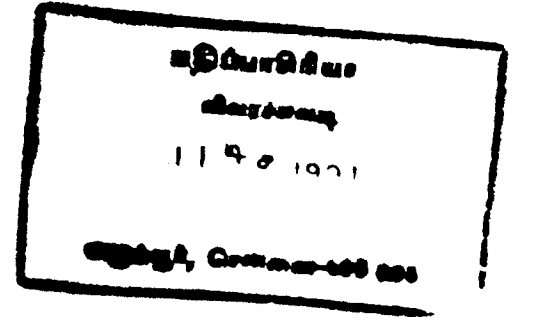




सत्यमेव जयते



CENSUS OF INDIA 1981

SERIES 20

TAMIL NADU

PART XII

CENSUS ATLAS

& **A.P. MUTHUSWAMI**
of the Indian Administrative Service
Director of Census Operations
Tamil Nadu



CENSUS OF INDIA 1981

SERIES-20
TAMIL NADU

PART XII

CENSUS
ATLAS

A. P. MUTHUSWAMI
of the Indian Administrative Service
Director of Census Operations
Tamil Nadu



CENSUS OF INDIA

SERIES 20- TAMIL NADU

PUBLICATION PROGRAMME

Part I-A	Administration Report Enumeration	} For Official Use only
Part I-B	Administration Report Tabulation	
Part II-A	General Population Tables.	
Part II-B	Primary Census Abstract.	
Part III-A	General Economic Tables.	
Part III-B	General Economic Tables.	
Part IV -A	Social and Cultural Tables.	
Part IV -B	Social and Cultural Tables.	
Part V -A	Migration Tables.	
Part V -B	Migration Tables.	
Part VI-A	Fertility Tables.	
Part VI-B	Fertility Tables.	
Part VII	Tables on Houses and Disabled Population	
Part VIII-A	Household Tables.	
Part VIII-B	Household Tables.	
Part VIII-C	Report on Households.	
Part IX	Special Tables on Scheduled Castes and Scheduled Tribes.	
Part X-A	Town Directory (State Volume).	
Part X-B	Survey Reports on Selected Towns.	
Part X-C	Survey Reports on Selected villages.	
Part XI	Ethnographic notes and Special Studies on Scheduled Castes and Scheduled Tribes.	
* Part XII	Census Atlas.	
Part XIII	District Census Handbooks.	
	Part A: Village and Town Directory.	
	Part B: Village and Town-wise Primary Census Abstract.	

* Present volume.

- Maps in this atlas are based on Survey of India map with the permission of the Surveyor General of India.
- The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.
- The boundary of Meghalaya shown on the map of India is as interpreted from the North eastern areas (Reorganisation) Act, 1971, but has yet to be verified.

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FOREWORD

The Indian Census enjoys the reputation of being the richest single source for giving information about the people of the country. The Census Organisation furnishes information regarding distribution of population, sex, age, working population and several other dimensions of data on castes and tribes. The Census of India also to some extent undertakes the collection of non-census statistics on useful variables, such as, land uses at tahsil and taluk levels, basic amenities in rural and urban areas, distances of settlements with reference to nearest urban areas which are published in various publications in conjunction with Census data. It was three decades ago that the 1961 Census for the first time organised a special programme of the Census Atlas mapping and a series of Census Atlases of States/Union Territories, and for the Nation as a whole were brought out. This programme was appreciated by the scholars, data users and the academicians, and hence it became one of the regular features of the post censal research programme of the Census Organisation. The volumes under this programme were published as Part IX (A) of various series during 1961 and 1971 Censuses and stand included as Part XII of the general census publication plan for the 1981 Census.

During these decades, the Census has not confined itself to the producing of mere stray maps for various publications but has undertaken much detailed mapping of the local and regional areas having relevance to the production of specific tables and special studies. This has added to the usefulness of Census statistics besides making them more appealing and contributive to the assessment of the distribution of population at various levels. Special maps like urban land uses of towns and urban agglomerations and standard urban area maps enriched the State Volumes namely part II (A) dealing with population and area figures, town directories etc. Such publications are well known as source materials produced by the Census for the people and the country. Besides these, the district Census hand books dealing with detailed village and townwise population characteristics, contain basic maps of Districts/Tahsils/Taluks and equivalent administrative areas of the various parts of the country showing boundaries, locations of villages and urban spread. In addition, these important basic maps contain information, such as, population sizes of each Census village and town with the Census Location Codes, amenities like post and telegraph offices, family health programme centres (Primary Health Centres, Dispensaries, Maternity and Child Welfare Centres). Schools and other educational institutions, important village markets etc. Infrastructural facilities like roads duly classified and including important cart-tracks and railways are also shown. Thus, the Census Organisation has been striving to furnish a variety of cartographic information directly concerned with the Census activities and even beyond.

