	Forest based ,,	...	7.21%
7.	Chemical ,,	...	4.88%
8.	Livestock and fish based Industry	...	3.61%

Agro based industries are predominant in North Arcot, South Arcot, Nilgiris, Thanjavur and Kanyakumari districts. In Nilgiris all the types of industries other than agro based are rather of insignificant importance.

Engineering industries are important only in two districts —Madras and Chingleput districts, but textile industries are important in six districts—Salem, Coimbatore, Madurai, Tiruchirapalli, Ramanathapuram and Tirunelveli Districts.

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 37

DISTRIBUTION OF FACTORIES AND WORKSHOPS BY SIZE OF EMPLOYMENT 1961

MAP 87

DISTRIBUTION OF FACTORIES AND WORKSHOPS BY SIZE OF EMPLOYMENT

1961

PURPOSE

This map shows the classification of factories and workshops by the number of persons employed therein.

METHOD

The data have been compiled from the houselist which contains particulars about the nature of industry and the size of employment in each industry. The size of employment has been classified into 1—5 persons, 6—19 persons 20—49 persons, 50—99 persons, 100 persons and above and employment not stated. Percentage ratio of number of factories and workshops in each size of employment to total number of factories has been calculated for each district. Six bars, proportionate to the percentage ratios, have been drawn for each district.

SALIENT FEATURES

In Madras State, majority of factories and workshops are small sized. About 63% of factories and workshops in Madras State employ 1—5 persons and factories employing more than 50 persons constitute less than one percent of total factories. The percentage of factories and workshops of various employment sizes is as follows :

1-5	persons	63.3%
6-19	,,	7.4%
20-49	,,	1.2%
50-99	,,	0.3%
100 and above	,,	0.3%
Persons not stated		27.5%

The last category which forms very high percentage is partly due to unwillingness on the part of employers to indicate the size of factory or workshop.

In all the districts except Madras and Nilgiris, the percentage share of factories and workshops with 1-5 persons is above 50. In Madras 45.2% of factories and workshop belong to this category but Nilgiris records the lowest percentage of 31.7. Largest number of factories and workshops of 1-5 persons is observed in Salem district where 74.1% of workshops belong to this category. In Tirunelveli and Kanyakumari districts also the percentage share of factories with 1-5 persons is above 70. In five districts the percentage share is above the State average of 63.3 of which four are the southern contiguous districts of Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari.

Factories and workshops employing 6-19 persons constitute 7.4% of total industrial establishments and the highest share is 12.0% in Madras City and the lowest is 4.5% in Tirunelveli district.

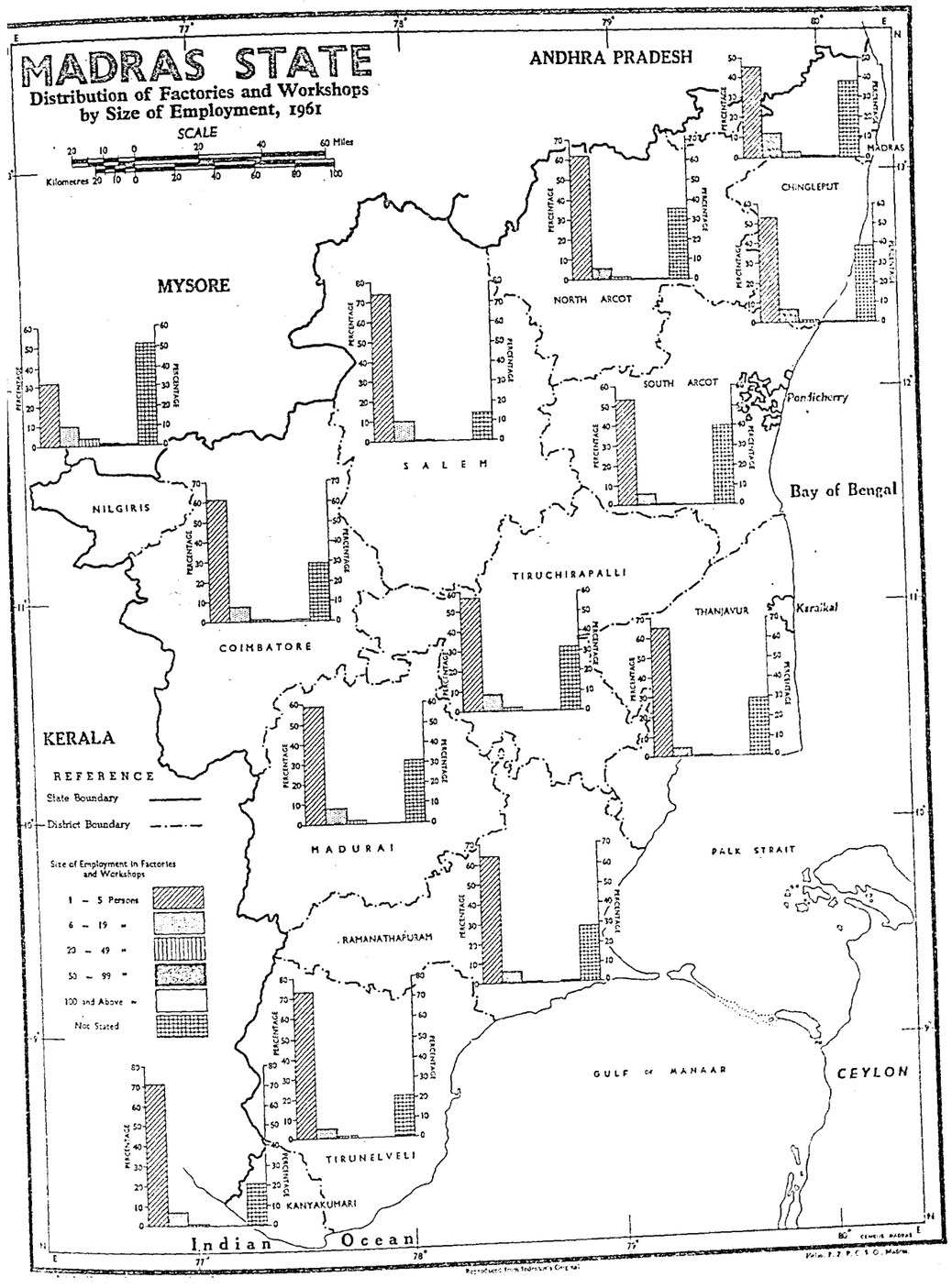
Nilgiris district has the maximum number of industrial establishments employing 20-49 persons and the percentage share of this category to total number of establishment is 3.7 compared to the State average of 1.2% and the lowest is 0.7% in South Arcot, Thanjavur and Tirunelveli districts.

The percentage of industrial units employing 50-99 is 0.3 in Madras State and in the category of 100 persons and over also it is 0.3% and in both these categories, Nilgiris leads with 1.6% and 0.9% respectively. Madras city is second in rank in both cases with 0.8% and 0.7% respectively.

The number of establishments with size of employment "not stated" is very high in Nilgiris district where 51.5% of the total establishments have not indicated the size. In seven districts, the percentage of such establishments is above 30 and the lowest percentage is 14 in Salem district.

SOURCE

Census of India, 1961, Madras State—Part IV-B Housing and Establishment Tables.



MAP 88

DISTRIBUTION OF FOOD PROCESSING INDUSTRIES 1961

MAP 88

DISTRIBUTION OF FOOD PROCESSING INDUSTRIES

1961

PURPOSE

This map shows the pattern of distribution of industries related to food processing. The following categories of industries are included:—rice mill, sugar confectionary and bakery products, flour mills, dhall mills, oil mills, sugar products.

METHOD

Different items have been shown separately, each one represented by different grades of hatching. Circles proportionate to total employment have been drawn for each category and circles have been drawn taking taluks as the central point.

SALIENT FEATURES

According to the returns received by the Chief Inspector of Factories there are about 1,000 rice mills in Madras State affording employment for about 14,000 persons. The biggest concentration of rice mills is noticed in Thanjavur district with about 200 units with an average employment of 13 persons. Coimbatore district has less number of rice mills than Thanjavur but employs more persons yielding an average of more than 20 persons per rice mill. Flour mills are insignificant compared to rice mills. There are about 40 units in the State accounting for about 750 workers.

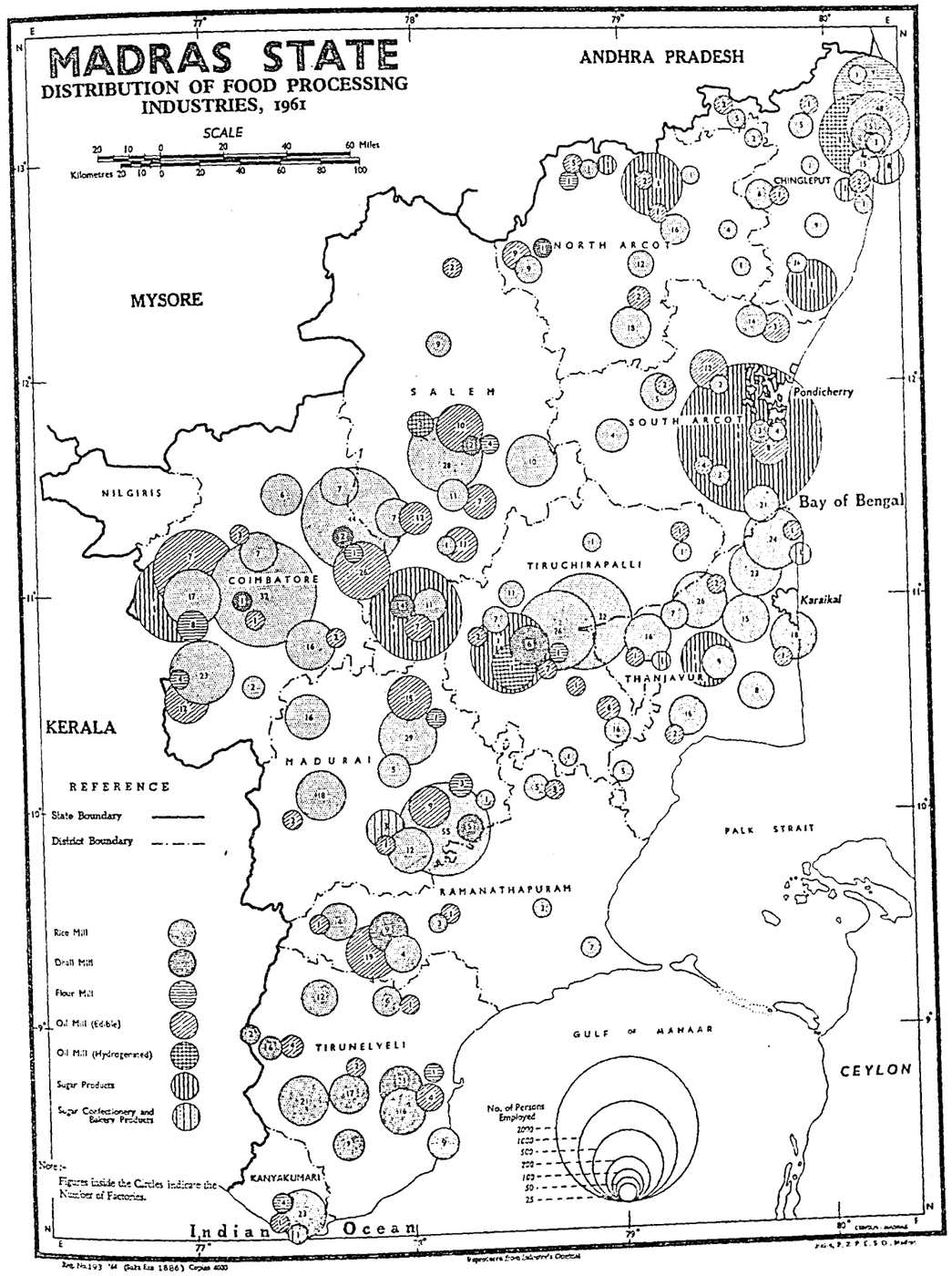
There are about 60 dhall mills which employs about 900 persons and Tiruchirapalli, Ramanathapuram and Tirunelveli are the important centres of concentration of dhall mills.

There are about 300 edible oil mills in Madras State and concentration of a number of units is noticed in Madras City, Salem, Erode, Coimbatore, Pollachi, Dindigul, Madurai and Sattur taluks. There are two big units producing hydrogenated oil. One is East Asiatic Company in Madras empolying 639 persons and the other is a Hindustan Lever Unit in Tiruchirapalli employing 200 persons.

There are nine sugar producing units in Madras State employing about 5,000 workers. The biggest unit is East India Distilleries and Sugar Factories at Nellikuppam employing more than 2,000 workers. The other units are: North Arcot district Co-operative Sugar mills in Vadapudupet, Amaravathy Co-operative Sugar mills in Coimbatore, Madura Sugar and allied products in Pandiyarajapuram, Arooran Sugars in Mannargudi, the Deccan sugar company in Pugalur in Tiruchirapalli and Cauvery sugar and chemicals in Pettaivaythalai in Tiruchirapalli.

SOURCE

Chief Inspector of Factories, Madras.



MAP 89

DISTRIBUTION OF BEVERAGES AND TOBACCO INDUSTRIES

MAP 89

DISTRIBUTION OF BEVERAGES AND TOBACCO INDUSTRIES

PURPOSE

This map shows the distribution of (1) tea factories, (2) coffee curing works (3) beedi factories and (4) cigar factories.

METHOD

Circles proportionate to total employment in each category have been drawn for each district. The four categories have been distinguished by four different grades of hatching.

SALIENT FEATURES

Tea processing units are predominant in plantation areas of Nilgiris and Coimbatore districts. There are 21 units in Coimbatore, most of which are in Valparai and 80 units in Nilgiris.

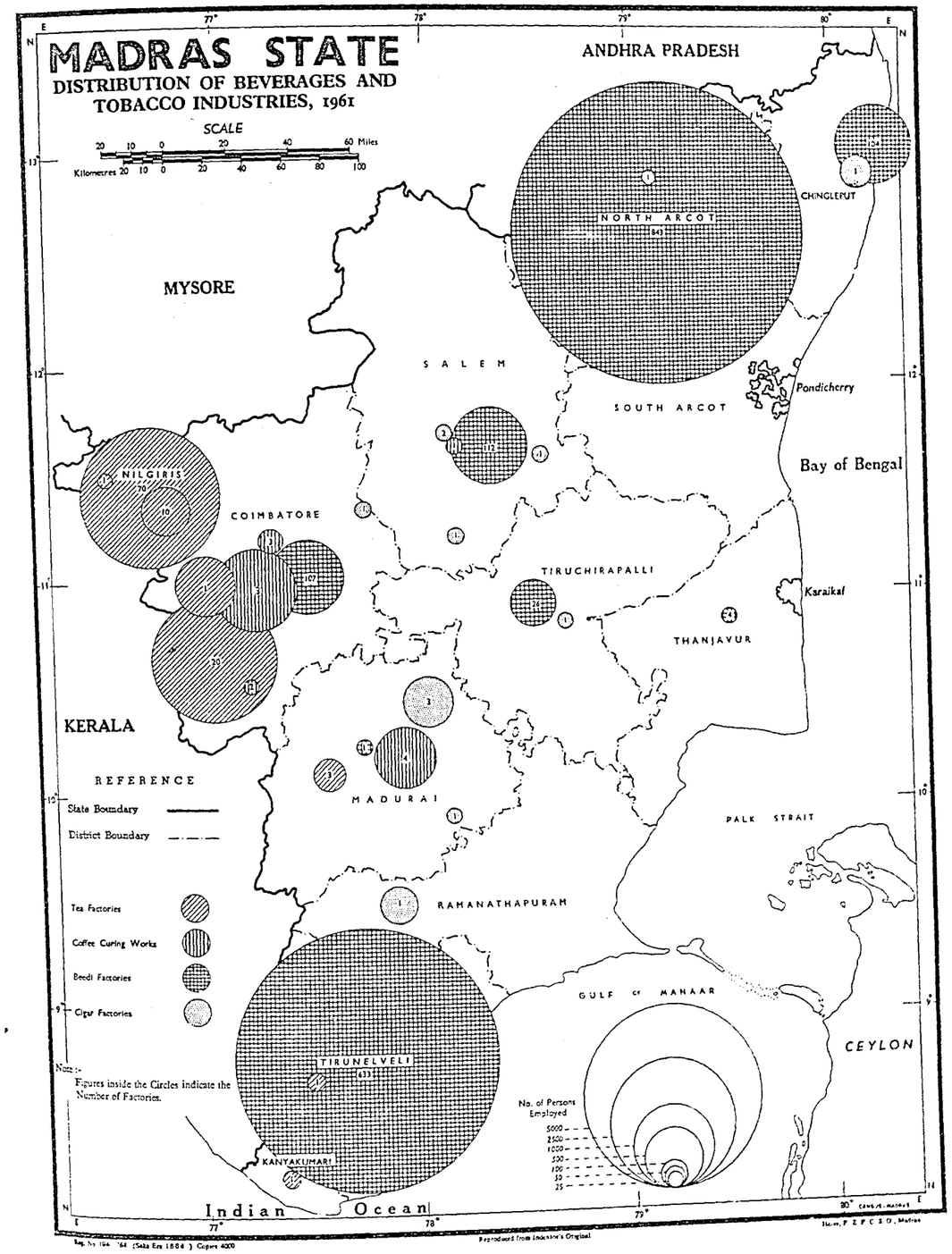
The tea processing units in Coimbatore provide employment for about 2,700 persons while the 80 units of Nilgiris district employ about 3,300 persons. The biggest tea factory is Brook Bond in Coimbatore which employs 487 persons and there are seven other factories employing more than 10 persons.

While tea factories in the State offer employment to th tune of about 6,000 persons, coffee curing works offe employment only for about 1,500 persons. There are 1 coffee curing works in the State out of which 8 are i Coimbatore, 4 in Madurai and 2 in Salem. Six out of thes 14 factories employ each more than 100 persons.

There are 1,830 units manufacturing beedi with a tota employment of about 27,000 persons. The largest concen tration of beedi producing unit is noticed in North Arce district which has 843 units employing about 13,500 persons Tirunelveli district ranks as the second leading centre of bid production. There are 633 units employing about 10,00 workers. Madras, Salem and Coimbatore districts have eac more than 100 units. 15 cigar factories are found in Madra State of which three factories are large, each employing mor than 100 persons and all the others are small.

SOURCE

Chief Inspector of Factories, Madras and Commissione of Labour, Madras.



MAP 90

DISTRIBUTION OF TEXTILE INDUSTRIES

MAP 90

DISTRIBUTION OF TEXTILE INDUSTRIES

PURPOSE

This map shows the distribution of textile mills in Madras State.

METHOD

The textile industry has been divided into four branches—cotton, woollen, silk mills, cotton ginning and baling and others which include knitting, umbrella, tailoring etc.

SALIENT FEATURES

According to the 1961 list of factories and workshops there are 253 cotton ginning and baling mills employing about 11,500 persons. But cotton mills which are about 250 in number provide employment for more than a lakh of people.

The largest concentration of cotton mills is in Coimbatore where about 125 mills are located employing about 50,000 workers. The main attraction of Coimbatore for cotton manufacturing is ample supply of power and raw materials. Madurai ranks as the second important textile industrial centre where 36 cotton mills are located employing about 17,300 workers. Tirunelveli district ranks as the third important centre with 12 cotton mills employing about 14,500 workers. In Madras City the only unit—the famous Buckingham and Carnatic mills employs about 13,500 workers. The cotton mills are found mostly in the western part of the State. The other places where cotton mills are noticed are Salem, Tiruchirapalli and Ramanathapuram districts.

Cotton ginning and baling which is done in 253 units is concentrated in Coimbatore district. 136 Ginning and baling mills employing about 6,500 persons are located in Coimbatore. Ramanathapuram, Tirunelveli and Madurai are the other districts of importance from the point of this industry.

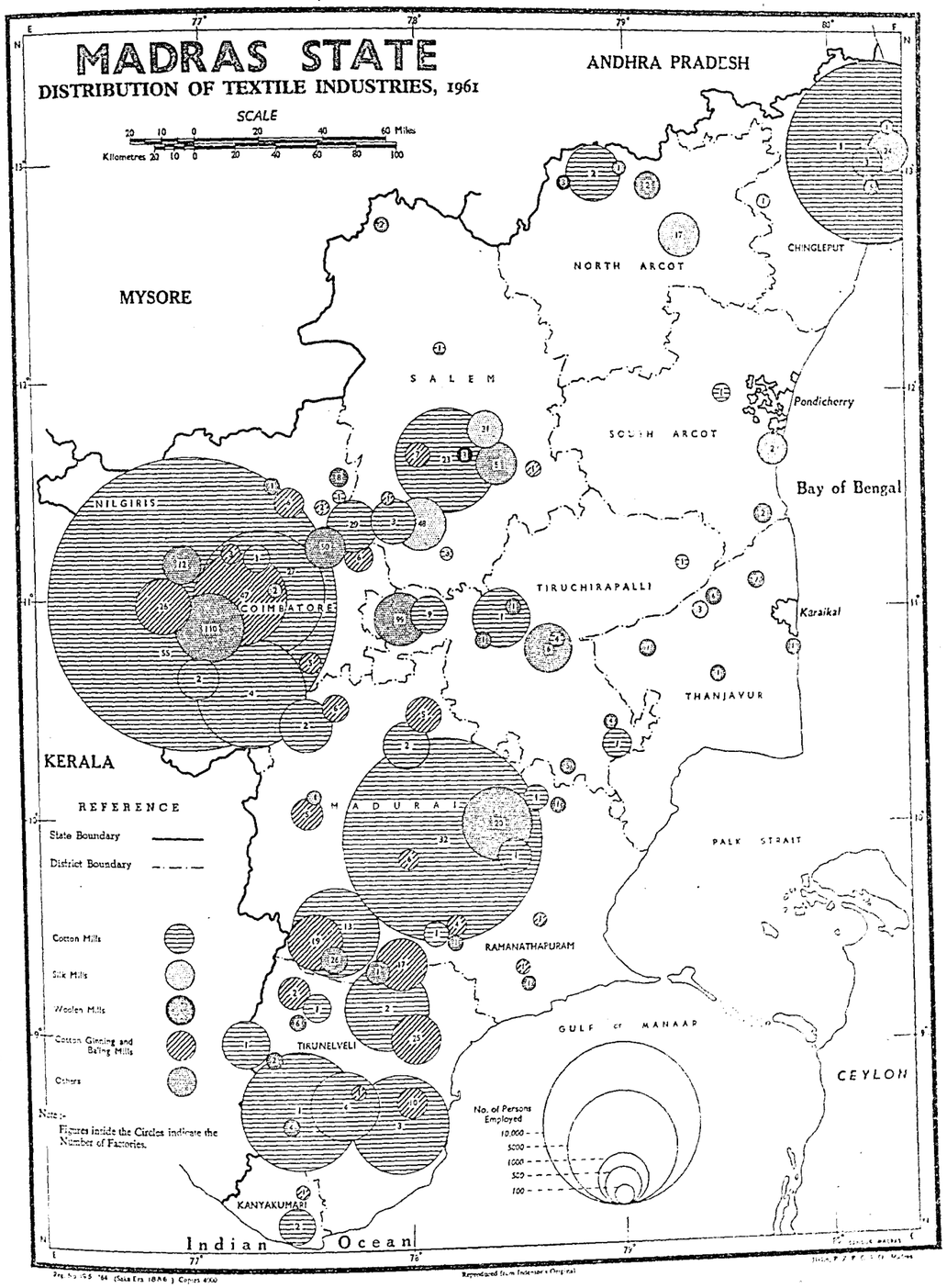
Silk industry has absorbed only about 2,200 workers distributed among 107 units. Tiruchengode and Salem have the largest concentration of silk mills, all of which are small sized and those two taluks account for more than 50% of workers in this industry in Madras State.

Woollen mills are insignificant in Madras State since there are only three very small units offering employment to less then 40 persons.

The category "others" includes umbrella mauufacture, knitting, tailoring etc. There are about 270 units in this category providing employment to about 6,000 workers. Knitting mills are concentrated in Tiruppur town of Coimbatore district and there about 100 units in Tiruppur town producing hosiery product.

SOURCE

Chief Inspector of Factories, Madras.



MAP 91

DISTRIBUTION OF WOOD-BASED INDUSTRIES

MAP 91

DISTRIBUTION OF WOOD-BASED INDUSTRIES

PURPOSE

This map shows the location of industries using wood as raw material. These industries are: saw milling, manufacture of wood products including box making, and joinery and general wood working, paper and pulp industry. Printing, binding of books (letter press and lithographic printing) has also been included under this category.

METHOD

The four groups: saw milling, wood products, paper and pulp, printing have been shown separately by means of different grades of hatching. Circles proportionate to employment offered by these industries, have been drawn taking taulk headquarters as the base.

About 4,000 workers are engaged in saw mill, wood products and paper and pulp industries and about 16,000 workers in printing industry.

Industries manufacturing wood products absorb about 3,000 workers in Madras State and saw mills employ about 450 workers.

Manufacture of wood products is noticed in all the districts and most of the units are small sized and most of the units are engaged in making of furniture. Some of the big units employing more than 100 persons are:- St. Josephs Industrial School in Tindivanam, Central Jail Industrial section and Spencer & Co. in Madras City, Sports Goods unit in Guindy, S.P.G. Art Industrial school in Nazareth in Tirunelveli district.

36 saw mills of Madras State are distributed mainly in Coimbatore, Kanyakumari, Tirunelveli, Madurai and Madras but the total employment in saw mills is only about 450 and thus all the units are small.

Paper and pulp industry employs about 300 persons and these small sized paper manufacturing units are dispersed in Sattur, Thanjavur, Madurai, Dindigul taluks and Madras City. The biggest paper mill is Seshasayee paper mill in Erode but since it was started recently (after 1961) it has not been shown in the map.

Printing industry is quite common in all the districts and in Madras State there are 633 units employing about 16,000 workers. Though only about a third of the total number of units are located in Madras City, the total employment generated by these units in Madras city is about 9,000 which is more than 50% of the total employment in printing industry in the State. This is mainly due to the location of Government Press in Madras City which employs about 2,500 workers. The other presses in Madras City employing more than 100 persons are: Thompson and Co., Hoe & Co., Diocesan Press, The Hindu office, The Mail, Associated Printers, B.N.K. Press, Prasad Processes, Anandavikatan, The Swadesamitran, Madras Law Journal Press.

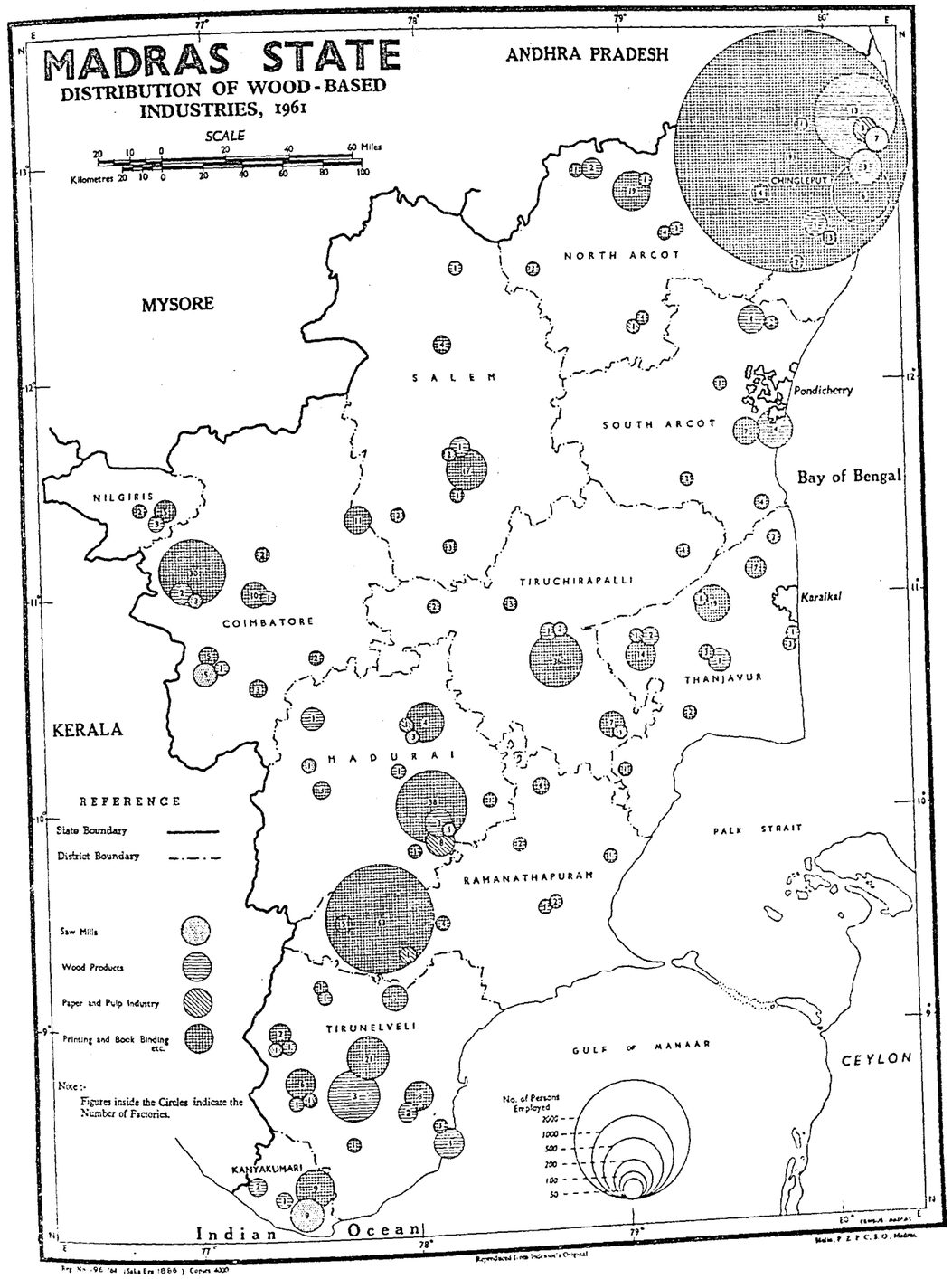
Ramanathapuram district has 73 units, Coimbatore has 63, Tiruchirapalli has 52 and Thanjavur has 50 units. The printing presses in Ramanathapuram district employ about 2,000 workers with high concentration in Sivakasi of Sattur taluk. The presses in Sivakasi employing more than 100 persons are:—The Coronation Litho works, National Litho works and Rajah Litho works.

The other important presses employing more than 100 persons are Dinamani Press in Madurai and Natesan Press in Dindigul.

All the other presses are small employing less then 100 persons.

SOURCE

List of Factories and workshops—1961, Chief Inspector of Factories, Madras.



MAP 92

DISTRIBUTION OF LEATHER INDUSTRIES 1961

MAP 92

DISTRIBUTION OF LEATHER INDUSTRIES

1961

PURPOSE

This map brings out the pattern of distribution of leather industry in Madras State.

METHOD

Tanning industry and manufacture of leather products are shown separately by different shades of hatching. Circles proportionate to total employment in these industries are drawn taking taluk headquarters as the base. The data have been compiled from the list of industries furnished by the Chief Inspector of Factories.

SALIENT FEATURES

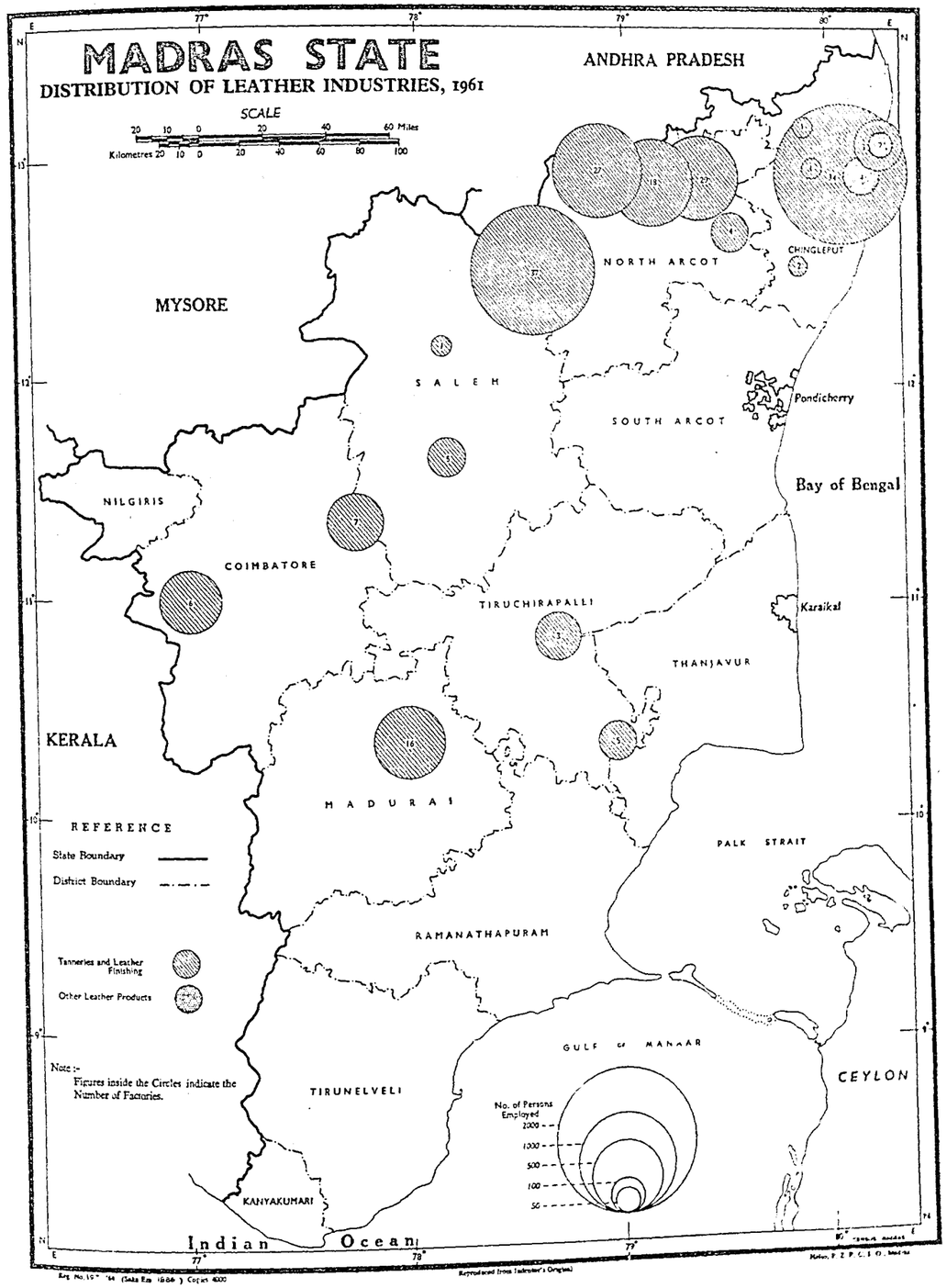
According to the returns received and compiled by the Chief Inspector of Factories, there are about 8,200 workers engaged in tanneries and only about 200 workers in manufacture of leather products.

High concentration of tannery centres is noticed in North Arcot district which accounts for more than 50% of total workers in tanneries in Madras State. Tirupattur, Gudiyatham, Vellore and Walajahpet are the important taluks wherein tanneries are concentrated. Cheyyar taluk also has a few centres. Chingleput ranks as the second district of importance. However, Saidapet taluk adjoining Madras City is the place of largest concentration within the district. Proximity to sea port might have influenced the development of tanneries in this taluk. The other districts wherein tanneries are in existence are Coimbatore, Madurai, Tiruchirapalli and Salem. In these districts also, the tanneries are located at important railway junctions like Salem, Erode, Dindigul, Coimbatore and Tiruchirapalli.

The units manufacturing leather products are very few in number and the scope of employment also poor and Madras City and Saidapet taluk are the only two important places of manufacture of leather products.

SOURCE

Chief Inspector of Factories, Madras.



MAP 93

DISTRIBUTION OF METAL BASED INDUSTRIES

MAP 93

DISTRIBUTION OF METAL BASED INDUSTRIES

PURPOSE

This map shows the distribution of industries producing steel products and those engaged in smelting, rolling, refining, etc.

METHOD

As in the case of other maps relating to distribution of industries, in this map also circles proportionate to total employment generated by each industry have been drawn.

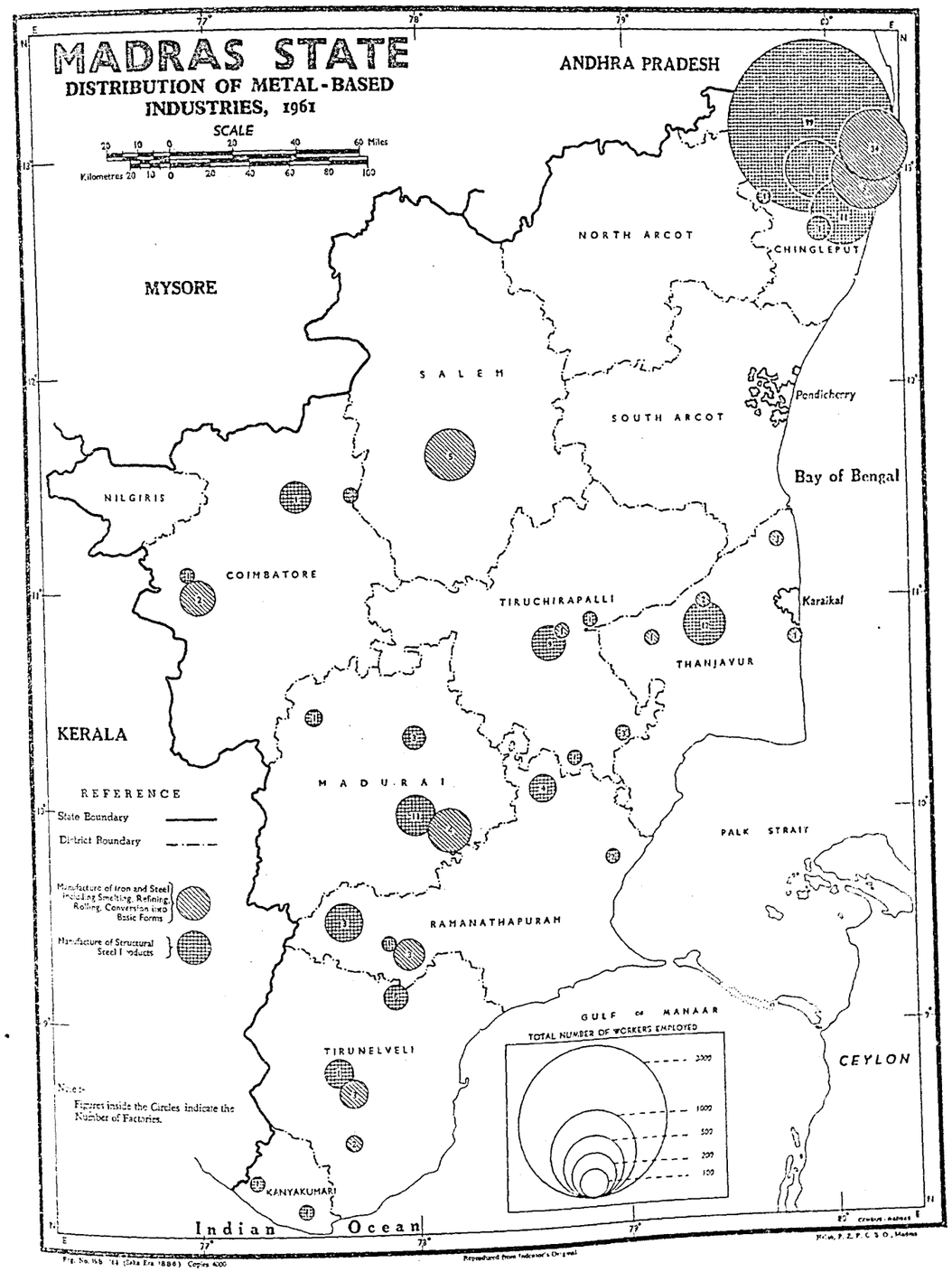
SALIENT FEATURES

Manufacture of metal products is the most important item in this group of industries. This category includes manufacture of (a) metal containers and steel trunks (b) bolts, nuts and nails (c) type founding, welding and other categories. In Madras State there are 94 units producing metal containers and steel trunk, out of which nearly 50 are in Madras City. The biggest unit is that of Metal Box Company in Tiruvottiyur. Excepting five units, all the other industries are small sized.

The industrial establishments connected with smelting, refining etc. are scattered over different places and are mostly small sized units.

SOURCE

Chief Inspector of Factories, Madras.



MAP 94

DISTRIBUTION OF NON-METALLIC MINERAL

BASED INDUSTRIES

MAP 94

DISTRIBUTION OF NON-METALLIC MINERAL BASED INDUSTRIES

PURPOSE

This map shows the location of non-metallic mineral based industries. The industries covered by this group are cement, asbestos, bricks and tiles, glass and glass products.

METHOD

Circles proportionate to total employment in each of the three categories—(1) cement including asbestos and allied products (2) bricks and tiles and (3) glass products are drawn and different grades of hatching have been given to distinguish the three types. The data were furnished by the Chief Inspector of Factories. The circles have been drawn taking taluk headquarters as base.

SALIENT FEATURES

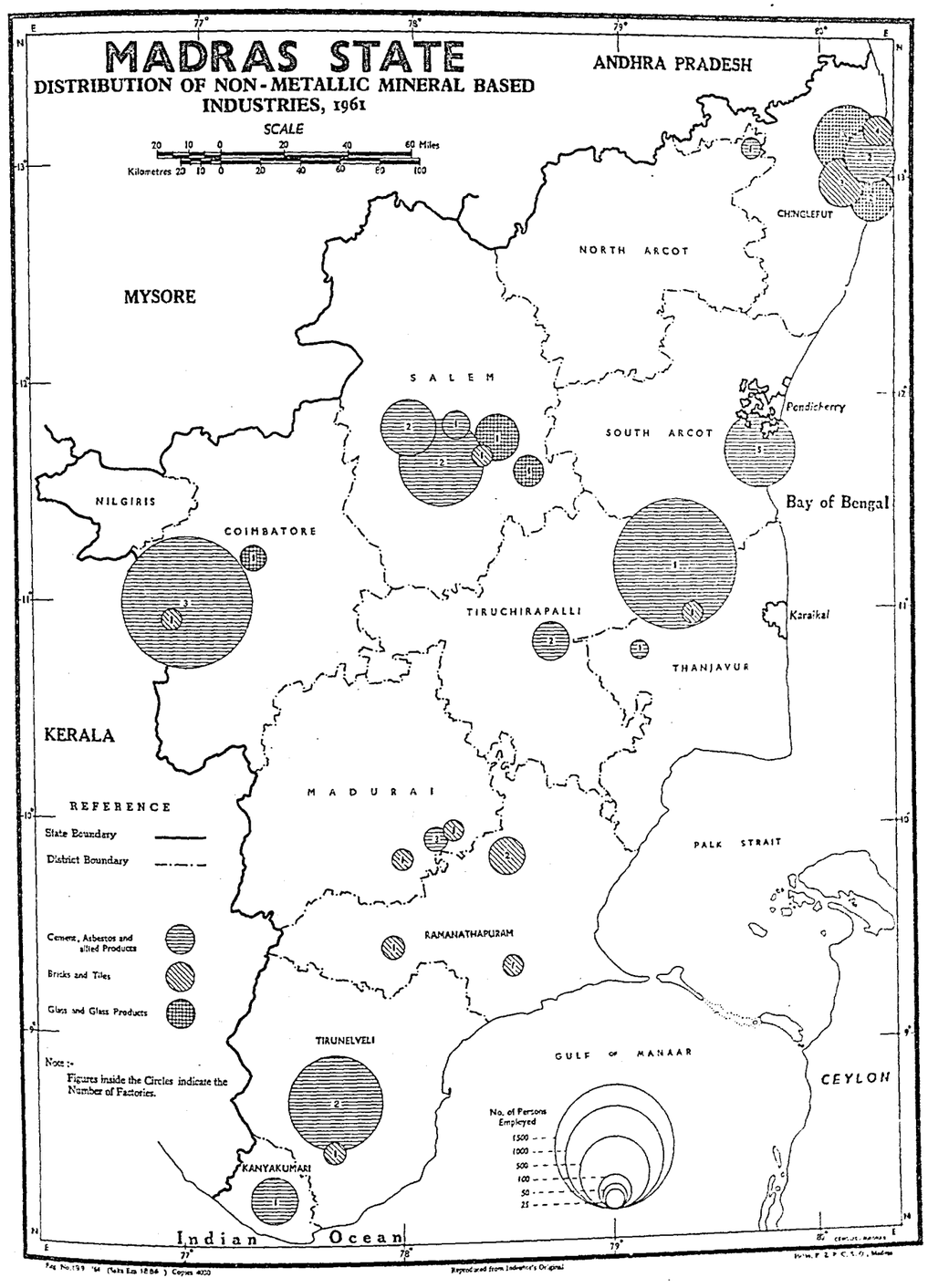
According to the returns received by the Chief Inspector of Factories, about 8,000 workers are engaged in non-metallic mineral based industries, majority of whom work in cement, asbestos and allied products. Cement product absorbs more than 60% of workers in mineral based industries. The cement industries are located in Madukkarai in Coimbatore district, Dalmiapuram in Tiruchirapalli district and Thalaiyuthu in Tirunelveli district, Dalmiapuram being the largest of the three. Limestone deposits in these places is the contributing factor for the location of cement industries in these places. Asbestos cement product industries which employ about 1,500 workers are located in Madurai and Coimbatore. The biggest asbestos unit is found in Podanur in Coimbatore district. The small unit located in South Arcot district is connected with Neyveli but classified by the Chief Inspector of Factories under asbestos. Another cement manufacturing unit is located in Thulukkampatti near Rajapalayam in Ramanathapuram district.

Brick and tile manufacturing units are dispersed over the State which is due to availability of clay throughout the State.

Manufacture of glass and glass products is noticed in Madras City, Saidapet taluk of Chingleput district, Salem and Attur taluks of Salem district and Avanashi taluk of Coimbatore district. About 1,000 workers are engaged in these units and availability of quartzite or glass sand deposits has led to the location of these industries in these places. Madras City also has fairly abundant supply of glass sands.

SOURCE

Chief Inspector of Factories, Madras.



MAP 60

GROSS VALUE OF AGRICULTURAL OUTPUT

PER CULTIVATOR

MAP 60

GROSS VALUE OF AGRICULTURAL OUTPUT PER CULTIVATOR

PURPOSE

This map presents the regional variation in productivity of agricultural land in the State in terms of gross value of output per cultivator.

METHOD

The gross value of agricultural output refers to sum total of the value of rice, millets, pulses, oilseeds and sugarcane. Cultivators refer to number of persons under "cultivators" which is one of the nine industrial categories into which workers have been classified.

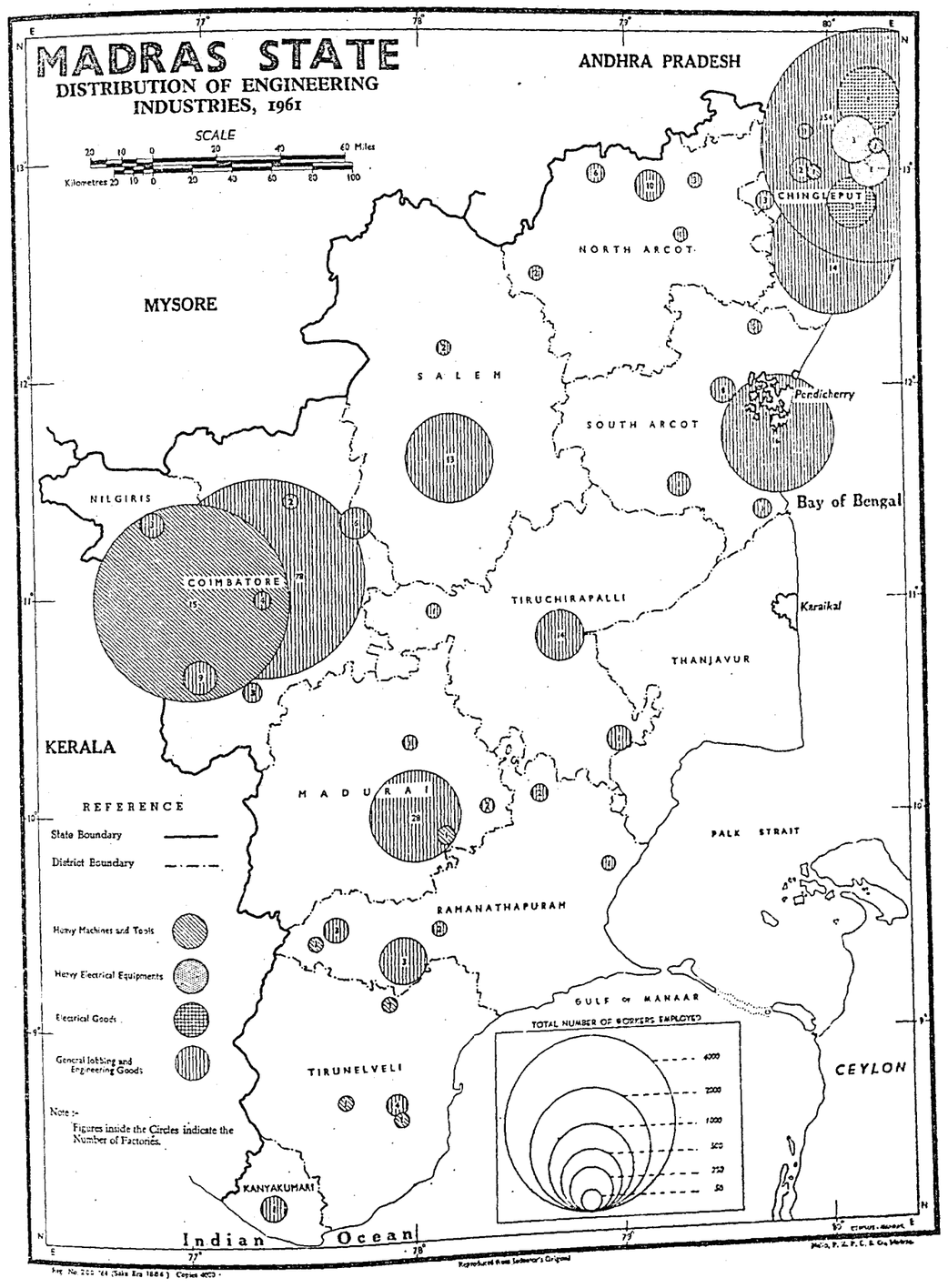
SALIENT FEATURES

The productivity per cultivator is very high in Thanjavur district, high in Chingleput, Kanyakumari and Coimbatore districts and moderately high in North Arcot, South Arcot and Madurai districts. It is medium in Salem, Tiruchirapalli, Ramanathapuram and Tirunelveli districts. It is low in only Nilgiris district.

The gross value of agricultural output per cultivator in the State is Rs. 520 per cultivator and the highest value is Rs. 1,174 in Thanjavur district. The district with second rank is Kanyakumari with Rs. 789. The lowest value is Rs. 79 in Nilgiris district and the penultimate rank is held by Salem district with Rs. 301.

SOURCE

Season and Crop Report, 1960—61.



MAP 96

DISTRIBUTION OF TRANSPORT EQUIPMENT INDUSTRIES 1961

MAP 96

DISTRIBUTION OF TRANSPORT EQUIPMENT INDUSTRIES

1961

PURPOSE

This map shows the distribution of transport equipment, manufacturing and repairing industries. The following three categories have been shown :

1. Manufacture of coaches and wagons etc.
2. Manufacture and servicing of motor vehicles
3. Manufacture of bicycles

METHOD

Circles proportionate to total employment in each of the above three categories of industries, have been drawn.