The Census Atlas programme has been formulated to record through maps the demographic characteristics to project a holistic approach to measure and assess popu-

**STAFF ASSOCIATED WITH THE CENSUS ATLAS PROJECT OF
TAMIL NADU**

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Monitoring and Progress	:	Mrs. Minati Ghosh Asstt. Registrar General (Map)
Technical Supervision	:	P.S. Chhikara, Map Analyst
Scrutiny and Evaluation of Maps	:	Autar Singh, Sr. Geographer D.B. Goswami, Sr. Geographer P.T. Deshpande, Sr. Drawing Asstt.
Printing Arrangement	:	B.P. Jain, Deputy Director and his team.

DIRECTORATE OF CENSUS OPERATIONS, TAMIL NADU

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Data processing	:	Smt. G. Vasantha, Computer Smt. V. Santha, Computer Smt. N. Geetha, Computer Smt. B. Santhanalakshmi, Computer
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lation patterns. The mapping is conducted for atlas maps embracing more or less the entire 1981 Census tables at Tahsil/Taluk/Town/UA level, through districts and states. The population situation is changing from decade to decade due to various economic developments, and one may glean through these maps the contemporary human problems and patterns for spatial planning and related purposes.

This programme has been worked out at two levels, viz, (i) State/Union Territory Atlas Volumes, and (ii) the National Volume. The techniques of presentation should be versatile and thought provoking and, therefore, the technical planning of the Atlas has been undertaken in a manner so that the maps dealing with the patterns of population distribution, characteristics and dispersals portray contemporary trends and issues. The Atlases include a few general maps on administrative and physical aspects to introduce the region, followed by detailed maps on demographic, economic and socio-cultural aspects consisting of distribution, density and growth of population, age and sex, urban trends, census industrial categories, migration, literacy, religion, physically handicapped, scheduled castes and scheduled tribes, education and health. In all, the programme envisages to publish 31 volumes for the country. The leading volume is the all India one in the series. A standard list of themes has been generated for presentation of maps according to census data for each State/Union Territory and by cross-classification of data, the number of maps in these Atlases are kept at a minimum to make each volume handy. The Atlas volumes of the major states of the country may contain 114 maps, such as in the volume of Uttar Pradesh, while for smaller State/Union Territories there will be a minimum of 50 sheets as in the case of Pondicherry. The all-India (National) volume contains 93 map plates and interpretations with diagrams and statistical tables.

This Atlas programme has been executed under the planning and direction of Dr. B.K. Roy, Deputy Registrar General (Map). Well knit teams worked in the Map Division in my office and the Map Units of the offices of the Directors of Census Operations of States and Union Territories in the implementation of the programme. A list of all those who have contributed to the completion of the work is given separately in this volume. I congratulate the members of all teams and officers associated with the project on their excellent work and their dedication which contributed to the success of this venture. I hope the volumes will answer the needs and get the approval of scholars, planners, administrators, travellers and the general readers.

New Delhi
10th March. 1988

V.S. VERMA
REGISTRAR GENERAL
&
CENSUS COMMISSIONER, INDIA

PREFACE

Publication of Census Atlas series was first taken up in 1961 Census. Since then there has been an all round appreciation of this publication and that the demand for this publication has been on the increase. This volume contains maps, write ups and related tables, depicting mainly physical aspects like soils, rainfall, temperature etc., demographic structure and trends, socio-economic and cultural aspects of the population etc. There are 104 maps in this volume of which 40 maps are on demographic structure and trends, 35 on socio-cultural aspects and 21 on economic aspects.

The data used for the preparation of the maps and the interpretations are mainly from my office records of 1981 Census. However, there are some important maps for which the data were supplied by the State Government departments and other Central Government agencies. I thank the officials of these departments for their kind co-operation in this regard. The excellent map work was done by a team of officials in the Cartographic division of my office. Similarly the interpretation to the maps and the tabulation of the data are done by a few dedicated officials of my office. A list of all the officials involved in the preparation of this volume is given separately. I thank them for their excellent work. I also thank Shri R. Narayanan, Asstt. Director who helped me in finalising the maps and analytical notes.

I am deeply grateful to Shri V.S. Verma, Registrar General, India for his timely encouragement in bringing out this publication. I thank Dr. B.K. Roy, Dy. Registrar General, India (Map), Smt. Minati Ghosh, Asstt. Registrar General (Map) and their staff for having extended unstinted help in finalising the maps.

My thanks are also due to Shri B.P. Jain, Dy. Director (Printing) and his staff for having got this publication printed within the stipulated time.

Madras
February, 1989

M. THANGARAJU
Deputy Director

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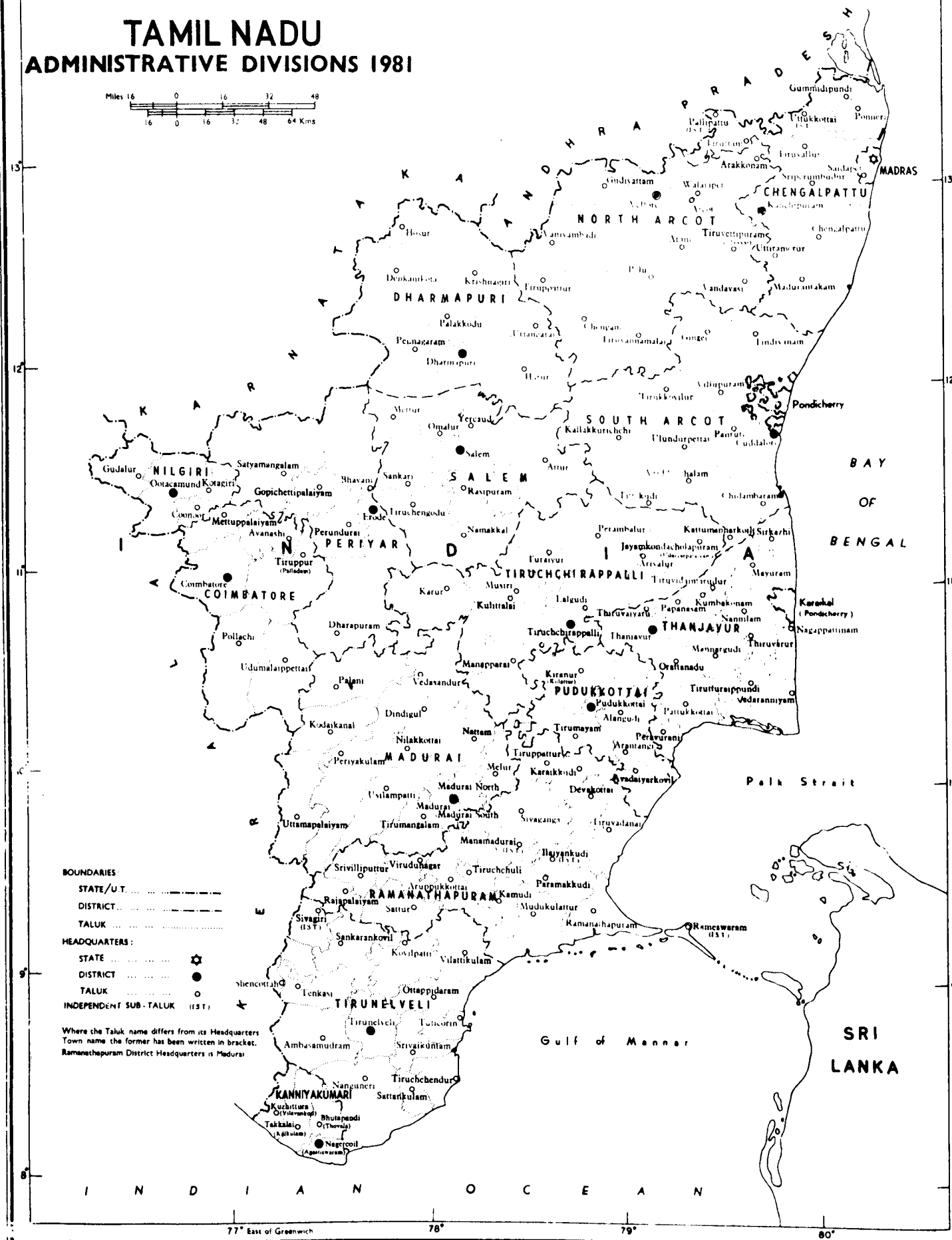
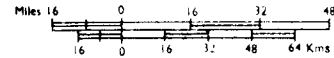
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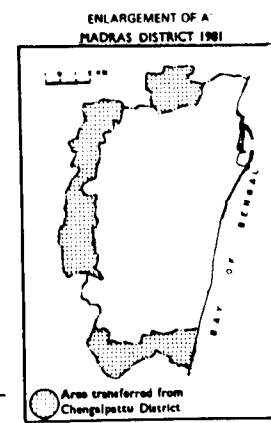
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TAMIL NADU ADMINISTRATIVE DIVISIONS 1981