SALIENT FEATURES

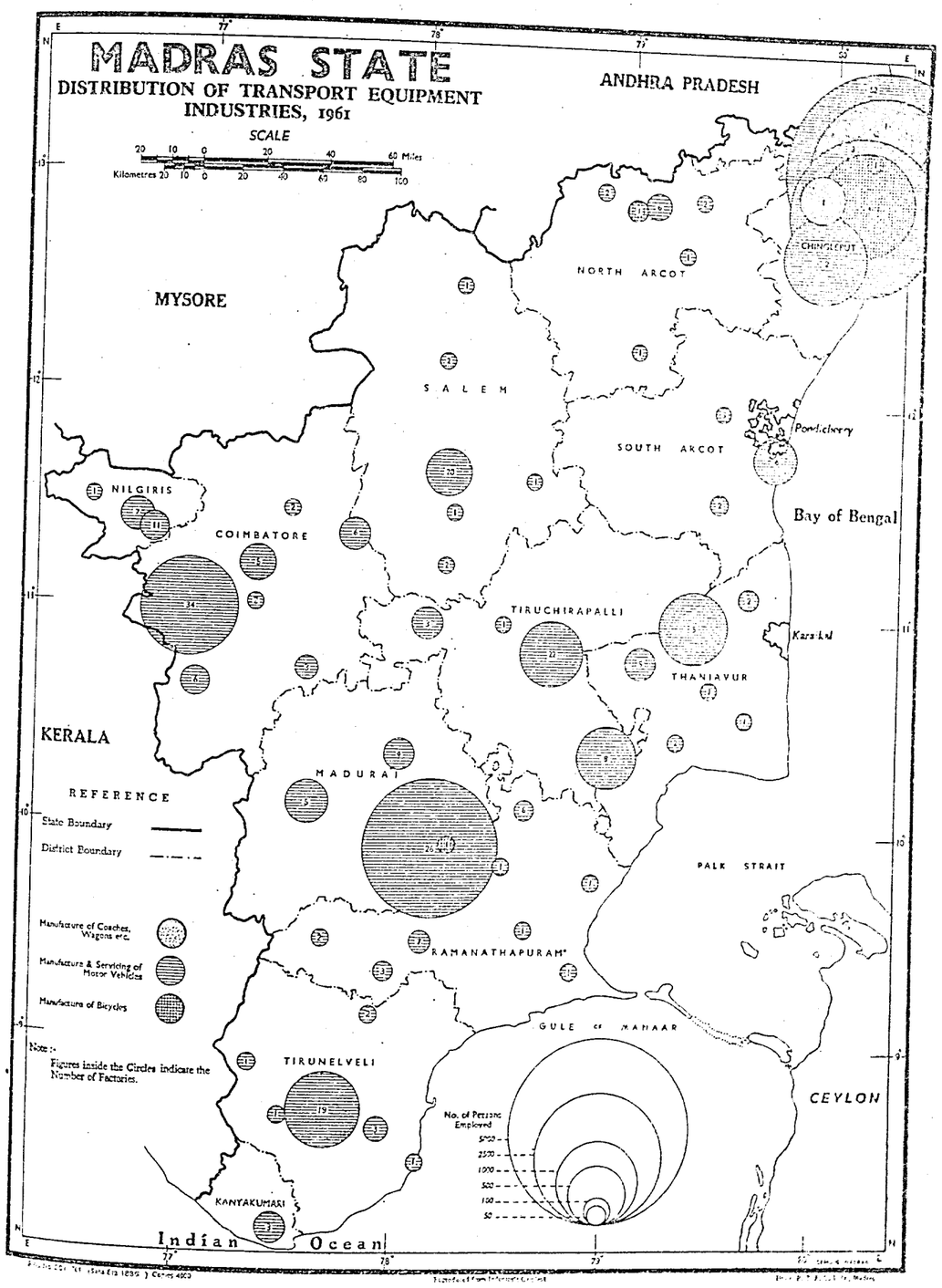
More than 20,000 workers are employed in manufacture and repair of motor vehicles. Out of 330 units in Madras State, largest number of units is in Coimbatore district where 58 units employing about 1,800 workers are recorded but in Madras City, 52 units employ more than 6,000 workers. From the employment point of view, Chingleput district ranks second by employing nearly 4,700 workers in this field. Madurai district ranks third with about 3,200 workers. In Tiruchirapalli and Thanjavur districts also this industry offers employment for over 1,000 persons. In all the other districts the units are few in number and small in employment potentiality. In Madras City, Simpson & Co., ranks as the leading industry employing more than 2,000 workers. Ashok Leyland at Ennore, Standard Motors at Perungulathur are the leading industrial units in Chingleput district.

The only cycle manufacturing unit is T. I. Cycles at Ambattur near Madras employing about 1,700 workers.

The only coach building unit is in Perambur employing about 3,000 workers.

SOURCE

Chief Inspector of Factories, Madras.



MAP 97

DISTRIBUTION OF CHEMICAL INDUSTRIES

MAP 97

DISTRIBUTION OF CHEMICAL INDUSTRIES

PURPOSE

This map shows the distribution of chemical industries which are classified into eight categories—basic industrial chemicals such as acids etc, fertilisers, matches and fire works. pharmaceutical chemicals, soap, plastic products, synthetic rubber and rubber products and petroleum products.

METHOD

Circles proportionate to total number of employees in each category are drawn taking taluk as the basis of location. The eight categories of industries have been shaded differently.

SALIENT FEATURES

In Madras State, chemical industries absorb about 20,000 workers distributed over about 325 units.

Matches form the chief item employing more than 50% of workers in chemical industries. There are nearly 150 match producing units in Madras State out of which 50% are located in Ramanathapuram district offering employment to about 6,000 persons and is highly localised in Sivakasi town. The match industries are located in Tirunelveli district also and thus these two districts are the leading centres of match industry. The biggest match factory in Madras State is however found near Madras City. The Western India Match Company in Tiruvottiyur employs more than 1,000 persons.

Heavy chemicals includes salt factories, carbonated water industries and heavy chemicals. The East India Distilleries and Sugar factories in Ranipet is the biggest unit employing 1,444 persons. The other large chemical industry in the State is Mettur chemicals in Salem employing 915 workers and it manufactures caustic soda and chlorine, The availability of cheap hydroelectric power is the influencing factor for the location of this industry here.

There are 24 units engaged in salt manufacture of which 10 are located in Tuticorin, four in Veppalodai, and 9 in Thanjavur district. All the units except one in Thanjavur district employ less than 100 persons. The Mettur chemical and industrial corporation salt works in Adiramapattinam is the only big unit employing more than 100 persons.

47 small carbonated water industries are distributed over different parts of the State.

Artificial manures are produced in about 20 units. The biggest fertiliser factory is that of Shaw Wallace Company near Madras City. Coimbatore district has comparatively a larger number of small units producing artificial manures. The total employment generated by this industry is about 800.

Pharmaceutical chemical industries are concentrated in Madras City. Out of 25 units in the State where pharmaceutical products are produced, 12 are in Madras City and four are near the City but within Chingleput district.

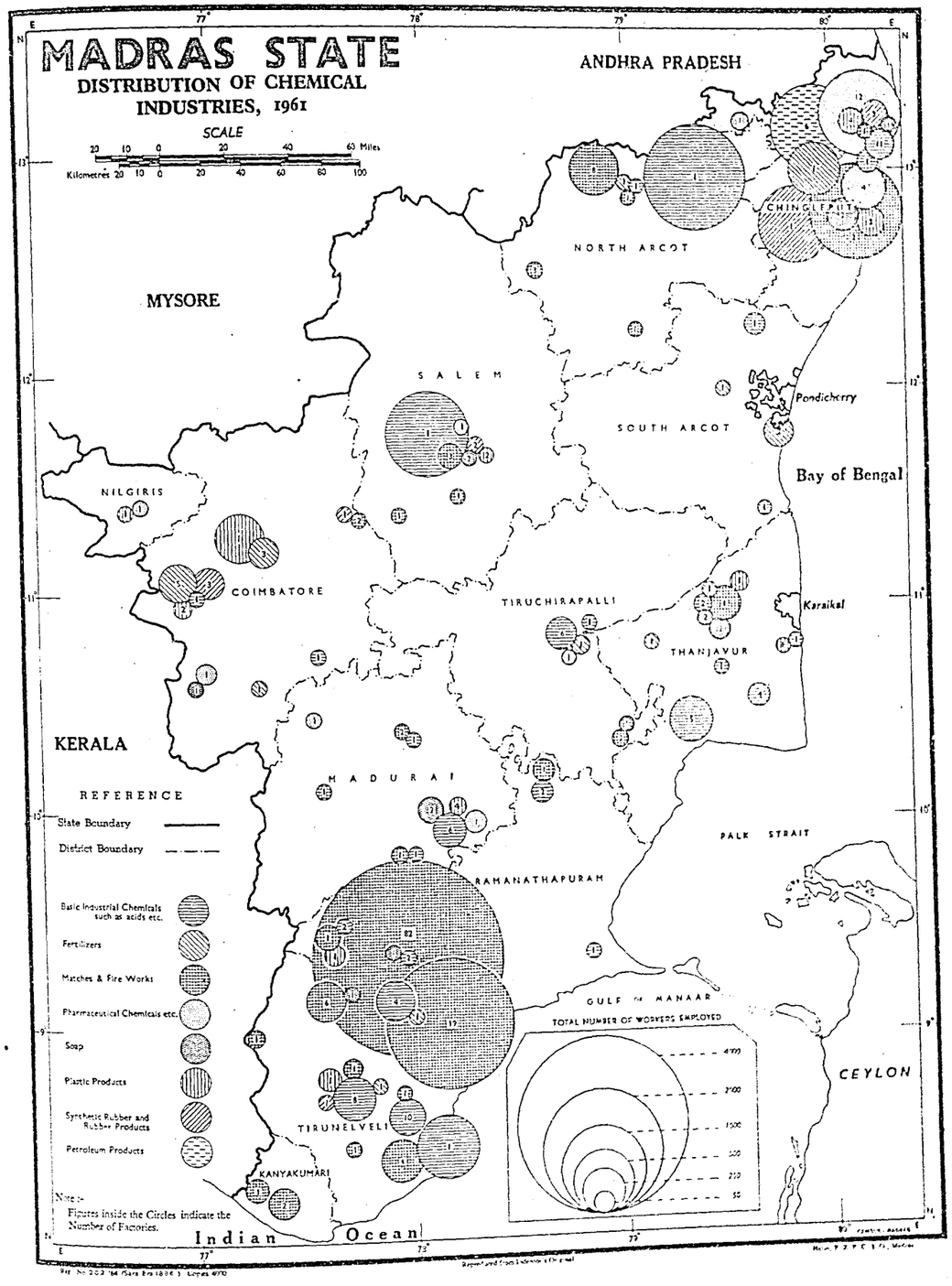
Soap industries are very few in number and from the employment aspect also it is not very important since only about 400 persons are employed in soap industries.

The biggest rubber factory in the State is Dunlop Rubber Factory in Ambattur near Madras employing about 750 persons. The other units engaged in production of rubber and rubber products are small sized located in Coimbatore.

The petroleum product indicated in the map refers to Burmah shell, Caltex and Esso, kerosene, and petrol installations in Madras.

SOURCE

Chief Inspector of Factories, Madras.



MAP 98

TRANSMISSION NETWORK OF ELECTRICITY 1961

TRANSMISSION NETWORK OF ELECTRICITY

1961

PURPOSE

This map is drawn to show the transmission lines of the Madras Electric Grid during 1961.

METHOD

Three colours have been used to distinguish:

1. Existing lines
2. Sanctioned and under construction
3. Lines likely to materialise by 1966
4. Future

SALIENT FEATURES

Supply of electricity in Madras State is controlled by the following three agencies:

1. The State Electricity Board generates and distributes to the ultimate consumers over a widely extended net work. Majority of the large industrial concerns like textile mills, cement factories,, steel rolling mills, railways, workshops and tea factories get supply direct from the Board.

2. Five municipal licensees all of whom are distributors of bulk power received from the State Electricity Board in their areas.

3. Eight private companies all of whom are distributors of bulk power received from the State Electricity Board.

A State-wide power grid was conceived in order to develop the power resources in a rationalised manner and make it available to the whole State. This was planned in such a way that it would link the several hydro-electric and thermal stations and transmit their power to consumers in all villages and towns through a net work of transmission and distribution lines.

The map shows the power stations, transmission lines, both in operation and under construction and those projected at the end of the year. It covers all the districts of the State and comprises of seven hydro-stations and two thermal power stations with a total installed capacity of 571,000 K.W.

The length of transmission and distribution net work increased by 2,334 kilometers (1,451 miles) of high tension lines and 4,639 kilometers (2,883 miles) of low tension lines during the year bringing the total at the end of the year to 24,333 kilometers and 35,556 kilometers respectively.

The total length of high tension and low tension lines in each system at the end of the year are as follows:

Name of the system or circle	LENGTH OF LINE	
	High tension Km.	Low tension Km.
Pykara	3,221	5,506
Mettur	3,844	7,952
Papanasam	4,584	6,558
Madras	1,371	2,613
Vellore	6,204	7,945
Tiruchirapalli	4,203	4,896
Generation circle, Erode	860	32
Kundah circle	46	54
Total	24,333	35,556

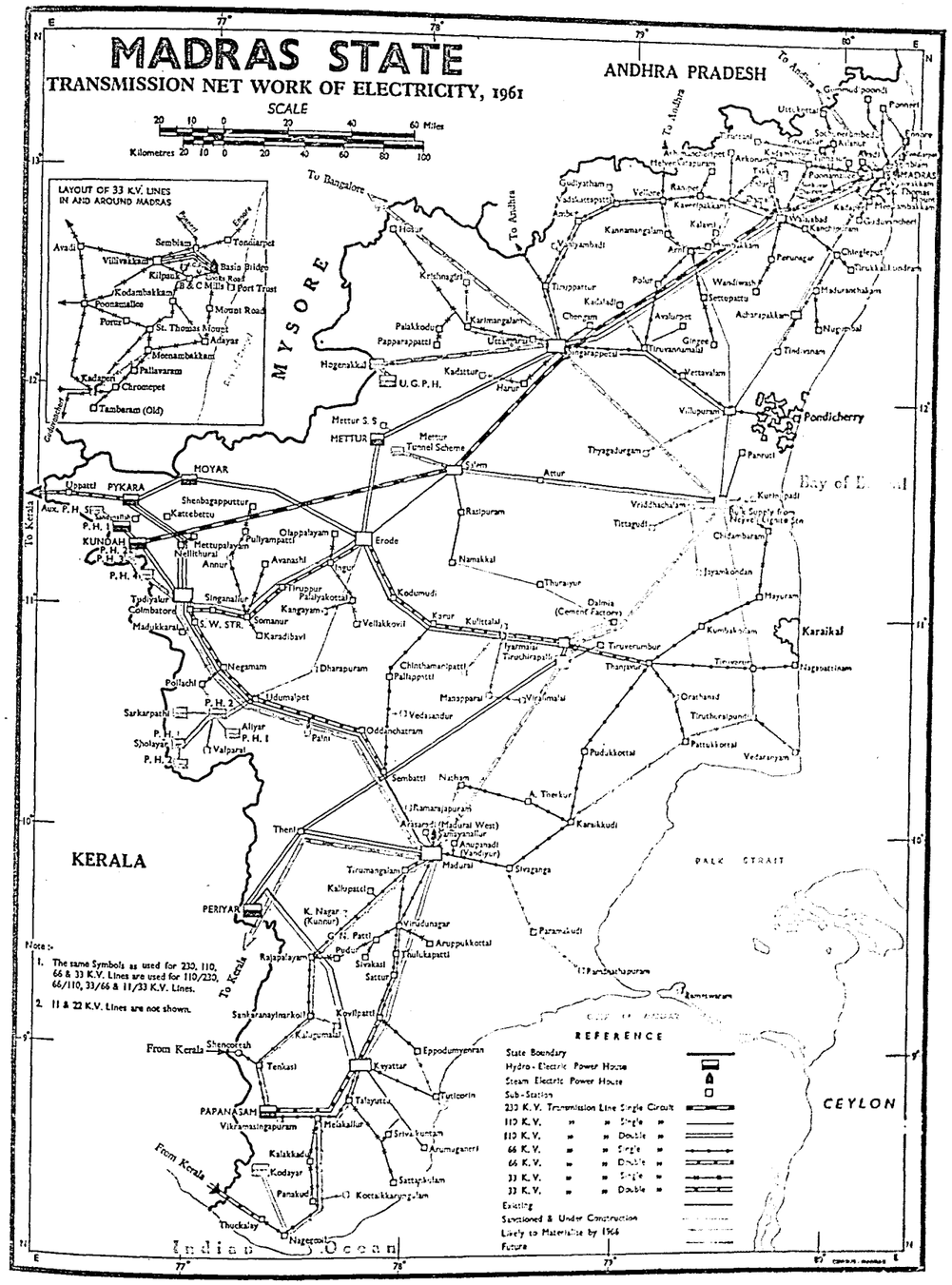
Mettur tunnel scheme under construction will add to the grid an installed capacity of 200,000 K.W.

A major stride in respect of transmission system during the year is the commercial operation of the first 230 K.V. line in the State from Kundah to Madras for a distance of about 300 miles.

Thermal station at Madras will add to the grid an installed capacity of 100,000 K.W., the Parambikulam—Anamalai Scheme 180,000 K.W., Hogenakkal—720,000 K.W. and Kodayar 60,000 K.W.

SOURCE

Administration Report of the Madras State Electricity Board, 1960—61.



MAP 99

GENERATION PATTERN OF ELECTRICITY 1961

MAP 99

GENERATION PATTERN OF ELECTRICITY

1961

PURPOSE

This map shows the electricity generating schemes in Madras State and per capita generation of electricity in those districts. It also shows whether generating stations are thermal or hydel.

METHOD

The present electricity-generation in the districts in which the generating systems are located has been calculated in K.W. and divided by the district population to calculate per capita generation and the districts have been hatched by four grades of hatching from high to low. Circles proportionate to development of electricity in K.W. has been drawn for the relevant districts.

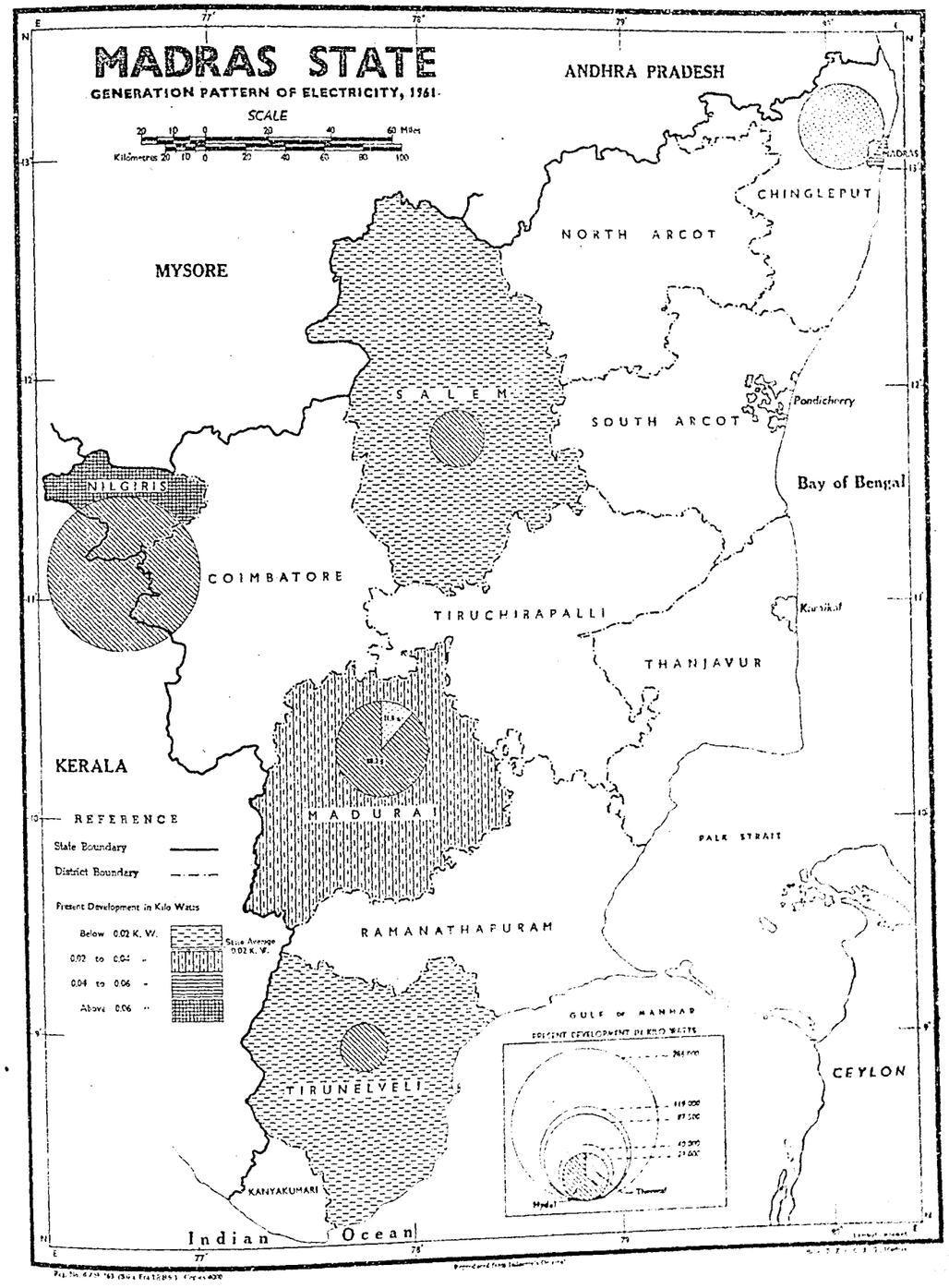
SALIENT FEATURES

There are eight schemes for generation of electricity of which two are thermal and six are hydro. The two thermal stations are Madras Basin Bridge Thermal Station and Madurai Samayanallur Thermal Station. The six hydro stations are : 1. Mettur in Salem, Pykara, Moyar and Kundah I & II stages in Nilgiris, Periyar in Madurai and Papanasam in Tirunelveli district. The development in K.W. in each station is as follows:

Madras	...	87,500
Mettur	...	40,000
Pykara	...	70,000
Moyar	...	36,000
Kundah I & II	...	180,000
Madurai Samyanallur	...	14,000
Periyar	...	105,000
Papanasam	...	28,000

SOURCE

State Electricity Board, Madras.



MAP 100

CONSUMPTION PATTERN OF ELECTRICITY

MAP 100

CONSUMPTION PATTERN OF ELECTRICITY

PURPOSE

The different sectors in which electricity is consumed and their percentage to total consumption is shown in this map.

METHOD

A circle proportionate to total consumption of electricity in million units has been drawn for each of the six electricity systems in Madras State. Each circle has been divided in to six segments in proportion to the share of the following six sectors.

1. Domestic
2. Commercial
3. Industrial
4. Street lighting
5. Agricultural
6. Miscellaneous.

The boundary of the system has also been indicated in addition to district boundary.

SALIENT FEATURES

The six electricity systems are Pykara, Mettur, Vellore, Tiruchirapalli, Papanasam and Madras Electricity System.

Industries account for maximum consumption of electricity in Madras State. Out of 1763.60 million units consumed during 1960--61, 765.8 million units were for industrial purposes. The percentage share of the six categories are as follows :

1. Industry—43.4%
2. Miscellaneous—23.8%
3. Agriculture—20.8%
4. Domestic—5.6%
5. Commercial—5.2%
6. Street lighting—1.2%

In all the systems except Tiruchirapalli and Vellore industry is the most important consumer. In Tiruchirapalli System however, miscellaneous consumption accounts for 50% and industry consumes only 21.6% and in Vellore System agriculture consumes 60% of total electricity consumption and industry ranks only second with 18.1%.

Agriculture accounts for 60% in Vellore System and 36% in Mettur System. In all the other systems it accounts for less than 20%, the lowest being 7.2% in Papanasam System.

Domestic consumption is very high only in Madras Electricity System where 16.2% of total consumption is for domestic purposes. The next highest is only 5.0% in Vellore system and the lowest is 2.0% in Pykara System.

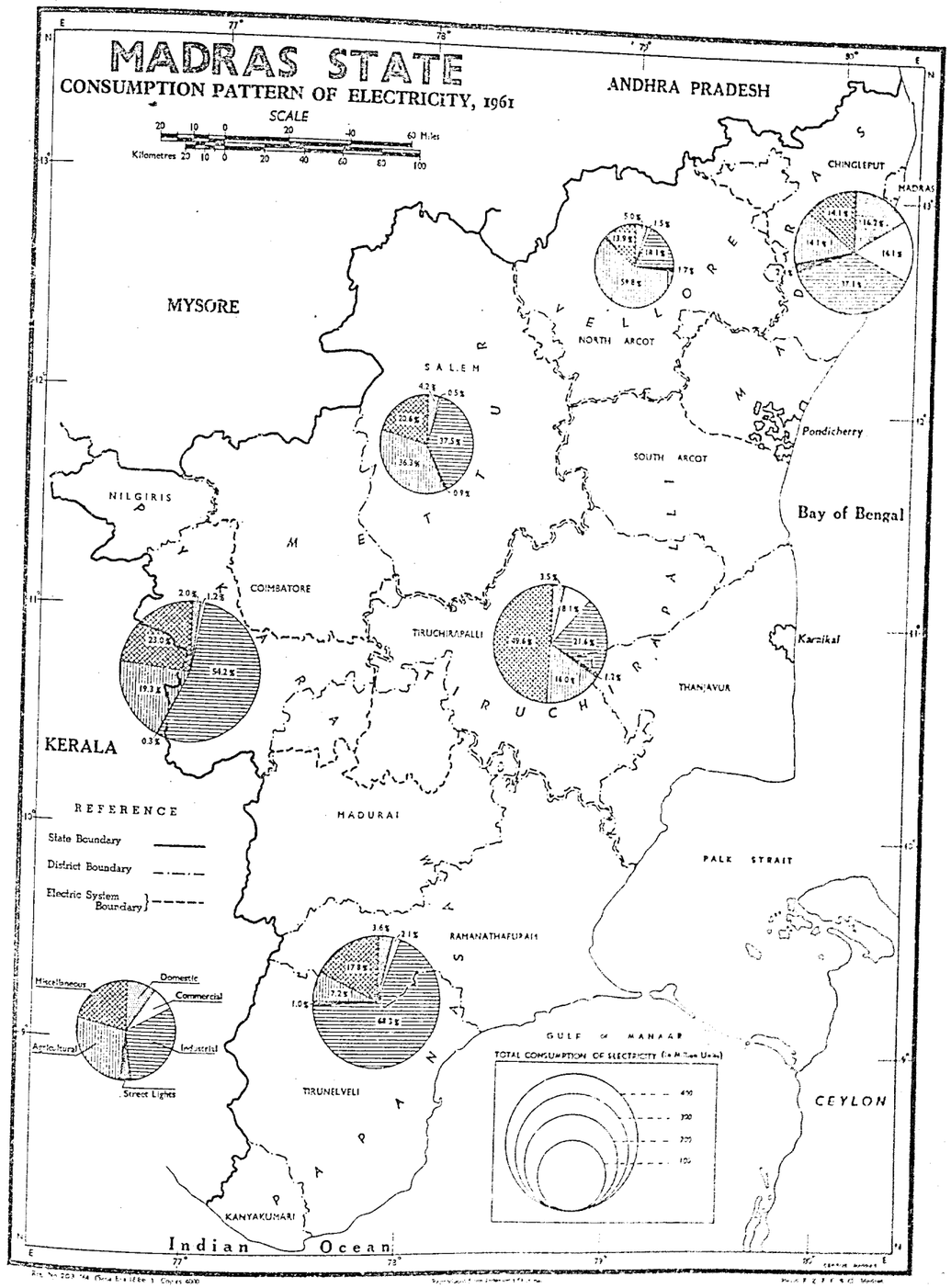
Commercial consumption of electricity is at a maximum in Madras Electricity System where 16.1% of electricity consumption is for commercial purposes. In Tiruchirapalli System 8.1% of consumption is for commercial purposes and the lowest share is 0.5% in Mettur System.

Street lighting also assumes importance only in Madras System since 2.4% of its consumption is for street lighting while in all the other systems it is much less. The lowest is 0.3% in Pykara System.

Miscellaneous consumption accounts for 50% in Tiruchirapalli 23% in Pykara and the lowest is 14.0% in Vellore and Madras Systems.

SOURCE

State Electricity Board, Madras.



MAP 101

GENERATION OF ELECTRICITY—1951-60

MAP 101

GENERATION OF ELECTRICITY—1951-60

PURPOSE

This map shows the generation of power in each generating station during 1951—61.

METHOD

The district boundary as well as the boundary of each electricity generating system have been shown in this map. Histograms have been drawn for each system and bars proportionate to total power generation have been drawn.

SALIENT FEATURES

Pykara, Mettur, Papanasam, Madurai and Madras electricity systems have generated electricity even from prior to 1951 while Moyar system commenced generation from 1952. Periyar system started functioning from 1958 and Kundah project stages I and II from 1960.

The total electricity generation has nearly trebled during the decade 1951-61. In 1951 about 728 million units were generated while in 1960 total generation of electricity was about 2,200 million units.

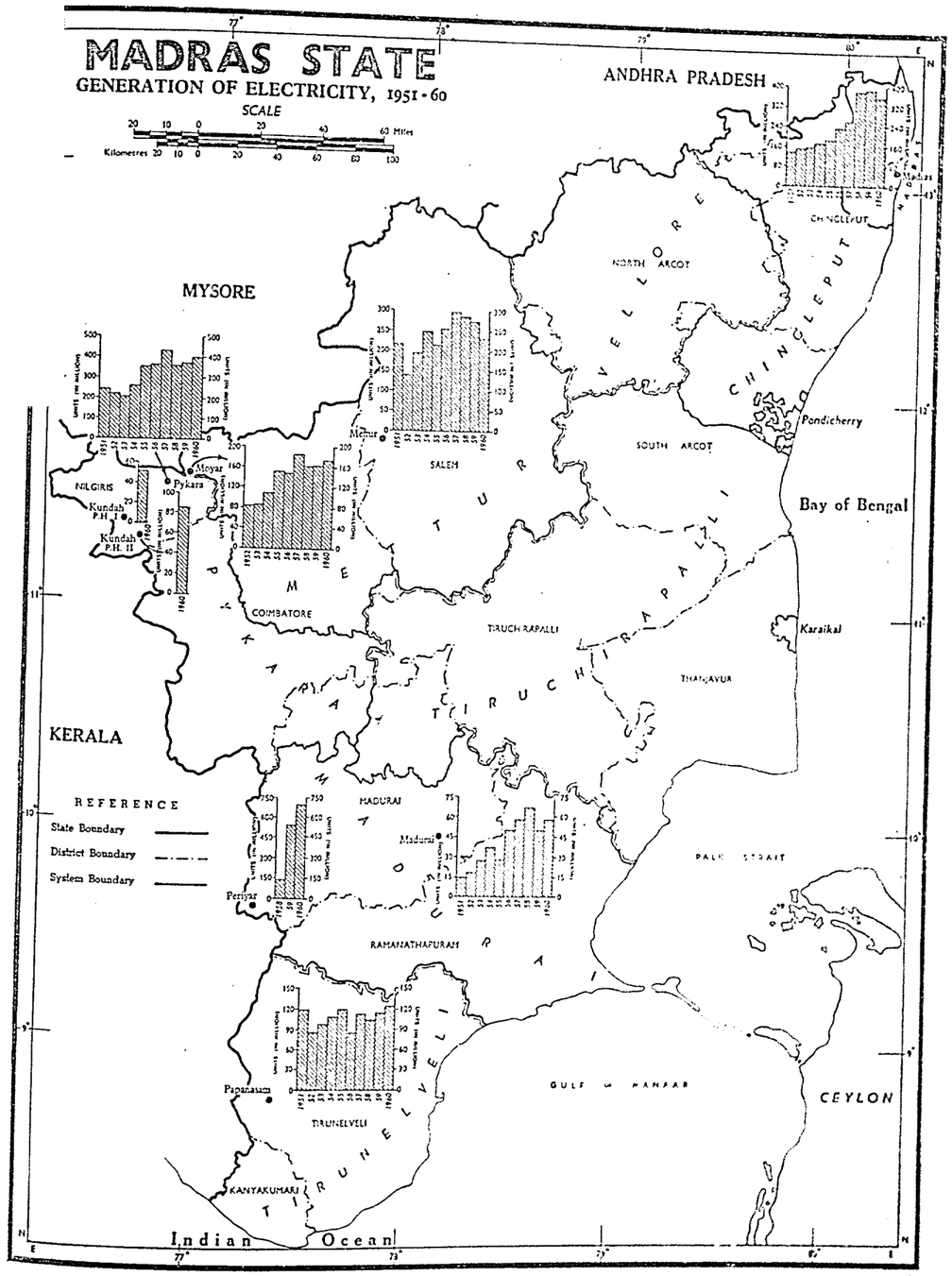
In Pykara system, 242 million units were generated in 1951 while in 1961 the generation was 404 million units. The statement below indicates the 1951 and 1960 generation of each of the other systems.

			Units in million
Moyar	1952	...	84.56
	1960	...	173.35
Mettur	1951	...	216.54
	1960	...	229.49
Papanasam	1951	...	120.40
	1960	...	153.59
Madurai	1951	...	15.47
	1960	...	58.11
Periyar	1958	...	141.26
	1960	...	700.57
Kundah I	1960	...	56.66
Kundah II	1960	...	85.54
Madras	1951	...	135.56
	1960	...	358.07

SOURCE

State Electricity Board, Madras.

8245



MAP 102

DISTRIBUTION OF ELECTRIFIED AND NON-ELECTRIFIED TOWNS

WITH POPULATION ABOVE 20,000

MAP 102

DISTRIBUTION OF ELECTRIFIED AND NON-ELECTRIFIED TOWNS WITH POPULATION ABOVE 20,000

PURPOSE

The classification of towns of over 20,000 population as electrified and non-electrified is made in this map.

METHOD

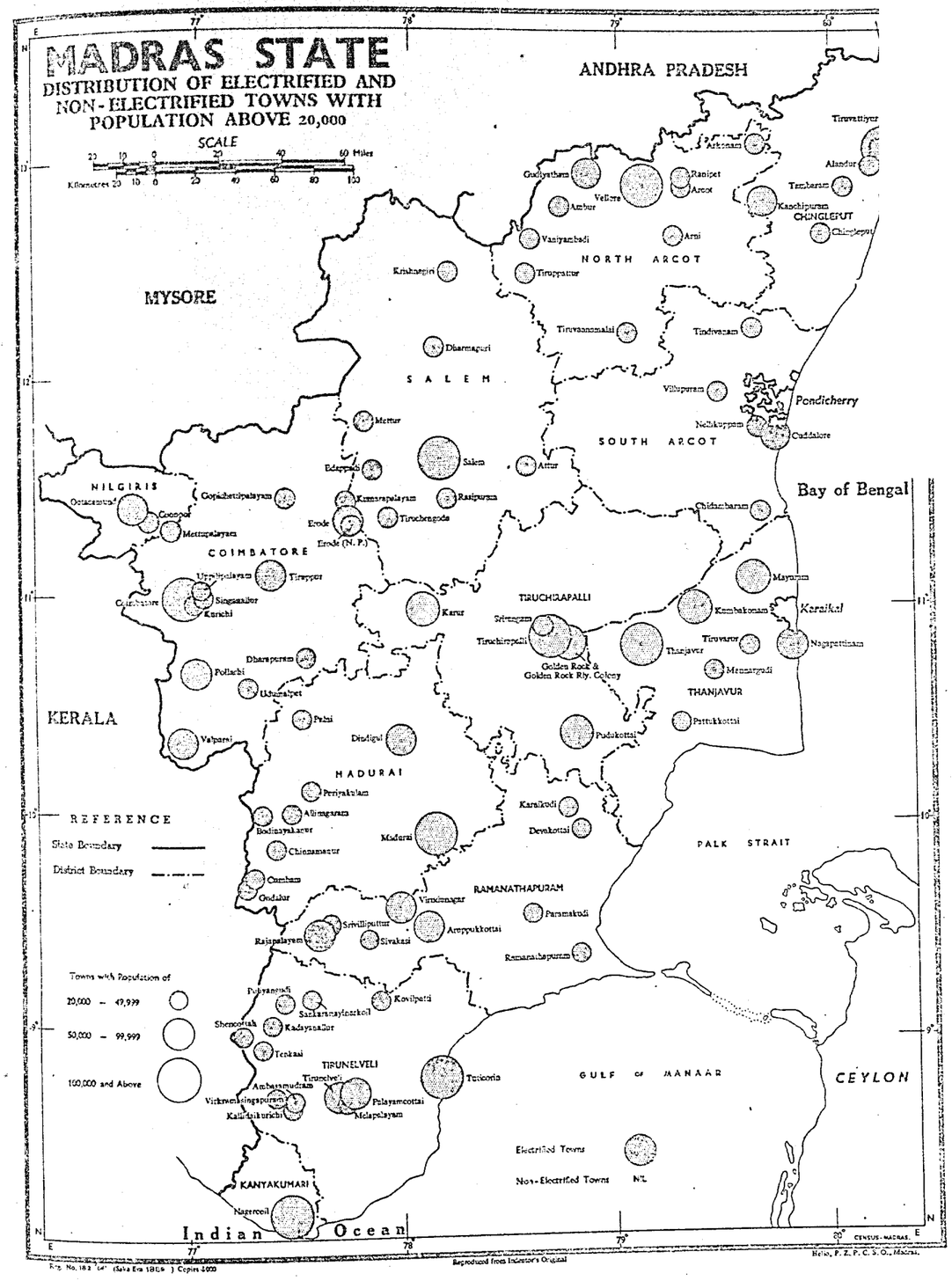
The towns have been indicated by circles and three different sizes of circles have been drawn on the basis of population. Electrified towns have been shaded.

SALIENT FEATURES

All the towns with a population of over 20,00 have been electrified.

SOURCE

Administration report of the Madras State Electricity Board.



MAP 103

DISTRIBUTION OF ELECTRIFIED AND NON-ELECTRIFIED TOWNS

WITH POPULATION BELOW 20,000

MAP 103

DISTRIBUTION OF ELECTRIFIED AND NON-ELECTRIFIED TOWNS

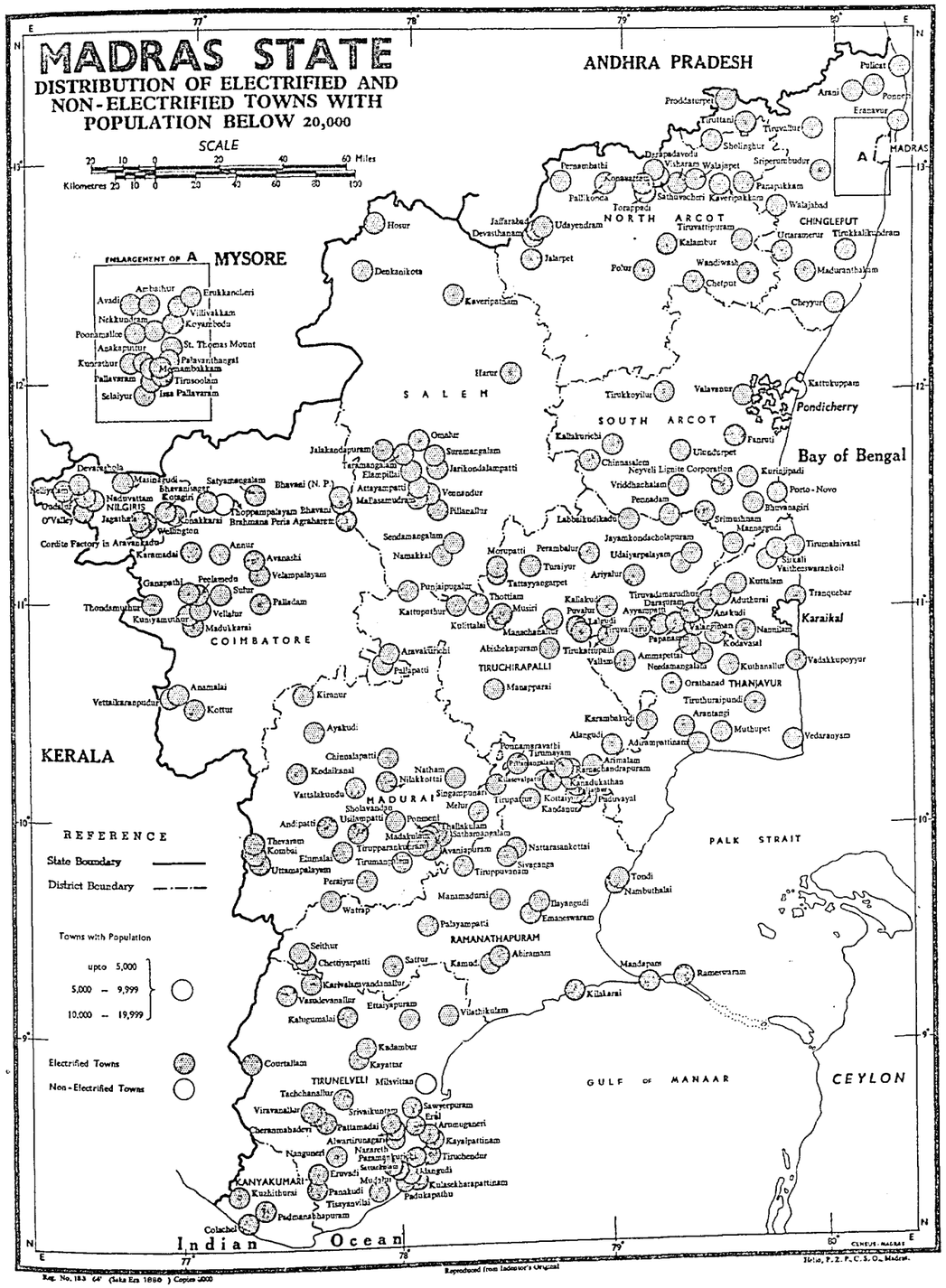
WITH POPULATION BELOW 20,000

The classification of towns with population below 20,000 electrified and non-electrified is made in this map.

Only three towns having a population of less than 20,000 not electrified as on 1-3-1961. The three are: Katukuppam in Tindivanam taluk of South Arcot district, Thoppampam of Gobichettipalayam taluk in Coimbatore district Milavattan in Srivaikuntam taluk of Tirunelveli district. Of these three, two were subsequently electrified. Kattukuppam was electrified in March 1963 and Thoppampalayam in October 1963.

SOURCE

State Electricity Board, Madras.



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Photo, P. I. P. C. S. O., Madras.

MAP 104

PERCENTAGE OF WORKERS IN TERTIARY ACTIVITIES TO TOTAL WORKERS IN RURAL AREAS 1961

MAP 104

PERCENTAGE OF WORKERS IN TERTIARY ACTIVITIES TO TOTAL WORKERS IN RURAL AREAS

1961

PURPOSE

This map shows the percentage of rural workers engaged in tertiary activities, which consists of workers in 1. Trade and Commerce, 2. Transport, Storage and Communication and 3. Other Services.

METHOD

The data regarding percentage of workers in tertiary sector to total workers are grouped into six categories and the districts are hatched in six different grades ranging from high to low.

SALIENT FEATURES

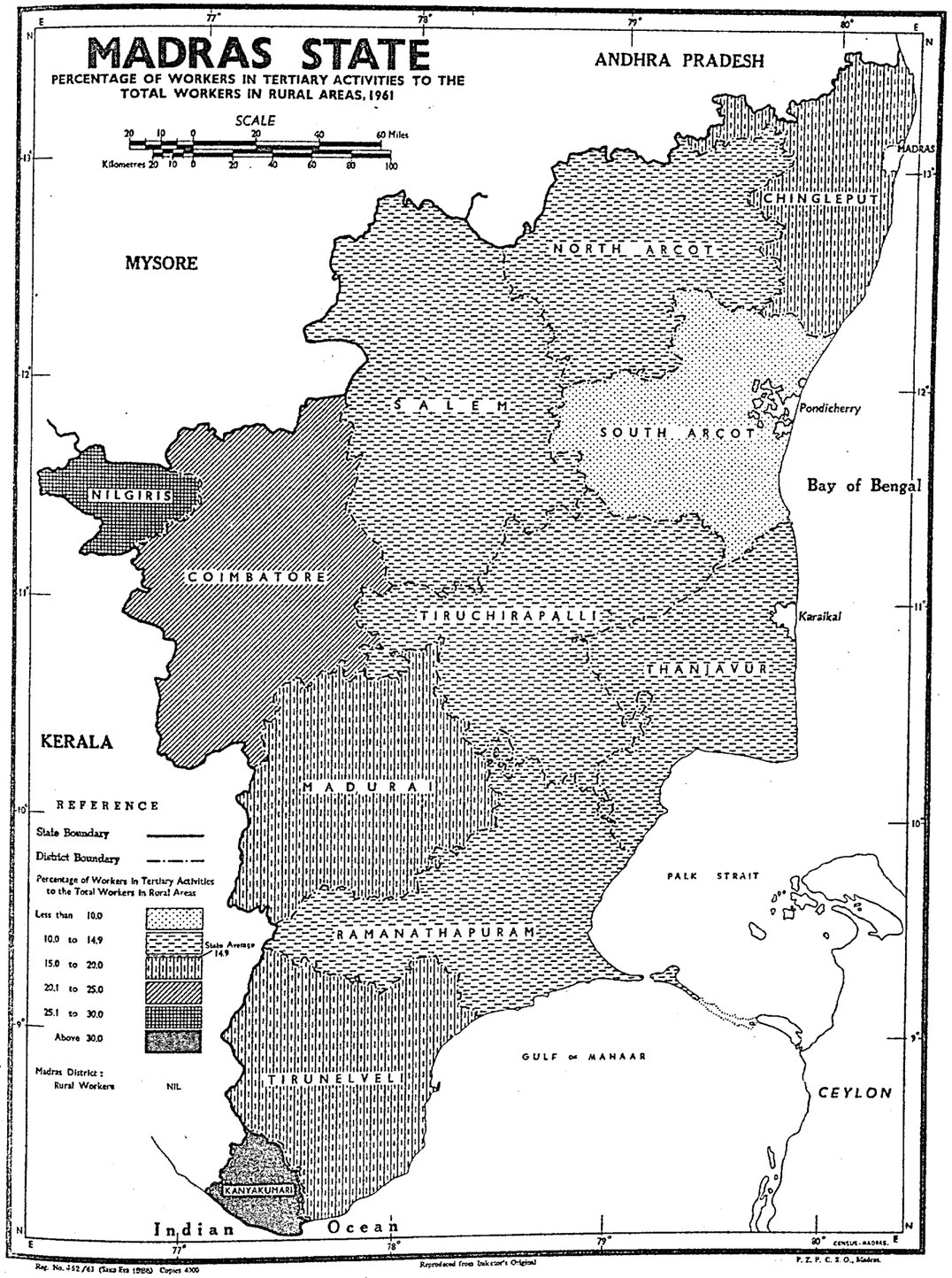
1,825,797 persons out of 12,257,938 male workers are engaged in tertiary sector, i.e. 14.9% of male workers belong to tertiary activities. The highest percentage of workers in this category is 31.8 in Kanyakumari and the lowest is 9.8% in South Arcot district. Six districts have percentages below the State average and six districts have percentages above the State average. North Arcot, Salem, Tiruchirapalli, Thanjavur and Ramanathapuram districts which are contiguous have percentages below the State average.

TABLE

Rank	District	Percentage
	MADRAS STATE	14.9
1.	Kanyakumari	31.8
2.	Nilgiris	25.1
3.	Coimbatore	22.9
4.	Madurai	18.0
5.	Tirunelveli	16.8
6.	Chingleput	16.2
7.	Thanjavur	13.5
8.	Salem	12.8
9.	North Arcot	12.6
10.	Ramanathapuram	11.4
11.	Tiruchirapalli	11.0
12.	South Arcot	9.8

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 105

PERCENTAGE OF WORKERS IN TERTIARY ACTIVITIES TO THE TOTAL WORKERS IN URBAN AREAS—1961

MAP 105

PERCENTAGE OF WORKERS IN TERTIARY ACTIVITIES TO THE TOTAL WORKERS IN URBAN AREAS 1961.

PURPOSE

This map shows the percentage of workers in teritary sector to total workers in the urban areas of the districts of Madras State. Tertiary sector comprises of workers in (I) Trade and Commerce, (ii) Transport, Storage and Communication and (iii) Other services.

METHOD

The percentages have been grouped into five ranges—two above and three below the State average. The districts have been shaded by five grades of hatching ranging from high to low.

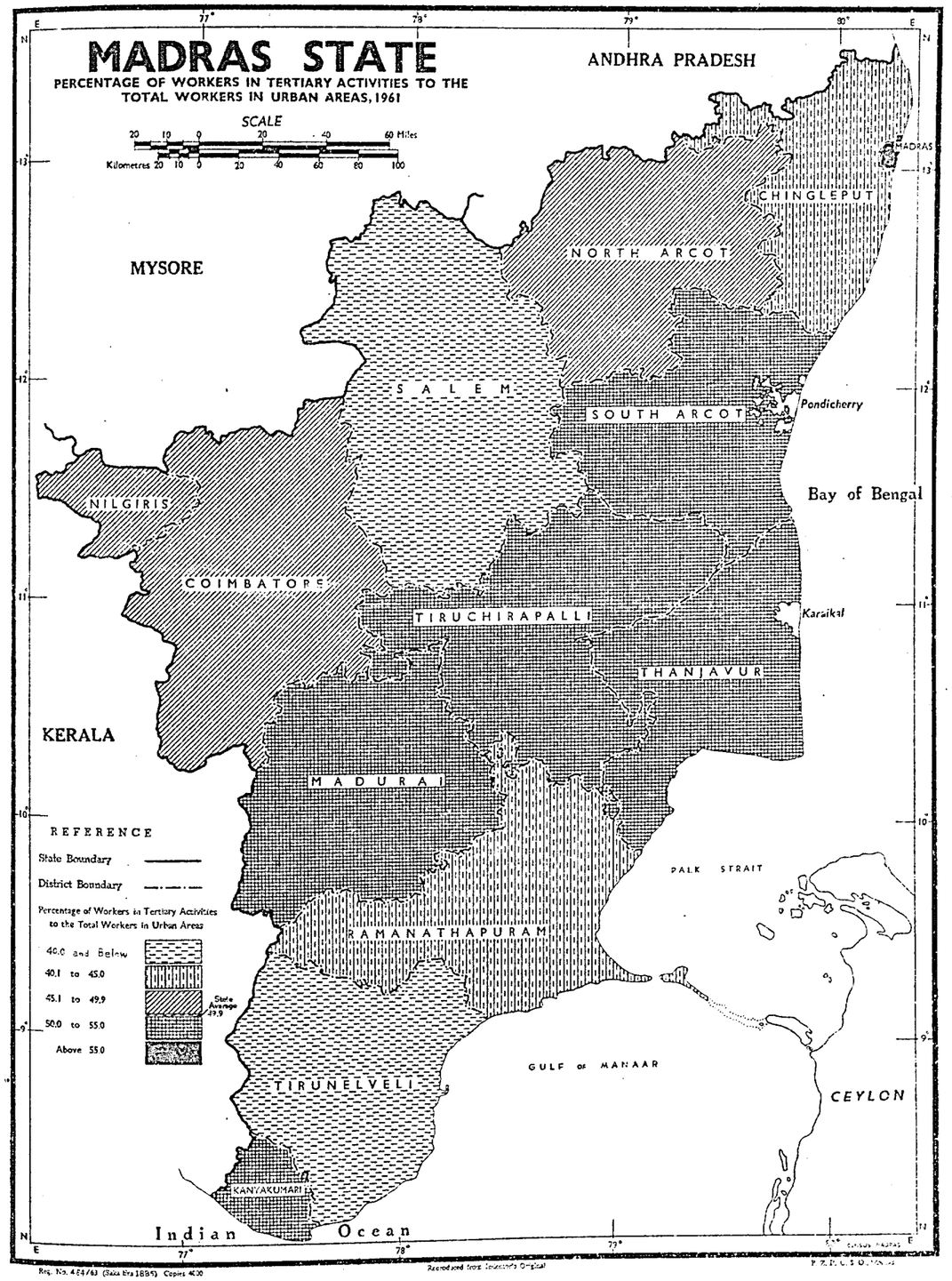
SALIENT FEATURES

In the urban areas of Madras State 49.9% of the workers belong to tertiary sector. In six districts the percentage is above 50% and in seven districts below 50%. The highest percentage is 67.4 in Madras City but the next highest is only 54.2% in Thanjavur district.

But four out of six districts with percentage above 50, are geographically contiguous—South Arcot, Tiruchirapalli, Madurai and Thanjavur.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



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MAP 106

DENSITY OF RAILWAYS—1961

MAP 106

DENSITY OF RAILWAYS—1961

PURPOSE

Norton Ginsburg states : "There are three ways to show the density of a railway network. The first relates railway kilometrage to area, the second relates railways to numbers of people and the third attempts to combine the qualities of the first two. Accessibility is a major factor in the developmental equation. Elements in the resource endowment need to be accessible in order to be used productively. Inter action among people and therefore the dissemination of ideas and the sharing of knowledge and skills requires a high physical mobility of people. More important, perhaps, the size of market in a given country and the degree to which its resources both natural and otherwise, can be mobilised, is reflected in the size and quality of its transportation systems." This map displays the distribution of railways per 1000 square kilometres of area.

METHOD

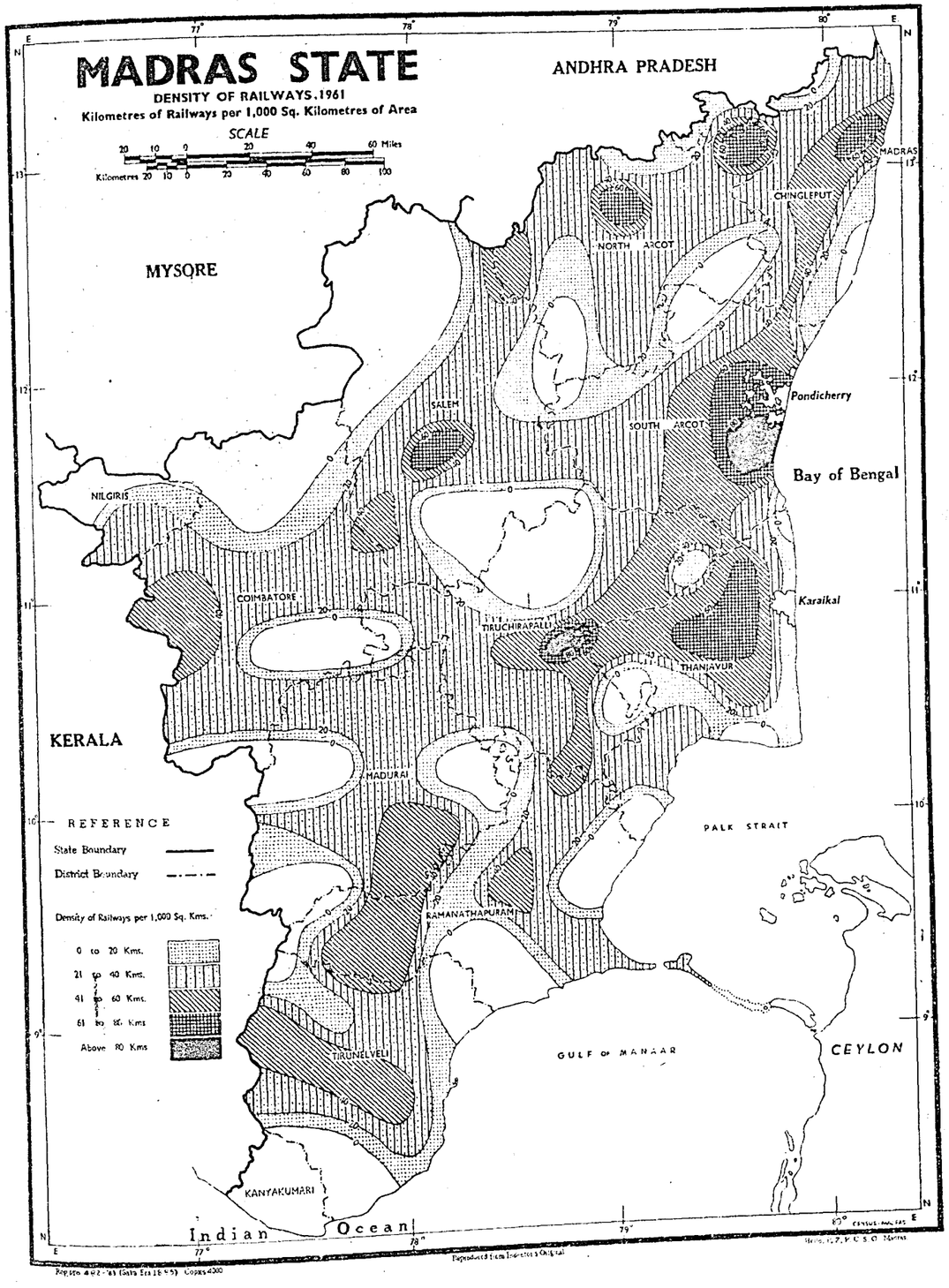
The State map has been cut in to squares, each square equivalent to 1,000 square kilometres i.e. each side of the square representing 31.6 square kilometres. The length of the railway in each of these squares is measured by rotameter. A similar grid is prepared in the base map by pencil and the figures for length of railway are plotted in the centre of each square. Isopleths are drawn at suitable intervals.