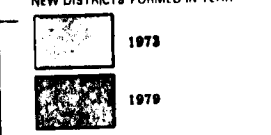


TAMIL NADU CHANGES IN ADMINISTRATIVE BOUNDARIES 1971-81

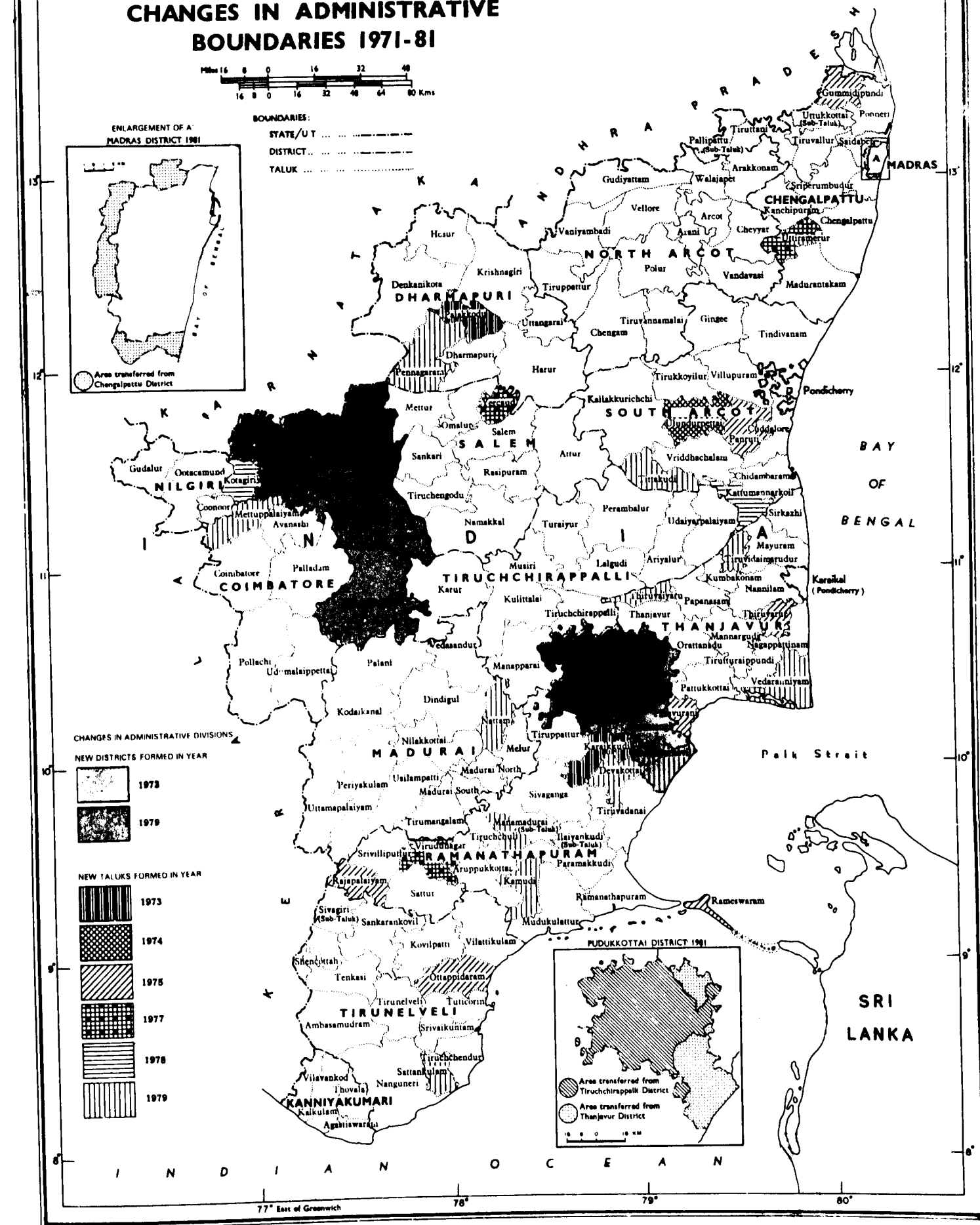
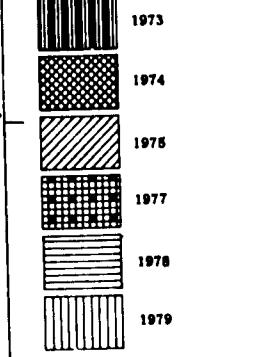