SALIENT FEATURES

Comparatively, very high density of above 80 kilometres of railways per 1,000 square kilometres of area is noticed only in two places—in Tiruchirapalli—Thanjavur border and in Cuddalore of South Arcot district. High density of 61—80 kms is noticed in Saidapet taluk near Madras, Arkonam, Vellore, Salem, Villupuram and Kumbakonam. All these places are important railway junctions. There is a narrow north-south belt of medium density portions from Madras upto Thanjavur and a similar but smaller belt is noticed in Madurai district. In Tirunelveli district there is a west-east belt of medium railway density. The coastal area of Chingleput and Thanjavur and a major portion of the coastal areas of Ramanathapuram and Tirunelveli have rather low railway density. A fairly large area of Ramanathapuram district has no railway at all as also the complete Kanyakumari district and Nanguneri taluk of Tirunelveli district. The north west portion of the State covering portions of Coimbatore and Salem districts do not have railway development.

SOURCE

State map published by Survey Department, Madras.



MAP 107

KILOMETERS OF RAILWAYS PER 10,000 POPULATION 1961

MAP 107

KILOMETERS OF RAILWAYS PER 10,000 POPULATION

1961.

PURPOSE

This map shows the extent or availability of railways in relation to the population of each taluk.

METHOD

The length of railways in each taluk has been calculated by Rotametre from the State map published by the Survey department. This length has been calculated in terms of 10,000 population of each taluk and the figures have been grouped above and below the State average and eight such groups have been made—five above and three below the State average. The taluks have been shaded by seven grades of hatching ranging from high to low. Taluks which are not covered by railways have been shown blank without any hatching.

SALIENT FEATURES

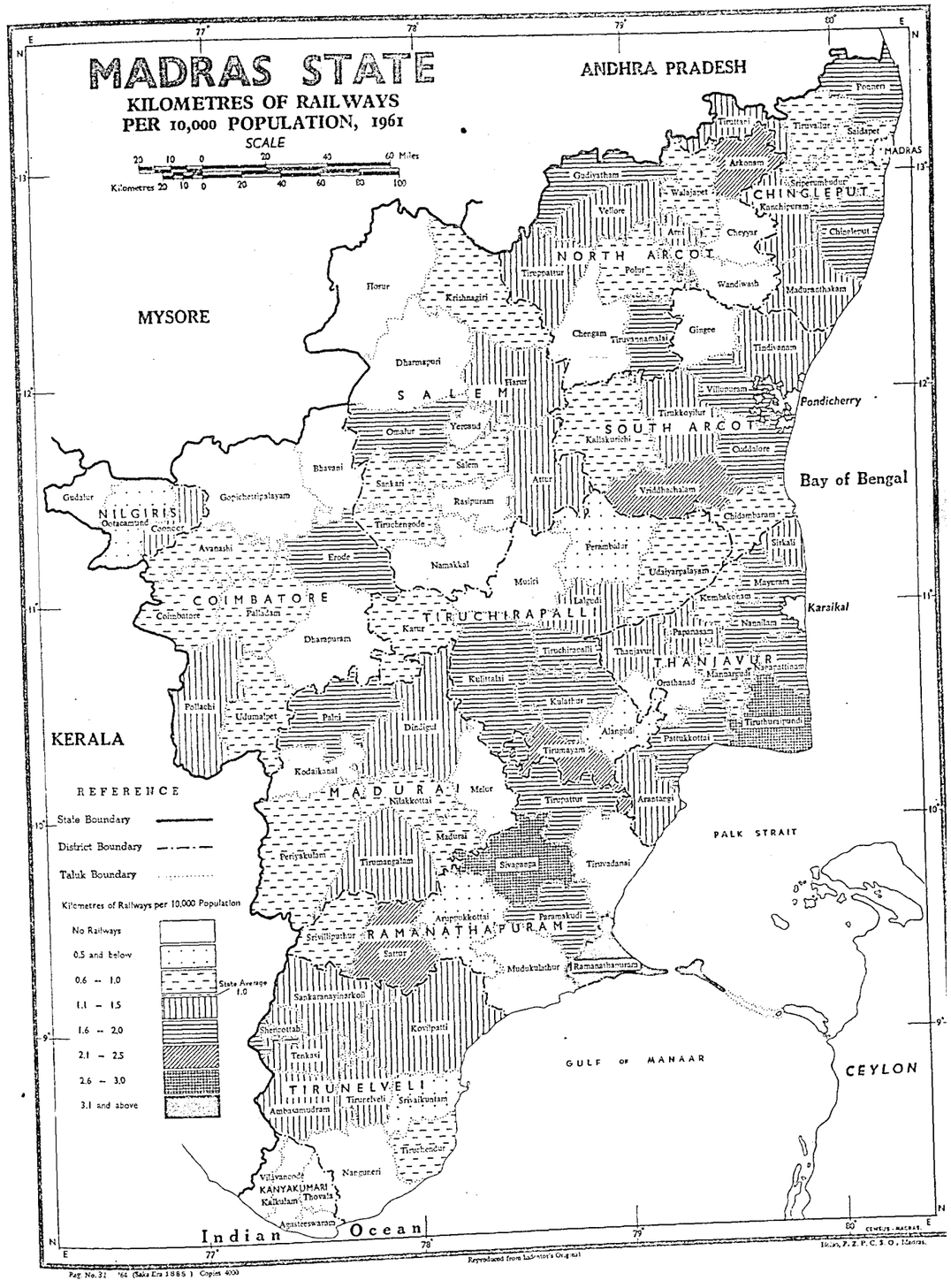
Out of 103 taluks in Madras State, 24 taluks including entire Kanyakumari district are not covered by railways at all. These 24 taluks are scattered over the entire State but with a slight concentration in a few places. Next to Kanyakumari district, Salem district is possibly the most affected district since five out of 11 taluks are not connected by rail. The five taluks are Hosur, Dharmapuri, Namakkal, Rasipuram and Yercaud. Chingleput is the only district where all the taluks are connected by rail.

The total railway distance in Madras State is 3,326 kilometers. Though in Chingleput all the taluks are connected by rail, it ranks only tenth as far as total railway distance is concerned. It has 253 km. of rail distance compared to the maximum of 456 kilometers in Thanjavur district. Madras City has only 27km. and Nilgiris has 26.5 km. Though Salem does not have railway line in five taluks, rail distance in Salem district is higher than in Chingleput district.

Assessing the position with reference to availability per 10,000 population, Ramanathapuram taluk has 4.4 km. of railways per 10,000 population, which is the highest in the State. Taking the State as a whole there is only 1.0 km. of railways per 10,000 population and fifty taluks have more than 1 km. while 29 taluks and Madras City have less than 1 km. The lowest railway distance per 10,000 population is 0.1 km in Ootacamund. Aruppukottai taluk and Madras City have 0.2 km.

SOURCE

Madras State Map Published by the Central Survey Office.



MAP 108

ACCESSIBILITY TO RAILWAYS 1961

MAP 108

ACCESSIBILITY TO RAILWAYS

PURPOSE

The accessibility to railways expressed in terms of distances from the railway line is indicated in this map.

METHOD

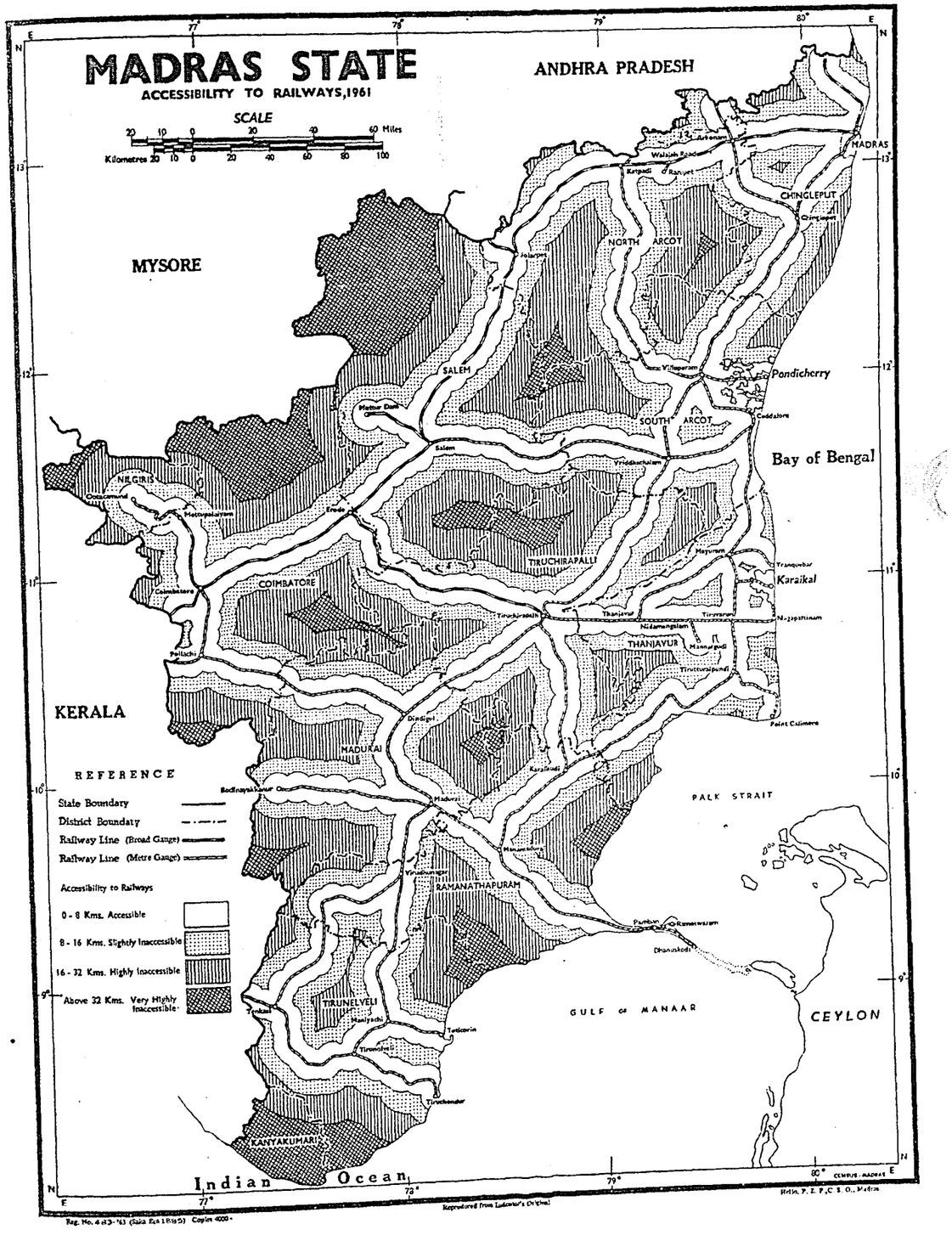
Places within 8 kms. have been treated as accessible. Areas which lie at a distance of 8 kms. to 16 kms. from rail tract have been classified as slightly inaccessible. Highly inaccessible areas lie at a distance ranging between 16 kms and 32 kms. while very highly inaccessible places lie beyond 32 kms. from rail tracts. These four categories of places have been hatched differently.

SALIENT FEATURES

Though the map reveals about a dozen spots of high rail inaccessibility, there are three big patches—two in north-west and one in extreme south. Kanyakumari district along with Nanguneri taluk of Tirunelveli district are not connected by railways at all. In the south-west, the forested plateau of Hosur taluk of Salem and part of Gobichettipalayam of Coimbatore district are highly inaccessible. The other small patches of high inaccessibility are identified with Shevaroy—Javadi—Pachamalai—Kollaimalai group of hills in the north and the Anaimalai--Varushanad—Andipatti hills in the west.

SOURCE

Madras State Map—Survey Department, Madras.



Reg. No. 4 & 3-'63 (Saka Era 1885) Copies 4000.
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Photo. P. Z. P. C. S. O., Madras

MAP 109

AVAILABILITY OF RAILWAYS IN KILOMETERS PER 1,000 C

POPULATION PER 100 SQ. KM. OF AREA 1961

MAP 109

AVAILABILITY OF RAILWAYS IN KILOMETERS PER 1,000 OF POPULATION PER 100 SQ. KM. OF AREA

1961.

PURPOSE

This map takes into account two elements-population as well as area of the district or taluk. Map 106 completely ignores population, so that the per unit availability in districts of small size with dense population tends to be over stated and map 107 on the other hand does not take into account the area so that it overstates where population figure is low. Thus this map combines both elements—area and population.

METHOD

The index for combining the two elements-area and population to assess availability of railways is $\frac{\text{Km. of railways per 100 Sq. Km.}}{\text{Density of population per 100 Sq. Km.}} \times 1{,}000$. The calculated figures have been grouped into five ranges-four above and one below the State average. The taluks have been shaded by five grades of hatching ranging from high to low. The taluks which have not been connected by railways have not been shaded.

SALIENT FEATURES

The availability of railways per 1,000 of population per 100 sq. km. is only 0.1 km. in Madras State and Ramanathapuram taluk has the highest 0.44 km and the lowest is 0.01 km. in Aruppukottai taluk.

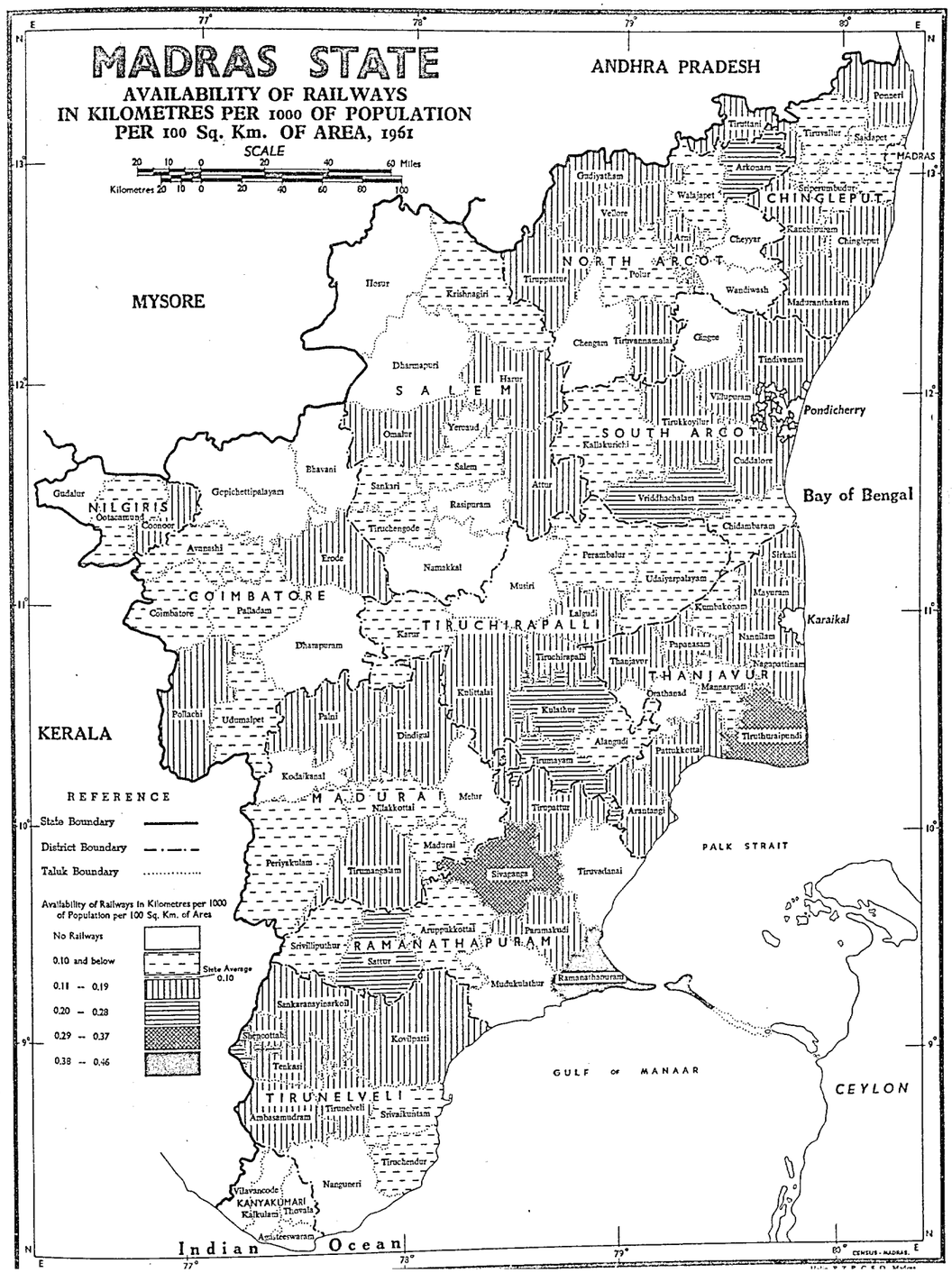
Thirty taluks have less than the State average.

The number of taluks under each range is as follow :—

0.10 and below	...	30
0.11 — 0.19	...	41
0.20 — 0.28	...	6
0.29 — 0.37	...	2
0.38 — 0.46	...	1
		80

SOURCE

Madras State Map published by the Central Survey Office.



MAP 110

DENSITY OF SURFACED ROADS (KILOMETERS OF SURFACED ROADS PER 1,000 SQUARE KILOMETERS)

MAP 110

DENSITY OF SURFACED ROADS (KILOMETERS OF SURFACED ROADS PER 1,000 SQUARE KILOMETERS)

PURPOSE

Although railways are the most important type of land transportation for long and middle distances, the highways and the motor vehicles have assumed importance rapidly in several places. There are two possibilities—on the one hand where railway systems are highiy developed, highway transport ation may compete successfully with rail roads and on the other hand in places where a railway system has not been developed sufficiently, highway transportation becomes the main form of land transportation. These circumstances can be examined by maps of road density defined as kilometers of roads for each 1,000 square kilometers of area.

METHOD

The National highways, State highways and Major district roads have been taken into account to assess the total surfaced roads in Madras State, and total mileage was calculated from 1" = 16 m. map of Madras State. Squares were drawn for the surface road, each square equivalent to 1,000 square kilometers i.e. each side of the square being 31.6 kilometer. The length of road in each of these squares was measured by rotameter. Isopleths at suitable intervals were drawn and the areas in between isopleths were hatched from high to low.

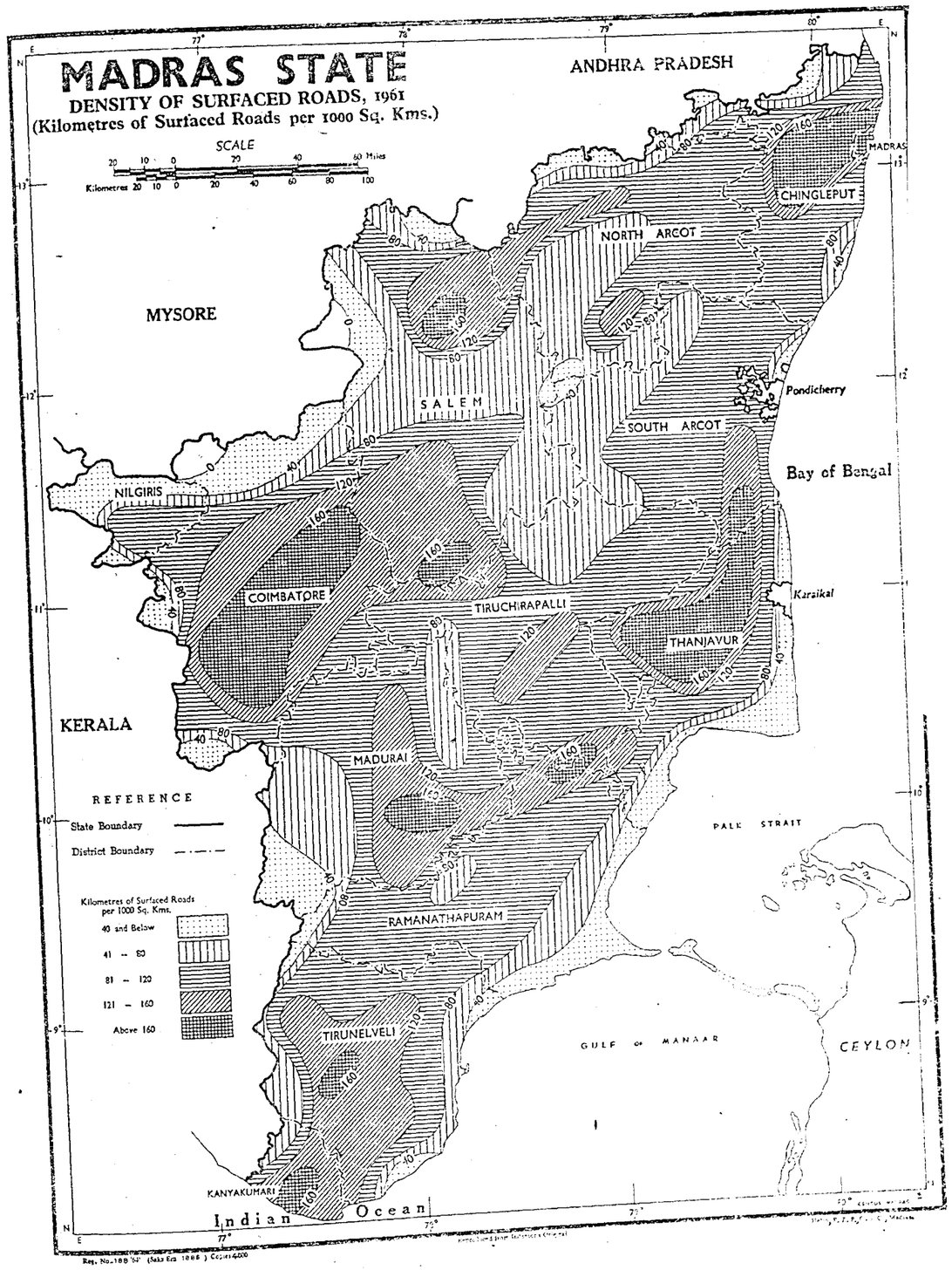
SALIENT FEATURES

Madras City and the adjoining portions in Chingleput district have a large network of roadways leading to a high density of surfaced roads.

There is a continuous vast stretch of area from Ponneri in north right up to Kanyakumari where the density is above 80 square kilometers per 1,000 square kilometers of area. This belt however does not touch the coastal areas from Thanjavur district. In the western part of the State also this belt does not touch the State boundary. Thus this belt of high density area, leaves a narrow border on the eastern and western portion. The narrow coastal belt of low density in Thanjavur district is caused by swampy area. Further down on the southern coast, there is a belt of sand dunes rising to about 10 m.m on the Tuticorin coast. On the western side the low density is caused by hilly tract. Large portions of very high density of above 160 square kilometers are noticed in and around Madras City, Coimbatore and Thanjavur districts and small patches of high density in Salem, Madurai, Tirunelveli and Kanyakumari districts.

SOURCE

District Map, Survey Department, Madras.



MAP 111

KILOMETERS OF SURFACED ROADS PER 100,000 OF POPULATION

MAP 111

KILOMETERS OF SURFACED ROADS PER 100,000 OF POPULATION

PURPOSE

This map shows the length of roads available to population in different taluks of Madras State. The data are the same as those employed in the map "kilometers of roads per 1,000 square kilometers of area".

METHOD

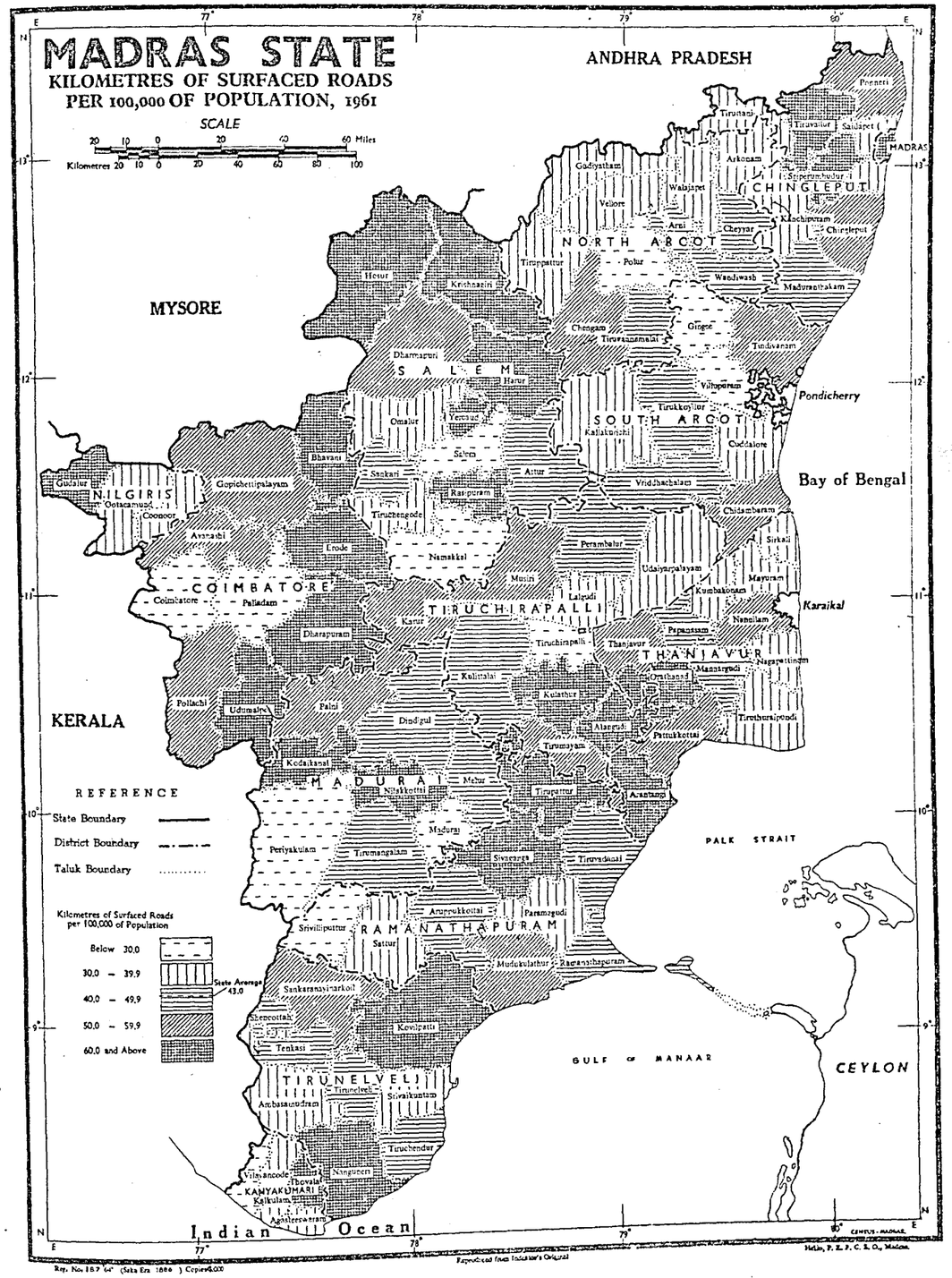
The surfaced road distances in each taluk have been calculated from the 1" = 16 m. map. The road distance has been divided by population of the taluk and five grades of shading have been given to the taluks according to their values.

SALIENT FEATURES

For every 100,000 of population there are 43 kilometers of surfaced roads in Madras City. Interesting results are noticed if this map is compared with the map—surfaced roads per 1,000 square kms. of area. For instance, in Gudalur taluk of Nilgiris district the density of roads per 1,000 square kilometers is very low whereas when population is taken as the criterion, Gudalur taluk records a very high density. In Kanyakumari district on the other hand, the density per 1,000 kilometers of area is high but density of roads per 100,000 of population is very low except in Thovala taluk. Thus what is sufficient from the point of view of area is inadequate from the point of view of population and vice versa. A better method of assessing the situation is to take into consideration both the factors—population and area to determine the availability of roads and this is done in another map. Glancing at this map alone, it is seen that kilometers of surfaced roads per 100,000 of population is very high (above 60 kms) in 24 taluks of which five are in Salem district and four in Coimbatore district. In 57 out of 103 taluks, the density of surfaced roads is above the State average of 43 kilometers. Maximum number of taluks with density above the State average is noticed in Salem district. Eight taluks of Salem, 7 taluks of Coimbatore and 6 taluks each in Tiruchirapalli, Thanjavur and Tirunelveli have density above 43 kilometers.

SOURCE

District Map, Survey Department, Madras.



MAP III

AVAILABILITY OF SURFACED ROADS PER 100,000 OF POPULATION

PER 1,000 SQUARE KILOMETERS OF AREA 1961

MAP 112

AVAILABILITY OF SURFACED ROADS PER 100,000 OF POPULATION PER 1,000 SQUARE KILOMETRES OF AREA

1961

PURPOSE

This map shows the distribution of an index to surfaced road availability which combines both the elements—population and area which are shown seperately in preceding maps. The map relating to road and area, ignores population and therefore in places of very small size but large population the true availability of roads to people tends to be overstated. In the other map, area is not taken into account. Therefore it understates the road availability in places where population is dense and overstates road availability where population is sparse.

METHOD

The index for this map i.e. the availability of surfaced roads per 100,000 population per 1,000 sq. k.ms. is calculated as follows :

$$\frac{\text{Surfaced Roads k.m.}}{\text{Area in sq. k.ms.} \times \text{population}} \times 1{,}000 \times 100{,}000$$

The values have been classified into five ranges and taluks have been hatched accordingly.

SALIENT FEATURES

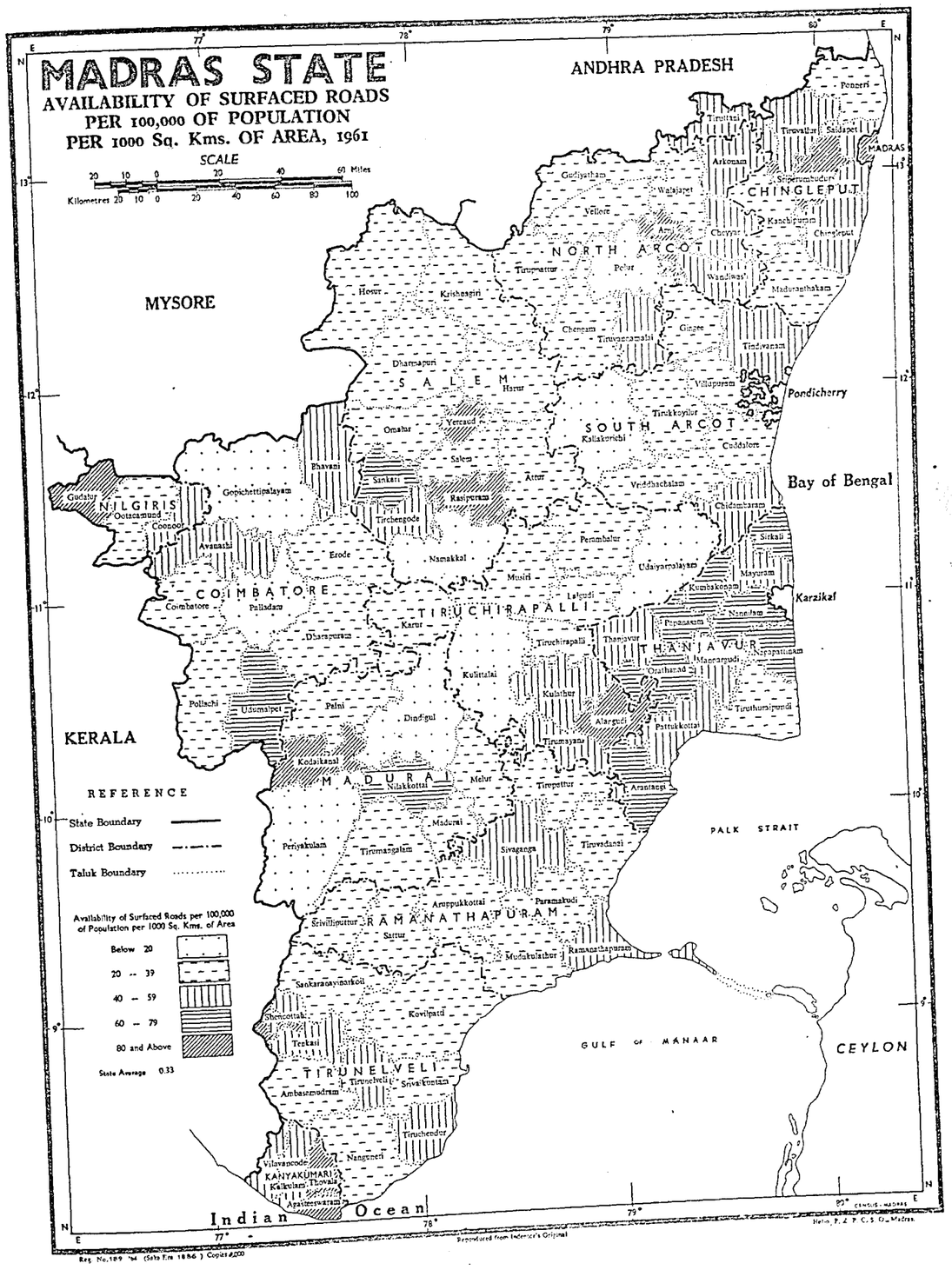
The number of taluks in each of the five ranges is as follows :

Below 20	... 9
20-39	... 47
40-59	... 27
60-79	... 10
80 & above	... 11
	104

The eleven taluks with high values of above 80 are scattered over the entire State and they are : Madras City, Arni, Sriperumbudur, Rasipuram, Yercaud, Gudalur, Kodaikanal, Alangudi, Shencottah, Thovala and Agastheeswaram taluks.

SOURCE

District map, Central Survey office, Madras.



MAP 113

ACCESSIBILITY TO SURFACED ROADS 1961

MAP 113

ACCESSIBILITY TO SURFACED ROADS 1961

PURPOSE

The accessibility of surfaced roads in Madras State is indicated in this map. Surfaced road refers to National and State highways and Major district roads. The map focuses attention on regions which require road development.

METHOD

On an outline map of Madras (scale 1 : 1,000,000) the National and State highways and Major District roads are first plotted. The area within 8 kilometers from the surfaced roads have not been shaded but left blank. Areas which are at a distance of 8 to 16 kilometers have been shaded by dots to indicate a slight degree of isolation. Areas which are at a distance of 16—32 kilometers have been shaded by vertical lines to denote high inaccessiblity.

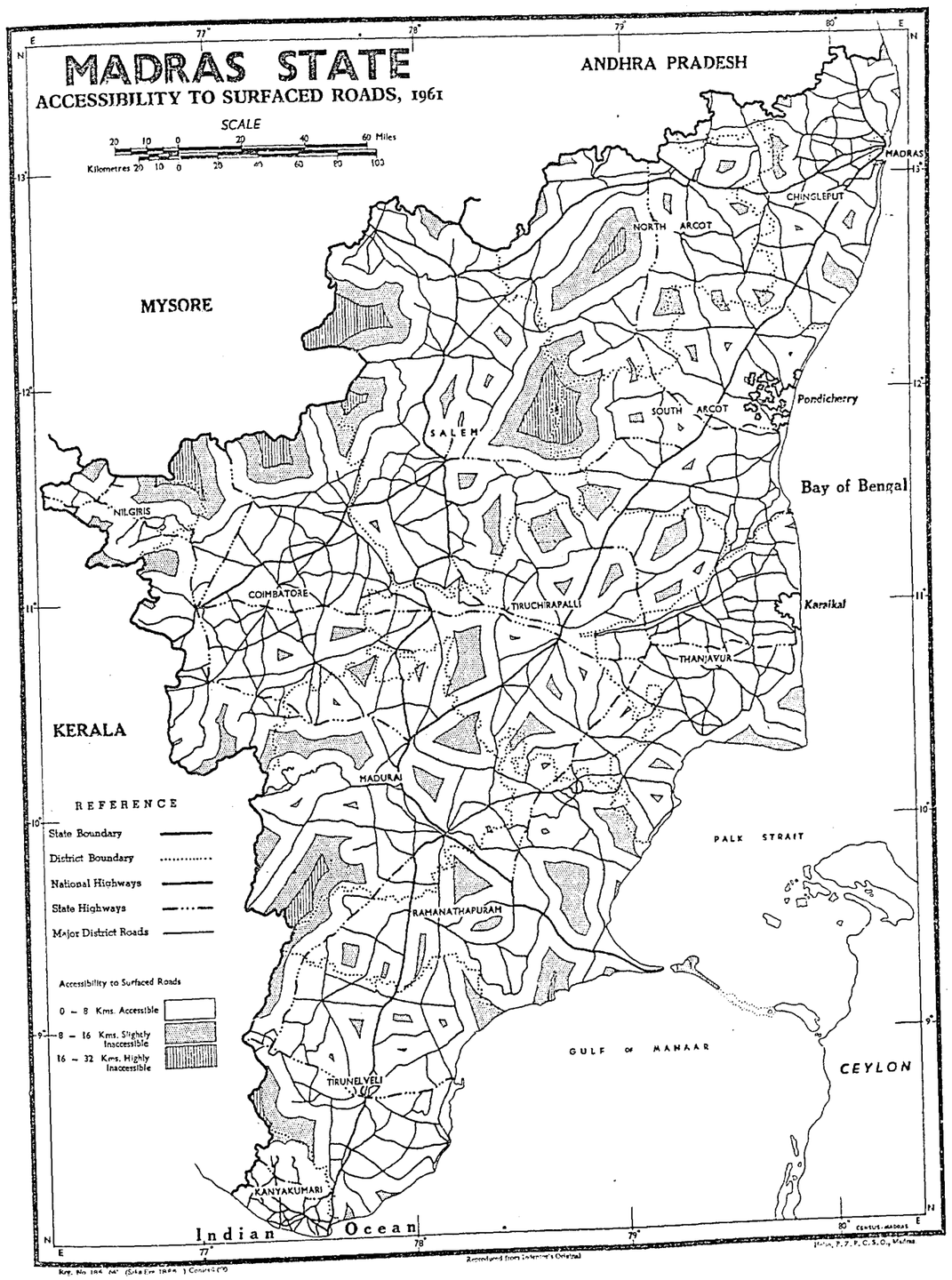
SALIENT FEATURES

A glance at the map reveals a large number of small patches of inaccessible areas but highly inaccessible areas are found only in eight places. The entire eastern portion of the State is free from highly inaccessible area. Chingleput and South Arcot, Thanjavur and Kanyakumari districts possess very few areas which are inaccessible. Highly inaccessible areas are concentrated in central and western portion of the State. They can be identified with Shevaroy-Javadi, Pachaimalai, Kollimalai group of hills in the centre and the Anaimalai, Varushanad-Andipatti hills in the west.

In the Nilgiris—Coimbatore border area also there is a small portion of high inaccessibility caused by Nilgiri Hills and Eastern ghat and in Shencottah taluk the Mahendragiri Hill accounts for high inaccessibility.

SOURCE

District map published by Survey Department, Madras.



MAP 114

NUMBER OF MOTOR VEHICLES REGISTERED
PER 10,000 OF POPULATION 1961

MAP 114

NUMBER OF MOTOR VEHICLES REGISTERED PER 10,000 OF POPULATION 1961

PURPOSE

This map shows the districtwise pattern regarding the number of motor vehicles registered during 1961 and expresed as proportion per 10,000 population.

METHOD

The proportions have been grouped into five ranges—one below and four above the State average and districts have been hatched by three grades of hatching ranging from high to low. Motor vehicles include private cars, taxis, buses, lorries and auto-rikshaws.

SALIENT FEATURES

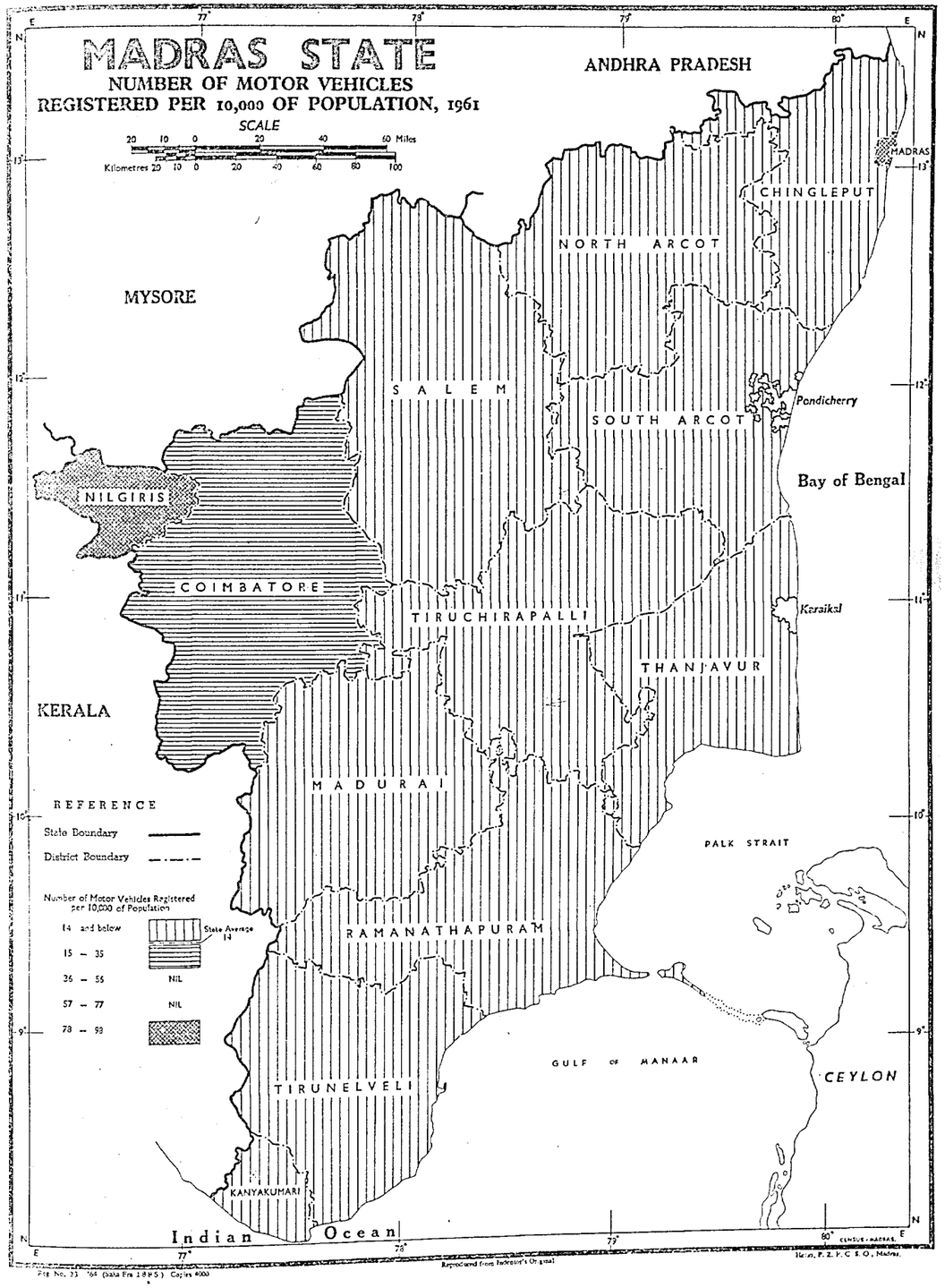
There are 14 motor vehicles per 10,000 population in Madras State and there is a very lop sided distribution among the districts because in ten out of thirteen districts the proportion is less than 14 and only in three districts the proportion is above the State average. Madras City leads the State by recording 95 vehicles per 10,000 population and Nilgiris district ranks second with 80 but Coimbatore district which has also recorded proportion above the State average has only 20 vehicles per 10,000 persons. All the other districts have less than 14, the lowest being 4 in Thanjavur district.

TABLE

Rank		Proportion
	MADRAS STATE	14
1.	Madras	95
2.	Nilgiris	80
3.	Coimbatore	20
4.	Madurai	11
5.	Tiruchirapalli	10
6.	Kanyakumari	10
7.	Tirunelveli	8
8.	Chingleput	7
9.	South Arcot	7
10.	Ramanathapuram	7
11.	North Arcot	6
12.	Salem	6
13.	Thanjavur	4

SOURCE

Regional Transport Departments.



MAP 115

PERCENTAGE OF WORKERS ENGAGED IN TRADE AND COMMERCE

TO TOTAL WORKING POPULATION 1961

MAP 115

PERCENTAGE OF WORKERS ENGAGED IN TRADE AND COMMERCE TO TOTAL WORKING POPULATION 1961.

PURPOSE

This map indicates the talukwise percentage of working population who are engaged in Trade and Commerce which is one of the nine industrial categories into which workers have been broadly classified.

METHOD

The workers under the category of Division 6 of the Indian Standard Industrial Classification have been taken into account. This covers wholesale and retail trade and also importing, exporting, real estate and properties, providents, insurances, money lending, banking and other financial institutions, auctioneering, distribution of motion picture and other activities connected with trade and commerce. The talukwise percentages have been classified into six ranges and taluks have been hatched according to their values.

SALIENT FEATURES

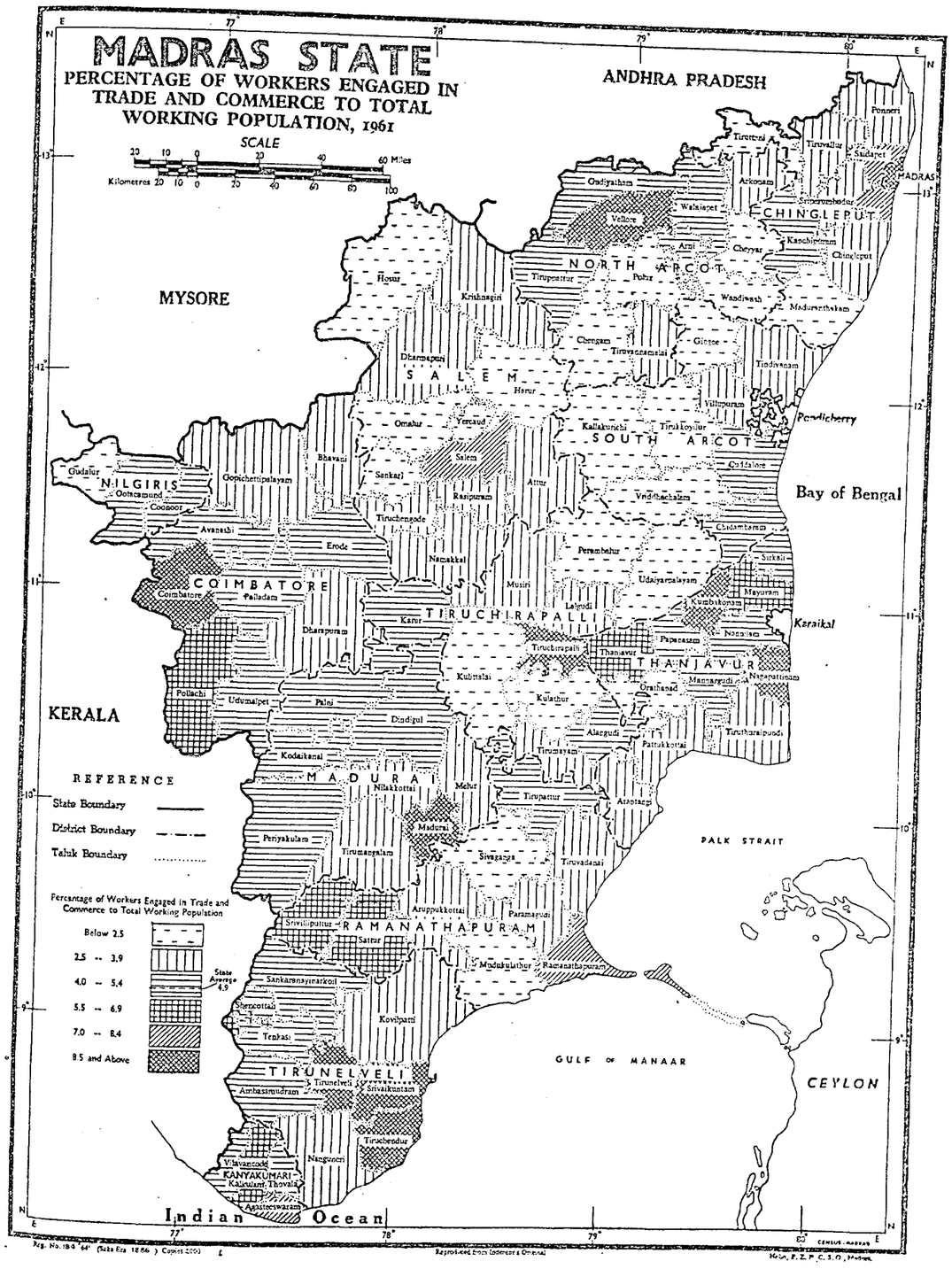
In Madras State only 4.9% of the working population are engaged in "Trade and Commerce" and Madras City ranks as the leading commercial centre with 19.1% of its workers engaged in this industrial category. Madurai taluk ranks second with 13.3% followed by Tiruchirapalli taluk with 12.1%. There are only ten taluks with percentage above 8.5 out of which seven are scattered over the State and three are contiguous. These three taluks are Tirunelveli, Srivaikuntam and Tiruchendur.

As many as 74 taluks of the State have recorded percentage of workers in trade and commerce below the State average of 4.9 and only 29 taluks have recorded more than the State average. Out of these 29 taluks, there are five each in Thanjavur, and Tirunelveli districts, four each in Ramanathapuram and Coimbatore districts. South Arcot and Nilgiris are the only two districts which do not have any taluk with percentage above the State average while Salem and Tiruchirapalli have each one taluk.

In nine taluks, the percentage is very low—below 2.0%. They are Cheyyar, Gingee, Kallakurichi, Yercaud, Sankari, Perambalur, Udaiyarpalayam, Kulathur and Orathanad taluks.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 116

PERCENTAGE SHARE OF WORKERS ENGAGED IN WHOLESALE TRADE,
RETAIL TRADE AND MISCELLANEOUS TRADE TO TOTAL
WORKERS IN TRADE AND COMMERCE

MAP 116

PERCENTAGE SHARE OF WORKERS ENGAGED IN WHOLESALE TRADE, RETAIL TRADE AND 'MISCELLANEOUS' TRADE TO TOTAL WORKERS IN TRADE AND COMMERCE

PURPOSE

This map shows the percentage distribution of workers in Trade and Commerce by retail, wholesale and miscellaneous trade.

METHOD

Circle proportionate to total workers in Trade and Commerce has been drawn for each district and each circle has been divided into three segments to represent (1) Wholesale trade (2) Retail trade and (3) Miscellaneous Trade.

Wholesale trade is covered by Standard Industrial Classification codes 60, 61, 62 and 63, Retail trade by 64, 65, 66, 67 and 68, Miscellaneous trade by 69 which includes Banking and Financial institutions, Stocks, Shares, Import and Export of goods and commodities, Money lending, Auctioneering and Insurance. The three segments have been hatched in different shades.

SALIENT FEATURES

There are 758,301 persons working in Trade and Commerce category in Madras State. The largest number of workers in this category is in Madras City where there are 100,814 workers engaged in trade and commerce.

In Madras State, majority of workers in Trade and Commerce are engaged in retail trade which accounts for 85.2% of total workers in Trade and Commerce. Miscellaneous trade accounts for 8.1% and wholesale trade 6.7%.

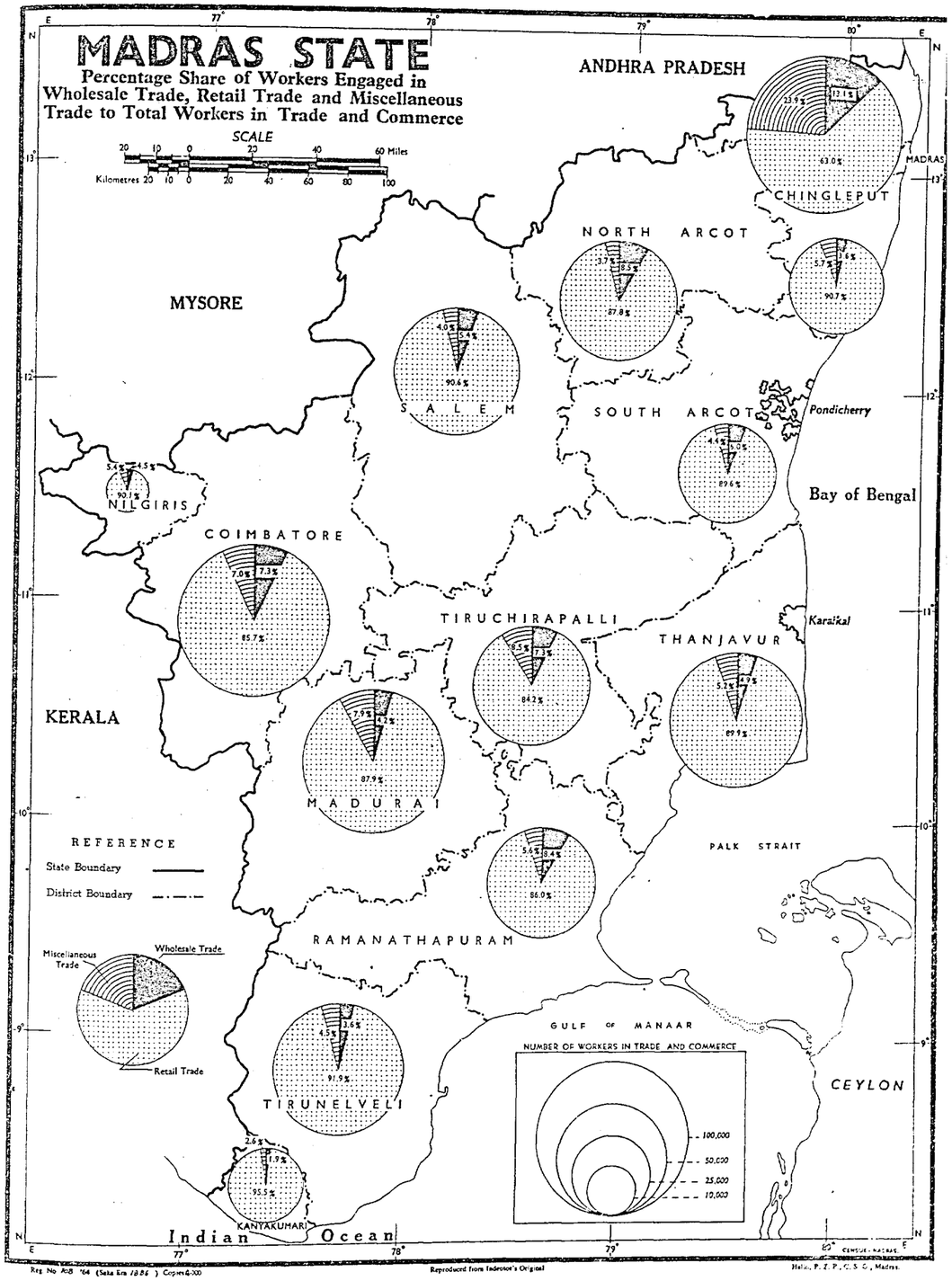
In all the districts retail trade is of great importance. The maximum is 95.5% recorded in Kanyakumari and the minimum is 63.0% in Madras City. In 11 out of 13 districts, the percentage share of retail trade is higher than the State average of 85.1%.

Wholesale trade is of considerable importance only in Madras City where 13.1% of total workers in Trade and Commerce are engaged in wholesale trade. The next highest percentage is only 8.5 in North Arcot followed by Ramanathapuram with 8.4%. Kanyakumari district has the lowest percentage of 1.9.

Miscellaneous trade also is important only in Madras City and it accounts for 23.9% of total workers in Trade and Commerce. The second rank is held by Tiruchirapalli district with only 8.5% and the lowest is 2.6% in Kanyakumari district.

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



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Helio, P. E. P., C. S. O., Madras.

MAP 117

PERCENTAGE OF WORKERS ENGAGED IN OTHER SERVICES TO TOTAL WORKING POPULATION 1961

MAP 117

PERCENTAGE OF WORKERS ENGAGED IN OTHER SERVICES TO TOTAL WORKING POPULATION 1961.

PURPOSE

This map shows the percentage of workers in each taluk who are engaged in "Other Services".

METHOD

Other Services forms the last of the nine categories into which workers have been classified. Other services is covered by Division 8 of the Indian Standard Industrial Classification. This includes the following categories.

1. Public Services
2. Educational and Scientific Services
3. Medical and Health Services
4. Religious and Welfare services
5. Business services
6. Community services and trade and labour association
7. Recreation services
8. Personal Services

The percentages have been grouped into six categories and taluks have been hatched according to their values.

SALIENT FEATURES

15.4% of workers in Madras State are engaged in 'Other Services'. In 60 taluks the percentage is below 15% and in 44 taluks it is above 15.0%. In four taluks the percentage is more than double the State average.

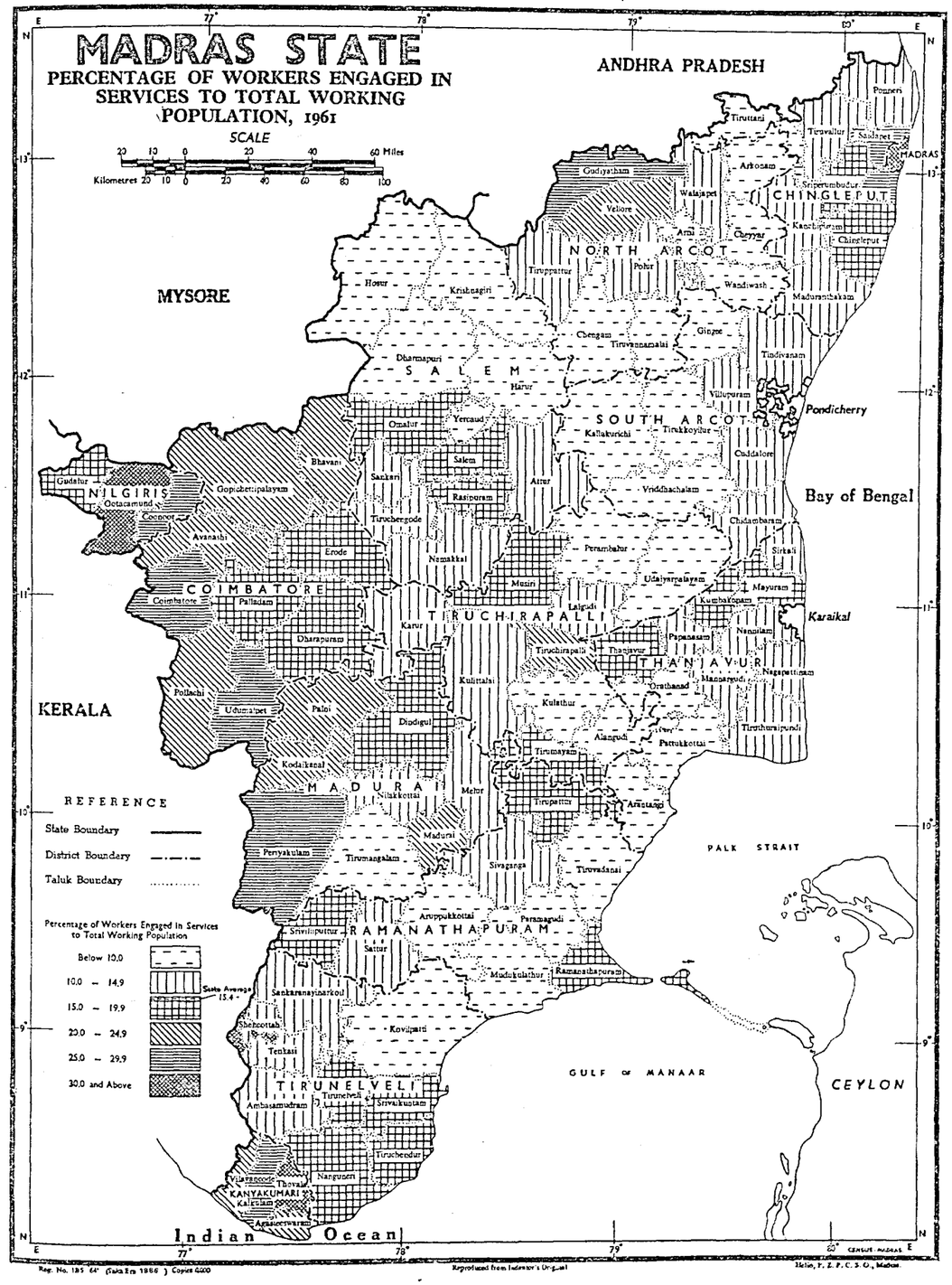
Very high percentage of workers in other services is recorded in Thovala taluk of Kanyakumari district where 42·8% of workers belong to this category. Madras city ranks second with 36.4% followed by Ootacamund taluk with 32.9% and Shencottah taluk with 32.3%.

Atleast a fourth of total workers belong to other services in Saidapet, Gudiyatham, Coimbatore, Udumalpet, Coonoor, Periyakulan and Kalkulam taluks.

All the taluks of Coimbatore, Nilgiris and Kanyakumari districts fall under the category of above the State average. In South Arcot district on the other hand, in all the taluks the precentage of workers in other services is below the State average. In Salem district, nine out of 12 taluks have percentage below State average. The three taluks of exception are Omalur, Salem and Rasipuram, all the three however having percentage only slightly above the State average.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 118

PERCENTAGE OF WORKERS ENGAGED IN EDUCATIONAL AND SCIENTIFIC SERVICES TO TOTAL WORKERS IN SERVICES 1961.

MAP 118

PERCENTAGE OF WORKERS ENGAGED IN EDUCATIONAL AND SCIENTIFIC SERVICES TO TOTAL WORKERS IN SERVICES

1961.

PURPOSE

This map shows the percentage of workers engaged in Educational and Scientific Services to total workers in Other Services.

The workers who are categorised under other services may belong to any of the following categories.

1. Electricity, Gas, Water and Sanitary Services
2. Public services
3. Educational and Scientific services
4. Medical and Health Services
5. Religious and Welfare Services
6. Legal Services
7. Business Services
8. Community Services and Trade and Labour Associations
9. Recreation Services
10. Personal Services

This map is intended to reflect the percentage share of workers in Educational and Scientific services to total workers under other services.

METHOD

The percentage figures have been grouped into five categories and districts have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

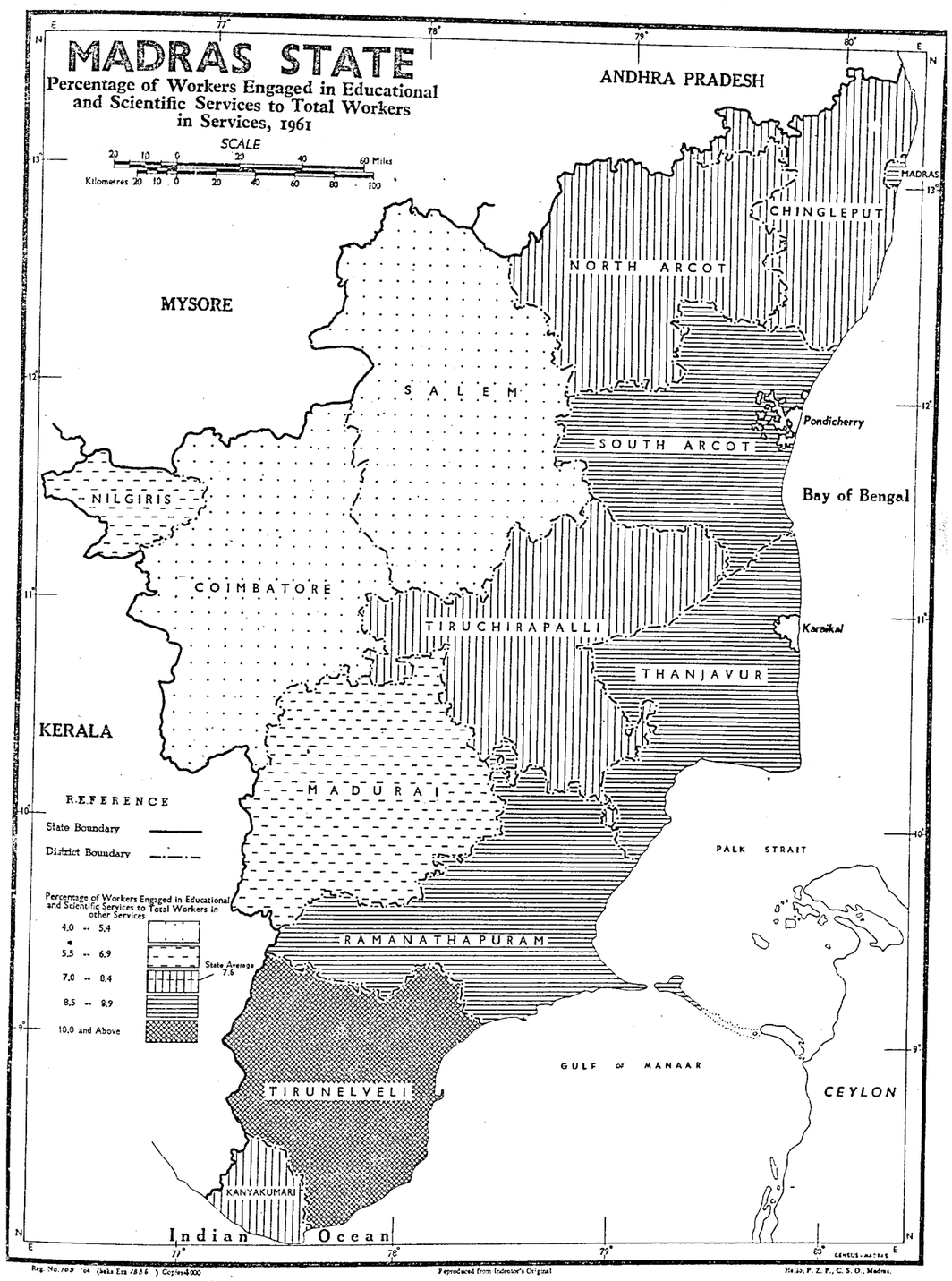
Only 7.6% of total workers in other services belong to Educational and Scientific services. Tirunelveli district has the highest percentage share of 10.5 and Madras City and Ramanathapuram district follow closely with 9.8% each. The lowest percentage is 4.8 in Coimbatore district and Salem district has recorded 5.4%.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	7.6
1.	Tirunelveli	10.5
2.	Madras	9.8
3.	Ramanathapuram	9.8
4.	South Arcot	9.0
5.	Thanjavur	8.9
6.	North Arcot	8.0
7.	Kanyakumari	8.0
8.	Tiruchirapalli	7.9
9.	Chingleput	7.2
10.	Madurai	6.7
11.	Nilgiris	5.8
12.	Salem	5.4
13.	Coimbatore	4.8

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 119

PERCENTAGE OF WORKERS IN MEDICAL AND HEALTH SERVICES

TO TOTAL WORKERS IN SERVICES 1961

MAP 119

PERCENTAGE OF WORKERS IN MEDICAL AND HEALTH SERVICES TO TOTAL WORKERS IN SERVICES

1961

PURPOSE

The percentage of workers among total workers in other services, who render services in Medical and Health sector is indicated in this map. Workers have been broadly classified into nine industrial categories based on the Indian Standard Industrial Classification. The ninth category refers to other services comprising of workers in fields like'education, medical, legal, religious and personal services. The percentage share of medical services represented by Industrial major group 82 is presented in this map.

METHOD

The percentages have been grouped into five ranges and districts have been shaded by five grades of hatching ranging from high to low.

SALIENT FEATURES

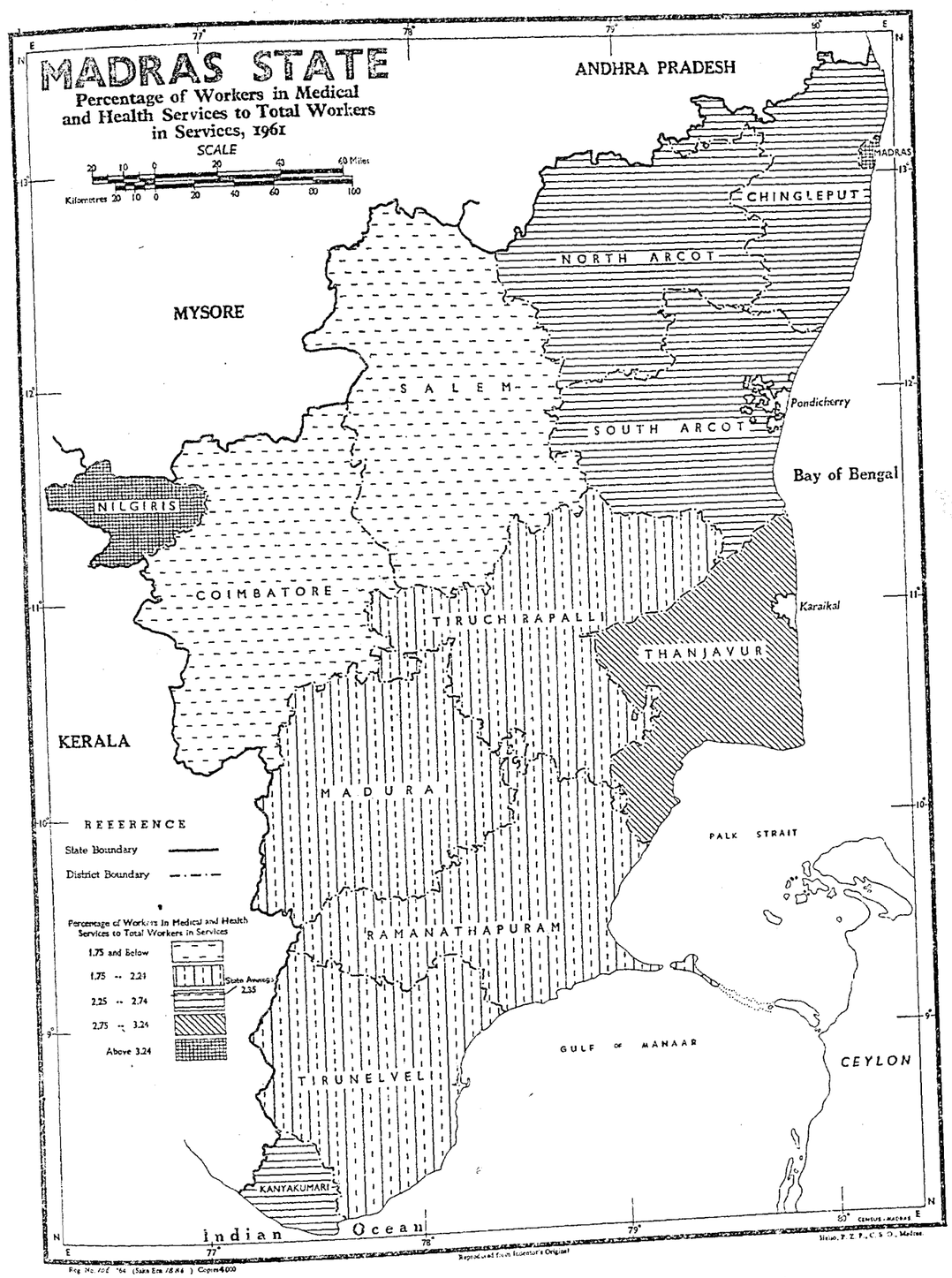
In Madras State only 55,349 persons are engaged in medical and health services and they form 2·35% of workers in other services. High percentage of above 5% is recorded in Nilgiris district and Madras City. Thanjavur district has 3·08% and in the other ten districts the percentage varies between 1.44 and 2.68.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	2.35
1	Nilgiris	5.92
2	Madras	5.53
3	Thanjavur	3.08
4	North Arcot	2.68
5	Kanyakumari	2.37
6	Chingleput	2.36
7	South Arcot	2.27
8	Ramanathapuram	2.23
9	Tiruchirapalli	2.14
10	Tirunelveli	2.06
11	Madurai	1.86
12	Salem	1.46
13	Coimbatore	1.44

SOURCE :

Census of India, 1961, Madras State—Part II-B (1) General Economic Tables.



MAP 120

PERCENTAGE OF WORKERS IN PERSONAL SERVICES TO TOTAL WORKERS IN SERVICES 1961

MAP 120

PERCENTAGE OF WORKERS IN PERSONAL SERVICES TO TOTAL WORKERS IN SERVICES

1961

PURPOSE

The percentage of workers in other services who are engaged in personal services is shown in this map. The workers according to 1961 census have been classified into nine industrial categories of which the last is "Other Services". This classification is based on the Indian Standard Industrial Classification. The other services cover various fields of activity like education, administration, medical, religious, legal, personal etc. Personal services refers to services rendered to households such as those by domestic servants, cooks, tutor, private secretary, services rendered by hotels, eating houses, lodges, laundry, hair dressing, photographic studios etc.

METHOD

The percentage of workers engaged in the various categories of personal services to total workers in other services has been calculated for each district and percentages have been grouped into five categories and districts have been shaded by five grades of hatching.

SALIENT FEATURES

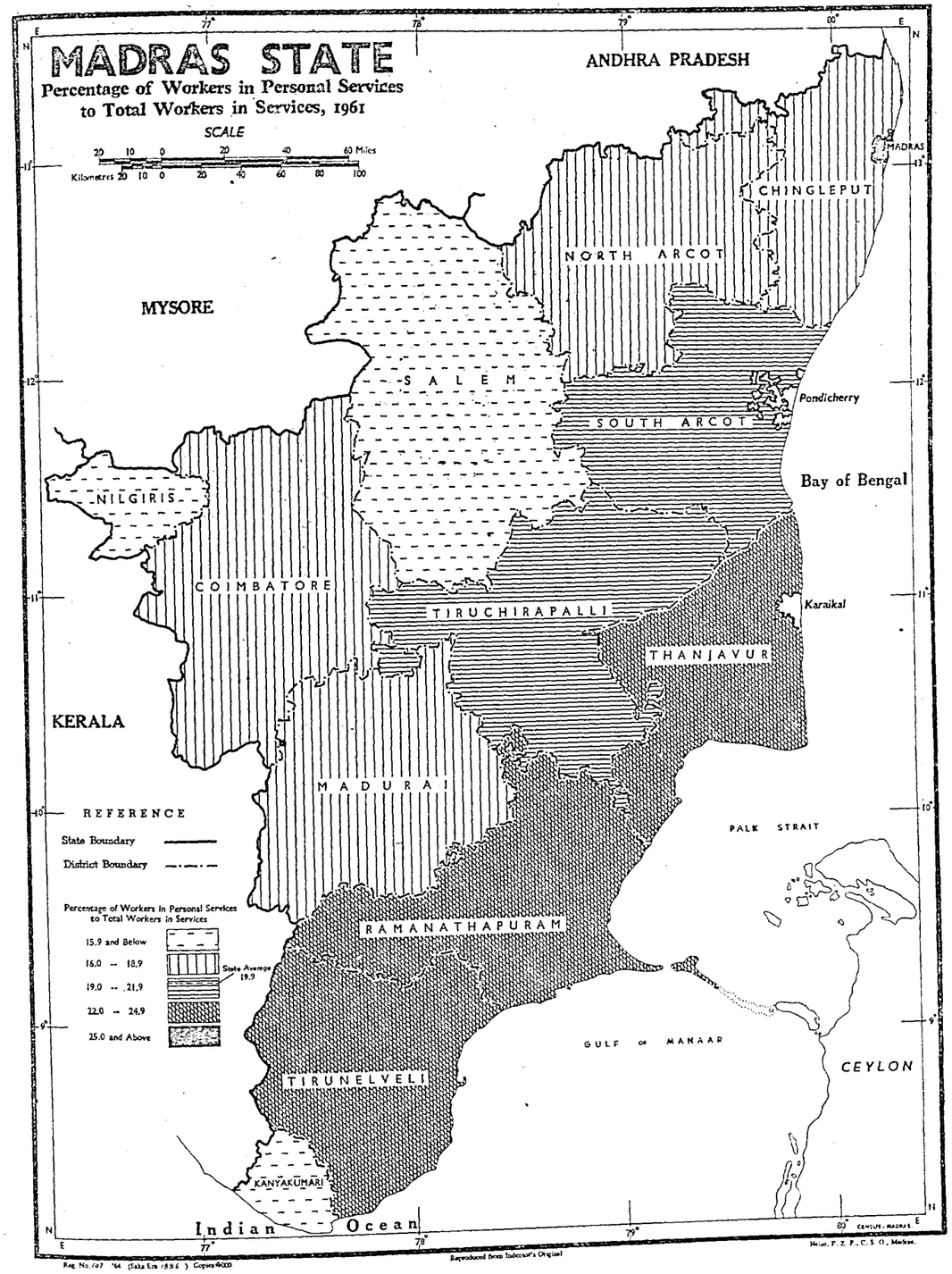
In Madras State 4.69 lakhs of population are engaged in personal services. This represents 19.89% of total workers under "Other Services". Thus nearly one fifth of the workers of other services render personal services. The percentages among the districts vary between 12.4 in Kanyakumari district and 27.5 in Madras City. Six districts have recorded percentage above the State average and of these six, five form into one compact region comprising of South Arcot, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli districts. Nilgiris, Kanyakumari and Salem districts have recorded less than 16%. Chingleput and North Arcot in the north east and Coimbatore and Madurai in the west have percentages varying between 16 and 19.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	19.89
1.	Madras	27.45
2.	Tirunelveli	24.54
3.	Thanjavur	24.46
4.	Ramanathapuram	23.73
5.	South Arcot	21.16
6.	Tiruchirapalli	20.89
7.	Madurai	18.68
8.	Chingleput	18.18
9.	Coimbatore	17.53
10.	North Arcot	16.83
11.	Nilgiris	15.86
12.	Salem	15.10
13.	Kanyakumari	12.44

SOURCE

Census of India, 1961, Madras State—Part II-B (i) General Economic Tables.



MAP 121

PERCENTAGE OF SCHEDULED CASTES TO

THE TOTAL POPULATION

MAP 121

PERCENTAGE OF SCHEDULED CASTES TO THE TOTAL POPULATION

PURPOSE

This map shows the percentage of Scheduled Castes to total population in the taluks of Madras State.

METHOD

The percentages have been grouped into six categories-three below and three above the State average and the taluks have been shaded by six grades of hatching ranging from high to low.

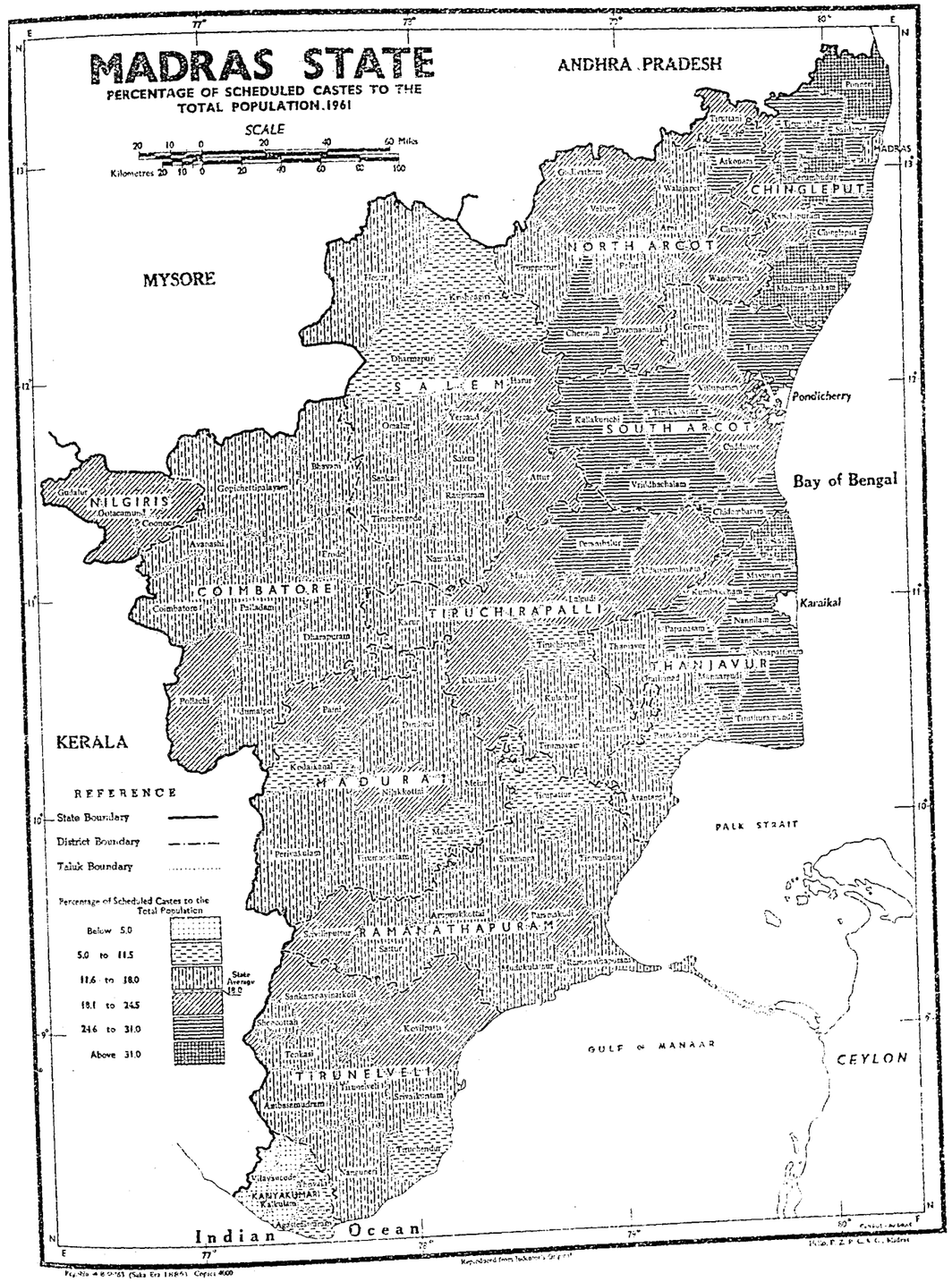
SALIENT FEATURES

There are 6,067,327 scheduled castes in Madras State and they form 18% of the total population. Scheduled Castes form more than a fourth of total population in Chingleput and South Arcot districts and the percentage is lowest in Kanyakumari district where they form only 4%. In only five districts, the percentage of Scheduled Castes to total population is above the State average of 18.0%. They are Chingleput, North Arcot, South Arcot, Nilgiris and Thanjavur.

Among the taluks, concentration is noticed in four taluks where percentage exceeds 30.0%. The taluks are: Ponneri, Sriperumbudur and Madurantakam in Chingleput district and Sirkali in Thanjavur district. In 49 taluks the percentage is above the State average and in Madras City and 54 taluks the percentage is below the State average. In all the eight taluks of Chingleput district, the percentage is above the State average. In seven out of eight taluks of South Arcot district, the scheduled castes form more than 18.0% which is the State average. All the taluks of Nilgiris district also have scheduled caste percentage above the State average. The entire Kanyakumari and Coimbatore districts fall under the category below the State average.

SOURCE

Census of India, 1961, Madras State Part II-A General Population Tables.



MAP 122

PERCENTAGE OF SCHEDULED TRIBES TO

TOTAL POPULATION 1961

MAP 122

PERCENTAGE OF SCHEDULED TRIBES TO TOTAL POPULATION 1961

PURPOSE

The percentage of scheduled tribe to total population of each taluk is presented in this map.

METHOD

The percentages have been classified in to eight ranges and taluks have been hatched by eight grades of hatching. Taluks wherein scheduled tribes have not been recorded, have been left blank without any hatching.

SALIENT FEATURES

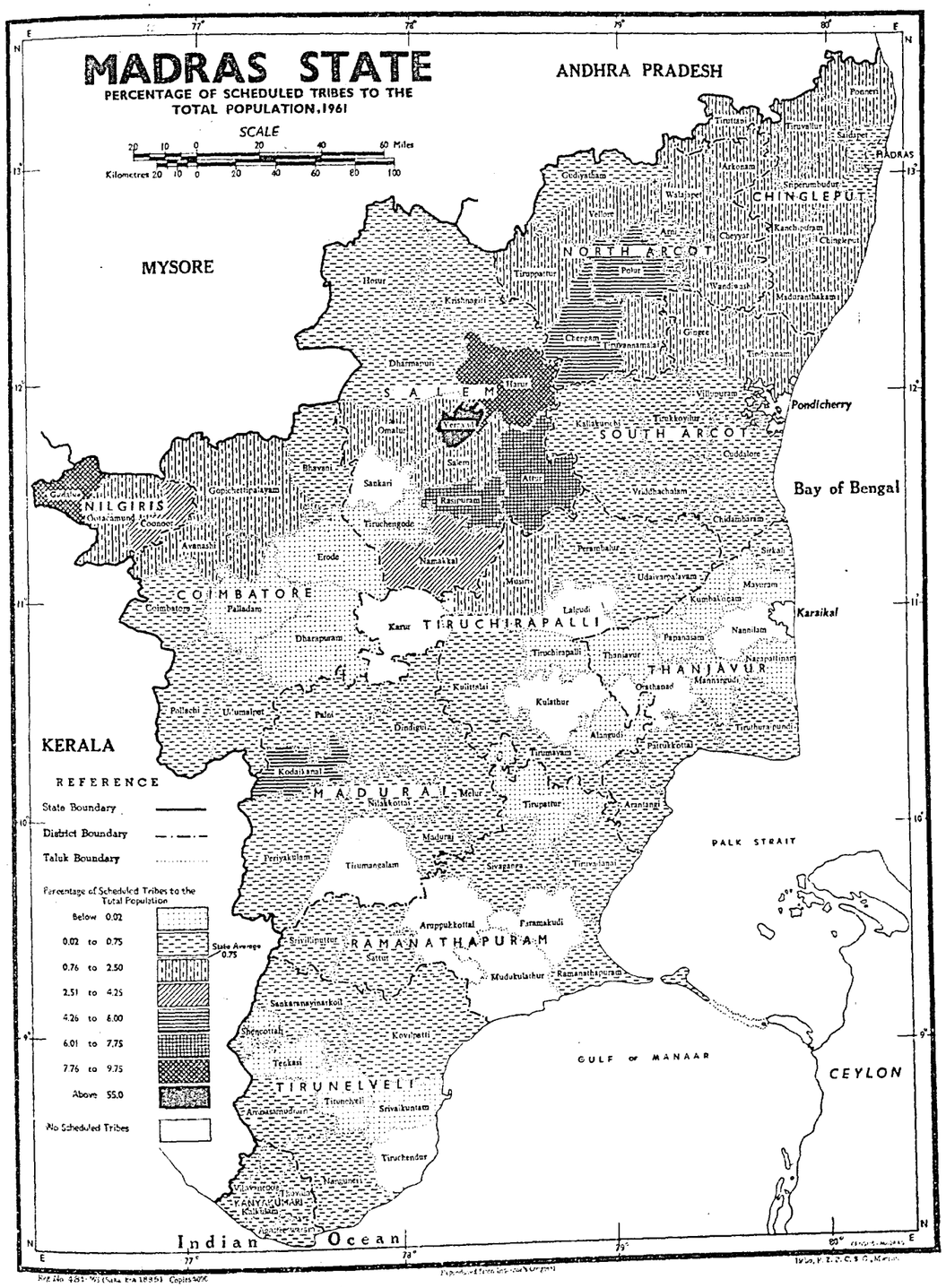
The scheduled tribe population in Madras State is 251,991 and they constitute 0·75% of the total population. There are 61 taluks with percentage of scheduled tribe below the State average and 32 taluks above the State average. There is no scheduled tribe in eleven taluks. The taluks are: Sankari in Salem district, Tirumangalam in Madurai district, Kulathur, Karur and Lalgudi in Tiruchirapalli district; Nannilam and Orathanad in Thanjavur district and Aruppukottai, Paramakudi, Mudukulathur in Ramanathapuram district and Tiruchendur in Tirunelveli district.

It is interesting to note that scheduled tribes are concentrated only in the northern part of the State. All the taluks of Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari districts fall under less than State average. Further, all the taluks except one each in Madurai and Tiruchirapalli districts have very low percentage of scheduled tribes. Kodaikanal taluk of Madurai district and Musiri taluk of Tiruchirapalli district are the only two exceptions. Similarly Gobichettipalayam and Avanashi taluks of Coimbatore and Gingee and Tindivanam taluks of South Arcot district are the exceptions to the otherwise generally low percentage of scheduled tribe population in these two districts.

Very high percentage of scheduled tribe to total population is noticed only in Yercaud taluk where 13,914 are scheduled tribes out of a population of 23,753 i. e. 58.5% of population are scheduled tribes. The next highest percentage is only 9.58 in Gudalur taluk and Harur taluk has 8.77%. The southern portion of Salem district has a high percentage of scheduled tribe while the northern portion has very low percentage. In Coimbatore district only two taluks—Gobichettipalayam and Avanashi have percentages slightly higher than ths State average. Madras City and Saidapet taluk have recorded very low percentages.

SOURCE

Census of India, 1961, Madras State—Part II-A General Population Tables.



MAP 123

DISTRIBUTION OF IMPORTANT SCHEDULED CASTES 1961

MAP 123

DISTRIBUTION OF IMPORTANT SCHEDULED CASTES 1961

PURPOSE

This map indicates the district-wise distribution of different scheduled castes.

METHOD

Dots, each representing 500 persons have been drawn for each scheduled caste and the exact location is not taken as the basis.

SALIENT FEATURES

The scheduled castes represented in this map may be classified into four broad groups : (1) Parayan, (2) Pallan, (3) Chakkiliyan and (4) Others. Each of these four groups has been shown by different colours. But within each group the individual scheduled castes have been shown by different symbols.

Taking individual scheduled castes it is seen that Adi Dravidas are the most numerous of all scheduled castes. There are 1,763,000 persons belonging to this scheduled caste. Maximum number among the districts is about 490,000 in Chingleput, about 454,000 in North Arcot and about 355,000 in South Arcot. In Madras and Thanjavur districts also more than one lakh of Adi Dravidas are noticed. In Kanyakumari district there is no Adi Dravidas. Adi Dravidas belong to Parayan group.

There are about 15 lakhs of Parayans in the State and South Arcot district accounts for nearly a fourth of the total Parayan population. More than two lakhs of Parayans are found in each of the following districts :—Salem, Tiruchirapalli and Thanjavur.

Sambans are the third important scheduled castes within the Parayan group and there are about 136,000 Sambans in the State out of which about 104,000 are in Thanjavur district. Tirunelveli, Madurai, Ramanathapuram and Tiruchirapalli are the other districts where population of Samban is fairly high.

Vettiyans with a population of about 3,500 and Koliyans with about 5,600 and Panchamas with less than 300 persons are the other scheduled castes belonging to Parayan group. Both Vettiyan and Koliyan are found only in Thanjavur district.

There are about 950,000 Pallans in Madras State and majority of them are found in the southern districts of Madurai, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli,

Devendrakulathan who belong to Pallan group are found mainly in Tiruchirapalli, Thanjavur, Coimbatore, Ramanathapuram and Tirunelveli districts.

There are about 248,000 Kudumbans in the State out of which about 108,000 are in Tirunelveli and 82,000 in Ramanathapuram and the rest are scattered over different districts.

Pannadi who can be grouped under Pallan, are found mainly in Coimbatore district (about 9,900), their total population in the State being about 11,000. In Salem there are about 800 Pannadis and they are not found in any other district. Population of Kadaiyan is less than 2,000 and majority of them are found in Ramanathapuram district.

Chakkilians are the fourth numerically important scheduled castes in the State and there are about 778,000 distributed all-over the State. More than 30% of Chakkilians in the State are recorded in Coimbatore district and Salem district ranks as the second important district with large number of Chakkilians.

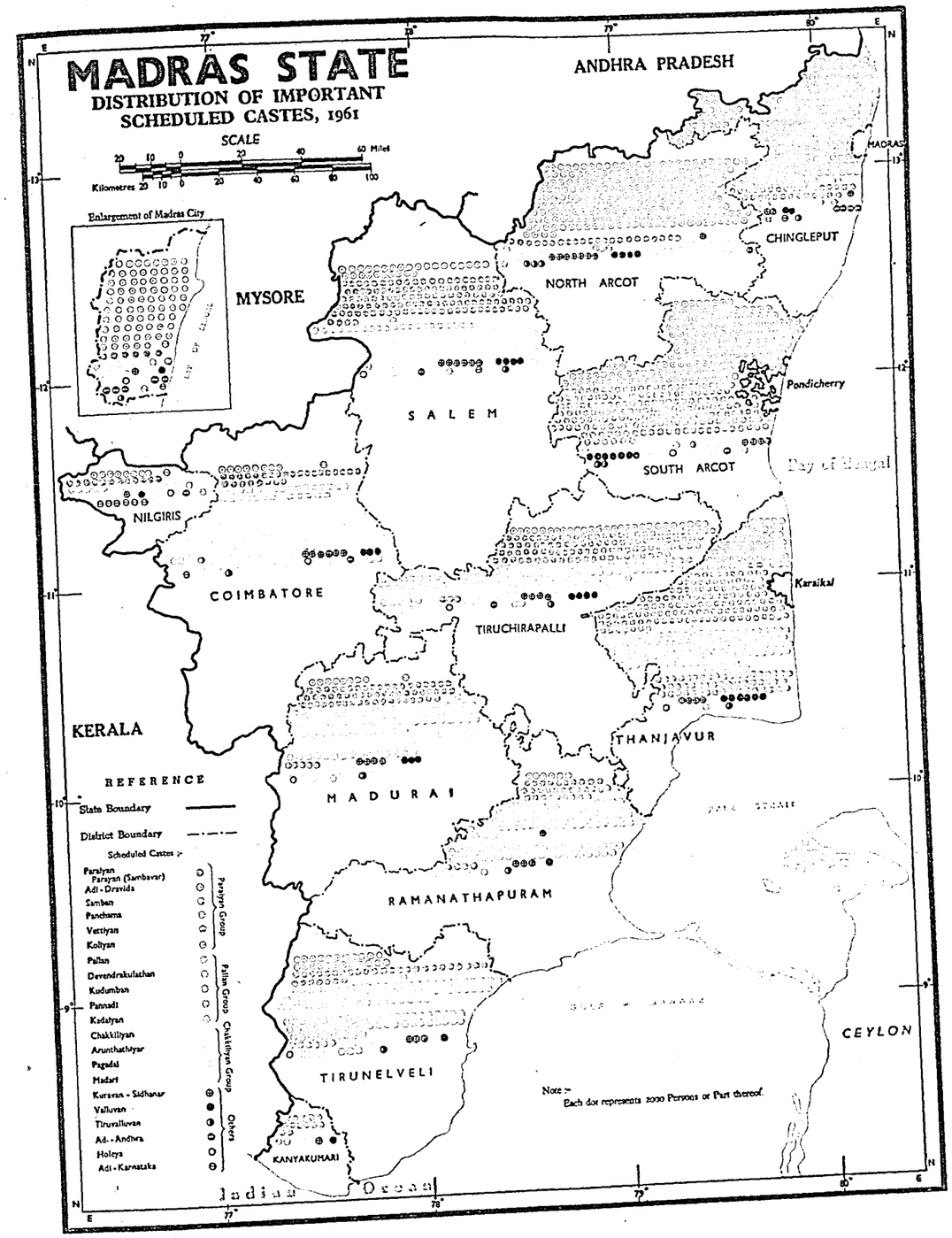
There are nearly a lakh of Arunthathiyars in Madras State who are found in all districts but tery are more numerous in North Arcot district than in other districts.

Madari with about 60,000 and Pagadai with about 20,000 are the two other important scheduled castes who can be grouped along with Chakkilians. The former are found in Coimbatore and Madurai districts and the latter in Ramanathapuram and Tirunelveli districts.

Among the other scheduled castes, Kuravans form an important caste with about 78,000 persons and Valluvans with about 62,000 persons. The population of the other scheduled castes are as follows : Adi Karnataka—12,448, Adi Andhra—18,269, Tiruvalluvar 10,077 and Holeya 1,826.

SOURCE

Census of India, 1961, Madras State—Part V-B Scheduled Castes and Scheduled Tribes-Tables.



MAP 124

DISTRIBUTION OF SCHEDULED TRIBES

MAP 124

DISTRIBUTION OF SCHEDULED TRIBES

PURPOSE

This map indicates the places where the scheduled tribes have been recorded.

METHOD

The number of scheduled tribes has been indicated by equal number of dots in each district. The dots have been plotted only taking district as the basis and not on the basis of exact location.

SALIENT FEATURES

Malayalis are the most numerous of all scheduled tribes in Madras State. There are more than one lakh of Malayalis in Madras State. They are however found only in North Arcot, Salem and Tiruchirapalli districts. Salem district accounts for more than 75% of this scheduled tribe.

Irulars are the second numerically important scheduled tribes in this State. There are nearly 80,000 persons belonging to this tribe but maximum concentration is noticed in Chingleput and North Arcot districts each having more than 20,000 persons. South Arcot and Coimbatore districts also have about 10,000—12,000 Irulars.

The third important scheduled tribe is Kattunayakan who are found in all the districts except Kanyakumari. The total population of Kattuayakan is 6,459 and North Arcot district alone accounts for 2,270 persons.

Sholagas, numbering about 6,000 form the fourth important scheduled tribe in Madras State and except for about 180 persons found in Salem and Nilgiris, the rest are concentrated in Coimbatore district.

Paniyans who rank fifth with a population of 4,779 are found only in Nilgiris district.

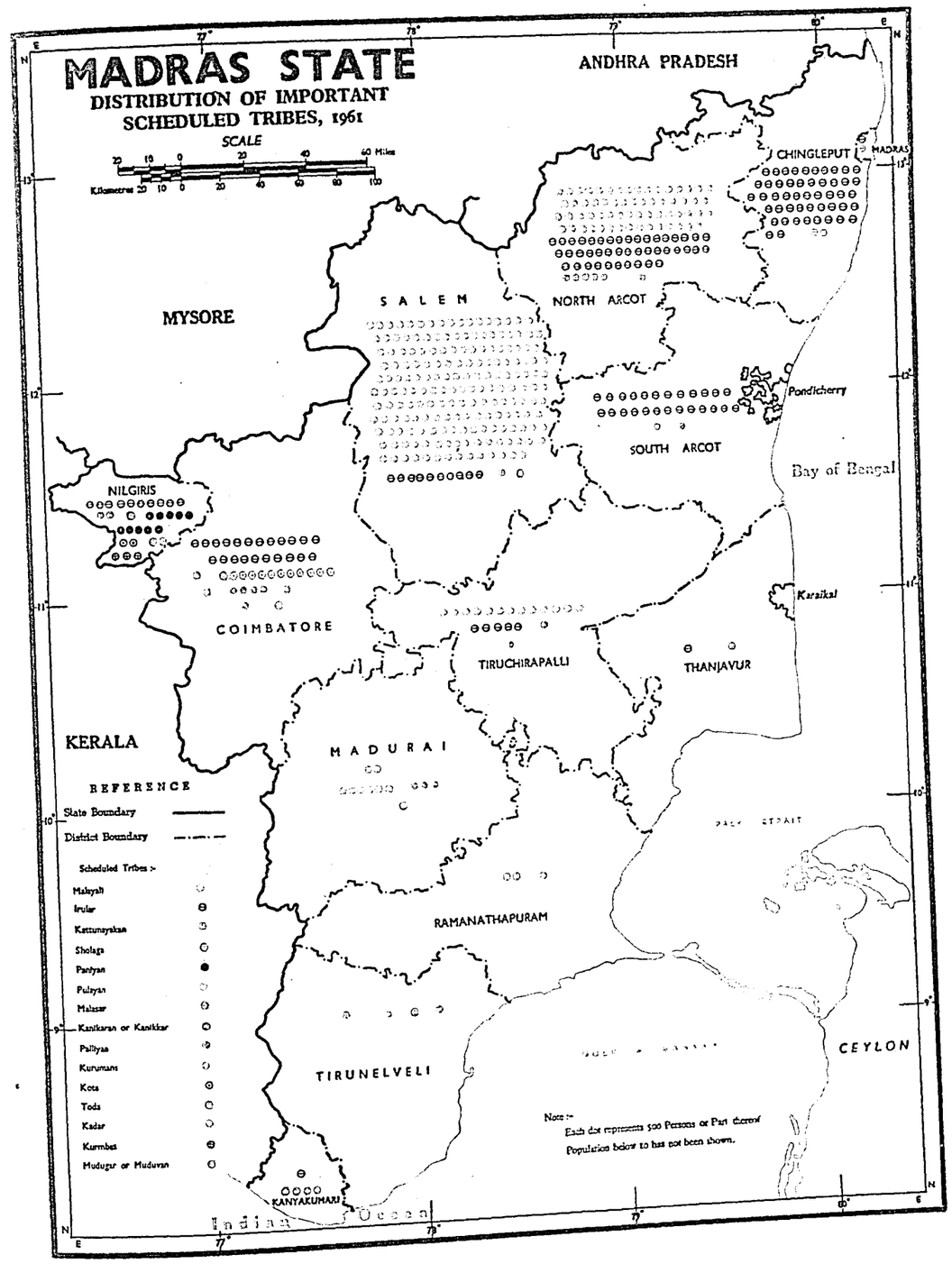
Apart from the above five tribes, only five more scheduled tribes account for a population of more than 1,000. They are (1) Pulayans with concentration in Madurai (2) Malasars are found only in Coimbatore, (3) Kanikarans or Kanikkars are predominantly in Kanyakumari with a few persons in Tirunelveli, (4) Palliyans are mainly found in Madurai and (5) Kurumbars in only Nilgiris.

Among the scheduled tribes with population below 1,000 Kotas and Todas are important and they are both found only in Nilgiris district.

The population of other scheduled tribes is very low.

SOURCE

Census of India, 1961, Madras State—Part V-A Scheduled Castes and Tribes. (Report and Tables)



MAP 125

DISTRIBUTION OF MAJOR RELIGIONS

MAP 125

DISTRIBUTION OF MAJOR RELIGIONS

PURPOSE

The religious composition of the population is exhibited in this map. The percentage of population under each religion is shown for each district.

METHOD

A square has been drawn for each district and it has been divided into 100 parts each representing one percent. Three religions — Hindus, Muslims and Christians have been shown separately, each one having been hatched differently. All other religions have been grouped together. The figures of other religions are very low and the actual proportion could not be clearly demarcated in the square. Therefore, one full square to represent 1% has been allotted wherever percentage varied between 0.5% and 1.0%. If the figure is between 0.01 and 0.49, half a square has been allotted. Therefore the actual percentages of 'other religion' have been shown at the end of this note.

SALIENT FEATURES

89.94% of the population in Madras State are Hindus, 5.23% are Christians, 4.63% are Muslims and 0.20% belong to other religions like Buddhism, Jainism. Hindus are found to be most numerous in Salem district where they form 95% of total population but in Kanyakumari district they form only 59% of total population. In all the other districts the percentage of Hindus is above 80.

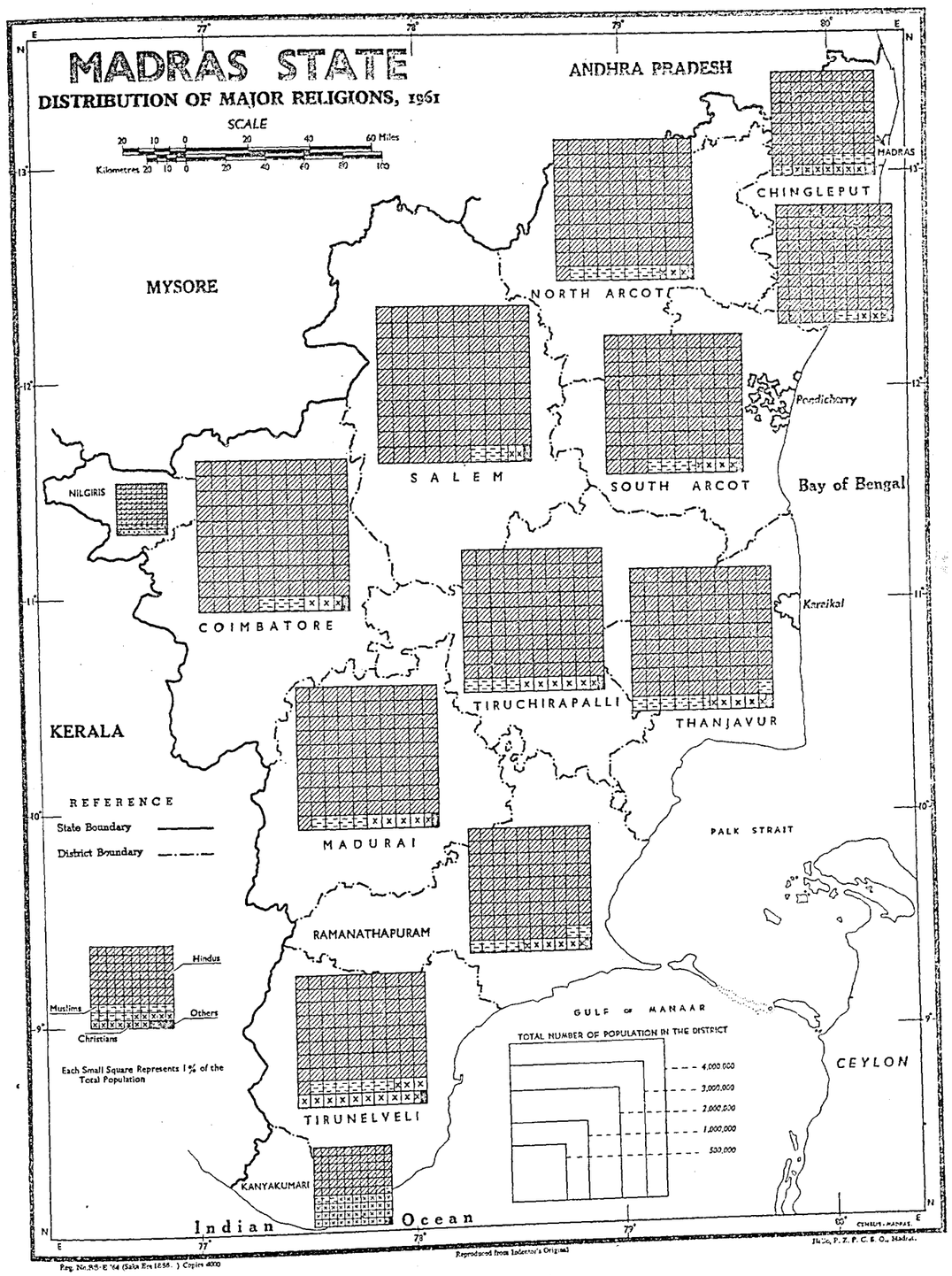
Christians are found mainly in Kanyakumari district where 36.5% of population are Christians. The second district with high Christian population is Tirunelveli where they form 12% of total population. Nilgiris district also possesses a high percentage of 10.5. However Christians are found in all the districts and the lowest percentage is 1 in Salem district. In Madras City Christians and Muslims each account for 7% of population. The percentage of Muslim population to total population is highest in Nilgiris. North Arcot, Thanjavur, Ramanathapuram and Tirunelveli districts have each 6.5% of Muslim population. Though Christian population in the State is higher than Muslim population, there is a more equitable distribution of Muslims than Christians among the districts. The difference between the highest and the lowest percentage of Christians is as high as 35.5 whereas the corresponding difference among Muslims is only 6. The lowest percentage of Muslims is in Chingleput district where they form 2% of population.

'Other religions' which accounts for 0.2% in the State varies from 0.65 in Madras City to 0.01 in Tirunelveli district. The districtwise percentage of 'other religions' is as follows :

Madras	0.65
Chingleput	0.12
North Arcot	0.36
South Arcot	0.29
Salem	0.11
Coimbatore	0.02
Nilgiris	0.20
Madurai	0.07
Tiruchirapalli	0.30
Thanjavur	0.41
Ramanathapuram	0.03
Tirunelveli	0.01
Kanyakumari	0.02

SOURCE

Census of India, 1961, Madras State—Part II-C (i), Cultural Tables.



MAP 126

DISTRIBUTION OF POPULATION SPEAKING LANGUAGES

OTHER THAN STATE LANGUAGE AS THEIR

MOTHER-TONGUE, 1961

MAP 126

DISTRIBUTION OF POPULATION SPEAKING LANGUAGES OTHER THAN STATE LANGUAGE AS THEIR MOTHER TONGUE 1961

PURPOSE

This map shows the percentage of population in each district who have languages other than Tamil as their mother-tongue. The map therefore reveals the percentage of non-Tamilians in each district.

METHOD

The percentages have been grouped into four ranges and districts have been hatched by four grades of hatching ranging from high to low.

SALIENT FEATURES

In Madras State, 5.68 millions out of a total population of 33.69 million or nearly 17% of the population have languages other than Tamil as their mother-tongue.

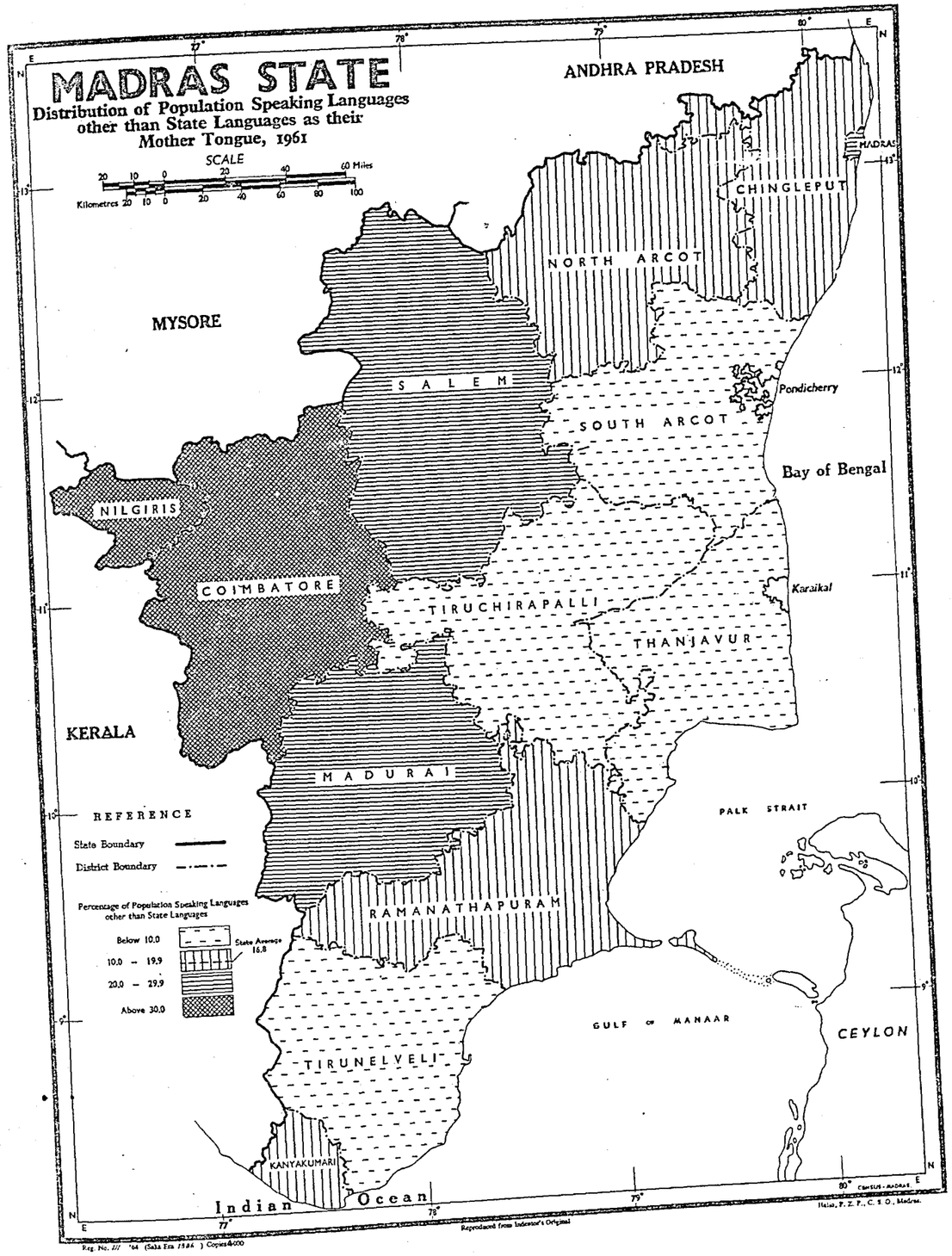
The district with high percentage of population having languages other than Tamil as mother-tongue is Nilgiris with 61.4%. Coimbatore district also has a very high percentage of 32. The district where Tamil language is predominant is Thanjavur where only 3.4% have languages other than Tamil as mother tongue. Tirunelveli district also has low percentage of "Other languages." South Arcot, Tiruchirapalli and Thanjavur districts account for more than 90% of Tamil and in Madras City 29% of population have languages other than Tamil a mother tongue.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	16.8
1.	Nilgiris	61.4
2.	Coimbatore	32.0
3.	Madras	29.0
4.	Salem	24.7
5.	Madurai	21.0
6.	North Arcot	18.5
7.	Chingleput	17.1
8.	Kanyakumari	13.4
9.	Ramanathapuram	10.5
10.	Tiruchirapalli	9.3
11.	South Arcot	7.2
12.	Tirunelveli	6.5
13.	Thanjavur	3.4

SOURCE

Census of India, 1961, Madras State—Part II-C (Cultural Tables.



MAP 127

DISTRIBUTION OF THREE STRONGEST LANGUAGES

IN THE STATE 1961

MAP 127

DISTRIBUTION OF THREE STRONGEST LANGUAGES IN THE STATE 1961

PURPOSE

Telugu, Kannada and Urdu are the three languages other than Tamil which record maximum number of speakers in Madras State. The districtwise percentage of speakers of these three languages is shown in this map. Only mother tongue has been considered as the basis and not any subsidiary language.

METHOD

The sum total of population having Telugu, Kannada and Urdu as mother-tongue was compiled for each district and its percentage to total district population was calculated. The values have been classified into four ranges. Districts have been hatched according to their values. A circle proportionate to total population speaking three languages has been drawn for each district and the circle has been divided into three segments in proportion to the percentage share of each of these three languages. The three segments have been hatched differently.

SALIENT FEATURES

In Madras State, 48.32 lakh of population speak Kannada, or Telugu or Urdu and thus the speakers of these three languages form 14.34% of the total population. The highest percentage of 30 is recorded in Coimbatore district and the lowest (which is less than one percent) in Kanyakumari district. Salem and Madras have more than a fifth of their total population speaking one of these three languages. In five districts less than 10% of the population have Kannada, Telugu or Urdu as mother-tongue.

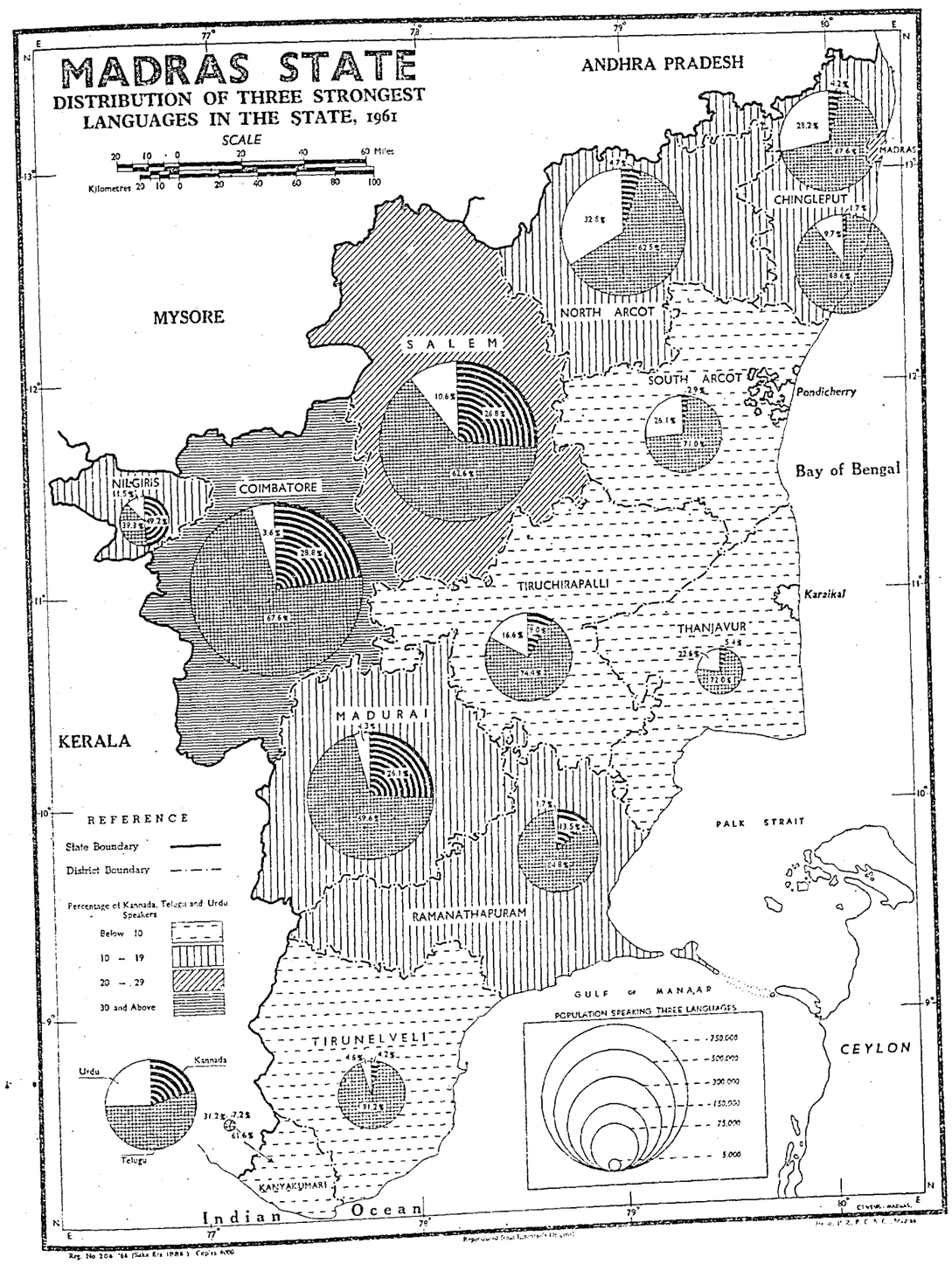
Examining the share of each of these three languages it is seen that Telugu accounts for nearly 70% of the sum total of these three languages. Percentage of Telugu speakers is at a maximum in Tirunelveli district where it forms 91% while Chingleput district ranks second with 89%. Nilgiris district has the lowest percentage of Telugu speakers who form only 39%.

Kannada language is the second important language since it accounts for 18% of the sum total of these three languages. This percentage is at a maximum of 49 in Nilgiris and at a minimum of 1.7 in Chingleput district. In Coimbatore, Kannada speakers form 28.8% and Salem district ranks third with 26.8% and Madurai fourth with 26.1%.

Urdu which accounts for 12.7% of total of these three languages has the maximum share of 32.8% in North Arcot followed by Kanyakumari with 31.2%. Madras City ranks third with 28.2% and the lowest share of 1.7% is in Ramanathapuram district.

SOURCE

Census of India, 1961, Madras State—Part II-C (i), Cultural Tables.



MAP 12B

PROPORTION OF POPULATION SPEAKING HINDI AS THE MOTHER-TONGUE
OR SUBSIDIARY LANGUAGE 1961

MAP 128

PROPORTION OF POPULATION SPEAKING HINDI AS MOTHER TONGUE OR SUBSIDIARY LANGUAGE 1961

PURPOSE

The proportion of total population who can speak Hindi either because it happens to be their mother-tongue or because they have learnt it, is shown in this map.

METHOD

The data on number of persons whose mother-tongue is Hindi has been compiled from Census Table C-V—Mother tongue. The figures of number of persons who have recorded Hindi as subsidiary language has been compiled from Table C-VI—Bilingualism. The proportion of the sum total of these two figures to total population has been worked out. Districts wherein number of persons with Hindi as mother-tongue exceeds the number of persons who can speak Hindi even though it is not their mother tongue, have been classified into one broad-group and proportions of Hindi speakers have been classified into four ranges and districts have been hatched according to their values. In the case of those districts where Hindi speakers are more numerous than number of persons with Hindi as mother tongue, proportions have been classified into two ranges.

It may be mentioned here that at the time of enumeration, a maximum of two languages were recorded by enumerators against the question "other languages" (other than mother tongue) known to individuals and the enumerators were instructed to record the language in which the respondent was most proficient as the first subsidiary language and then the second language in which the individual was slightly less proficient. At the time of tabulation only the first subsidiary language was taken into consideration and table on subsidiary language has been tabulated on this basis. Therefore the number of Hindi speakers as compiled from subsidiary language represents the minimum number of population knowing Hindi.

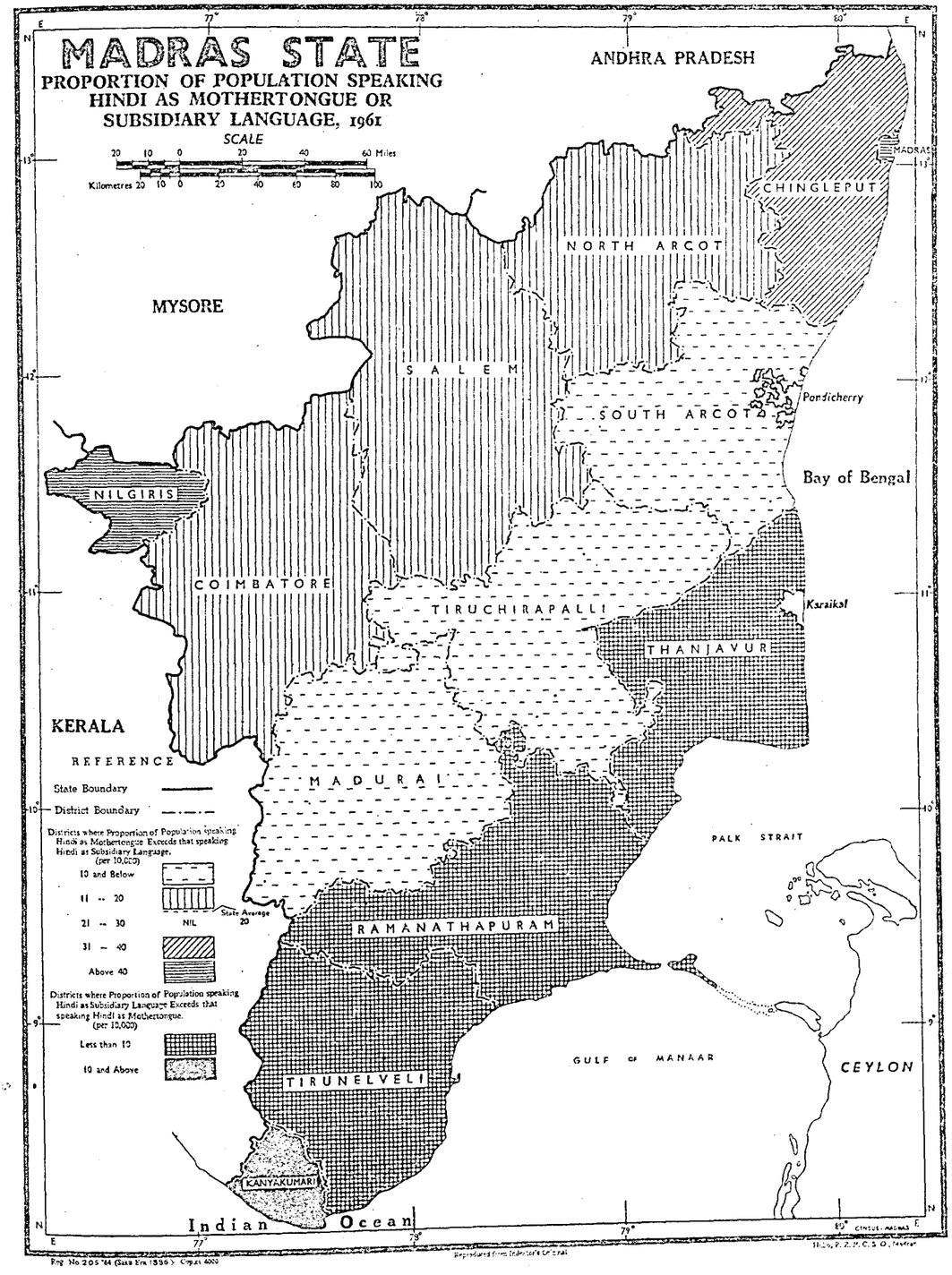
SALIENT FEATURES

In Madras State, every 20 out of 10,000 persons speak Hindi. The highest proportion is 164 in Madras City and the lowest is 6 in Ramanathapuram district. In Madurai, Tiruchirapalli, Thanjavur, Ramanathapuram and Tirunelveli districts there are less than ten persons per 10,000 who can speak Hindi. Nilgiris district ranks second with a proportion of 77 and Chingleput district ranks third with 31 per 10,000.

In the four southern districts of Thanjavur, Ramanathapuram, Tirunelveli and Kanyakumari, the population speaking Hindi as subsidiary language exceeds the population speaking Hindi as mother-tongue. Therfore in these districts more people learn Hindi than in other districts. But in all the other districts, persons with Hindi as mother-tongue form a majority among total Hindi speakers.

SOURCE

Census of India, 1961, Madras State—Part II-C (i), Cultural Tables.



MAP 129

PERCENTAGE OF RURAL MALE ADULT LITERATE TO THE TOTAL RURAL MALE ADULT POPULATION 1961

MAP 129

PERCENTAGE OF RURAL MALE ADULT LITERATE TO THE TOTAL RURAL MALE ADULT POPULATION

1961

PURPOSE

This map shows the percentage of literates among rural male adult population in each district.

METHOD

The data have been grouped into six ranges three below and three above the state average. The districts have then been shaded into six grades of hatching ranging from high to low.

SALIENT FEATURES

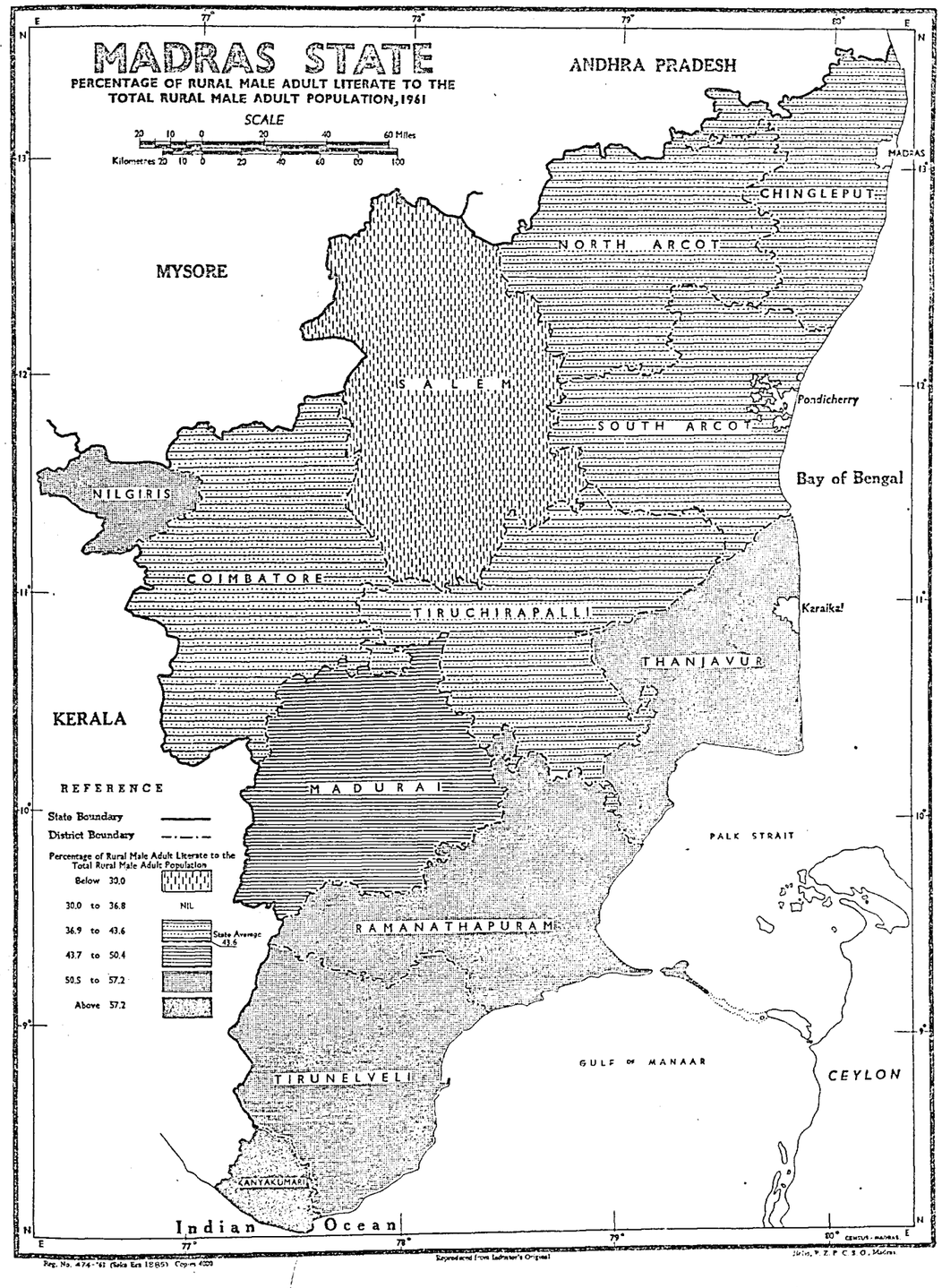
43.6% of male adult population in rural areas are literates in this state and the highest percentage is 60.9 in Kanyakumari district while the lowest percentage is 27.2 in Salem district. Six districts have percentages below the state average and six districts have percentages above the state average. Of these six districts, four districts are contiguous. They are: Chingleput, North Arcot, South Arcot and Tiruchirapalli. Of the six districts which are above the state average, Thanjavur, Ramanathapuram and Tirunelveli are contiguous.

TABLE

Rank	District	Percentage
	MADRAS STATE	43.6
1.	Kanyakumari	60.9
2.	Tirunelveli	53.6
3.	Thanjavur	52.3
4.	Nilgiris	51.3
5.	Ramanathapuram	51.0
6.	Madurai	47.3
7.	Tiruchirapalli	43.6
8.	South Arcot	42.1
9.	Coimbatore	41.1
10.	Chingleput	40.7
11.	North Arcot	39.5
12.	Salem	27.2

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



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MAP 130

PERCENTAGE OF RURAL FEMALE ADULT LITERATE TO THE TOTAL RURAL FEMALE ADULT POPULATION 1961

MAP 130

PERCENTAGE OF RURAL FEMALE ADULT LITERATE TO THE TOTAL RURAL FEMALE ADULT POPULATION 1961.

PURPOSE

This map shows the rural literacy percentage among adult females in each district.

METHOD

The data have been grouped into six ranges and the districts have been hatched in four shades ranging from high to low.

SALIENT FEATURES

Only 9.6% of rural adult female population are literates in Madras State which is very low compared to the corresponding urban percentage of 37.2. Eight districts have recorded percentage lower than the state average and four districts record percentage above the state.

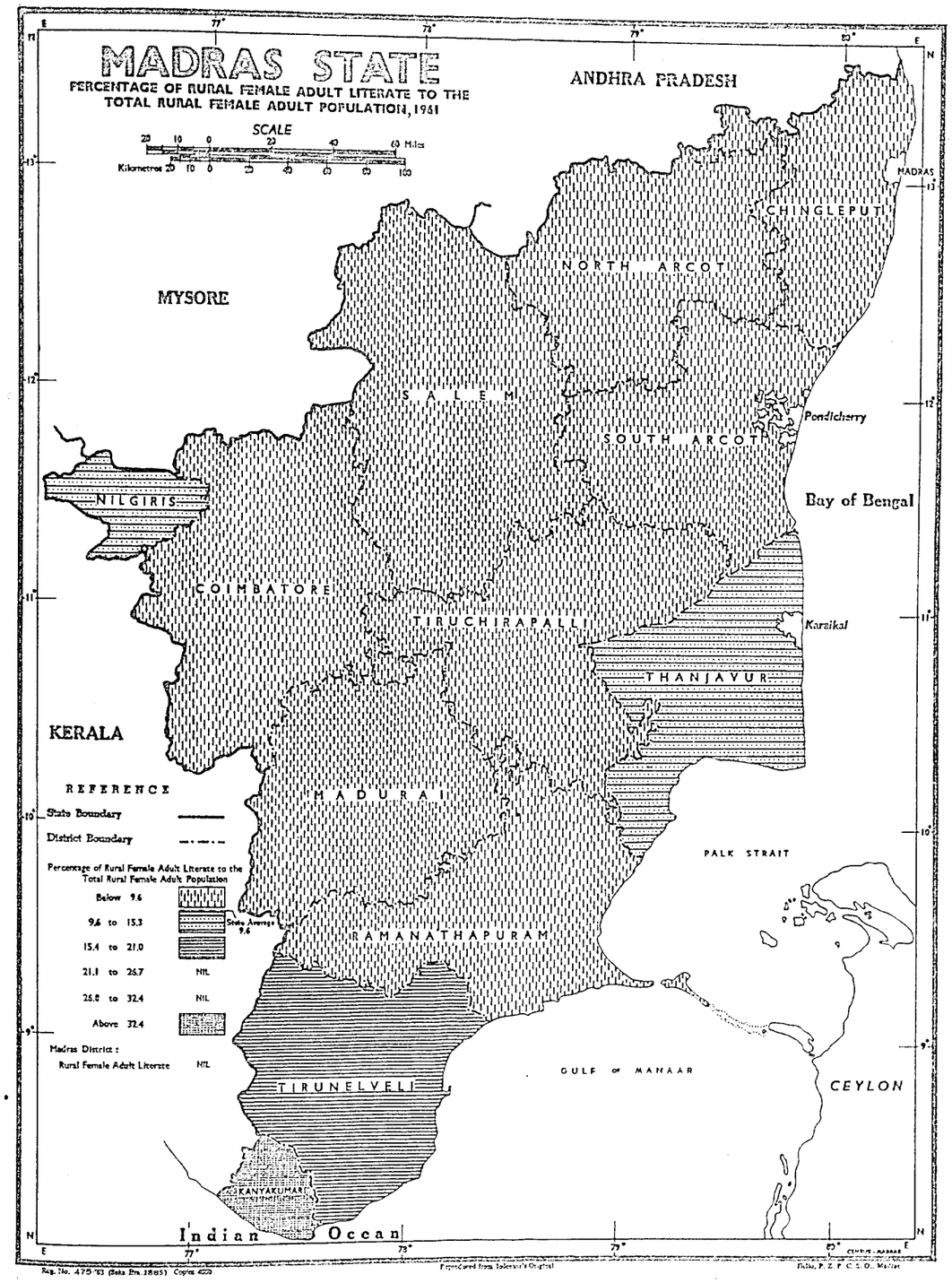
The highest percentage is 37.3 in Kanayakumari but the next highest is less than half this percentage viz 17.4% in Tirunelveli. Thus these two contiguous districts in the extreme south form one category. The other two districts with higher rates of literacy are Thanjavur in the east and Nilgiris in the west. All the other districts which are contiguous have recorded percentages lower than the state average. The lowest percentage is 4.7 in Salem district.

TABLE

Rank	District	Percentage of literates
	MADRAS STATE	9.6
1.	Kanyakumari	37.3
2.	Tirunelveli	17.4
3.	Thanjavur	12.1
4.	Nilgiris	11.9
5.	Chingleput	9.2
6.	Ramanathapuram	9.0
7.	Madurai	8.4
8.	Coimbatore	8.4
9.	Tiruchirapalli	7.1
10.	North Arcot	6.9
11.	South Arcot	6.7
12.	Salem	4.7

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 131

PERCENTAGE OF MALE URBAN ADULT LITERATE TO THE TOTAL MALE URBAN ADULT POPULATION 1961

MAP 131

PERCENTAGE OF MALE URBAN ADULT LITERATE TO THE TOTAL MALE URBAN ADULT POPULATION

1961

PURPOSE

This map shows the literacy among male adults in the urban areas of Madras State.

METHOD

Population in the age group 'above 15' have been treated as adults. The percentages have been grouped into five categories, two above and three below the state average. The districts have then been shaded in five grades of hatching ranging from high to low.

SALIENT FEATURES

In the urban areas of Madras State, 74.3% of the adult male population are literates. The highest percentage is 80.1 in Madras City and the lowest is 64.8 in Salem district.

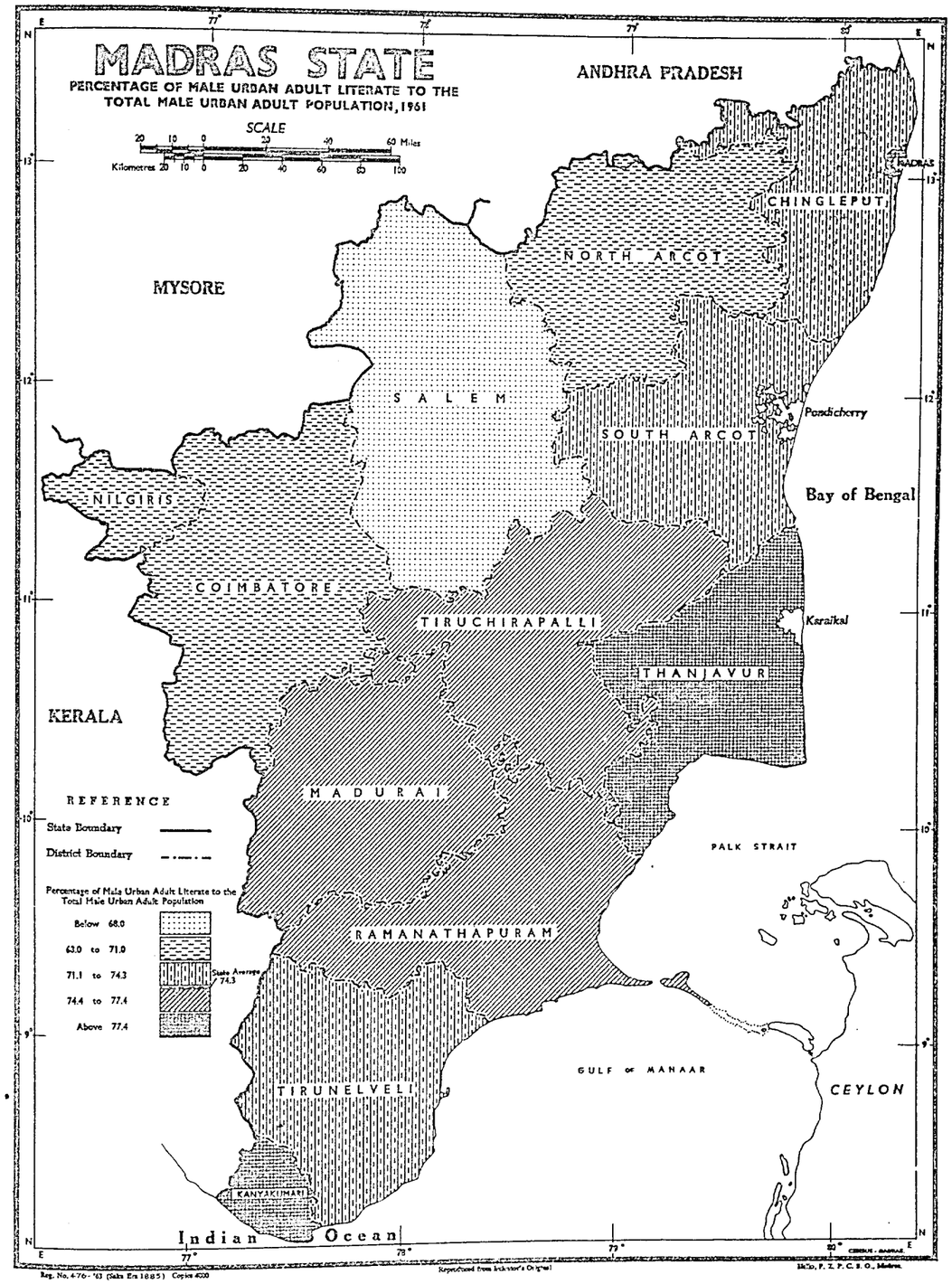
Apart from Madras, Thanjavur and Kanyakumari districts also record very high percentage of literacy. Out of the remaining 9 districts, three—Tiruchirapalli, Madurai and Ramanathapuram which are contiguous-belong to one group recording percentages above the state average.

TABLE

Rank	District	Percentage of literates
	MADRAS STATE	74.3
1.	Madras	80.1
2.	Kanyakumari	78.5
3.	Thanjavur	78.1
4.	Tiruchirapalli	76.5
5.	Ramanathapuram	76.0
6.	Madurai	75.8
7.	Tirunelveli	73.7
8.	Chingleput	72.0
9.	South Arcot	71.6
10.	Coimbatore	70.1
11.	North Arcot	68.6
12.	Nilgiris	67.2
13.	Salem	64.8

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 132

PERCENTAGE OF FEMALE URBAN ADULT LITERATE TO THE TOTAL FEMLAE URBAN ADULT POPULATION 1961

MAP 132

PERCENTAGE OF FEMALE URBAN ADULT LITERATE TO THE TOTAL FEMALE URBAN ADULT POPULATION 1961

PURPOSE

This map shows the percentage of literacy among female adult population in urban areas of each district.

METHOD

Data regarding percentage of literacy have been classified into five groups - two below and three above the state average. The districts have been shaded into five hatches ranging from high to low.

SALIENT FEATURES

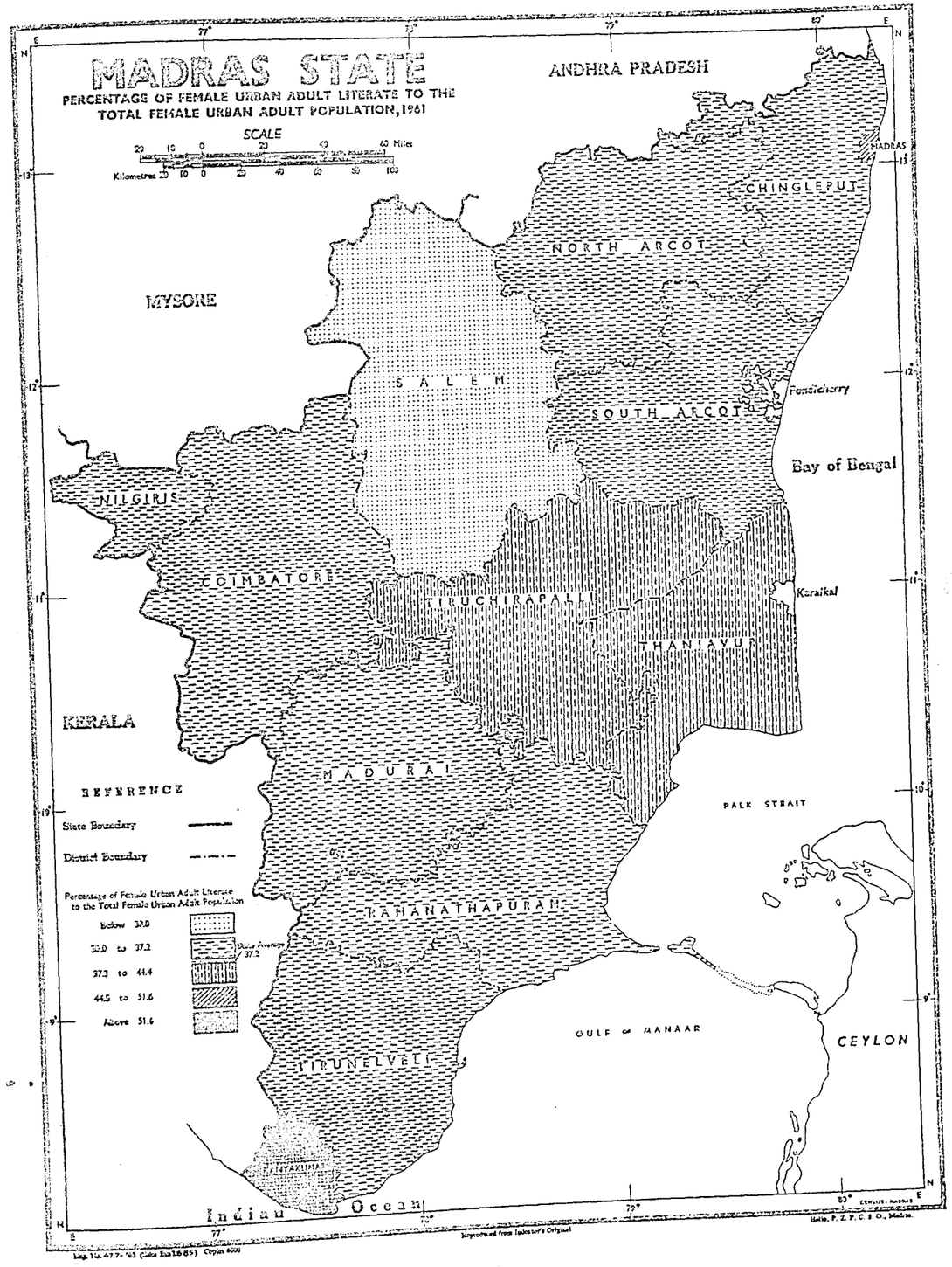
In the urban areas of Madras State, out of 2,725,845 total adult female population, 1,014,714 females are literates. That is, 37.2% of female adult population are literates. This compares favourably with the corresponding percentage in rural areas where only 9.6% of adult females are literates. The highest percentage of literacy in urban areas is 53.5% recorded in Kanyakumari district and the lowest percentage of 28.2% is recorded in Salem district. Only in four districts, the percentage of literacy among adult females is higher than the state average. These districts are: Tiruchirapalli, Thanjavur, Madras and Kanyakumari. The remaining nine districts which fall below the state average, form two contiguous blocks. Chingleput, North Arcot and South Arcot in the north east form one unit. The other unit consists of Nilgiris, Coimbatore and Madurai in the west with Ramanathapuram and Tirunelveli in the south east.

TABLE

Rank	District	Percentage of literates
	MADRAS STATE	37.2
1.	Kanyakumari	53.5
2.	Madras	50.3
3.	Tiruchirapalli	38.5
4.	Thanjavur	38.2
5.	Tirunelveli	35.4
6.	Chingleput	34.4
7.	Madurai	34.2
8.	Nilgiris	33.3
9.	Coimbatore	32.4
10.	Ramanathapuram	32.3
11.	South Arcot	32.2
12.	North Arcot	30.7
13.	Salem	28.2

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 133

PROPORTION OF CHILDREN 5—14 IN PRIMARY SCHOOLS

MAP 133

PROPORTION OF CHILDREN 5-14 IN PRIMARY SCHOOLS

PURPOSE

This map indicates the relationship between actual school going children (5-14 age) and the total children aged 5-14.

METHOD

The proportions of school going children per 1000 children of 5-14 have been classified into five ranges - two below and three above the State average. The districts have been hatched by five grades of shades ranging from high to low.

SALIENT FEATURES

In Madras State only 42 per 1000 children of 5-14 attend primary schools. The highest proportion is 54 in Ramanathapuram and Kanyakumari districts and the lowest is 31 in Salem district.

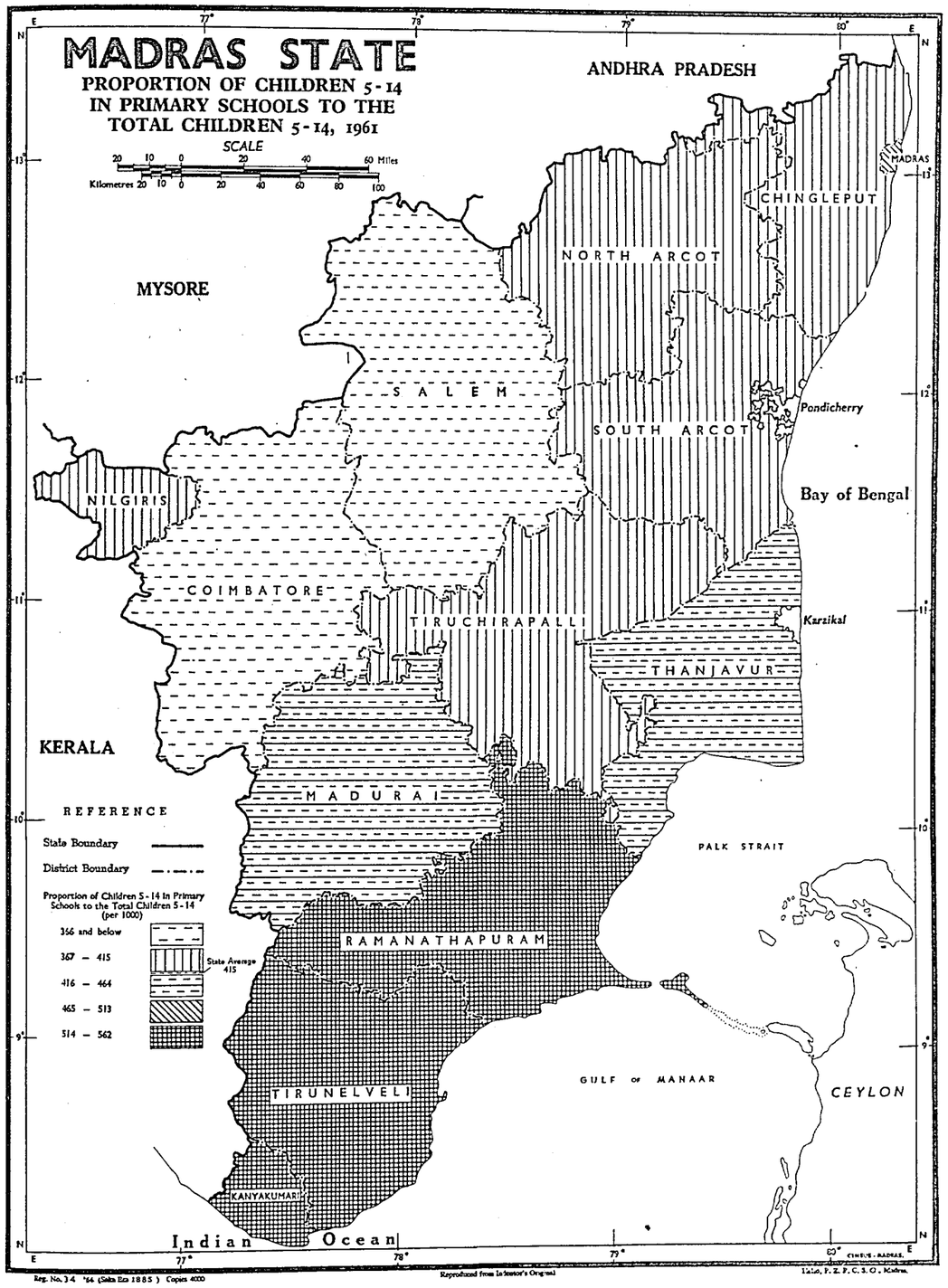
It is interesting to note that districts with proportion below State average form one contiguous belt - Nilgiris, Coimbatore, Chingleput, Salem, North Arcot, South Arcot and Tiruchirapalli districts. The three districts with high proportions are also contiguous in the southern part of the State—Ramanathapuram, Tirunelveli and Kanyakumari districts.

TABLE

Rank	State/District	Proportion
	MADRAS STATE	415
1.	Ramanathapuram	544
2.	Kanyakumari	542
3.	Tirunelveli	530
4.	Madras	477
5.	Madurai	443
6.	Thanjavur	428
7.	South Arcot	414
8.	Nilgiris	404
9.	Chingleput	392
10.	Tiruchirapalli	392
11.	North Arcot	371
12.	Coimbatore	329
13.	Salem	309

SOURCE

Director of Public Instruction.



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MAP 134

PROPORTION OF MALE CHILDREN 5—14 IN PRIMARY SCHOOLS
TO THE TOTAL MALE CHILDREN 5—14, 1961

MAP 134

PROPORTION OF MALE CHILDREN 5—14 IN PRIMARY SCHOOLS TO THE TOTAL MALE CHILDREN 5—14

1961

PURPOSE

This map shows the proportion per 1,000 of male school—going population who attend primary schools in the districts of Madras State.

METHOD

The proportions have been classified into five ranges—three above and two below the State average and the districts have been hatched from high to low.

SALIENT FEATURES

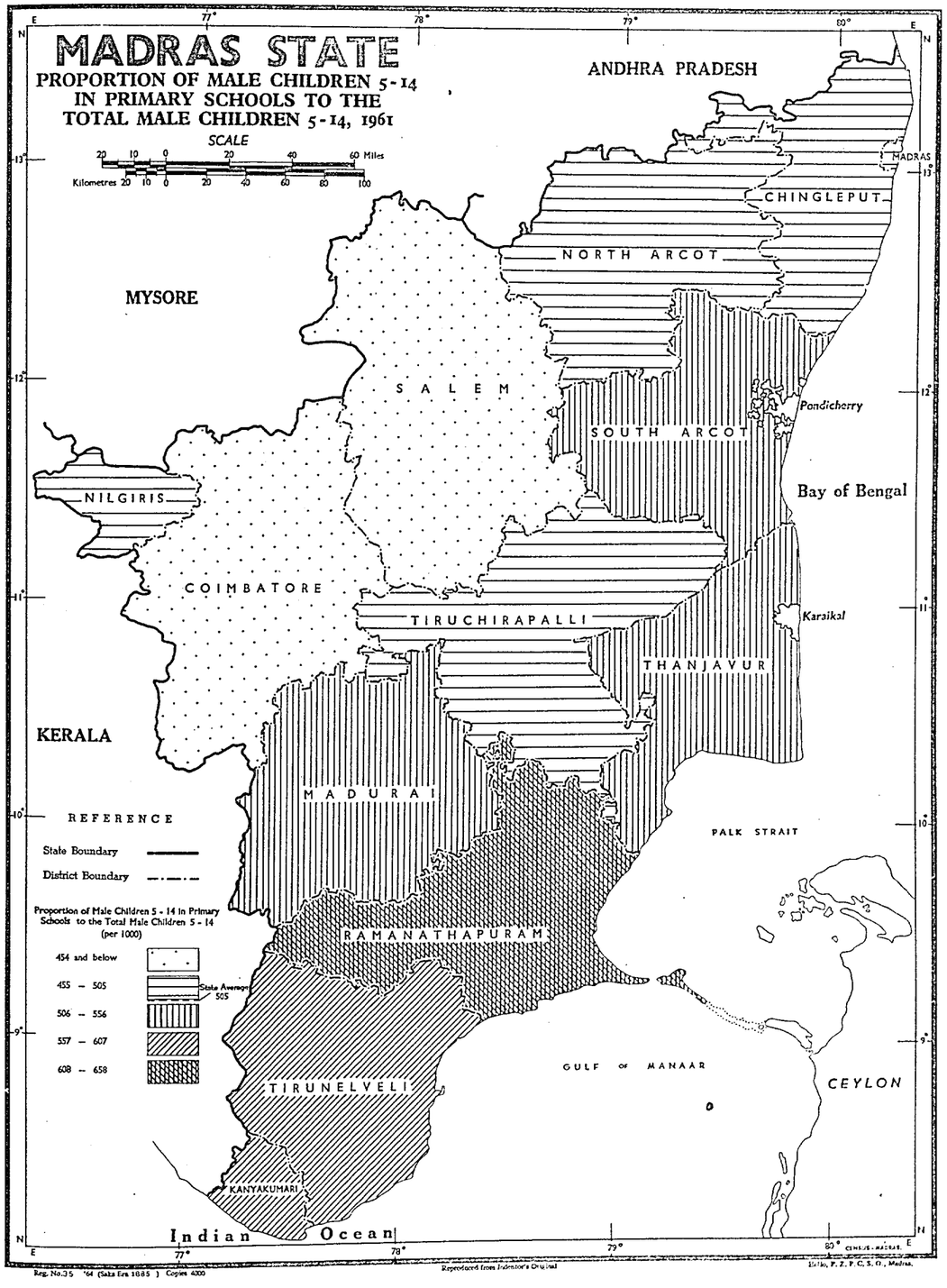
About 50% of the male school going population attend primary schools in Madras State and this proportion is higher than the proportion of total population as presented in the previous map. Salem and Coimbatore are the two districts with low proportions of 404 and 408 respectively. The highest proportion is 654 in Ramanathapuram district and Tirunelveli and Kanyakumari districts also record high proportions of 606 and 570 respectively.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	505
1.	Ramanathpuram	654
2.	Tirunelveli	606
3.	Kanyakumari	570
4.	South Arcot	535
5.	Madurai	534
6.	Thanjavur	521
7.	Madras	504
8.	Tiruchirapalli	500
9.	Chingleput	485
10.	North Arcot	471
11.	Nilgiris	466
12.	Coimbatore	408
13.	Salem	404

SOURCE

Director of Public Instruction.



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MAP 135

PROPORTION OF FEMALE CHILDREN 5—14 IN PRIMARY SCHOOLS
TO THE TOTAL FEMALE CHILDREN 5—14, 1961

MAP 135

PROPORTION OF FEMALE CHILDREN 5—14 IN PRIMARY SCHOOLS TO THE TOTAL FEMALE CHILDREN 5—14

1961

PURPOSE

While the previous map refers to the position regarding male population in primary schools, this map indicates the proportion of female school going population attending primary schools.

METHOD

The proportions have been grouped into six ranges, two below and four above the State average and the districts have been hatched from high to low.

SALIENT FEATURES

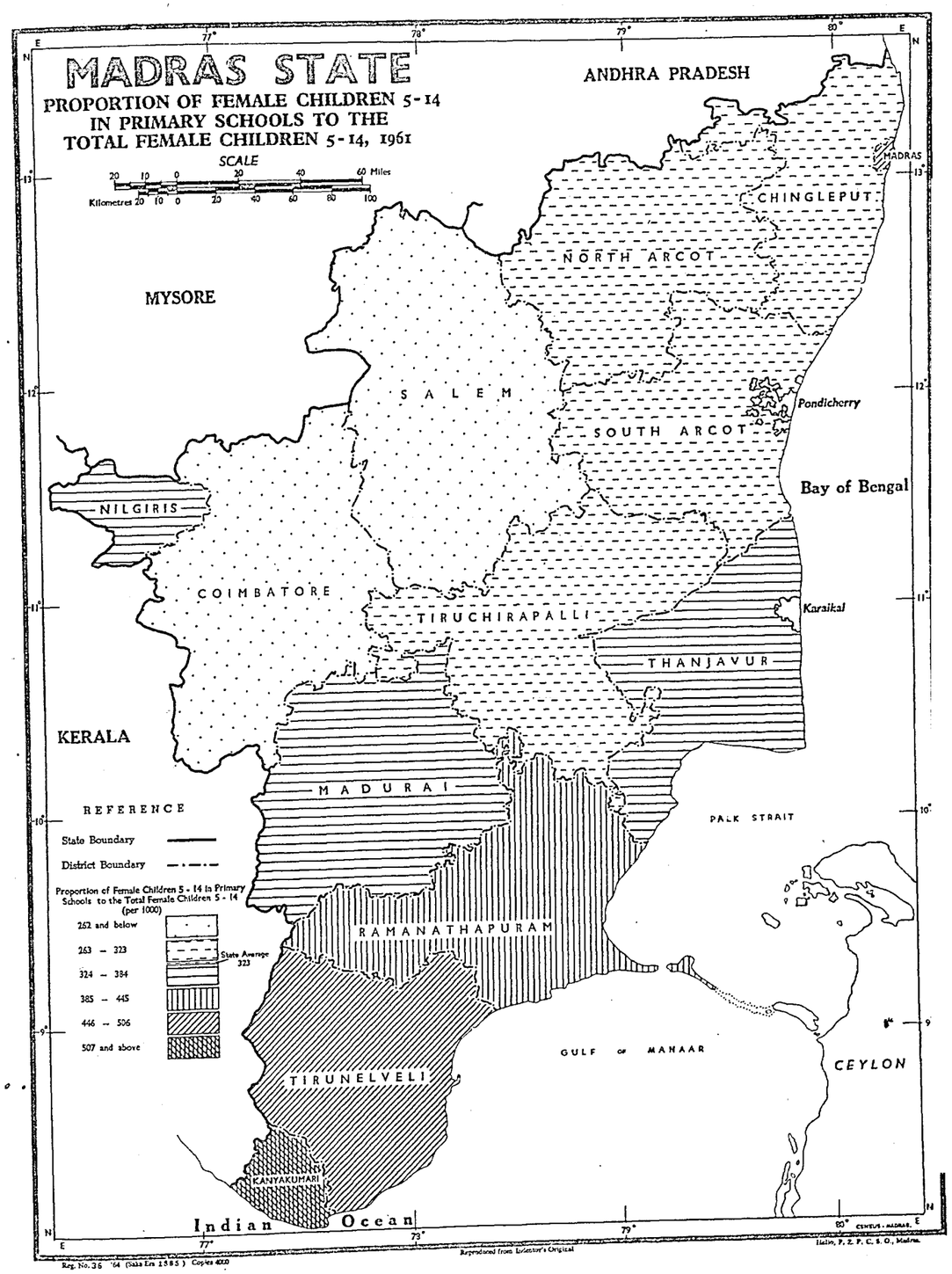
Only 323 per 1000 females of 5—14 age group attend primary school compared to the higher proportion of 505 among male children. Even among females, as in the case of males, Salem and Coimbatore districts record very low proportions of 211 and 247 respectively. The highest proportion is 514 in Kanyakumari district. While in the case of male children, Madras City and Nilgiris district have recorded proportion below the State average, in the case of female children both the districts have recorded more than the State average. But Madras City has recorded 450 compared to only 341 in Nilgiris district. Ramanathapuram and Tirunelveli districts also record high proportion.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	323
1.	Kanyakumari	514
2.	Tirunelveli	453
3.	Madras	450
4.	Ramanathapuram	432
5.	Madurai	350
6.	Nilgiris	341
7.	Thanjavur	334
8.	Chingleput	297
9.	South Arcot	290
10.	Tiruchirapalli	283
11.	North Arcot	270
12.	Coimbatore	247
13.	Salem	211

SOURCE

Director of Public Instruction, Madras.



MAP 136

PECENTAGE OF POPULATION OF AGE GROUP 15-29 IN

SECONDARY AND HIGHER EDUCATION 1961

MAP 136

PERCENTAGE OF POPULATION OF AGE GROUP 15-29 IN SECONDARY AND HIGHER EDUCATION 1961

PURPOSE

This map shows the percentage of population of the age group 15-29 who have passed Matriculation and higher education.

METHOD

The percentage of population of this age group who have passed Matriculation and above has been worked out for each district and the percentages have been grouped into five categories and districts have been shaded by five grades of hatchings ranging from high to low. It may normally be expected that people complete higher education before the age of atleast 29 and as such this percentage will indicate the degree of higher education prevalent in each district.

SALIENT FEATURES

In Madras State only 5.6% of population of age group 15-29 have passed secondary or higher education.

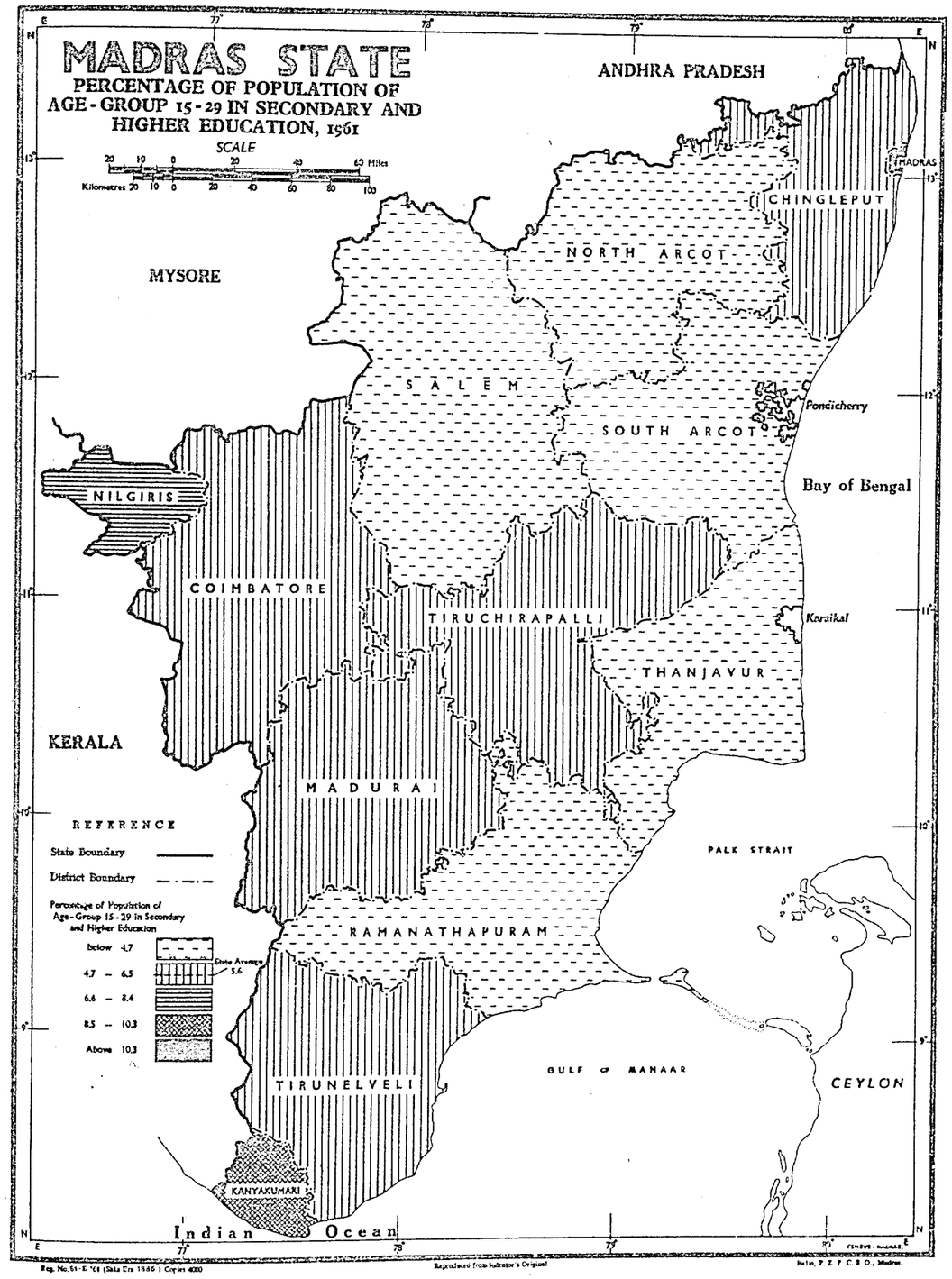
The highest percentage of secondary and higher education is noticed in Madras City where 22.1% of population are qualified in secondary and higher education. Only in three districts is the percentage higher than the State average and they are Madras, Kanyakumari and Nilgiris. Salem district is the most backward district in this respect since it accounts for only 2.9%. Salem, North Arcot, South Arcot, Thanjavur and Ramanathapuram districts have percentages below 4.7. Chingleput, Coimbatore, Madurai, Tiruchirapalli and Tirunelveli have less than 6.6%.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	5.58
1.	Madras	22.11
2.	Kanyakumari	9.87
3.	Nilgiris	7.39
4.	Coimbatore	5.49
5.	Madurai	5.20
6.	Tirunelveli	5.02
7.	Chingleput	4.97
8.	Tiruchirapalli	4.66
9.	Ramanathapuram	4.61
10.	Thanjavur	4.33
11.	North Arcot	3.47
12.	South Arcot	3.18
13.	Salem	2.87

SOURCE

Census of India, 1961, Madras State—Part II-C (i) Cultural Tables.



MAP 137

PERCENTAGE OF RURAL POPULATION OF AGE GROUP 15-29 IN SECONDARY AND HIGHER EDUCATION 1961

MAP 137

PERCENTAGE OF RURAL POPULATION OF AGE GROUP 15-29 IN SECONDARY AND HIGHER EDUCATION 1961

PURPOSE

The percentage of rural population of the age group 15-29, qualified in secondary or higher education is indicated in this map. The previous map refers to total population while this relates to rural population.

METHOD

As in the case of the previous map percentages have been grouped into five ranges and districts have been hatched in five shades.

SALIENT FEATURES

The percentage of rural population of Madras State in the age group 15-29 who have passed secondary or higher education is only 2.3 which is less than a half of the percentage for total population.

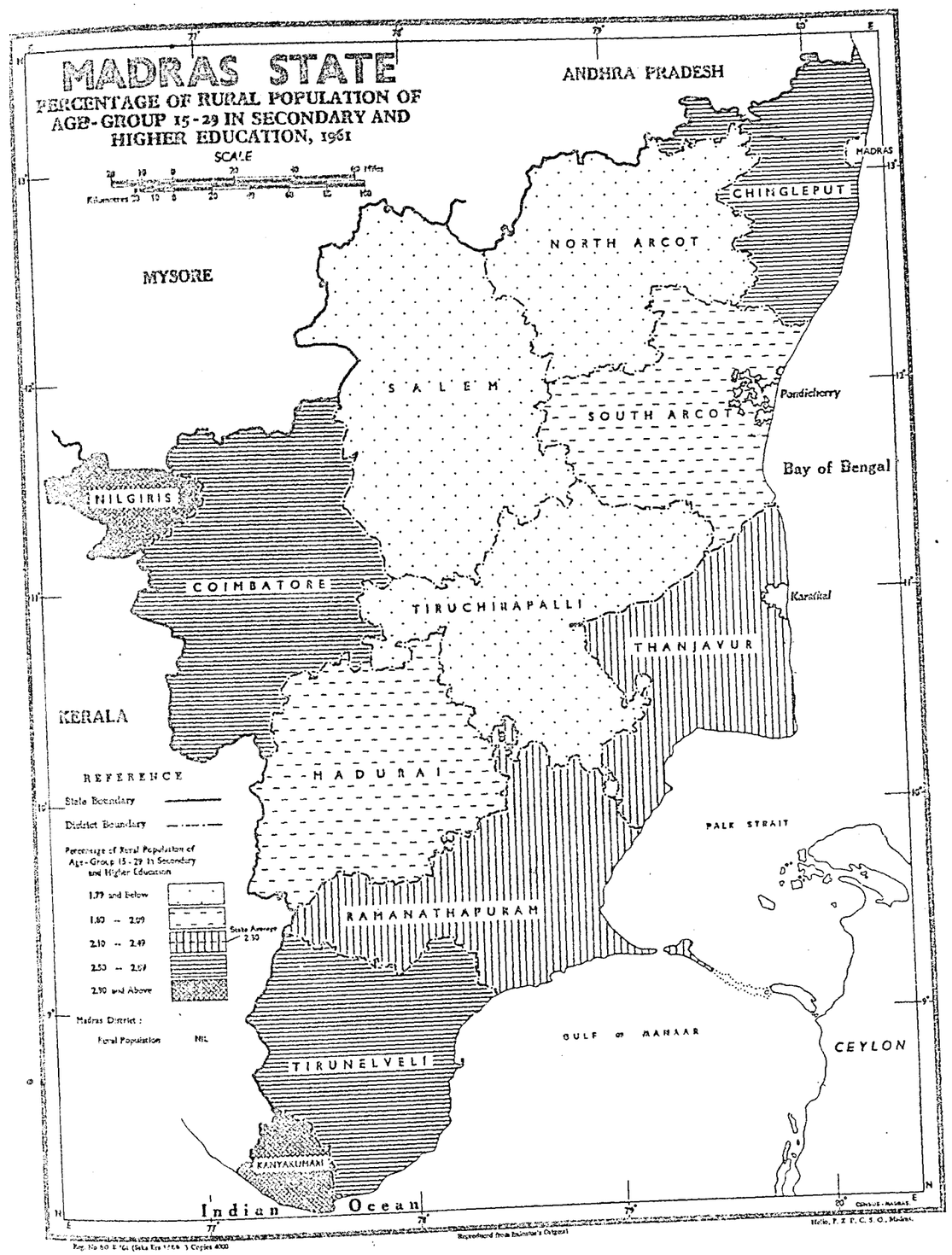
The highest percentage is 8.48 in Madras and the lowest is 1.48 in Salem district. As in the case of total population, in this case also, Salem, North Arcot and South Arcot districts have percentages below the State average. But Ramanathapuram has a slightly better performance if rural population is taken into consideration because the percentage is above the State average while in the case of total population it is below the State average.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	2.30
1.	Kanyakumari	8.48
2.	Nilgiris	5.09
3.	Tirunelveli	2.68
4.	Chingleput	2.62
5.	Coimbatore	2.55
6.	Ramanathapuram	2.37
7.	Thanjavur	2.10
8.	Madurai	1.94
9.	South Arcot	1.82
10.	North Arcot	1.78
11.	Tiruchirapalli	1.78
12.	Salem	1.48

SOURCE

Census of India, 1961, Madras State—Part II-C (i) Cultural Tables.



MAP 138

PERCENTAGE OF URBAN POPULATION OF AGE GROUP 15–29
IN SECONDARY AND HIGHER EDUCATION 1961

MAP 138

PERCENTAGE OF URBAN POPULATION OF AGE GROUP 15—29 IN SECONDARY AND HIGHER EDUCATION

PURPOSE

This map is similar to previous map but refers to urban population.

METHOD

The percentage of urban population of the age 15-29, who have passed secondary and higher education has been calculated for each district and districts have been hatched by five grades of hatching.

SALIENT FEATURES

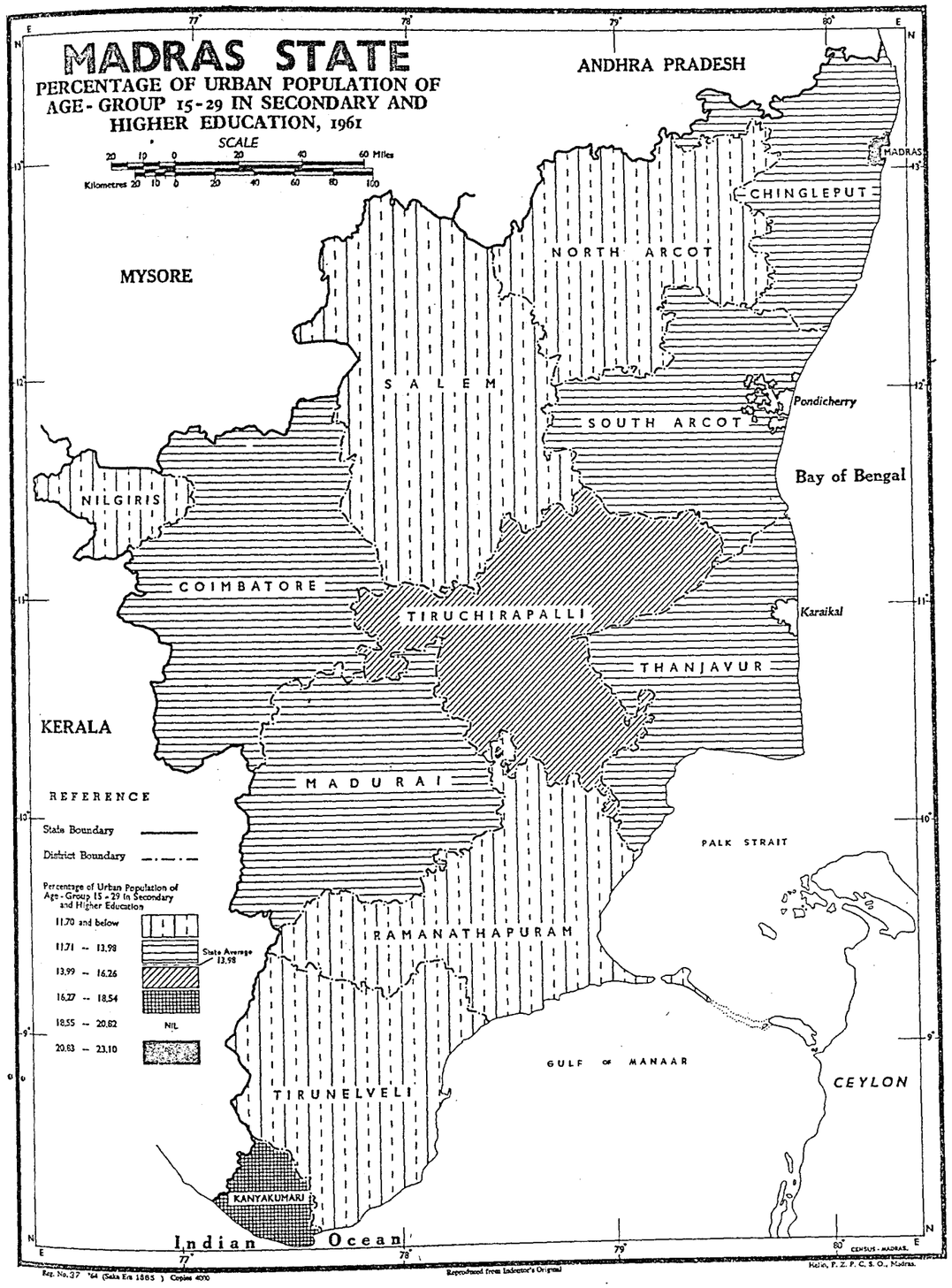
The percentage of urban population of the age group 15—29 who are qualified in secondary and higher education is more than double that of the percentage if total population is taken into consideration. Nearly 14% of urban population of 15—29 have passed matriculation and higher education. Madras City is foremost in this with 22.1%. Kanyakumari and Tiruchirapalli districts follow with 17.4% and 14.7%. Salem district is far behind with only 9.4% and North Arcot district has 9.6%.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	13.98
1.	Madras	22.11
2.	Kanyakumari	17.43
3.	Tiruchirapalli	14.72
4.	Chingleput	13.25
5.	Thanjavur	12.95
6.	Coimbatore	12.18
7.	Madurai	12.05
8.	South Arcot	11.99
9.	Ramanathapuram	11.30
10.	Nilgiris	10.34
11.	Tirunelveli	10.03
12.	North Arcot	9.58
13.	Salem	9.44

SOURCE

Census of India, 1961, Madras State—Part II-C (1) Cultural Tables.



MAP 139

PERCENTAGE OF MALE POPULATION OF AGE-GROUP 15—29
IN SECONDARY AND HIGHER EDUCATION 1961

MAP 139

PERCENTAGE OF MALE POPULATION OF AGE GROUP 15-29 IN SECONDARY AND HIGHER EDUCATION

PURPOSE

The literacy standard among males of the age group 15-29 as reflected in the percentage of males of this age group who have passed Matriculation and other higher education is presented in this map.

METHOD

The district-wise percentages have been grouped into four ranges—two above and two below the State average and districts have been shaded from high to low.

SALIENT FEATURES

Nearly 9% of the male population in the age group 15-29 are qualified in Matriculation or other higher education. Madras City has a very high percentage of 30.9 while the next highest is only 13.6 in Kanyakumari district. The lowest percentage is in Salem where only 4.9% of male population of 15-29 age group are qualified in matriculation or higher education. The three contiguous districts of North Arcot, South Arcot and Salem have recorded less than 6%.

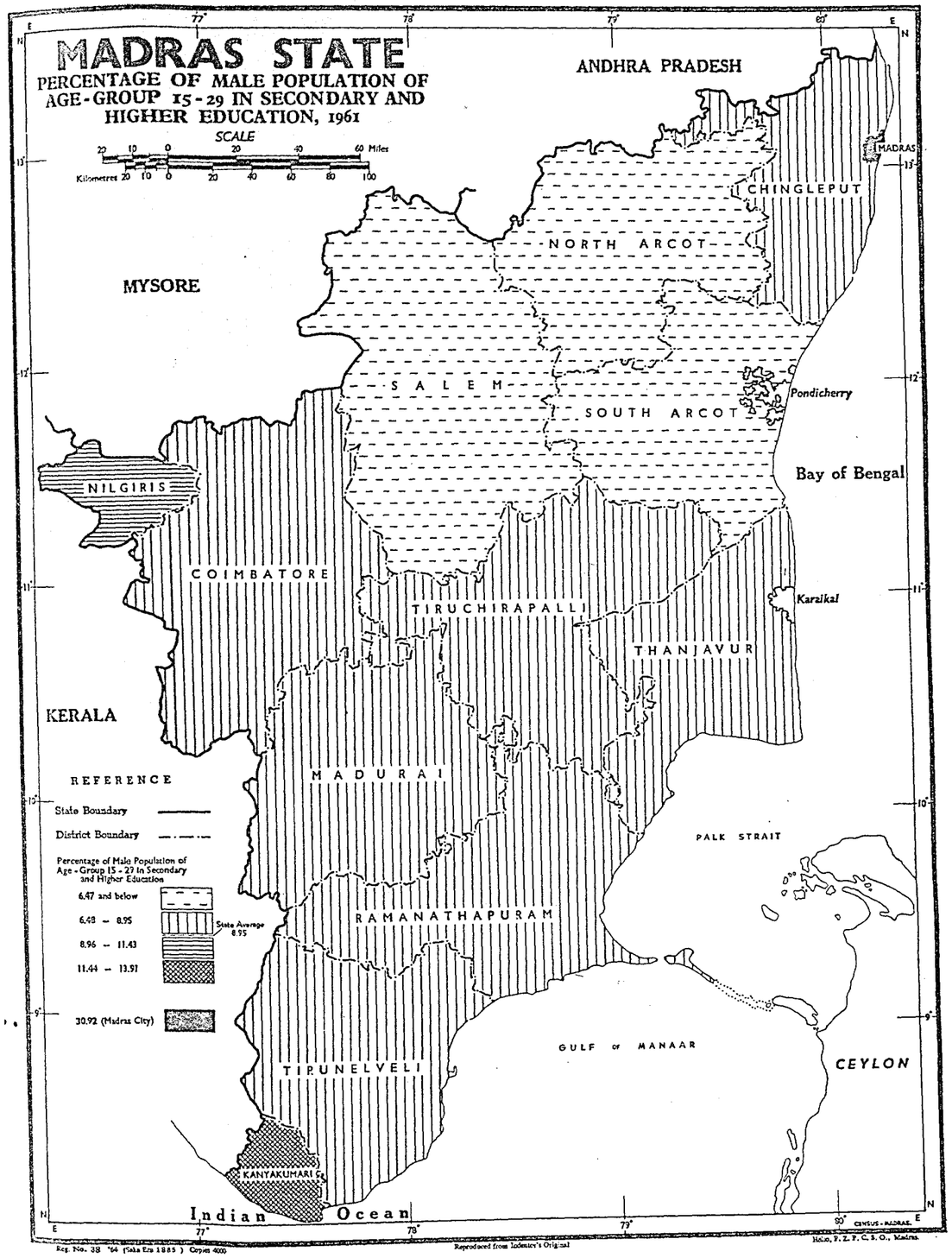
Ten districts have recorded percentage below the State average. Only three districts, in the three corners of the State—Nilgiris, Kanyakumari and Madras have recorded percentages above the State average.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	8.95
1.	Madras	30.92
2.	Kanyakumari	13.59
3.	Nilgiris	11.43
4.	Coimbatore	8.64
5.	Madurai	8.40
6.	Tirunelveli	8.36
7.	Chingleput	8.26
8.	Ramanathapuram	8.11
9.	Tiruchirapalli	7.71
10.	Thanjavur	7.40
11.	North Arcot	5.77
12.	South Arcot	5.71
13.	Salem	4.87

SOURCE

Census of India, 1961, Madras State—Part II-C Cultural Tables.



MAP 140

PERCENTAGE OF FEMALE POPULATION OF AGE GROUP 15-29 IN SECONDARY AND HIGHER EDUCATION 1961

MAP 140

PERCENTAGE OF FEMALE POPULATION OF AGE GROUP 15-29 IN SECONDARY AND HIGHER EDUCATION

1961

PURPOSE

The degree of higher education among females of the age group 15-29 is presented in this map in terms of percentage of females of this age group who have passed secondary or higher education.

METHOD

The percentages have been grouped into five ranges and districts have been hatched from high to low.

SALIENT FEATURES

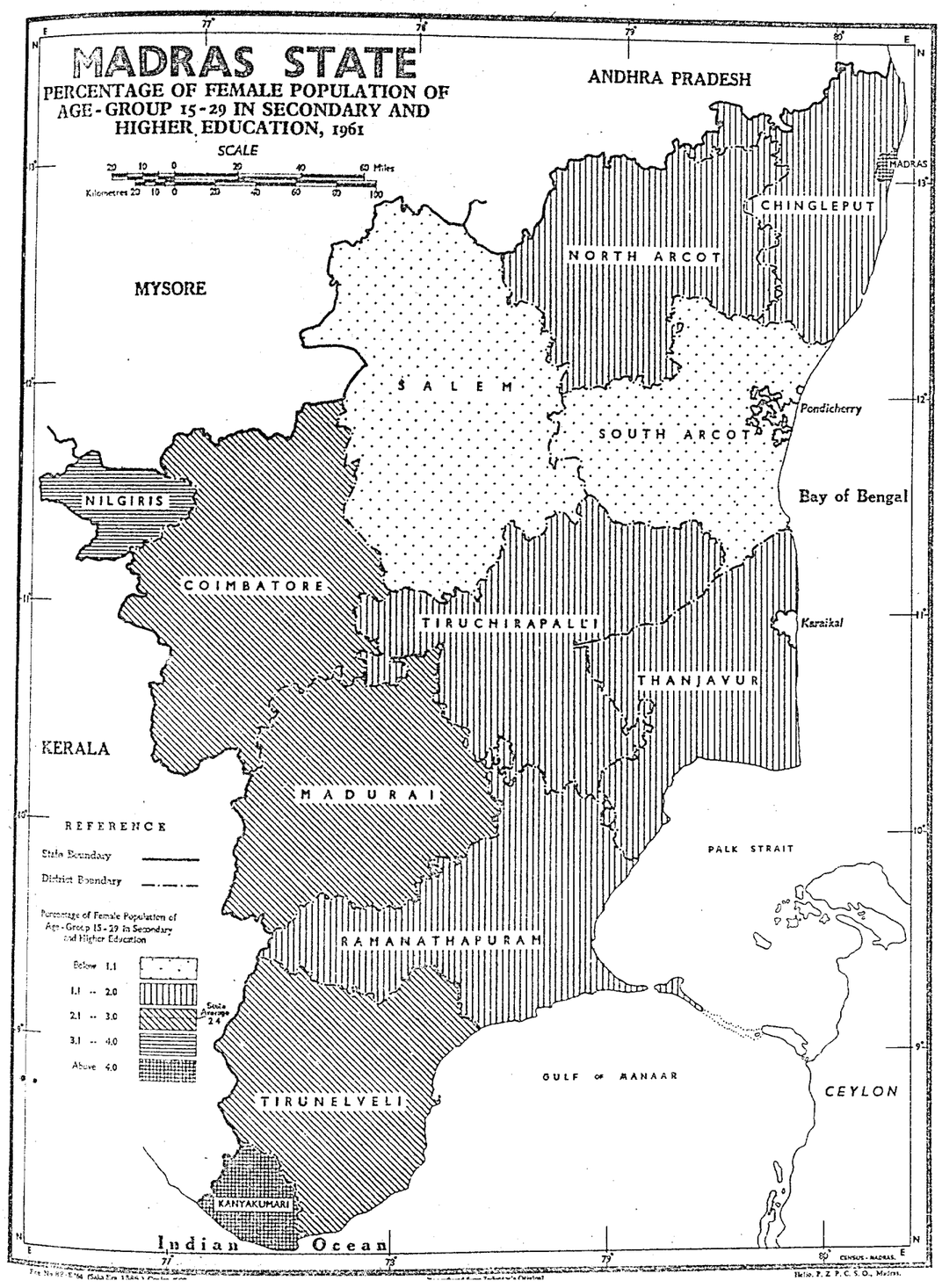
While nearly 9% of males of this age group have passed matriculation or higher education, among females only 2.4% have passed matriculation or higher education. The percentage in ten districts varies only between 0.8 and 2.3 while in the other three districts the variation is very wide ranging between 3.3% in Nilgiris district and 12.9% in Madras City which is the highest for the State. Kanyakumari district has recorded 6.2%. The pattern of distribution is thus similar for both males and females with the exception that while Salem has the lowest percentage among males, South Arcot records the lowest among females.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	2.40
1.	Madras	12.88
2.	Kanyakumari	6.24
3.	Nilgiris	3.29
4.	Coimbatore	2.34
5.	Madurai	2.16
6.	Tirunelveli	2.15
7.	Tiruchirapalli	1.81
8.	Chingleput	1.75
9.	Ramanathapuram	1.57
10.	Thanjavur	1.55
11.	North Arcot	1.22
12.	Salem	0.93
13.	South Arcot	0.80

SOURCE

Census of India, 1961, Madras State—Part II-C (i), Cultural Tables.



MAP 141

PERCENTAGE OF ADULT LITERATE TO THE TOTAL

ADULT POPULATION 1961

MAP 141

PERCENTAGE OF ADULT LITERATE TO TOTAL ADULT POPULATION

PURPOSE

This map shows the percentage of literacy judged only with reference to adult population. Adult population refers to persons aged above 15.

METHOD

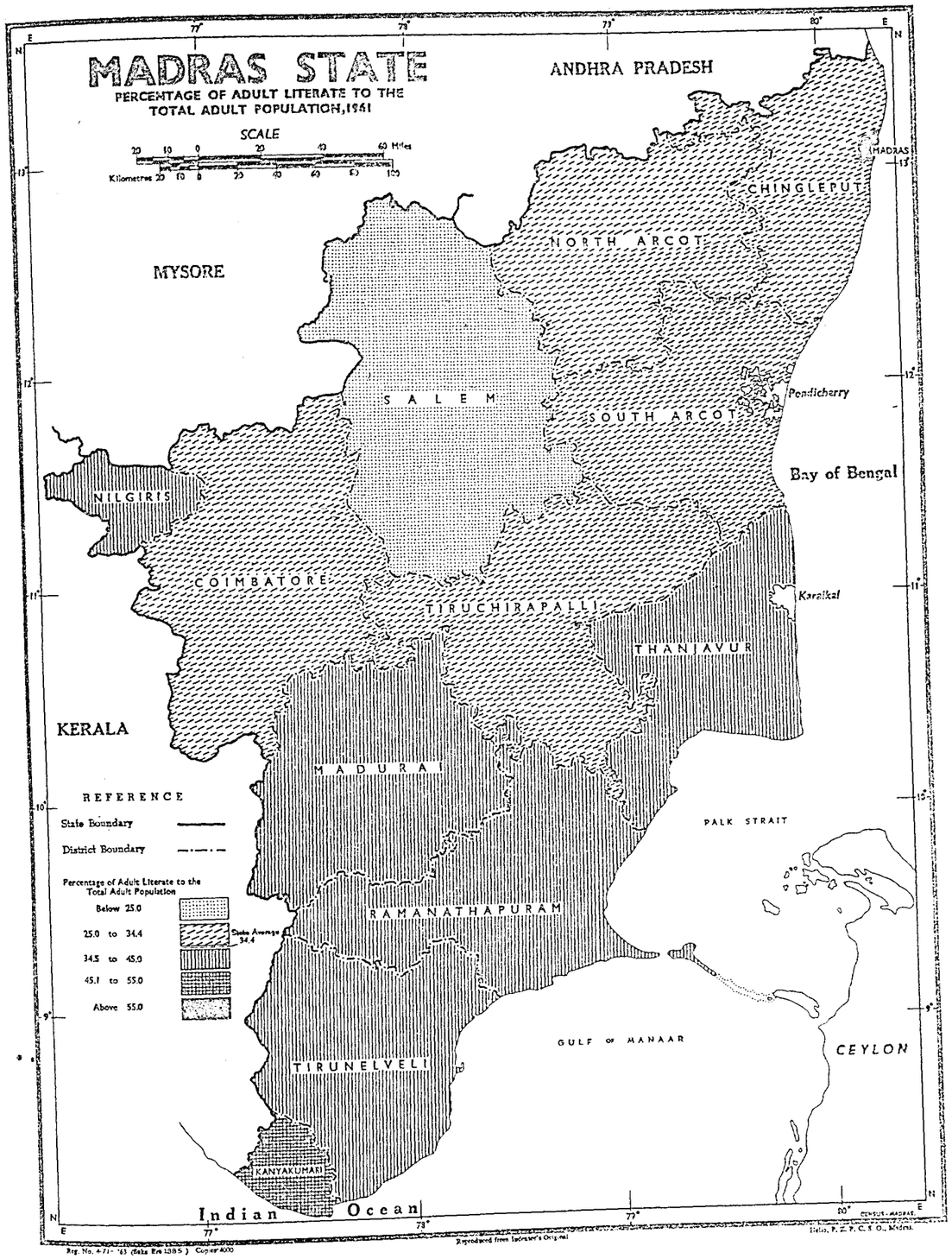
The percentage of literates among adult population has been calculated for each district and districts have been hatched by five grades of hatching—three to represent districts with values above the State average and two to represent districts with values less than the State average.

SALIENT FEATURES

In Madras State 34.4% of adult population are literates. Madras City leads the State with highest percentage of adult literates and Kanyakumari ranks second. Salem district is very poor, recording the lowest percentage of literacy. Five districts—Chingleput, North Arcot, South Arcot, Coimbatore and Tiruchirapalli have registered percentages below the State average. Madurai, Thanjavur, Ramanathapuram and Tirunelveli districts have recorded percentages above the State average. Therefore with the exception of Madras and Nilgiris all the northern districts have poorer literacy percentage than southern districts.

SOURCE

Census of India, 1961, Madras State—Part II-C (1), Cultural Tables.



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MAP 142

PERCENTAGE OF MALE ADULT LITERATE TO THE TOTAL MALE ADULT POPULATION 1961

MAP 142

PERCENTAGE OF MALE ADULT LITERATE TO THE TOTAL MALE ADULT POPULATION 1961.

PURPOSE

This map shows the districtwise percentage of literacy among adult male population.

METHOD

Adult population refers to persons above 15 years. The data have been grouped into five categories three above and two below the state average. The districts have then been shaded in five grades of hatching ranging from high to low.

SALIENT FEATURES

In Madras State, 51.9% of adult males are literates and the highest percentage is 80.1 in Madras City and the lowest is 33.3% in Salem District. Next to Madras City, Kanyakumari distirct records a high percentage. (63.6)

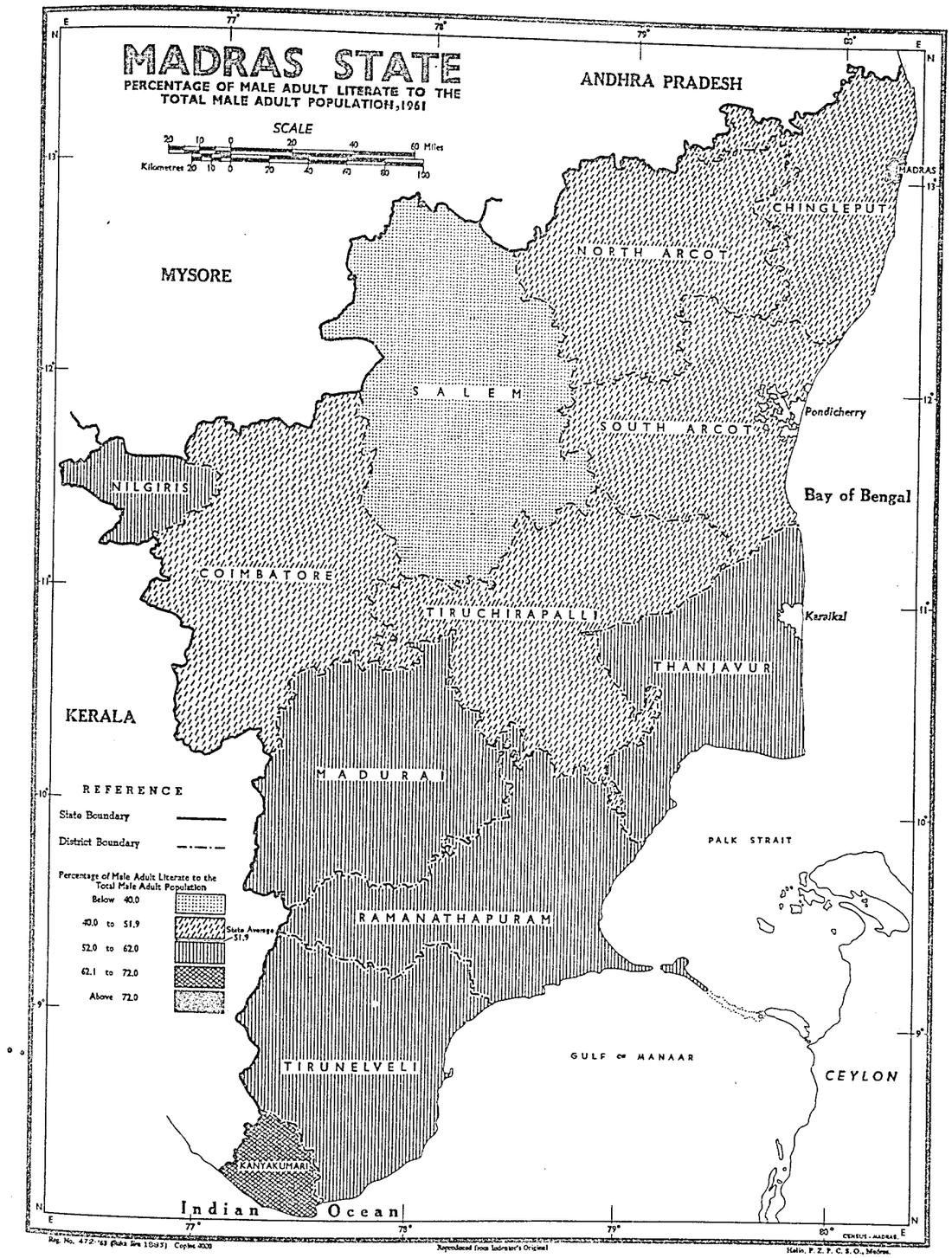
Districts with percentages below the state average form a distinct contiguous sector comprising of five districts–Chingleput. North Arcot, South Arcot, Tiruchirapalli and Coimbatore. Four distircts with percentage above the state average form yet another distinct contiguous block composed of Thanjavur, Madurai, Ramanathapuram and Tirunelveli.

TABLE

Rank	District	Percentage of adult literate
	MADRAS STATE	51.9
1.	Madras	80.1
2.	Kanyakumari	63.6
3.	Tirunelveli	59.9
4.	Nilgiris	58.4
5.	Thanjavur	57.5
6.	Ramanathapuram	57.2
7.	Madurai	56.3
8.	Tiruchirapalli	50.7
9.	Coimbatore	49.5
10.	Chingleput	47.3
11.	South Arcot	45.9
12.	North Arcot	45.3
13.	Salem	33.3

SOURCE

Census of India, 1961, Madras State—Part II-C Social and Cultural Tables.



MAP 143

PERCENTAGE OF FEMALE ADULT LITERATE TO THE TOTAL FEMALE ADULT POPULATION 1961

MAP 143

PERCENTAGE OF FEMALE ADULT LITERATE TO THE TOTAL FEMALE ADULT POPULATION 1961.

PURPOSE

This map shows the literacy percentage among adult females in Madras State.

METHOD

The data have been grouped into five ranges. The districts have been hatched in four shades ranging from high to low.

SALIENT FEATURES

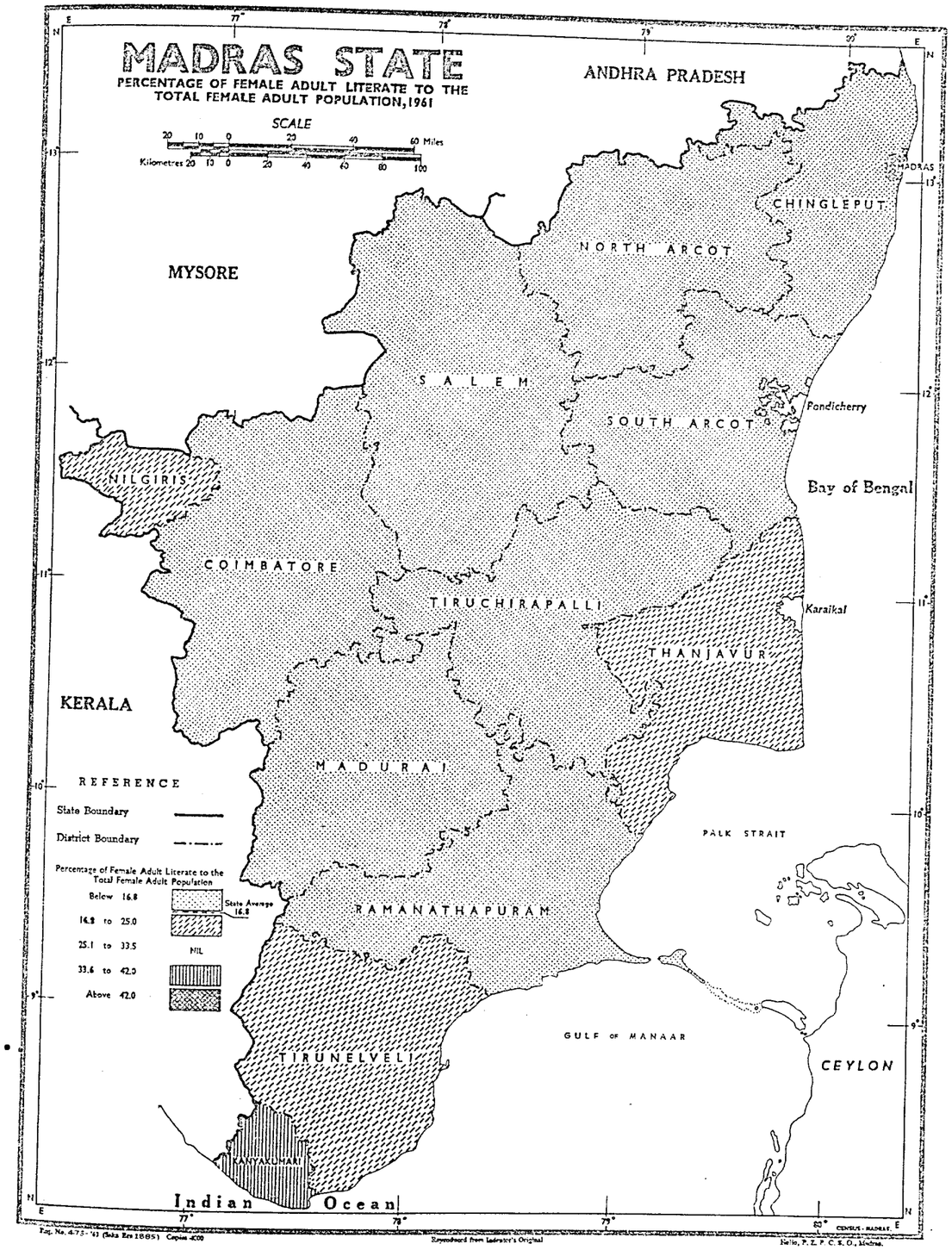
In Madras State, 16.8% of female adult population are literates. The highest literacy is recorded in Madras City where 50.3% of female adults are literates. The lowest literacy is 8.4% in Salem district. Five districts have recorded literacy above the state average and they are Nilgiris, Tirunelveli, Thanjavur, Kanyakumari and Madras City. Thus these districts which are spread out in the four corners of the state have high literacy rate. All the eight districts with literacy lower than the state average are geographically contiguous.

TABLE

Rank	District	Percentage
	MADRAS STATE	16.8
1.	Madras	50.3
2.	Kanyakumari	39.8
3.	Tirunelveli,	23.0
4.	Nilgiris	21.2
5.	Thanjavur	17.3
6.	Madurai	16.2
7.	Coimbatore	14.9
8.	Ramanathapuram	14.6
9.	Chingleput	14.4
10.	Tiruchirapalli	13.5
11.	North Arcot	11.6
12.	South Arcot	9.9
13.	Salem	8.4

SOURCE

Census of India, 1961, Madras State—Part II-B General Economic Tables.



MAP 144

NUMBER OF TEACHERS PER 1,000 STUDENTS AT THE PRIMARY LEVEL OF EDUCATION 1961

MAP 144

NUMBER OF TEACHERS PER 1,000 STUDENTS AT THE PRIMARY LEVEL OF EDUCATION 1961

PURPOSE

The teacher—student ratio at the primary level of education is indicated in this map.

METHOD

The proportion of teachers per 1000 students in each district has been worked out and four ranges have been adopted and districts have accordingly been hatched from high to low. The data regarding teachers has been compiled from Table B-V indicating occupational classification. Occupational Family 052—Primary school teachers of the National Classification of Occupation has been taken in to account and the number of students has been obtained from Education and Public Health Department.

SALIENT FEATURES

There are only 24 teachers per 1000 students at the primary level of education in Madras State. Therefore every teacher has to attend to forty students and the position is better in Nilgiris district where a teacher has to look after 30 students. Madras City ranks second with 31 teachers per 1000 students or about 32 students per teacher. The position is rather bad in Ramanathapuram district because a teacher has to look after 56 students, the ratio being only 18 teachers per 1000 students.

However the pattern is uniform since there are six districts with proportion above the State average and seven districts below the State average.

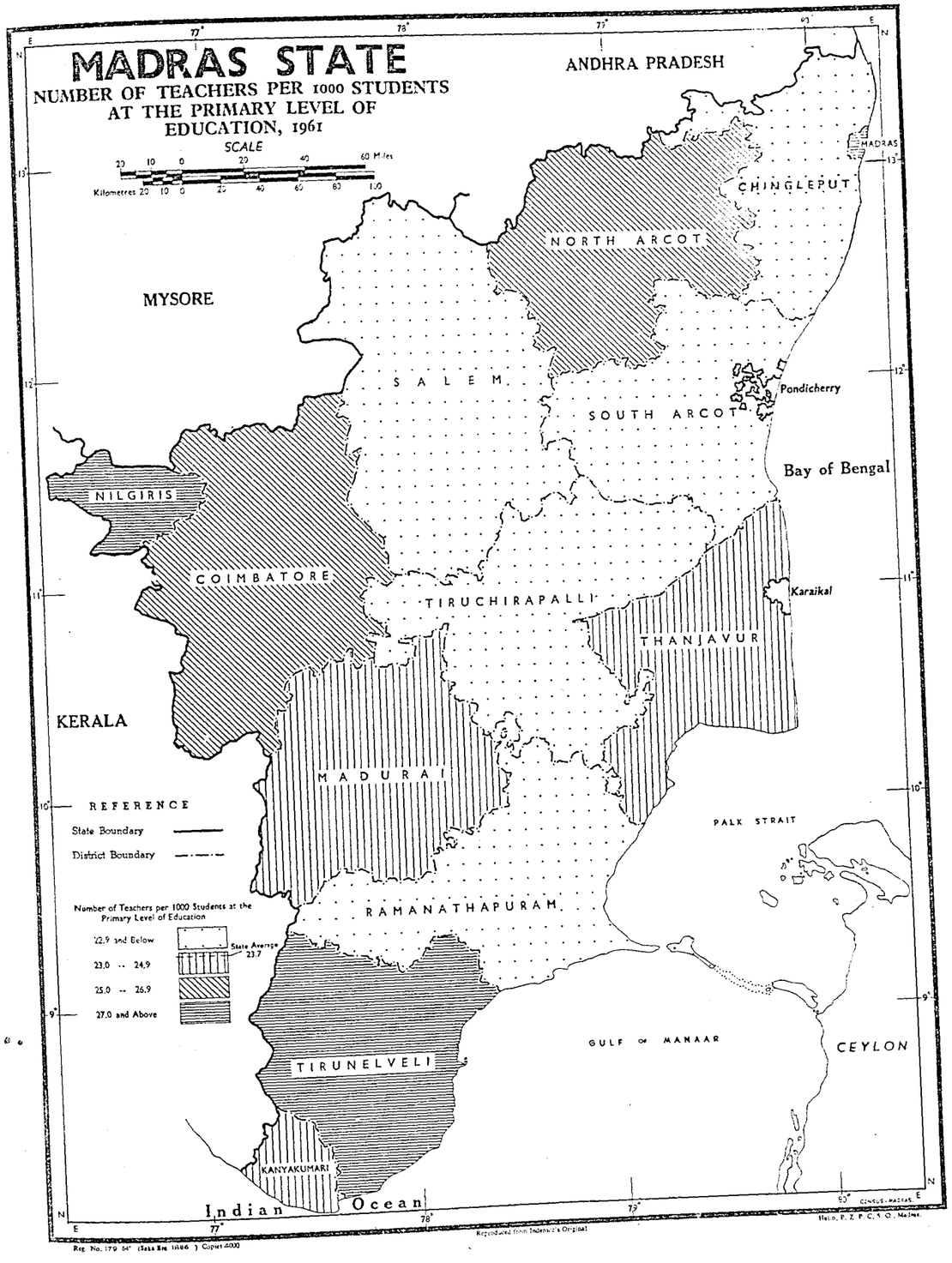
There is a continuous belt recording very low proportion comprising of Chingleput, South Arcot, Salem, Tiruchirapalli, Ramanathapuram, Madurai and Thanjavur districts with proportions below the State average. It is worth investigating whether low proportion of teachers is due to larger percentage of school enrolment without corresponding increase in number of teachers or whether there is any reluctuance to take up primary school teaching as a profession among better educated teachers. The position in university level of education is much better which is indicated in another map. In primary level of education that greater attention of students by teachers is necessary but it is missing, while at university level where self-reliance is more desirable, there is more attention paid to students by teachers.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	24
1.	Nilgiris	33
2.	Madras	31
3.	Tirunelveli	27
4.	Coimbatore	27
5.	North Arcot	26
6.	Kanyakumari	24
7.	Madurai	23
8.	Thanjavur	23
9.	Tiruchirapalli	23
10.	South Arcot	22
11.	Salem	22
12.	Chingleput	21
13.	Ramanathapuram	18

SOURCE

Census of India, 1961, Madras State—Part II-B (ii) General Economic Tables.



MAP 145

NUMBER OF TEACHERS PER 1,000 STUDENTS AT THE SECONDARY LEVEL OF EDUCATION

MAP 145

NUMBER OF TEACHERS PER 1,000 STUDENTS AT THE SECONDARY LEVEL OF EDUCATION

PURPOSE

The student teacher ratio at the secondary level of education is presented in this map.

METHOD

The proportion of teachers per 1,000 students at secondary level of education has been worked out for each district and four ranges have been adopted. The districts have accordingly been hatched from high to low. The data regarding teachers has been compiled from Table B-V indicating occupational classification and occupational family 051—of National Classification of Occupation has been taken into account.

SALIENT FEATURES

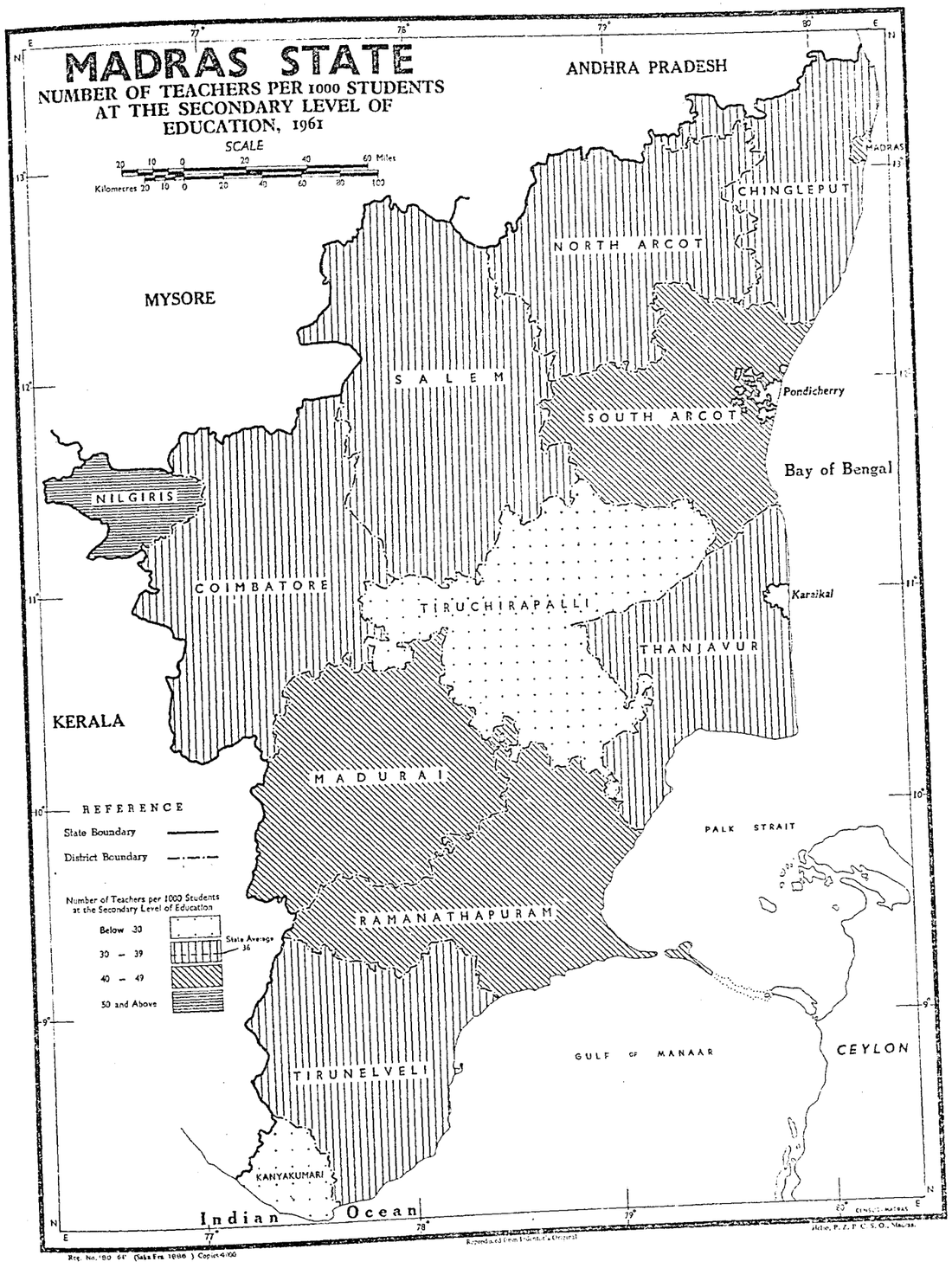
In Madras State, there are 36 teachers per 1,000 students at Secondary level of education. Thus, compared to previous map relating to primary education where there are only 24 teachers per 1,000 students, it is seen that proportion of teachers increases as level of education increases. This is possibly because, the number of students taking secondary education is less than the number of students taking primary education. As in the case of primary education, in this case also Nilgiris district leads the State with high proportion of teachers. There are 53 teachers per 1,000 students and thus a teacher has to concentrate only on about 19 students. On the other hand, in Kanyakumari district, the position is bad because the proportion of teachers is only 22 per 1,000 students resulting in a greater strain on teachers, who have to attend to 45 students. Therefore a student in Kanyakumari can hope to get only half the personal attention that a student of Nilgiris gets from his teacher. There are six districts wherein the proportion is higher than the State average. They are: Madurai, Madras, South Arcot, Nilgiris, Ramanathapuram and Tirunelveli districts. There is a continuous belt of low proportion of teachers in the northern portion of the State comprising of Chingleput, North Arcot, Salem and Coimbatore districts.

TABLE

Rank	State/District	Percentage
	MADRAS STATE	36
1.	Nilgiris	53
2.	Madras	45
3.	Madurai	42
4.	Ramathapuram	42
5.	South Arcot	40
6.	Tirunelveli	39
7.	Chingleput	36
8.	North Arcot	36
9.	Salem	35
10.	Coimbatore	35
11.	Thanjavur	34
12.	Tiruchirapalli	29
13.	Kanyakumari	22

SOURCE

Census of India, 1961, Madras State—Part II-B (ii) General Economic Tables.



MAP 146

NUMBER OF TEACHERS PER 1,000 STUDENTS AT THE UNIVERSITY LEVEL OF EDUCATION

MAP 146

NUMBER OF TEACHERS PER 1,000 STUDENTS AT THE UNIVERSITY LEVEL OF EDUCATION

PURPOSE

The teacher-pupil ratio at the University level is indicated in this map.

METHOD

The number of teachers per 1,000 students has been calculated for all the districts and the proportions have been classified into four ranges and the districts have been shaded in four grades of hatching.

SALIENT FEATURES

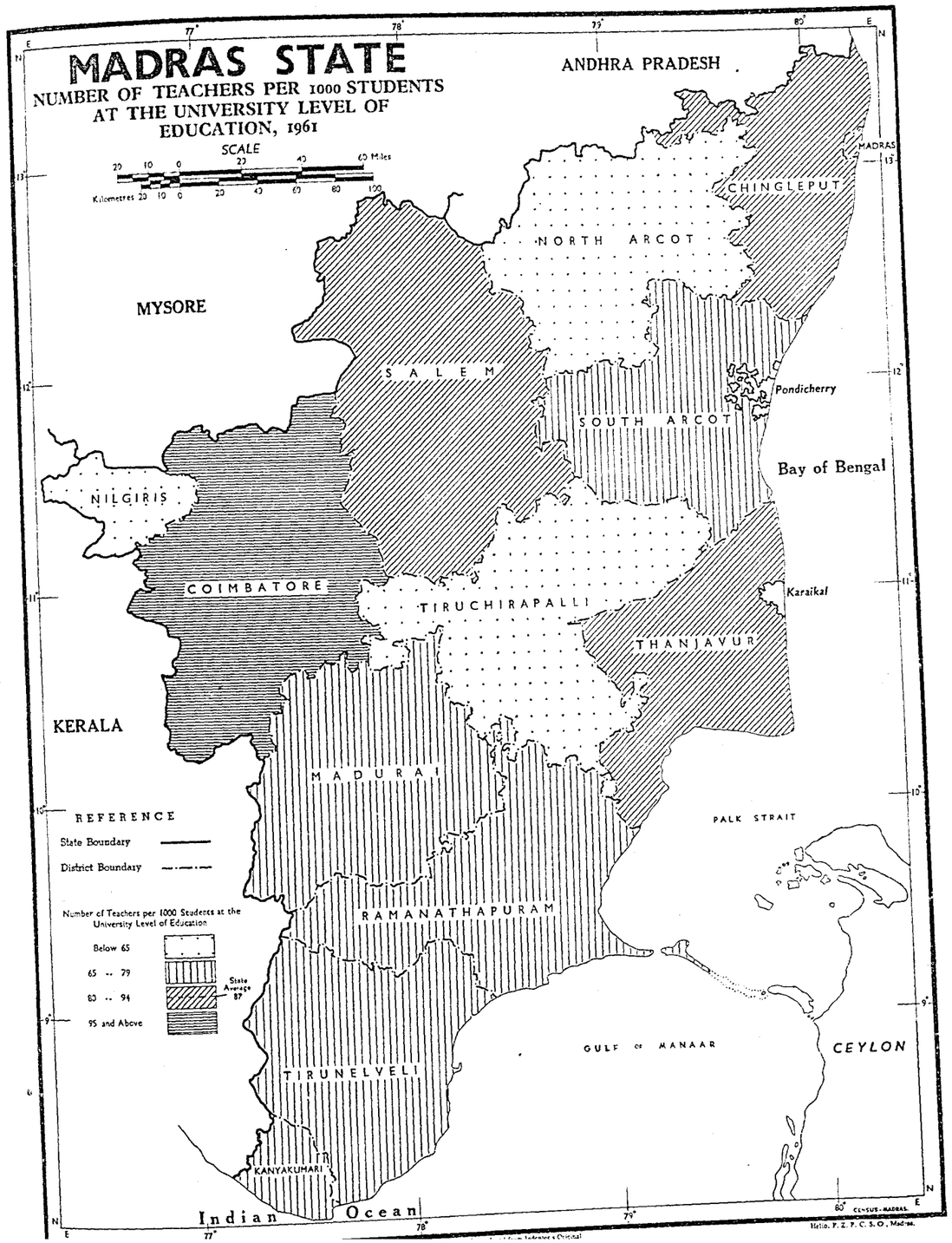
In Madras State there are 87 teachers per 1000 students at university level of education. Maximum number of teachers per 1000 students is 124 in Coimbatore district and the minimum number is 45 in the adjoining district of Nilgiris. Only in four districts, the proportion is above the State average. The four districts are: Madras, Chingleput, Thanjavur and Coimbatore. The four contiguous southern districts—Madurai, Ramanathapuram, Tirunelveli and Kanyakumari belong to one category recording proportions varying between 65—79. North Arcot, Tiruchirapalli and Nilgiris are the three districts with very low proportion of below 65 teachers per 1000 students.

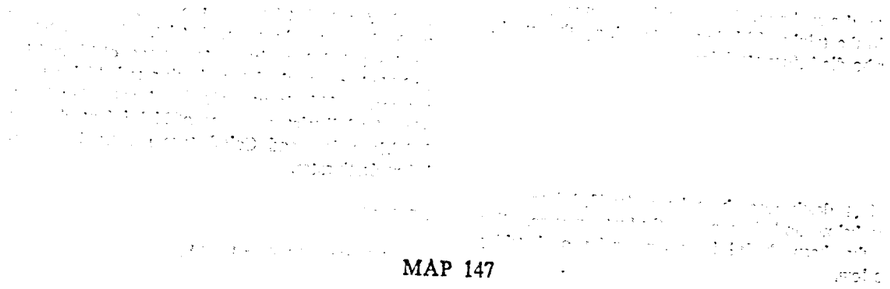
TABLE

Rank	State/District	Proportion
	MADRAS STATE	87
1.	Coimbatore	124
2.	Madras	94
3.	Thanjavur	89
4.	Chingleput	87
5.	Salem	83
6.	Ramanathapuram	77
7.	South Arcot	76
8.	Kanyakumari	70
9.	Madurai	69
10.	Tirunelveli	67
11.	North Arcot	63
12.	Tiruchirapalli	62
13.	Nilgiris	45

SOURCE

Census of India, 1961, Madras State—Part II-B (ii) General Economic Tables and District Census Handbooks.





MAP 147

INFANT DEATH RATE 1961

MAP 147

INFANT DEATH RATE

1961

PURPOSE

This map shows the number of infant deaths per 1000 total births in the taluks of Madras State. i. e., the number of children who die before attaining age one.

METHOD

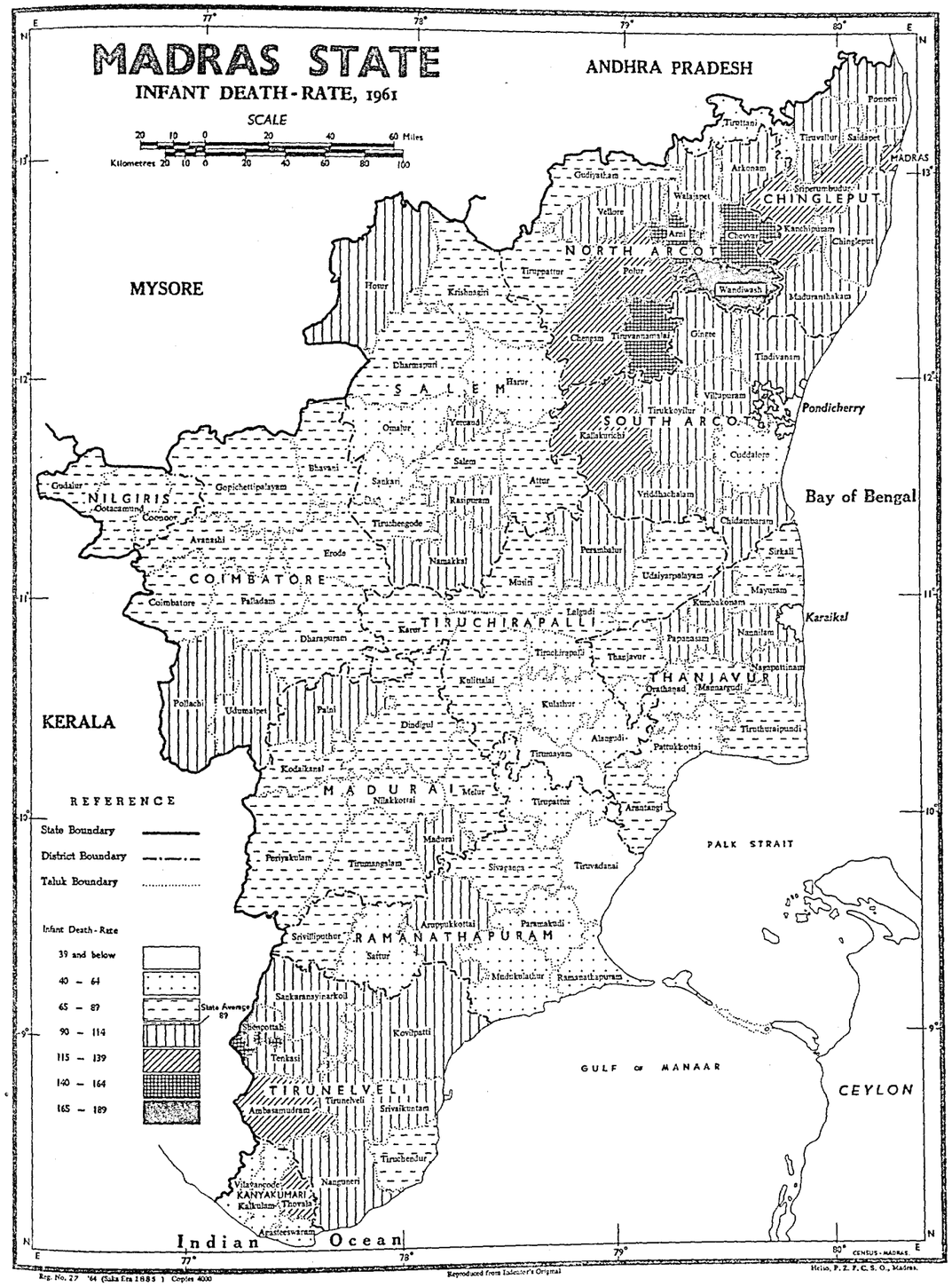
The infant death rates have been classified into seven ranges—three below and four above the State average. The taluks have then been shaded by seven grades of hatching from high to low.

SALIENT FEATURES

The infant death rate in Madras State is 89 and the highest infant death rate is 172 in Wandiwash taluk of North Arcot district and the lowest is 38 in Tiruvadanai taluk of Ramanathapuram district. In 57 taluks the infant death rate is below the State average of 89 and in 46 taluks and Madras City the infant death rate is higher than the State average. Chingleput, North Arcot, South Arcot and Tirunelveli districts are areas of high infant death rates while Nilgiris, Salem and Coimbatore possess large areas of low infant death rates.

SOURCE

Director of Public Health.



MAP 148

MATERNAL DEATH RATE

MAP 148

MATERNAL DEATH RATE

PURPOSE

This map shows the number of maternal deaths per 1000 of live and still births in the taluks of Madras State during 1961.

METHOD

The maternal death rates have been classified into four ranges-two above and two below the State average and the taluks have been hatched by four grades of hatching.

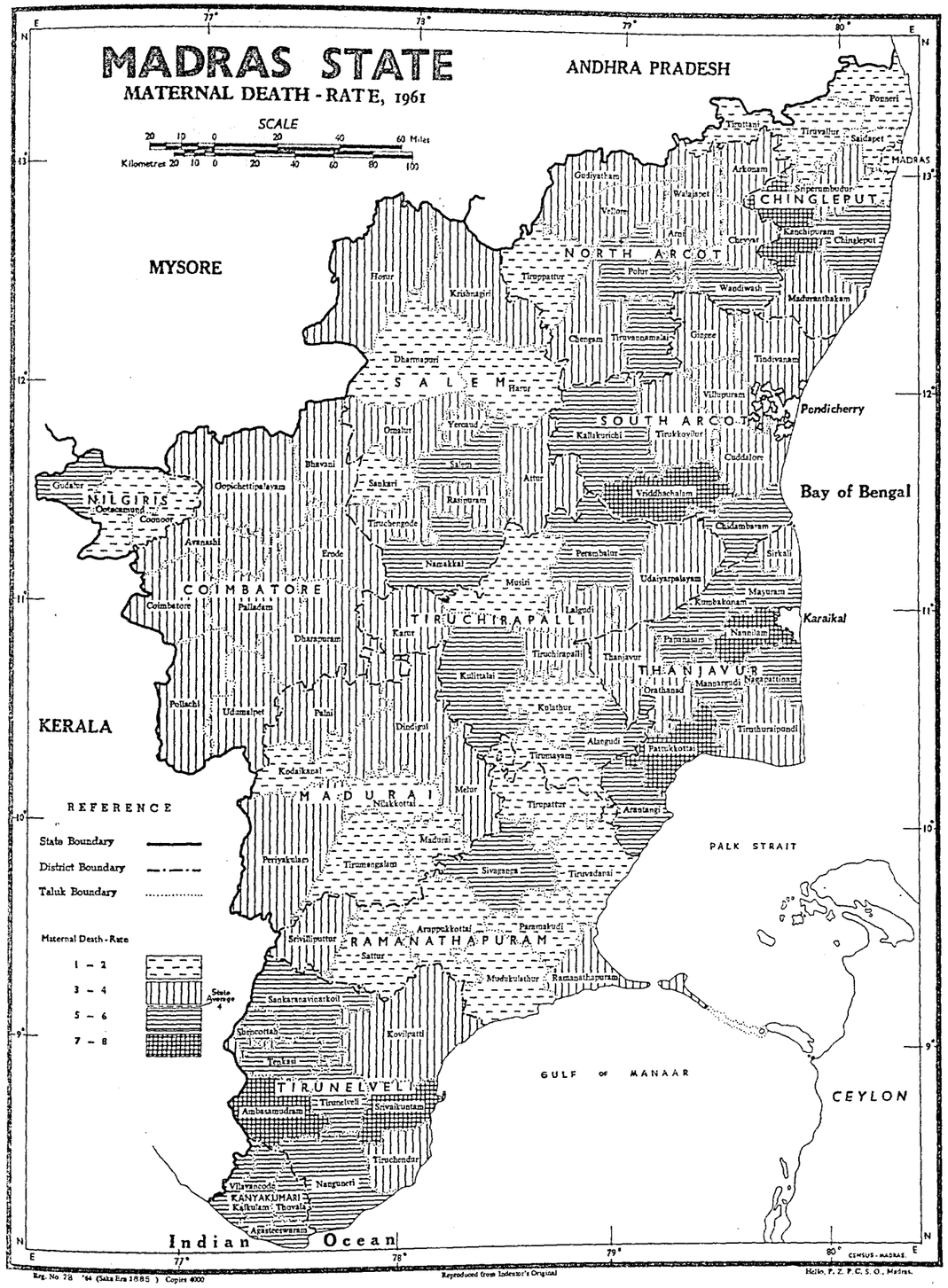
SALIENT FEATURES

There are four maternal deaths per 1000 births in Madras State and the highest death rate is 8 in Kancheepuram, Srivaikuntam and Ambasamudram taluks. The lowest death rate is one in Madras City, Nilakottai, Paramakudi, Tirumangalam and Sattur taluks.

In 70 out of 103 taluks the death rate is below the State average of 4 and only in 33 taluks the death rate is above the State average. The areas of high death rate are concentrated in Thanjavur and Tirunelveli districts and the entire Kanyakumari district records high maternal death rate.

SOURCE

Director of Public Health, Madras.



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MAP 149

STILL BIRTH RATE

MAP 149

STILL BIRTH RATE

PURPOSE

This map shows the wastage of pregnancy as revealed by the number of still births per 1000 of total live and still births in the taluks of Madras State.

METHOD

The still birth rates have been grouped into six ranges—four above and two below the State average. The taluks have been shaded by six grades of hatching ranging from high to low.

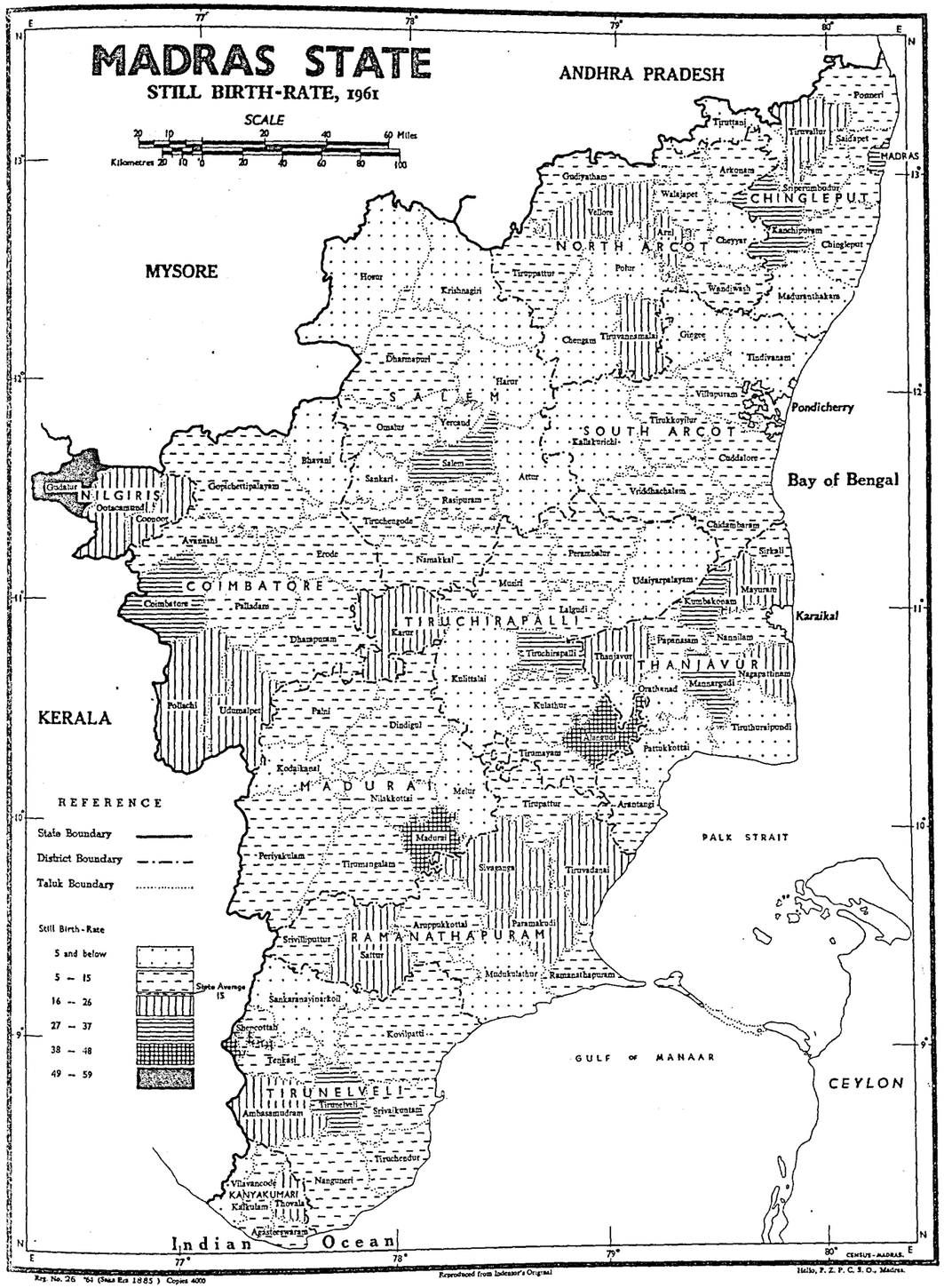
SALIENT FEATURES

The still birth rate in Madras State is 15 and it varies between insignificant figure of less than one in Yercaud taluk of Salem district and a very high rate of 53 in Gudalur taluk of Nilgiris district.

In 74 out of 103 taluks, the still birth rate is below the State average of 15 and in 29 taluks the rate is higher than 15. Only in South Arcot all the taluks have recorded rate below the State average and in all the other districts there is at least one taluk with high rate. In Thanjavur district there are five taluks of high rate and in Nilgiris district all the three taluks have high rates. Madurai, Shencottah and Alangudi Taluks have recorded more than 38 still births per 1000 births. In Madras city the rate is 29.

SOURCE

Director of Public Health, Madras.



MAP 150

NUMBER OF MEDICAL INSTITUTES

PER, 10,000 CENSUS HOUSES 1961

MAP 150

NUMBER OF MEDICAL INSTITUTES PER 10,000 CENSUS HOUSES 1961

PURPOSE

The number of census houses used as Public Health, and Medical Institutions, hospitals, health centres, doctor's clinics and dispensaries etc. per 10,000 total census houses has been presented in this map. The information was tabulated from the houselisting conducted in October 1960.

METHOD

The talukwise proportion has been shown in this map. The proportions have been grouped into five ranges—four below and one above the State average and taluks have been shaded by five grades of hatching.

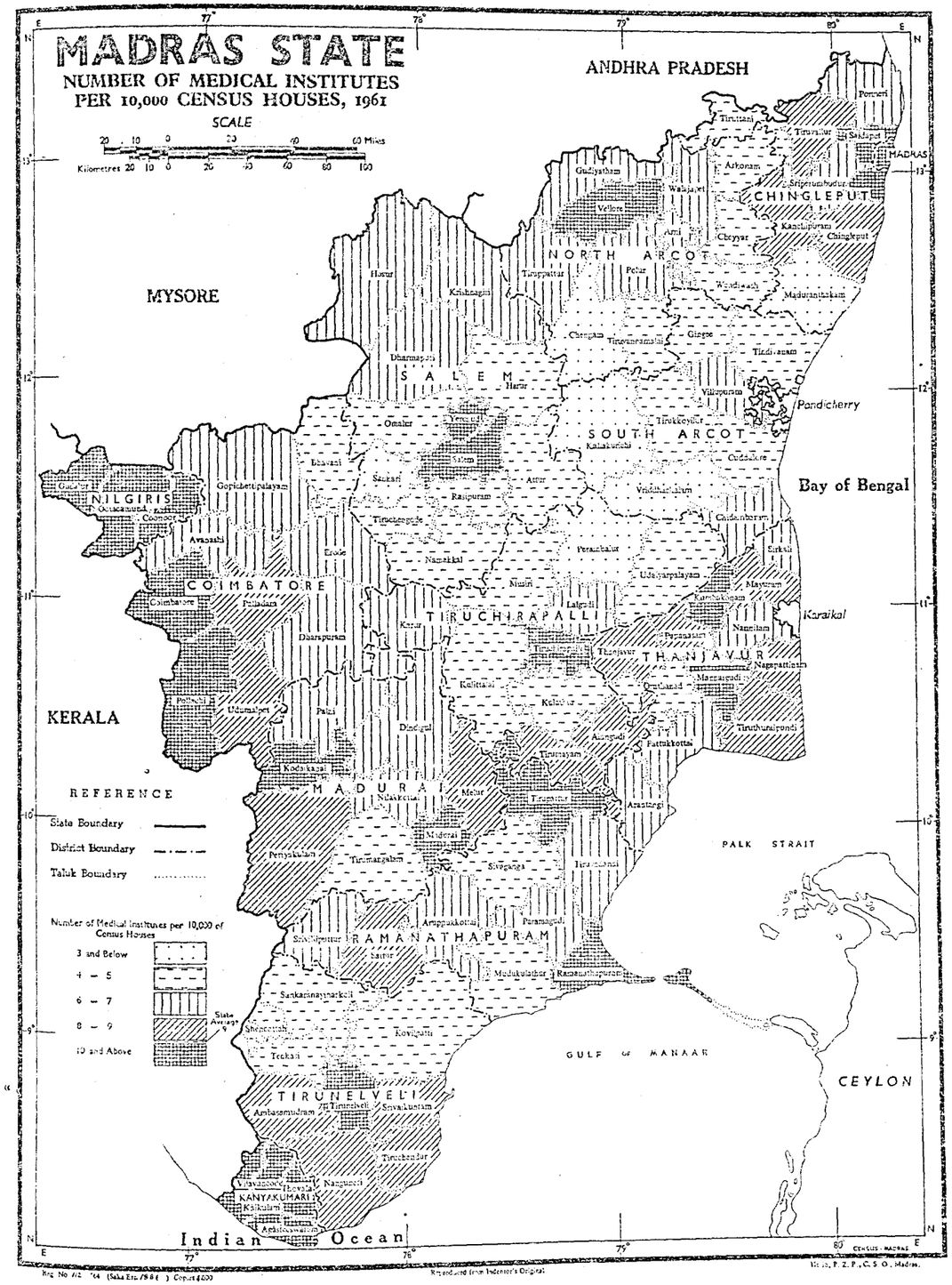
SALIENT FEATURES

In Madras State, nine out of 10,000 census houses are used as hospitals or clinics or dispensaries or health centres. The highest proportion is 30 in Coonoor taluk and the lowest is 2 in Madurantakam and Sankari taluks. Twenty two taluks have recorded proportions above 10. Entire portions of Nilgiris and Kanyakumari districts come under this range of 'above 10'. No taluk of South Arcot district is represented in this range. The headquarters of all the districts except Thanjavur record high proportion of 'above 10' and in Thanjavur district, Kumbakonam taluk has recorded 15.

Ten taluks have recorded 9 medical institutes per 10,000 census houses and out of these 10, three are in Chingleput district, 3 in Thanjavur district, 2 in Madurai district and one each in Coimbatore and Tirunelveli districts. The taluks with low proportion of houses used for medical purposes are concentrated almost near the centre of the State. This is specially noticed because Nilgiris district, Coimbatore and Pollachi taluks in the western portion of the State have high proportions and the adjoining taluks have a slightly lower proportion of 8—9 and still further towards east, taluks of low proportions of less than 6 are located.

SOURCE

Census of India, 1961, Madras State—Part IV-B Housing and Establishment Tables.



MAP 151

NUMBER OF HOSPITAL BEDS PER 100,000 OF POPULATION 1961

MAP. 151

NUMBER OF HOSPITAL BEDS PER 100,000 OF POPULATION

1961

PURPOSE

This map shows the extent of hospital facilities available in each district. The number of hospital beds available in each district has been represented in terms of proportions per 100,000 of population.

METHOD

The proportions have been grouped in to four ranges and the districts have been shaded by four grades of hatching. The number of beds in State Public, Local Fund and Private Aided Hospitals and State special, and Railway hospitals have been taken into account.

SALIENT FEATURES

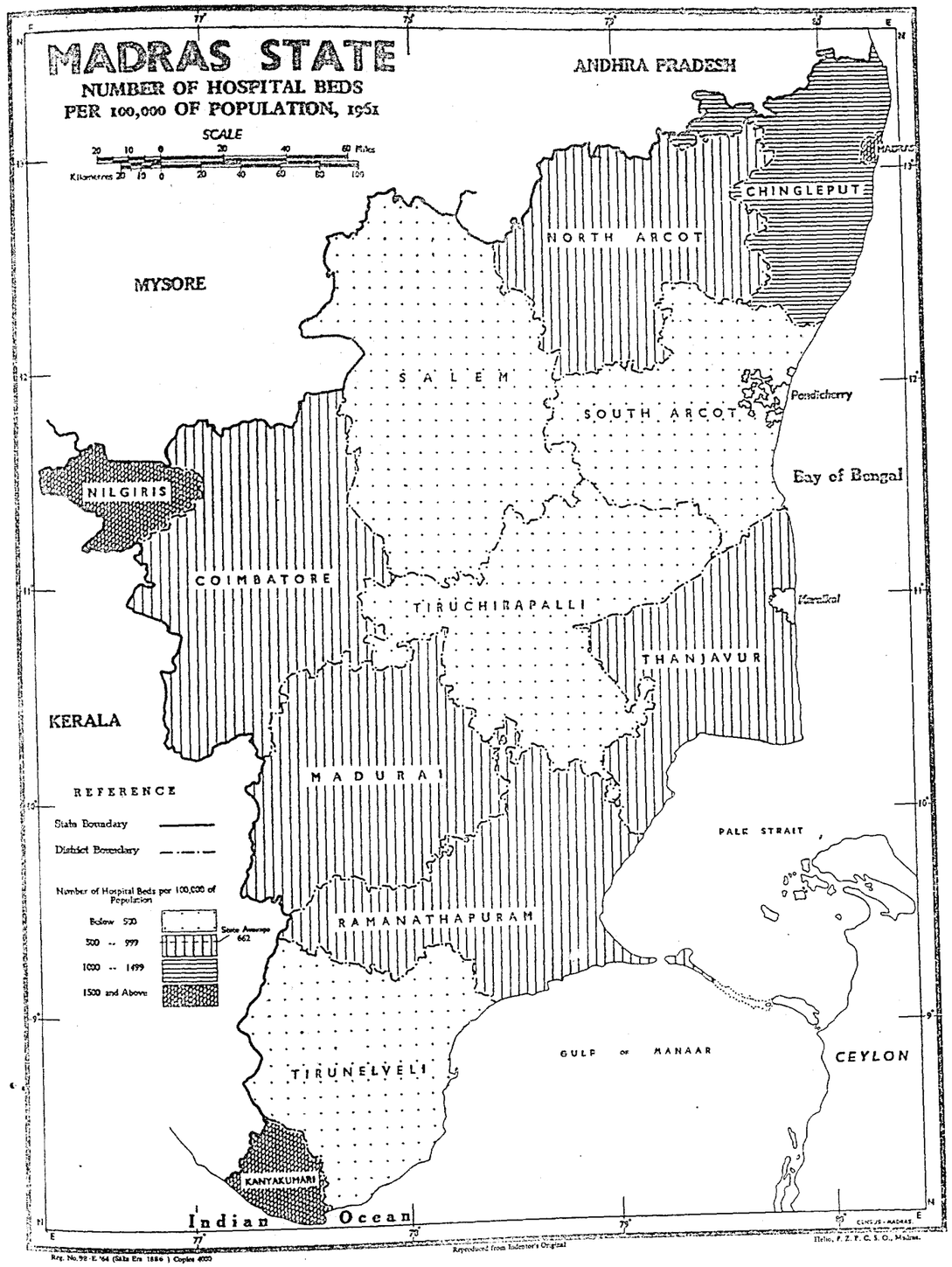
662 beds in hospitals are available per 100,000 of population in Madras State. Madras City leads the State with maximum number of beds. The number of beds available in Madras City is 2378 which is almost four times as high as the average for the State. South Arcot is poorly equipped since there are only 286 beds per 100,000 of population of the district. Only in five out of thirteen districts, is the proportion higher than the State average. It is interesting to note that South Arcot and Salem districts which have very low proportion of doctors also record very low proportion of hospital beds but in Nilgiris district proportion of beds available is very high (1720) while the number of doctors available is below the State average. Similarly in Chingleput district, there are more than 1000 beds per 100,000 population while the number of doctors is only 45, much below the State Average. Possibly, the location of some of the hospitals outside Madras City with residence of the doctors within the city has caused a low ratio of doctors and high ratio of beds in Chingleput district.

TABLE

Rank	State/District	Proportion
	MADRAS STATE	662
1.	Madras	2,378
2.	Nilgiris	1,720
3.	Kanyakumari	1,504
4.	Chingleput	1,017
5.	Thanjavur	733
6.	North Arcot	629
7.	Coimbatore	567
8.	Ramanathapuram	563
9.	Madurai	530
10.	Tirunelveli	451
11.	Tiruchirapalli	382
12.	South Arcot	286
13.	Salem	257

SOURCE

Annual Statistical Abstract for Madras State for 1960—61. Issued by the Director of Statistics, Madras.



MAP 152

NUMBER OF PHYSICIANS PER 100,000 OF POPULATION 1961

MAP 152

NUMBER OF PHYSICIANS PER 100,000 OF POPULATION

1961

PURPOSE

The availability of medical personnel is indicated in this map by presenting the number of physicians per 100,000 of population.

METHOD

The following categories of medical personnel classified according to National classification of occupation are included in this map.

Physicians and Surgeons	...	Allopathic
Physicians	...	Ayurvedic
Physicians	...	Homeopathic
Physicians	...	Others
Physiologist		
Dentist and		

Physicians, Surgeons, Dentists not elsewhere classified.

The proportions have been grouped into four categories and the districts have been shaded by different grades of hatching.

SALIENT FEATURES

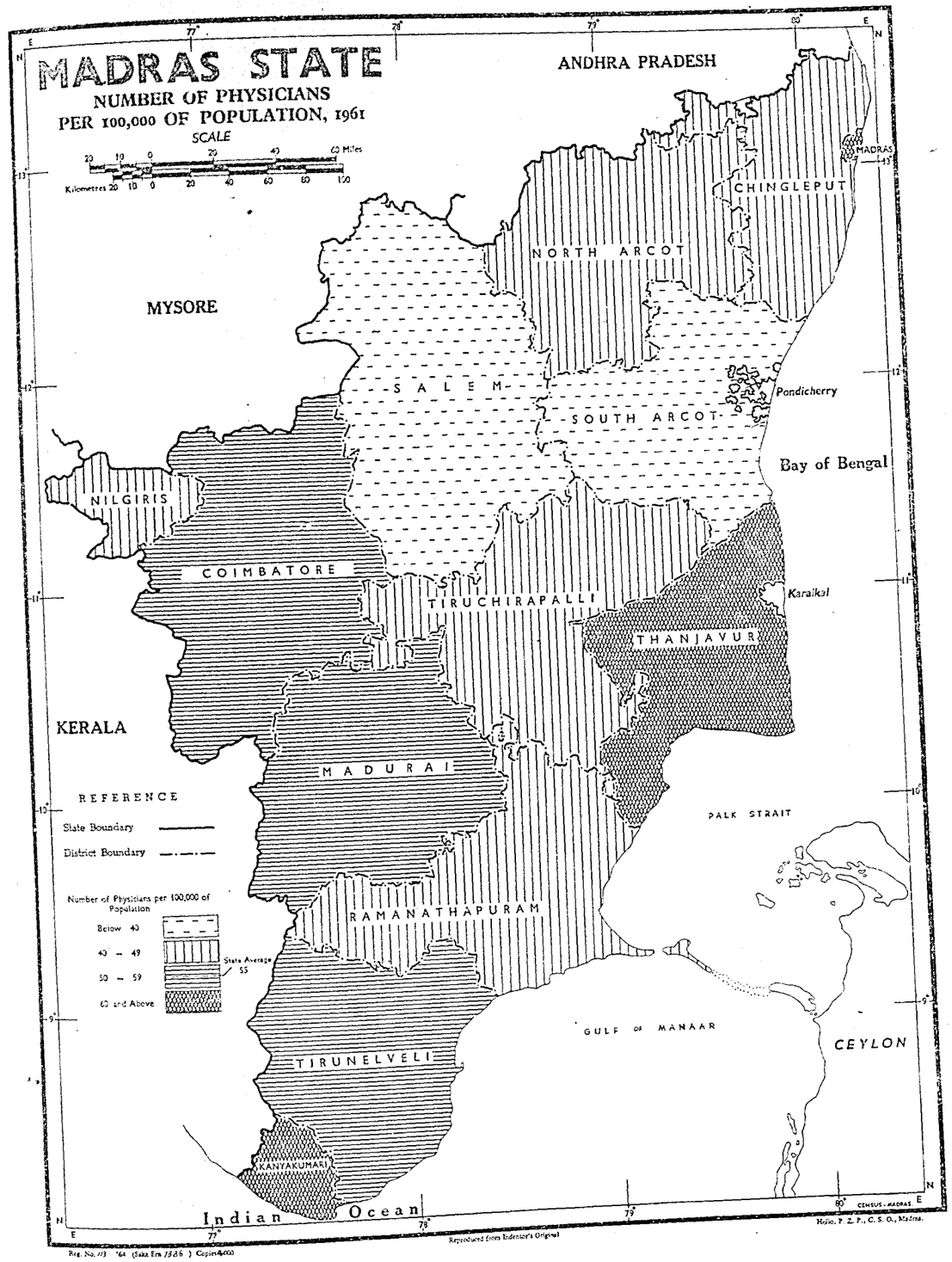
There are 55 physicians and others per 100,000 of population in Madras State and Madras City has the highest proportion of 135 and South Arcot district has the lowest proportion of 37. In as many as 9 districts, the proportion is lower than the State average and the four districts with proportions above 55 are: Tirunelveli, Madras, Thanjavur and Kanyakumari.

TABLE

Rank	State/District	Proportion
	MADRAS STATE	55
1.	Madras	135
2.	Kanyakumari	95
3.	Thanjavur	70
4.	Tirunelveli	55
5.	Madurai	54
6.	Coimbatore	50
7.	Tiruchirapalli	49
8.	Nilgiris	48
9.	North Arcot	48
10.	Ramanathapuram	47
11.	Chingleput	45
12.	Salem	38
13.	South Arcot	37

SOURCE

Census of India, 1961, Madr State—Part II-B General Economic Tables.



MAP 153

PERCENTAGE OF RURAL POPULATION LIVING IN VILLAGES CONTAINING 5 AND BELOW, 6—15, 16—25, 26—35, 36—50, 51—100 AND ABOVE 100 HOUSES 1961

MAP 153

PERCENTAGE OF RURAL POPULATION LIVING IN VILLAGES CONTAINING 5 AND BELOW, 6—15, 16—25, 26—35, 36—50, 51—100 AND ABOVE 100 HOUSES

1961

PURPOSE

This map indicates the percentage of rural population in relation to size of village in terms of number of houses. In other words, it indicates whether large number of people live in small villages or in large villages. The size of the village is in terms of number of houses.

METHOD

The villages are grouped according to number of houses in each. The number of houses in each villages has been classified in to :

(1) 5 and below
(2) 6 —15
(3) 16—25
(4) 26—35
(5) 36—50
(6) 51—100
(7) 100 and above.

The percentage of population residing in villages of each category to total district population has been calculated.

A histogram has been drawn for each district and bars proportionate to percentage population have been drawn.

SALIENT FEATURES

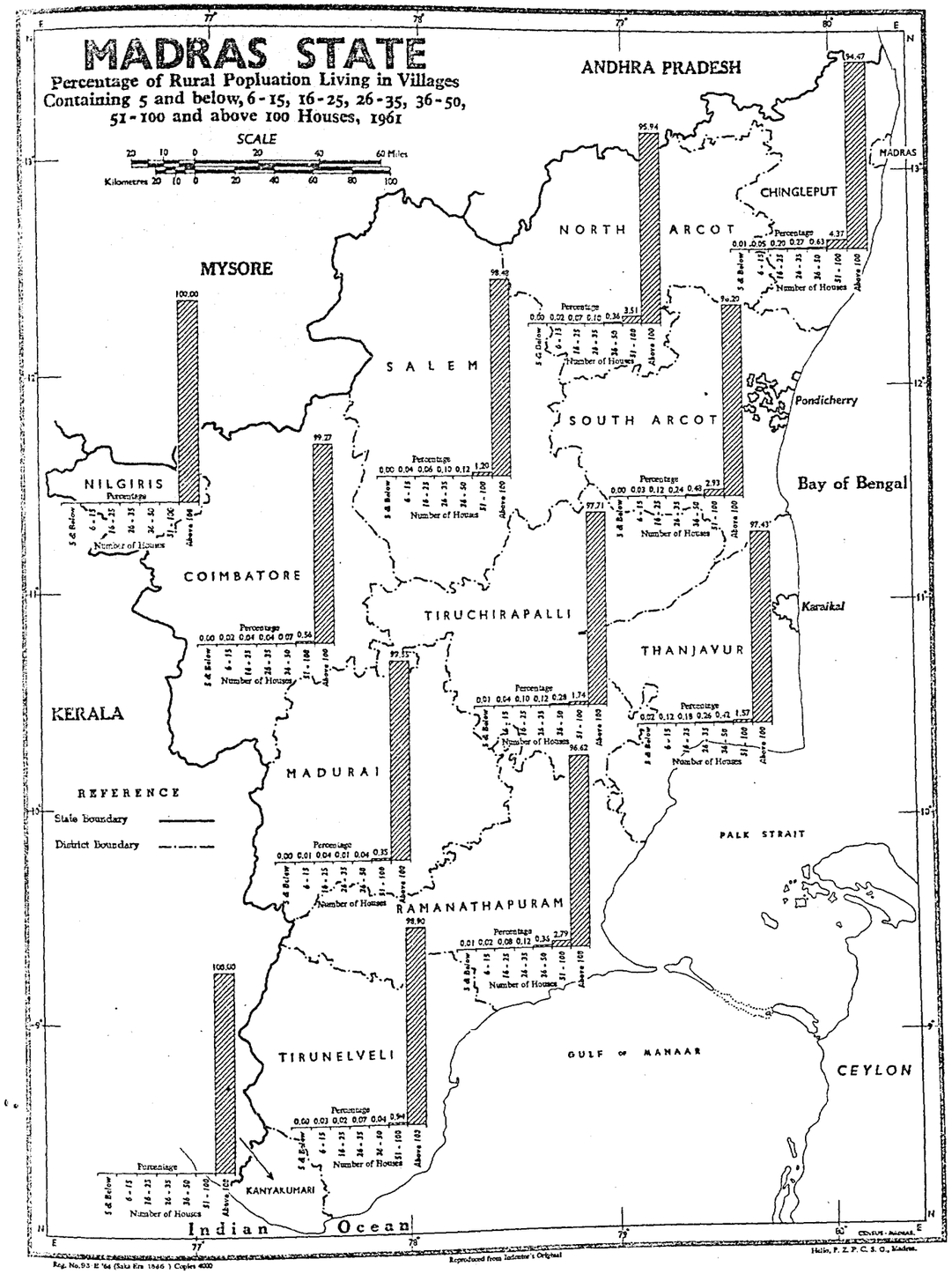
The map reveals that in all the districts the percentage of population, living in villages with over 100 houses, is above 90%. In Nilgiris and Kanyakumari districts the entire population live in villages each containing more than 100 houses. Therefore these two districts do not possess small villages. The percentage share of villages having less than 50 houses is less than one percent in all the districts except Chingleput and villages with 51—100 houses are fairly large in Chingleput district only. The percentage share of population of each of the different classes in Madras State is as follows.

5 and below :	0.01
6— 15	0.04
16— 25	0.09
26— 35	0.12
36— 50	0.26
51—100	1.84
Above 100	97.61
	100.00

Chingleput district records 4.37% of population in the category "51—100" and North Arcot district has 3.51% of population in this group.

SOURCE

Census of India, 1961, Madras State—District Census Handbooks.



MAP 154

PERCENTAGE OF HOUSEHOLDS OCCUPYING NO REGULAR ROOM, ONE ROOM, TWO ROOMS, THREE ROOMS AND MORE THAN THREE ROOMS 1961

MAP 154

PERCENTAGE OF HOUSEHOLDS OCCUPYING NO REGULAR ROOM, ONE ROOM, TWO ROOMS, THREE ROOMS AND MORE THAN THREE ROOMS

1961

PURPOSE

This map shows the districtwise distribution of the number of households occupying no regular room, one room, two rooms, three rooms and more than three rooms.

METHOD

The data have been presented in a rhombus which has been divided into small pockets each representing 4 percent. These pockets have been given symbols to represent different categories of rooms. The households have been classified into six categories :

1) Households with "no regular room" i.e. with no enclosed space to live

2) Households occupying one room

3) Households occupying two rooms

4) Households occupying three rooms

5) Households occupying more than three rooms

6) Households with rooms not stated.

The data are based on 20% sample of households recorded in houselist compiled in October, 1960.

SALIENT FEATURES

In Madras State, 3.79% of the total households have no regular room to live in. 65.58% live in one room, 18.67% in two rooms, 5.81% in three rooms and 4.74% occupy more than three rooms. The rest-1.41% of households—have not indicated the number of rooms occupied by them. Nilgiris district does not have any household under the category 'no regular room', This category is negligible (0.31%) in Madras City. The highest percentage is (11.64%) in South Arcot followed by Tiruchirapalli (10.55%).

Percentage of households living in one room, is highest in Thanjavur (81.19%) followed by Salem district (71.47%) and lowest in Kanyakumari district (34.21%).

Kanyakumari district however stands first by recording the highest percentage of households residing in two rooms (30.03%). The second highest is 26.11% recorded in Nilgiris district. The lowest percentage (11.29%) is in Thanjavur district.

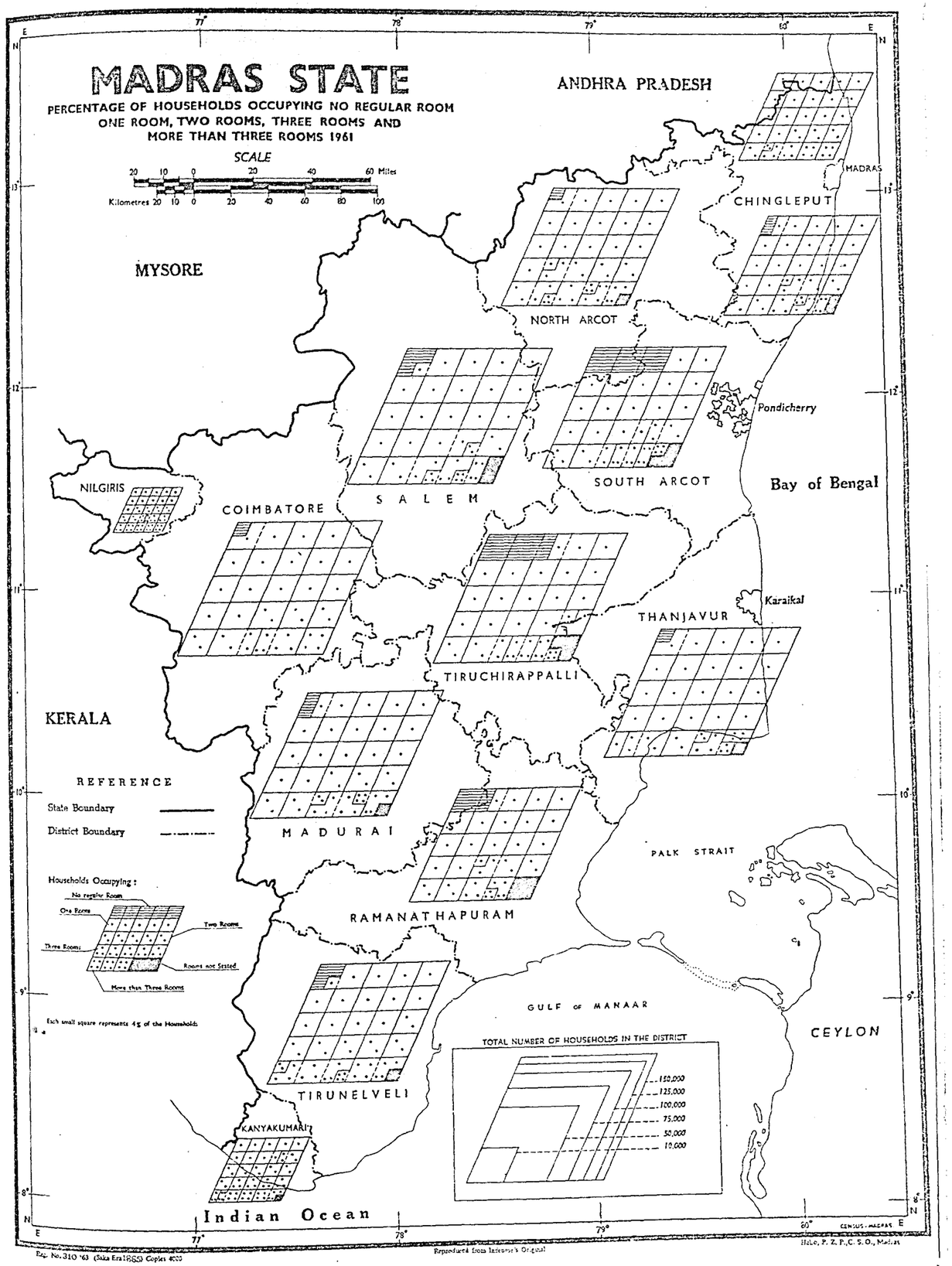
In the next category of households living in three rooms, the highest percentage (17.73%) is recorded in Kanyakumari district and the lowest percentage (3.65%) is in Tiruchirapalli district. Thanjavur and South Arcot districts also have very low percentages.

Kanyakumari (16.97%) and Nilgiris (15.57%) are the two exceptional districts where the percentage of households occupying more than three rooms is high. Thanjavur district, the other extreme, records the lowest percentage (2.31%).

Households with "rooms not stated" form only 1·4% of the total and it is high in Ramanathapuram (3.5%), Tiruchirapalli (2.61%) and South Arcot (2.75%) districts.

SOURCE

Census of India, 1961, Madras State, Part-IV B Housing and Establishment Tables.



MAP 155

PROPORTION OF HOUSEHOLDS OCCUPYING NO REGULAR ROOM, ONE ROOM, TWO ROOMS, THREE ROOMS AND MORE THAN THREE ROOMS IN RURAL AREAS, 1961

MAP 155

PROPORTION OF HOUSEHOLDS OCCUPYING NO REGULAR ROOM, ONE ROOM, TWO ROOMS, THREE ROOMS AND MORE THAN THREE ROOMS IN RURAL AREAS, 1961.

PURPOSE

This map is similar to the preceding map but the data refer to rural areas of the districts of Madras State.

METHOD

The data have been presented in a rhombus which has been divided into small pockets each representing 4 percent. These pockets have been given symbols to represent different categories of rooms. The households have been classified into six categories :

1) Households with 'no regular room' i.e. with no enclosed space to live.

2) Households occupying one room

3) Households occupying two rooms

4) Households occupying three rooms

5) Households occupying more than three rooms

6) Households with rooms not stated.

The data are based on 20% sample of households recorded in houselist compiled in October, 1960.

SALIENT FEATURES

About 4.67% of the total households in rural areas have no regular room to live in. The shortage of rooms is significantly acute in South Arcot and Tiruchirapalli districts where more than 12 percent of the households have no regular room. In Nilgiris district on the other hand, no household without any regular room is found. The percentage of such households is negligible in Kanyakumari, Coimbatore and Thanjavur districts.

Nearly 67.56% of rural households live in one room and Thanjavur has the maximum percentage (84.02%) of households under this category. The lowest percentage (34.26%) is recorded in Kanyakumari district.

Households with two rooms are found to be highest in Kanyakumari district (30.29) and lowest in Thanjavur district (9.83).

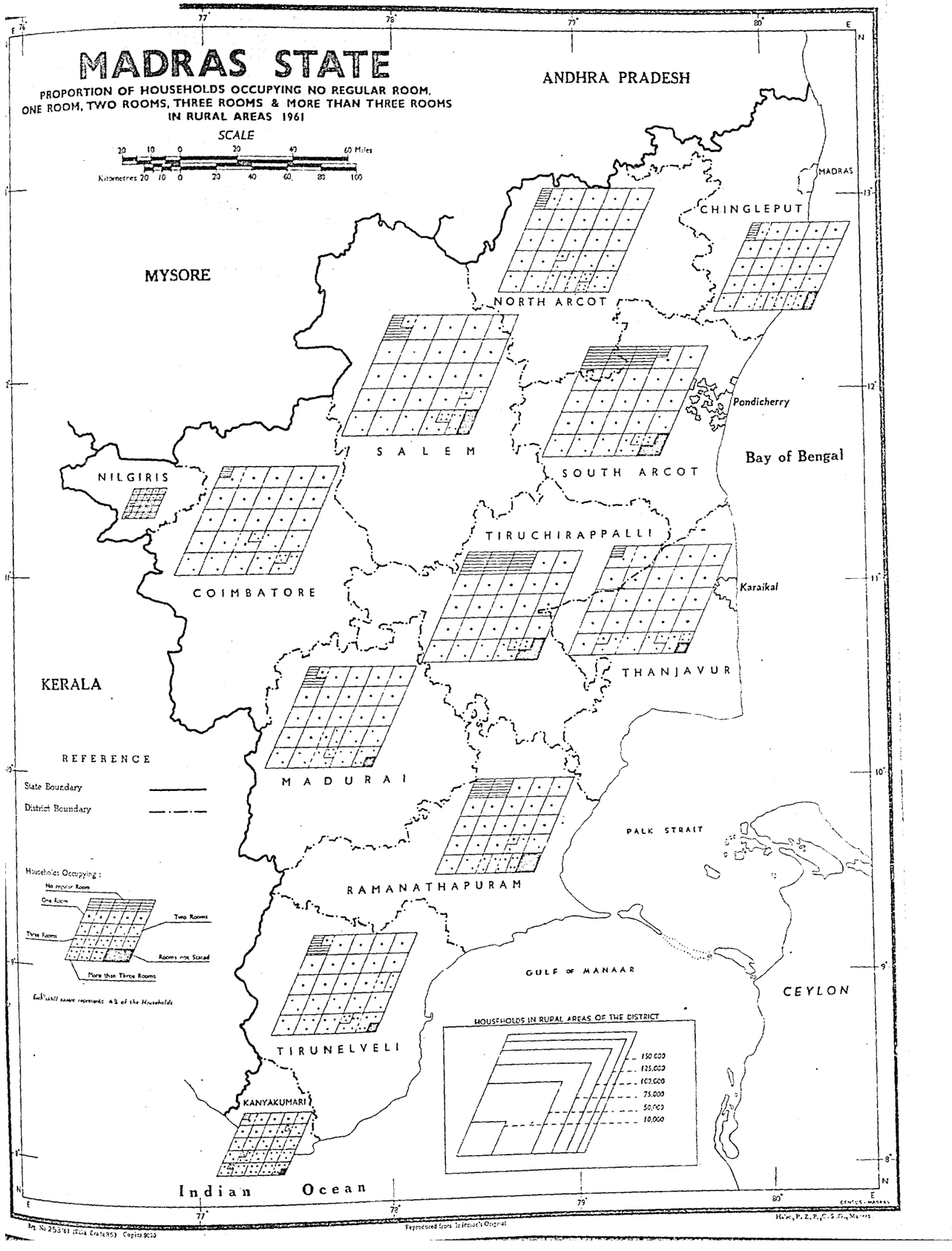
For the State as a whole, households with three rooms account only for 4.89% of total. Kanyakumari district has the highest percentage (17.83), while, Tiruchirapalli district has the lowest percentage (2.72). Nilgiris district has 14.94%.

About 3.51% of total households in the State have more than three rooms but in Nilgiris district 16.61% and in Kanyakumari 16.48% of households have more than three rooms. The lowest percentage (1.57%) of households belonging to this category is in Thanjavur district.

Nearly 1.72% of the total households have not furnished the data on number of rooms occupied.

SOURCE

Census of India 1961 Madras State—Part IV-B Housing and Establishment Tables.



MAP 156

PROPORTION OF HOUSEHOLDS OCCUPYING NO REGULAR ROOM, ONE ROOM, TWO ROOMS, THREE ROOMS AND MORE THAN THREE ROOMS IN URBAN AREAS 1961

MAP 156

PROPORTION OF HOUSEHOLDS OCCUPYING NO REGULAR ROOM, ONE ROOM, TWO ROOMS, THREE ROOMS AND MORE THAN THREE ROOMS IN URBAN AREAS. 1961.

PURPOSE

This map is similar to the previous map but refers to urban areas of the districts of Madras State.

METHOD

The data have been presented in a rhombus which has been divided into small pockets each representing 4 percent. These pockets have been given symbols to represent different categories of rooms. The households have been classified into six categories:

1) Households with 'no regular room' i.e. with no enclosed space to live

2) Households occupying one room

3) Households occupying two rooms

4) Households occupying three rooms

5) Households occupying more three rooms

6) Households with rooms not stated.

The data are based on 20% sample of households recorded in houselist compiled in October, 1960.

SALIENT FEATURES

Households with no regular room account for 1.17% of the total households in the urban areas of Madras State and the highest percentage (4.76%) is in South Arcot followed by Ramanathapuram (3.17%). Nilgiris district does not have any household with no regular room and it is negligible (less than one percent) in Madras, North Arcot, Coimbatore, Madurai, Thanjavur and Kanyakumari districts. About 59.67% of total households in urban areas have one room and the maximum percentage (68.86%) is recorded in Thanjavur district. The lowest percentage (33 86%) is in Kanyakumari district.

Households with two rooms form 21.7% of the total for the State as a whole and the highest percentage (28.55%) is in Kanyakumari district followed by Nilgiris district (27.58%). The lowest percentage (17.11%) is in Madras district and Thanjavur has 17.68%.

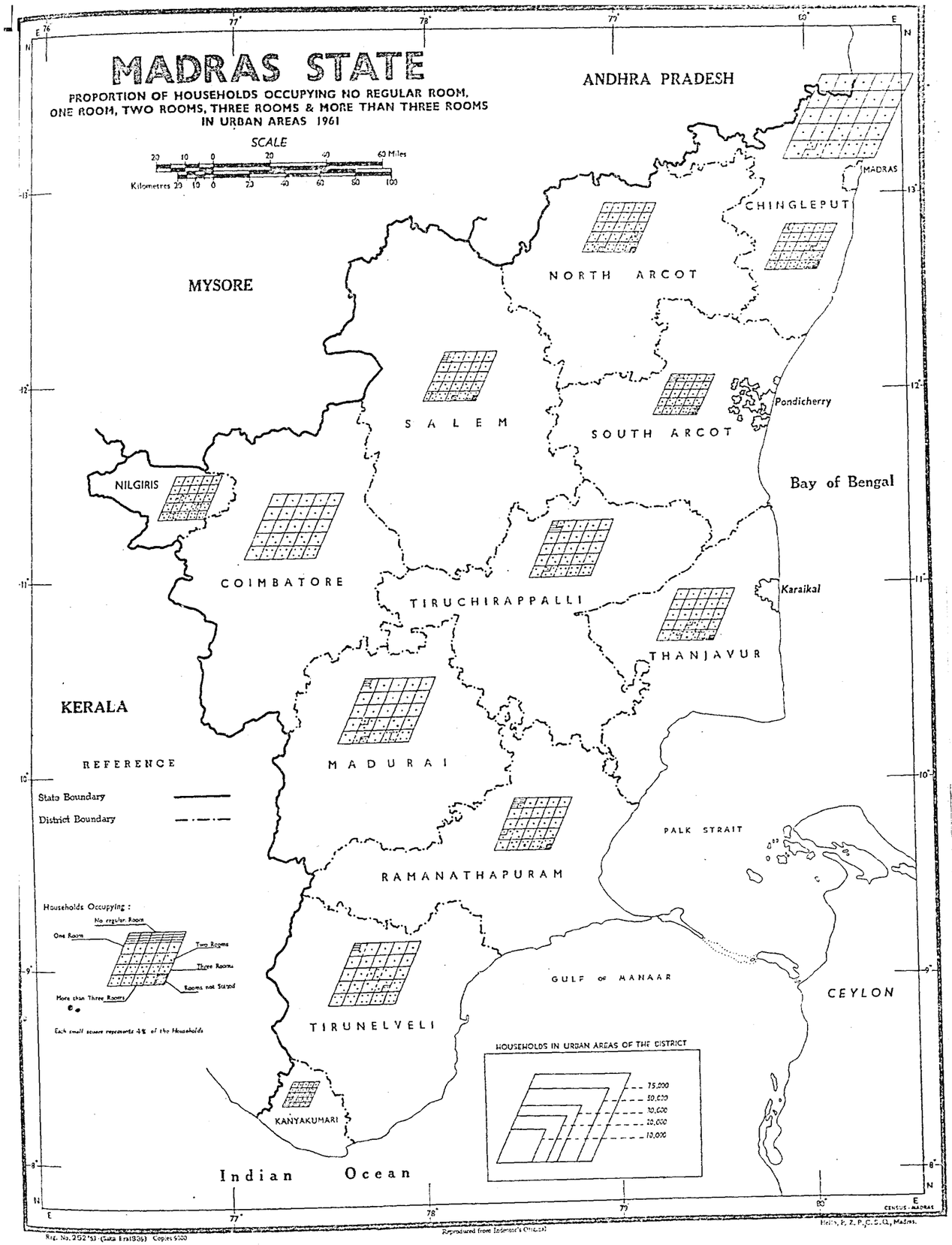
Percentage of households with 3 rooms is highest in Kanyakumari district where 17.1% of households live in three rooms. The lowest percentage is in Thanjavur with 7.04% and Madurai with 7.05% The State average for this category is 8.54%.

Households with more than three rooms in urban areas is maximum in Kanyakumari district where 19.87% of households reside in more than three rooms. The lowest is in Thanjavur district (5.51%). The State average is 8.41% which is only slightly lower than the State average for households with three rooms.

The number of households with number of rooms not stated in the schedule is only 0.5% of total households. South Arcot district has recorded a fairly high percentage (2.36) and Chingleput has 1.67%. It is negligible in Madras City where only 0.03% have not given any statement on the number of rooms occupied by them.

SOURCE

Census of India 1961 Madras State—Part IV-B Housing and Establishment Tables.



MAP 157

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPES OF WALL AND ROOF MATERIALS IN RURAL AREAS 1961

MAP 157

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPES OF WALL AND ROOF MATERIALS IN RURAL AREAS

1961

URPOSE

The nature of the dwellings in which people reside in the ıral areas of the taluks of Madras State is indicated in this ap. The nature of dwellings refers to wall and roof materials : the house. The data has been compiled from the Housing able which is based on the particulars collected in the house-sting conducted in October, 1960.

IETHOD

The data is based on the tabulation of 20% sample ouseholds. In each taluk the predominant type of wall and redominant type of roof have been chosen and their combina-ons have been shown in the map. The combinations thus rrived at are :

(1) Mud wall with Grass as roof

(2) Mud wall with Tiles as roof

(3) Stone wall with Grass as roof

(4) Grass wall with Grass as roof

(5) Burnt Brick wall with Tiles as roof

and (6) Burnt Brick wall with Grass as roof.

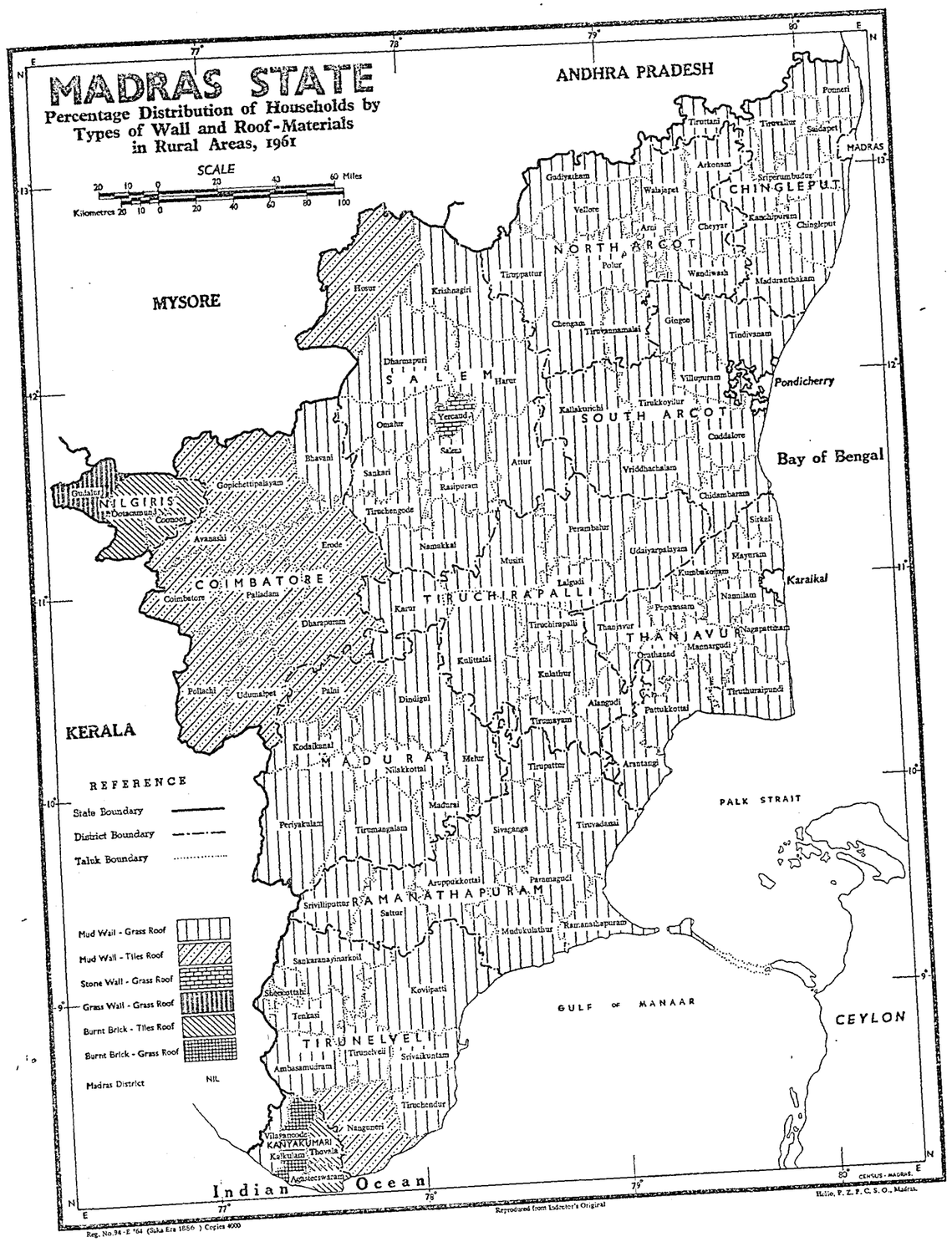
SALIENT FEATURES

A glance at the map reveals that mud wall with grass roof is the most common type of house noticed in Madras State. There are as many as 85 taluks wherein majority of households occupy houses with mud walls and grass roofs and only 18 taluks present a different picture. In eleven out of these remaining eighteen taluks, the common house type is a combination of mud wall and tiled roof. The entire Coimbatore district except Bhavani taluk comes under this category and the other three taluks belonging to this category are : Palni, Hosur and Nanguneri. Ootacamund and Coonoor taluks of Nilgiris district and Thovala and Agastheeswaram taluks of Kanya-kumari district are the only four taluks wherein burnt brick wall and tiles roof are widely used.

Yercaud taluk of Salem district is the solitary taluk where stone wall and grass roof are the most common types. Similarly, Gudalur taluk of Nilgiris district is the only taluk to represent the combination of grass wall and grass roof. In Kalkulam taluk of Kanyakumari district houses are pre-dominantly of burnt bricks wall and grass roof.

SOURCE

Census of India, 1961, Madras State—Part IV-B Housing and Establishment tables.



MAP 158

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPES OF WALL AND ROOF MATERIALS IN URBAN AREAS 1961

MAP 158

PERCENTAGE DISTRIBUTION OF HOUSEHOLDS BY TYPES OF WALL AND ROOF MATERIALS IN URBAN AREAS 1961

PURPOSE

The previous map refers to the wall and roof pattern of houses in rural areas whereas this map refers to the position in urban areas. The materials commonly used for wall and roof are indicated in this map.

The data has been tabulated from the houselisting conducted in October 1960 and the tabulation is based on a 20% sample of households.

METHOD

For each taluk the most common wall material as reflected in the percentage of households of that type to total households has been chosen and similarly the roof material which accounts for maximum percentage of households has been selected. Different combinations of the wall and roof materials have been arrived at and the taluks have accordingly been shaded by different grades of hatching.

SALIENT FEATURES

Unlike the previous map relating to rural areas wherein vast stretch of areas are predominantly of households occupying houses with mud walls and grass roof, in this map relating to urban area, a mixture of various categories is revealed. While there are 96 taluks wherein mud walls are predominant if rural areas alone are taken into account, there are only 57 taluks wherein mud walls are predominant if urban areas alone are taken in to consideration. Of these 57 taluks with mud walls, 31 have grass roof and 26 have tile roof. Coimbatore Nilgiris, and Ramanathapuram district do not have any taluk of the former category viz. mud walls with grass roof. There is a large group of contiguous taluks in South Arcot and Thanjavur districts where mud wall and grass roof are most common. Six taluks of South Arcot and nine taluks of Thanjavur belong to this category.

The second category—burnt brick and tiles roof, is commonly noticed in Nilgiris, Ramanathapuram and Kanyakumari districts. Entire Nilgiris district and Kanyakumari district excluding Thovala taluk and six taluks of Ramanathapuram district have burnt brick wall and tiled roof.

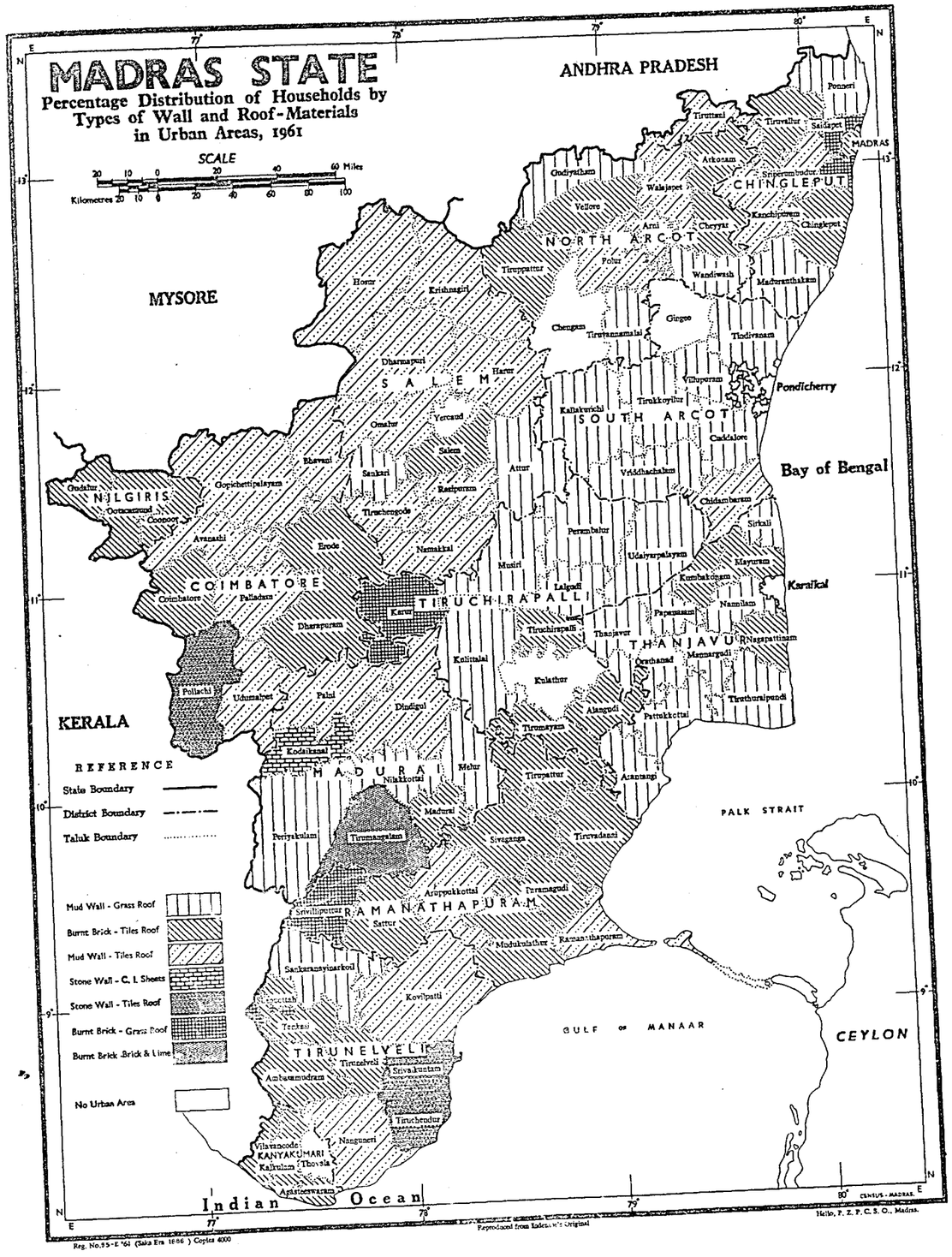
Stone wall and C. I. sheets as roof is the common house type only in Kodaikanal taluk and burnt brick wall and brick and lime roof is predominant in Tirumangalan taluk.

Pollachi, Tiruchendur and Srivaikuntam taluks represent the combination of stone wall and tile roof.

Grass roof with burnt brick wall is noticeable in Karur, Srivilliputtur, Shencottah and Saidapet taluks.

SOURCE

Ceusus of India, 1961, Madras State—Part IV-B Housing and Establishment Tables,



LIST OF AGENTS FOR THE SALE OF GOVERNMENT OF INDIA PUBLICATIONS

(as on 17 February 1964.)

AGARTALA—

Laxmi Bhandar Books & Scientific Sales (Rest.)

AGRA—

1. National Book House, Jeoni Mandi (Reg.)
2. Wadhawa & Co., 45, Civil Lines (Reg.)
3. Banwari Lal Jain, Publishers, Moti Katra (Rest.)
4. English Book Depot, Sadar Bazar, Agra Cantt. (Rest.)

AHMEDNAGAR—V. T. Jorakar, Prop., Rama General Stores, Navi Path (Rest.)

AHMEDABAD—

1. Balgovind Kuber Dass & Co., Gandhi Road (Reg.)
2. Chandra Kant Chiman Lal Vora, Gandhi Road (Reg.)
3. New Order Book Co., Ellis Bridge (Reg.)
4. Mahajan Bros., Opp. Khadia Police Gate (Rest.)
5. Sastu Kitab Ghar, Near Relief Talkies, Patthar Kuva, Relief Road (Reg.)

AJMER—

1. Book-Land, 663, Madar Gate (Reg.)
2. Rajputana Book House, Station Road (Reg.)
3. Law Book House, 271, Hathi Bhata (Reg.)
4. Vijay Bros., Kutchery Road (Rest.)
5. Krishna Bros., Kutchery Road (Rest.)

ALIGARH—Friends' Book House, Muslim University Market (Reg.)

ALLAHABAD—

1. Superintendent, Printing & Stationary, U. P.
2. Kitabistan, 17-A, Kamala Nehru Road (Reg.)
3. Law Book Co., Sardar Patel Marg, P. Box 4 (Reg.)
4. Ram Narain Lal Beni Modho, 2-A, Katra Road (Reg.)
5. Universal Book Co., 20, M. G. Road (Reg.)
6. The University Book Agency (of Lahore), Elgin Road (Reg.)
7. Wadhwa & Co., 23, M. G. Marg (Rest.)
8. Bharat Law House, 15, Mahatma Gandhi Marg (Rest.)
9. Ram Narain Lal Beni Prashad, 2-A Katra Road (Rest.)

AMBALA—

1. English Book Depot, Ambala Cantt. (Reg.)
2. Seth Law House, 8719, Railway Road, Ambala Cantt. (Rest.)

AMRITSAR—

1. The Law Book Agency, G. T. Road, Putligarh (Reg.)
2. S. Gupta, Agent, Government Publications, Near P. O. Majith Mandi (Reg.)
3. Amar Nath & Sons, Near P. O. Majith Mandi (Reg.)

ANAND—

1. Vijaya Stores, Station Road (Rest.)
2. Charto Book Stall, Tulsi Sadan, Stn. Road (Rest.)

ASANSOL—

D. N. Roy & R. K. Roy, Booksellers, Atwal Building (Rest.)

BANGALORE—

1. The Bangalore Legal Practitioner Co-op. Society Ltd., Bar Association Building (Reg.)
2. S. S. Book Emporium, 118, Mount Joy Road (Reg.)
3. The Bangalore Press, Lake View, Mysore Road, P. O. Box 507 (Reg.)
4. The Standard Book Depot, Avenue Road (Reg.)
5. Vichara Sahitya Private Ltd., Balepet (Reg.)
6. Makkala Pustaka Press, Balamandira, Gandhinagar (Reg.)
7. Maruthi Book Depot, Avenue Road (Rest.)
8. International book House, (P.) Ltd., 4-E, Mahatma Gandhi Road (Reg.)
9. Navakarnataka Pubns., Private Ltd., Majestic Circle (Rest.)

BAREILLY—

Agarwal Brothers, Bara Bazaar (Reg.)

BARODA—

1. Shri Chandrakant Mohan Lal Shah, Raopura (Rest.)
2. Good Companion Booksellers, Publishers & Sub-Agents (Rest.)
3. New Medical Book House, 540, Madan Zampa Road (Rest.)

BEAWAR—

The Secretary, S. D. College, Co-operative Stores Ltd. (Rest.)

BELGHARIA—

Granthlok, Antiquarian Booksellers & Publishers (24-Parganas), 5/1, Amlica Mukherjee Road (Reg.)

BHAGALPUR—

Paper Stationary Stores, D. N. Singh Road (Reg.)

BHOPAL—

1. Superintendent, State Government Press
2. Lyall Book Depot, Mohd. Din Bldg., Sultania Road (Reg.)
3. Delite Books, Opp. Bhopal Talkies (Rest.)

BHUBANESWER—

Ekamra Vidyabhavan, Eastern Tower, Room No. 3 (Rest.)

BIJAPUR—

Shri D. V. Deshpande, Recognised Law Booksellers, Prop., Vinod Book Depot, Near Shiralshetti Chowk (Rest.)

BIKANER—

Bhandani Bros. (Rest.)

BILASPUR—

Sharma Book Stall, Sadar Bazaar (Rest.)

BOMBAY—

1. Superintendent, Printing and Stationery, Queens Road
2. Charles Lambert and Co., 101, Mahatma Gandhi Road (Reg.)
3. Co-operator's Book Depot, 5/32, Ahmed Sailor Building, Dadar (Reg.)
4. Current Book House, Maruti Lane, Raghunath Dadaji Street (Reg.)
5. Current Technical Literature Co. P. Ltd., India House, Ist Floor (Reg.)
6. International Book House Ltd., 9, Ash Lane, M. G. Road (Reg.)
7. Lakkani Book Depot, Girgaum (Reg.)
8. Elpees Agencies, 24, Bhangwadi, Kalbadevi (Reg.)
9. P.P.H. Book Stall, 190-B, Khetwadi Main Road (Reg.)
10. New Book Co., 188-190, Dr. Dadabhai Naoroji Road (Reg.)
11. Popular Book Depot, Lamington Road (Reg.)
12. Sunder Das Gian Chand, 601, Girgaum Road, Near Princess Street (Reg.)
13. D.B. Taraporewala Sons and Co., (P) Ltd., 210, Dr. Dadabhai Naoroji Road (Reg.)
14. Thacker and Co., Rampart Row (Reg.)
15. N.M. Tripathi Private Ltd., Princess Street (Reg.)
16. The Kothari Book Depot, King Edward Road (Reg.)
17. P. H. Rama Krishna and Sons, 147, Rajaram Bhuvan, Shivaji Park Road, No. 5 (Rest.)
18. C. Jamnadas and Co., Booksellers, 146-C, Princess Street (Reg.)
19. Indo Nath & Co., A-6, Daulat Nagar Borvili (Reg.)
20. Minerva Book Shop, Shop No. 1/80, N. Subhas Road (Reg.)
21. Academic Book Co., Association Building, Girgaum Road (Rest.)
22. Dominion Publishers, 23, Bell Building, Sir P. M. Road (Rest.)
23. Bombay National History Society, 91, Walkeshwar Road (Rest.)
24. Dowamadeo and Co., 16, Naziria Building, Ballard Estate (Rest.)
25. Asian Trading Co., 310, The Miraball, P.B. 1505 (Rest.)

CALCUTTA—

1. Chatterjee and Co., 3/1, Bacharam Chatterjee Lane (Reg.)
2. Dass Gupta and Co. Ltd., 54/3, College Street (Reg.)
3. Hindu Library, 69-A Bolaram De Street (Reg.)
4. S. K. Lahiri and Co. Private Ltd., College St. (Reg.)
5. M.C. Sarkar and Sons Private Ltd., 14, Bankim Chatterjee Street (Reg.)
6. W. Newman and Co., Ltd., 3, Old Court House St. (Reg.)
7. Oxford Book and Stationery Co., 17, Park Street (Reg.)
8. R. Chambray and Co., Ltd., Kent House P. 33, Mission Road Extension (Reg.)
9. S.C. Sarkar and Sons Private Ltd., I. C, College Square (Reg.)
10. Thacker Spink and Co. (1933) P. Ltd, 3, Esplanade East (Reg.)
11. Firma K.L. Mukhopadhyaya, 6/1-A, Banchha Ram Akrar Lane (Reg.)
12. K.K. Roy, P. Box. No. 10210, Calcutta-19 (Rest.)
13. Sm. P.D. Upadhyay, 77, Muktaram Babu Street (Rest)
14. Universal Book Dist., 8/2, Hanstings Street (Rest.)
15. Modern Book Depot, 9, Chowrinhee Centre (Rest.)
16. Soor and Co., 125, Canning Street (Reg.)
17. S. Bhattacharjee, 49, Dharmatala Street (Rest.)
18. Mukherjee Library, 10, Sarba Khan Road (Reg.)
19. Current Literature Co., 208, Mahatma Gandhi Road (Reg.)
20. The Book Depository, 4/1, Madan Street (1st Floor) (Rest.)
21. Scientific Book Agency, Netaji Suhbas Road (Rest.)
22. Reliance Trading Co., 17/1, Banku Bihari Ghose Lane, District Howrah (Rest.)
23. Indian Book Dist. Co., 6512, Mahatma Gandhi Road (Rest.)

CALICUT—

Touring Book Stall (Rest.)

CHANDIGARH—

1. Superintendent, Government Printing and Stationery, Punjab (Reg.)
2. Jain Law Agency, Flat No. 8, Sector No. 22 (Reg.)
3. Rama News Agency, Booksellers, Sector No. 22 (Reg.)
4. Universal Book Store, Booth 25, Sector 22 D (Reg.)
5. English Book Shop, 34, Sector 22 D (Rest.)
6. Mehta Bros., 15-Z, Sector 22-B (Rest.)
7. Tandan Book Depot, Shopping Centre, Sector 16 (Rest.)
8. Kailash Law Publishers, Sector 22 B (Rest.)

CHHINDWARA—

The Verma Book Depot (Rest.)

COCHIN—

Saraswat Corporation Ltd., Palliarakav Road (Reg.)

CUTTACK—

1. Press officer, Orissa Sectt. (Reg.)
2. Cuttack Law Times (Reg.)
3. Prabhat K. Mahapatra Mangalabag, P. B. 35 (Rest.)
4. D. P. Sur & Sons, Mangalabag (Rest.)
5. Utkal Stores, Balu Bazar

DEHRA DUN—

1. Jugal Kishore & Co., Rajpur Road (Reg.)
2. National News Agency, Paltan Bazar (Reg.)
3. Bishan Singh and Mahendra Pal Singh, 318, Chukhuwala (Reg.)
4. Utam Pustak Bhandar, Paltan Bazar (Rest.)

DELHI—

1. J. M. Jaina & Brothers, Mori Gate (Reg.)
2. Atma Ram & Sons, Kashmere Gate (Reg.)
3. Federal Law Book Depot, Kashmere Gate (Reg.)
4. Bahri Bros., 188, Lajpat Rai Market (Reg.)
5. Bawa Harkishan Dass Bedi (Vijaya General Agencies) P.B. 2027, Ahata Kedara, Chamalian Road (Reg.)
6. Book-Well, 4, Sant Narankari Colony, P.B. 1565 (Reg.)
7. Imperial Publishing Co., 3, Faiz Bazar, Daryaganj (Reg.)
8. Metropoliton Book Co., 1, Faiz Bazar (Reg.)
9. Publication Centre, Subzimandi (Reg.)
10. Youngman & Co., Nai Sarak (Reg.)
11. Indian Army Book Depot, 3, Daryaganj (Reg.)
12. All India Educational Supply Co., Shri Ram Buildings, Jawahar Nagar (Rest.)
13. Dhanwant Medical & Law Book House, 1522, Lajpat Rai Market (Rest.)
14. University Book House, 15, U.B. Bangalore Road, Jawahar Nagar (Rest.)
15. Law Literature House, 2646, Balimaran (Rest.)
16. Summer Brothers, P.O. Birla Lines (Rest.)
17. Universal Book & Stationery Co., 16, Netaji Subhash Marg (Reg.)
18. B. Nath & Bros., 3808, Charkhawalan (Chowri Bazar) (Rest.)
19. Rajkamal Prakashan P. Ltd., 8, Faiz Bazar (Reg.)
20. Premier Book Co., Printers, Publishers & Booksellers, Nai Sarak (Rest.)
21. Universal Book Traders, 80, Gokhale Market (Reg.)
22. Tech. & Commercial Book Coy., 75, Gokhale Market (Rest.)
23. Saini Law Publishing Co., 1416, Chabiganj, Kashmere Gate (Rest.)
24. G. M. Ahuja, Booksellers & Stationers, 309, Nehru Bazar (Rest.)
25. Sat Narain & Sons, 3141, Mohd. Ali Bazar, Mori Gate (Reg.)
26. Kitab Mahal (Wholesale Div.) P. Ltd., 28, Faiz Bazar (Reg.)
27. Hindu Sahitya Sansar, Nai Sarak (Rest.)
28. Munshi Ram Manohar Lal, Oriental Booksellers & Publishers, P.B. 1165, Nai Sarak (Rest.)
29. K. L. Seth, Suppliers of Law, Commercial & Tech. Books, Shanti Nagar, Ganeshpura (Rest.)
30. Adarsh Publishing Service, 5 A/10, Ansari Road (Rest.)

DHANBAD—

1. Ismag Co-operative Stores Ltd., P.O. Indian School of Mines (Reg.)
2. New Sketch Press, Post Box 26 (Rest.)

DHARWAR—

1. The Agricultural College, Consumers' Co-op. Society (Rest.)
2. Rameshraya Book Depot, Subhas Road (Rest.)
3. Karnatakaya Sahitya Mandira of Publishers and Booksellers

ERNAKULAM—

1. Pai & Co., Cloth Bazar Road (Rest.)
2. South India Traders, C/o Constitutional Journal (Reg.)

FEROZEPUR—

English Book Depot, 78, Jhoke Road (Reg.)

GAUHATI—

Mokshada Pustakalaya (Reg.)

GAYA—

Sahitya Sadan, Gautam Budha Marg (Reg.)

GHAZIABAD—

Jayana Book Agency (Rest.)

GORAKHPUR—

Vishwa Vidyalaya Prakashan, Nakhes Road (Reg.)

GUDUR—

The General Manager, The N. D. C. Publishing & Printing Society Ltd. (Rest.)

GUNTUR—

Book Lovers Private Ltd., Kadriguda, Chowrasta (Reg.)

GWALIOR—

1. Superintendent, Printing & Stationery, M.B.
2. Loyal Book Depot, Patankar Bazar, Laskhar (Reg.)
3. M. C. Daftari, Prop. M. B. Jain & Bros., Booksellers, Sarafa, Laskhar (Rest.)

HUBLI—

Pervaje's Book House, Koppikar Road (Reg.)

HYDERABAD—

1. Director, Government Press
2. The Swaraj Book Depot, Lakdikapul (Reg.)
3. Book Lovers Private Ltd. (Rest.)
4. Labour Law Publications, 873, Sultan Bazar (Rest.)

IMPHAL—

Tikendra & Sons, Booksellers (Rest.)

INDORE—

1. Wadhawa & Co., 56, M. G. Road (Reg.)
2. Swarup Brothers, Khajuri Bazar (Rest.)
3. Madhya Pradesh Book Centre, 41, Ahilya Pura (Rest.)
4. Modern Book House, Shiv Vilas Palace (Rest.)
5. Navyug Sahitya Sadan, Publishers & Booksellers, 10, Khajuri Bazar (Rest.)

JABALPUR—

1. Modern Book House, 286, Jawaharganj (Reg.)
2. National Book House, 135, Jai Prakash Narain Marg (R.)

JAIPUR—

1. Government Printing and Stationery Department, Rajasthan
2. Bharat Law House, Booksellers & Publishers Opp. Prem Prakash Cinema (Reg.)
3. Garg Book Co., Tripolia Bazar (Reg.)
4. Vani Mandir, Sawai Mansingh Highway (Reg.)
5. Kalyan Mal & Sons, Tripolia Bazar (Rest.)
6. Popular Book Depot, Chaura Rasta (Reg.)
7. Krishna Book Depot, Chaura Rasta (Rest.)
8. Dominion Law Depot, Shah Building, P.B. No. 23 (Rest.)

JAMNAGAR—

Swedeshi Vastu Bhandar (Reg.)

JAMSHEDPUR—

1. Amar Kitab Ghar, Diagonal Road, P. B. 78 (Reg.)
2. Gupta Stores, Dhatkidih (Reg.)
3. Sanyal Bros., Booksellers & News Agents, Bistapur Market (Rest.)

JAWALAPUR—

Sahyog Book Depot (Rest.)

JHUNJHUNU—

1. Shashi Kumar Sarat Chand (Rest.)
2. Kapram Prakashan Prasaran, 1/90, Namdha Niwas Azad Marg

JODHPUR—

1. Dwarka Das Rathi, Wholesale Books and News Agents (Reg.)
2. Kitab-Ghar, Sojati Gate (Reg.)
3. Choppra Brothers, Tripolia Bazar (Reg.)

JULLUNDUR—

1. Hazooria Bros., Mai Hiran Gate (Rest.)
2. Jaim General House, Bazar Bansanwala (Reg.)
3. University Publishers, Railway Road (Rest.)

KANPUR—

1. Advani & Co., P. Box 100, The Mall (Reg.)
2. Sahitya Niketan, Shradhanand Park (Reg.)
3. The Universal Book Stall, The Mall (Reg.)
4. Raj Corporation, Raj House P.B. 200, Chowk (Rest.)

KARUR—

Shri V. Nagaraja Rao, 26, Srinivasapuram (Rest.)

KODARMA—

The Bhagwati Press, P.O. Jhumri Telaiya, Dt. Hazaribagh (Reg.)

KOLHAPUR—

Maharashtra Granth Bhandar, Mahadwar Road (Rest.)

KOTA—

Kota Book Depot (Rest.)

KUMTA—

S. V. Kamat, Booksellers & Stationers (N. Kanara) (Reg.)

LUCKNOW—

1. Soochna Sahitya Depot (State Book Depot)
2. Balkrishna Book Co. Ltd., Hazratganj (Reg.)
3. British Book Depot, 84, Hazratganj (Reg.)
4. Ram Advani, Hazratganj, P.B. 154 (Reg.)
5. Universal Publishers (P) Ltd., Hazratganj (Reg.)
6. Eastern Book Co., Lalbagh Road (Reg.)
7. Civil & Military Educational Stores, 106/B, Sadar Bazar (Rest.)
8. Acquarium Supply Co., 213, Faizabad Road (Rest.)
9. Law Book Mart, Amin-Ud-Daula Park (Rest.)

LUDHIANA—

1. Lyall Book Depot, Chaura Bazar (Reg.)
2. Mohindra Brothers, Katcheri Road (Rest.)
3. Nanda Stationery Bhandar, Pustak Bazar (Rest.)
4. The Pharmacy News, Pindi Street (Rest.)

MADRAS—

1. Superintendent, Government Press, Mount Road
2. Account Test Institute, P.O. 760, Egmore (Reg.)
3. G. Subbiah Chetty & Co., Triplicane (Reg.)
4. K. Krishnamurthy, Post Box. 384 (Reg.)
5. Presidency Book Supplies, 8, Pycrofts Road, Triplicane (Reg.)
6. P. Varadhachary & Co., 8, Linghi Chetty Street (Reg.)
7. Palani Parchuram, 3, Pycrofts Road, Triplicane (Reg.)
8. NCBH Private Ltd., 199, Mount Road (Rest.)
9. V. Sadanad, The Personal Bookshop, 10, Congress Building, 111, Mount Road (Rest.)

MADURAI—

1. Oriental Book House, 258, West Masi Street (Reg.)
2. Vivekananda Press, 48, West Masi Street (Reg.)

MANDYA SUGAR TOWN—

K. N. Narimhe Gowda & Sons (Rest.)

MANGALORE—

U. R. Shenoye Sons, Car street, P. Box. 128 (Reg.)

MANJESHWAR—

Mukenda Krisha Nayak (Rest.)

MATHURA—

Rath & Co., Tilohi Building, Bengali Ghat (Rest.)

MEERUT—

1. Prakash Educational Stores, Subhas Bazar (Reg.)
2. Hind Chitra Press, West Kutchery Road (Reg.)
3. Loyal Book Depot, Chhipi Tank (Reg.)
4. Bharat Educational Stores, Chhipi Tank (Rest.)
5. Universal Book Depot, Booksellers & News Agents (Rest.)

MONGHYR—

Anusandhan, Minerva Press Building (Rest.)

MUSSOORIE—

1. Cambridge Book Depot, The Mall (Rest.)
2. Hind Traders (Rest.)

MUZAFFARNAGAR—

1. Mittal & Co., 85—C, New Mandi (Rest.)
2. B. S. Jain & Co., 71, Abupura (Rest.)

MUZAFFARPUR—

1. Scientific & Educational Supply Syndicate (Reg.)
2. Legal Corner, Tikmanio House, Amgola Road (Rest.)
3. Tirhut Book Depot (Rest.)

MYSORE—

1. H. Venkataramiah & Sons, New Statue Circle (Reg.)
2. Peoples Book House, Opp. Jagan Mohan Palace (Reg.)
3. Geeta Book House, Booksellers & Publishers, Krishnamurthipuram (Rest.)
4. News Paper House, Lansdowne Building (Rest.)
5. Indian Mercantile Corporation, Toy Palace, Ramvilas (Rest.)

NADIAD—

R. S. Desay, Station Road (Rest.)

NAGPUR—

1. Superintendent, Government Press & Book Depot
2. Western Book Depot, Residency Road (Reg.)
3. The Assistant Secretary, Mineral Industry Association, Mineral House (Rest.)

NAINITAL—

Coural Book Depot, Bara Bazar (Rest.)

NANDED—

1. Book Centre, College Law General books, Station Road (Rest.)
2. Hindustan General Stores, Paper & Stationery Merchants P. B. No. 51 (Rest.)
3. Sanjoy Book Agency, Vazirabad (Rest.)

NEW DELHI—

1. Amrit Book Co., Connaught Circus (Reg.)
2. Bhawani & Sons, 8. F, Connaught Place (Reg.)
3. Central News Agency, 23/90, Connaught Circus (Reg.)
4. Empire Book Depot, 278, Aliganj (Reg.)
5. English Book Stores, 7—L, Connaught Circus, P. O. B. 328 (Reg.)
6. Faqir Chand & Sons, 15—A, Khan Market (Reg.)
7. Jain Book Agency, C—9, Prem House, Connaught Place (Reg.)
8. Oxford Book & Stationery Co., Scindia House (Reg.)
9. Ram Krishna & Sons (of Lahore) 16-B, Connaught Place (Reg.)
10. Sikh Publishing House, 7—C, Connaught Place (Reg.)
11. Suneja Book Centre, 24/90, Connaught Circus (Reg.)
12. United Book Agency, 31, Municipal Market, Connaught Circus (Reg.)
13. Jayana Book Depot, Chhaparwala Kuan, Karol Bagh (Reg.)
14. Navayug Traders, Desh Bhadhu Gupta Road, Dev Nagar (Reg.)
15. Saraswati Book Depot, 15, Lady Harding Road (Reg.)
16. The Secretary, Indian Met. Society, Lodi Road (Reg.)
17. New Book Depot, Latest Books, Periodicals, Sty. & Novelles, P. B. 96, Connaught Place (Reg.)
18. Mehra Brothers, 50—G, Kalkaji, New Delhi (Reg.)
19. Luxmi Book Stores, 42, Janpath (Rest.)

20. Hindi Book House, 82, Janpath (Rest.)
21. People Publishing House (P.) Ltd., Rani Jhansi Road (Reg.)
22. R. K. Publishers, 23, Beadon Pura, Karol Bagh (Rest.)
23. Sharma Brothers, 17, New Market, Moti Nagar (Reg.)
24. Aapki Dukan, 5/5777, Dev Nagar (Rest.)
25. Sarvodaya Service, 66A—1, Rohtak Road, P. B. 2521 (Rest.)
26. H. Chandson, P.B. No. 3034 (Rest.)
27. The Secretary, Federation of Association of Small Industry of India, 23—B/2, Rohtak Road (Rest.)
28. Standard Booksellers & Stationers, Palam Enclave (Rest.)
29. Lakshmi Book Depot, 57, Regarpura (Rest.)
30. Sant Ram Booksellers, 16, New Municipal Market, Lody Colony (Rest.)

PANJIM—

1. Singhals Book House, P. O. B. 70, Near the Church (Rest.)
2. Sagoon Gaydev Dhoud, Booksellers, 5—7, Rua, 3 Ide Jameria (Rest.)

PATHANKOT—

The Krishna Book Depot, Main Bazar (Rest.)

PATIALA—

1. Superintendent, Bhupendra State Press (Reg.)
2. Jain & Co., 17, Shah Nashin Bazar (Reg.)

PATNA—

1. Superintendent, Government Printings (Bihar) (Reg.)
2. J.N.P. Agarwal & Co., Padri—Ki—Haveli (Reg.)
3. Raghunath Bhawan (Reg.)
4. Luxmi Trading Co., Padri—Ki—Haveli (Rest.)
5. Moti Lal Banarsi Dass, Bankipore
6. Bengal Law House, Chowhatta

PITHORAGARH—

Maniram Punetha & Sons (Rest.)

PONDICHERRY—

M/s. Honesty Book House, 9, Rue Duplix (R.)

POONA—

1. Deccan Book Stall, Deccan Gymkhana (Reg.)
2. Imperial Book Depot, 266, M. G. Road (Reg.)
3. International Book Service, Deccan Gymkhana (Reg.)
4. Raka Book Agency, Opp. Natu's Chawl, Near Appa Balwant Chowk (Reg.)
5. Utility Book Depot, 1339, Shivaji Nagar (Rest.)

PUDUKOTTAI—

Shri P. N. Swaminathan Sivam & Co., East Main Road (Rest.)

RAJKOT—

Mohan Lal Dossabhai Shah, Booksellers and Sub-Agents (Reg.)

RANCHI—

1. Crown Book Depot, Upper Bazar (Reg.)
2. Pustak Mahal, Upper Bazar (Rest.)

REWA—

Superintendent, Government State Emporium V. P.

ROURKELA—

The Rourkela Review (Rest.)

SAHARANPUR—

Chandra Bharata Pustak Bhandar, Court Road (Rest.)

SECUNDERABAD—

Hindustan Diary Publishers, Market Street (Reg.)

SILCHAR—

Shri Nishitto Sen, Nazirpatti (Rest.)

SIMLA—

1. Superintendent, Himachal Pradesh Government (Reg.)
2. Minerva Book Shop, The Mall (Reg.)
3. The New Book Depot, 79, The Mall

SINNAR—

Shri N. N. Jakhadi, Agent, Times of India, Sinnar (Nasik) (Rest.)

SHILLONG—

1. The Officer-in Charge, Assam Government, B. D. (Rest.)
2. Chapla Bookstall, P.B. No. 1

SONEPAT—

United Book Agency (Reg.)

SRINAGAR—

The Kashmir Bookshop, Residency Road (Reg.)

SURAT—

Shri Gajanan Pustakalaya, Tower Road (Reg.)

TIRUCHIRAPALLI—

1. Kalpana Publishers, Woriur (Reg.)
2. S. Krishnaswami & Co., 35, Subhash Chander Bose Road (Reg.)
3. Palaniappa Bros. (Rest.)

TRIVANDRUM—

1. International Book Depot, Main Road (Reg.)
2. Reddear Press & Book Depot, P.B. No. 4 (Rest.)

TUTICORIN—

1. Shri K. Thiagarajan, 10-C, French Chapal Road (Rest.)

UDAIPUR—

1. Jagdish & Co., Inside Surajapole (Rest.)
2. Book Centre, Maharana, Bhopal Consumers' Co-op. Society Ltd. (Rest.)

UJJAIN—

Manak Chand Book Depot, Sati Gate. (Rest.)

VARANASI—

1. Students, Friends & Co., Lanka (Rest.)
2. Chowkhamba Sanskrit Series Office, Gopal Mandir Road., P.B. 8 (Reg.)
3. Glob Book Centre (Rest.)
4. Kohinoor Stores, University Road, Lanka (Reg.)
5. B.H.U. Book Depot (Rest.)

VELLORE—

A. Venkatasubhan, Law Booksellers (Reg.)

VIJAYAWADA—

The Book & Review Centre, Eluru Road, Governpet (Rest.)

VISAKHAPATNAM—

1. Gupta Brothers, Vizia Building (Reg.)
2. Book Centre, 11/97, Main Road (Reg.)
3. The Secretary, Andhra University, General Co-op. Stores Ltd. (Rest.)

VIZIANAGARAM—

Sarda & Co. (Rest.)

WARDHA—

Swarajeya Bhandar, Bhorji Market (Reg.)

For Local Sale

1. Government of India Kitab Mahal, Janpath, Opp. India Coffee House, New Delhi
2. Government of India Book Depot, 8, Hastings Street, Calcutta
3. High Commissioner for India in London, India House, London, W. C. 2

Railway Bookstall Holders

1. S/S. A. H. Wheeler & Co., 15, Elgin Road, Allahabad
2. Gahlot Bros., K. E. M. Road, Bikaner
3. Higginbothams & Co., Ltd., Mount Road, Madras
4. M. Gulab Singh & Sons Private Ltd., Mathura Road, New Delhi

Foreign

1. S/S. Education Enterprise Private Ltd., Kathumandu, (Nepal)
2. S/S. Aktie Bologat, C. E. Fritzes Kungl, Hovobokhandel, Fredsgation-2, Box 1656, Stockholm-16 (Sweden)
3. Reise-und Verkehrsverlag Stuttgart, Post 730, Gutenbergstrasse 21, Stuttgart No. 11245, Stuttgart den (Germany West)
4. Shri Iswar Subramanyam, 452, Reversite Driv Apt. 6, New York, 27 NWY
5. The Proprietor, Book Centre, Lakshmi Mansons, 49, The Mall, Lahore (Pakistan)

On S. and R. Basis

1. The Head Clerk, Govt. Book Depot, Ahmedabad
2. The Asstt. Director, Extension Centre, Kapileswar Road, Belgaum
3. The Employment officer, Employment Exchange, Dhar
4. The Asstt. Director, Footwear Extension Centre, Polo Ground No. 1, Jodhpur
5. The O.I/C., Extension Centre, Club Road, Muzaffarpur
6. The Director, Indian Bureau of Mines, Govt. of India, Ministry of Mines & Fuel, Nagpur
7. The Asstt. Director, Industrial Extension Centre, Nadiad (Gujarat)
8. The Head Clerk, Photozincographic Press, 5, Finance Road, Poona
9. Government Printing and Stationery, Rajkot
10. The O. I/C, Extension Centre, Industrial Estate, Kokar, Ranchi
11. The Director, S.I.S.I., Industrial Extension Centre, Udhna, Surat
12. The Registrar of Companies, Narayani Building, 27, Erabourne Road, Calcutta-1
13. The Registrar of Companies, Kerala, 50, Feet Road, Ernakulam
14. The Registrar of Companies, H. No. 3-5-83, Hyderguda, Hyderabad
15. The Registrar of Companies, Assam, Manipur and Tripura, Shillong
16. Registrar of Companies, Sunlight Insurance Building, Ajmeri Gate Extension, New Delhi
17. Registrar of Companies, Punjab and Himachal Pradesh, Link Road, Jullundur City
18. Registrar of Companies, Bihar, Jamal Road, Patna-1
19. Registrar of Companies, Raj & Ajmer, Shri Kamta Prasad House, 1st Floor, 'C' Scheme, Ashok Marg, Jaipur
20. The Registrar of Companies, Andhra Bank Building, 6, Linghi Chetty Street, P. B. 1530, Madras
21. The Registrar of Companies, Mahatma Gandhi Road, west Cott. Building P. B. 334, Kanpur
22. The Registrar of Companies, Everest, 100, Marine Drive, Bombay
23. The Registrar of Companies, 162, Brigade Road, Bangalore
24. The Registrar of Companies, Gwalior
25. Asstt. Director, Extension Centre, Bhuli Road, Dhanbad
26. Registrar of Companies, Orissa, Cuttack Chandi, Cuttack
27. The Registrar of Companies, Gujarat State, Gujarat Samachar Building, Ahmedabad
28. Publication Division, Sales Depot, North Block, New Delhi
29. The Development Commissioner, Small Scale Industries, New Delhi
30. The O. I/C., University Employment Bureau, Lucknow
31. O. I/C., S.I.S.I. Extension Centre, Malda
32. O. I/C., S.I.S.I. Extension Centre, Habra, Tabaluria, 24-Parganas
33. O. I/C., S.I.S.I. Model Carpentry Workshop, Piyali Nagar, P. O. Burnipur.
34. O. I/C., S.I.S.I. Chrontanning Extension Centre, Tangra 33, North Topsia Road, Calcutta-46
35. O. I/C., S.I.S.I. Extension Centre (Footwear), Calcutta
36. Asstt. Director, Extension Centre, Hyderabad
37. Asstt. Director, Extension Centre, Krishna Dist. (A.P.)
38. Employment Officer, Employment Exchange, Jhabua
39. Dy. Director Incharge, S.I.S.I., C/o, Chief Civil Admn. Goa, Panjim
40. The Registrar of Trade Unions, Kanpur
41. The Employment Officer, Employment Exchange, Gopal Bhavan, Mornia
42. The O. I/C., State Information Centre, Hyderabad
43. The Registrar of Companies, Pondicherry
44. The Assistant Director of Publicity and Information, Vidhana Saubha (P.B. 271) Bangalore