BOUNDARIES:
STATE/U.T.
DISTRICT
TALUK

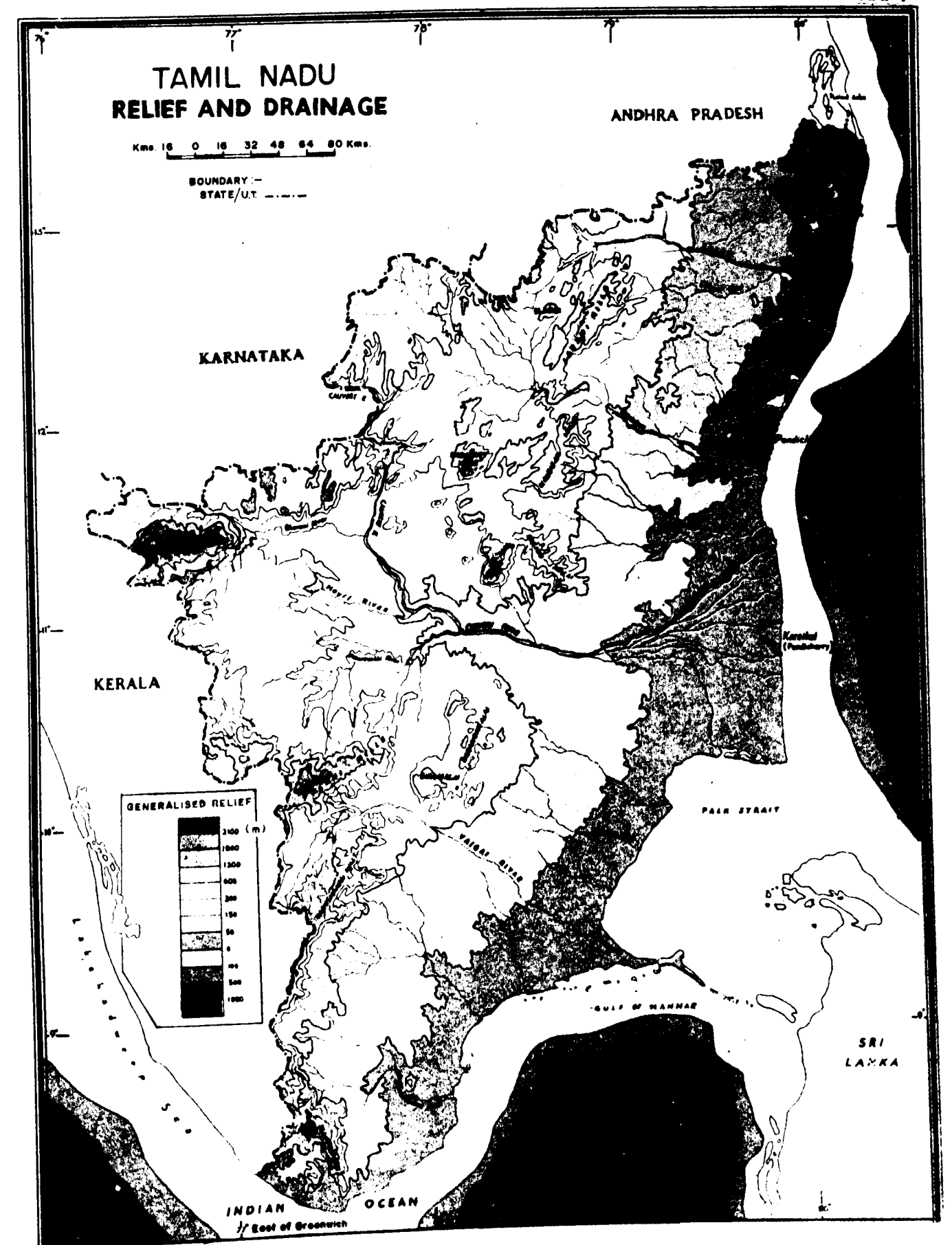
CHANGES IN ADMINISTRATIVE DIVISIONS
NEW DISTRICTS FORMED IN YEAR

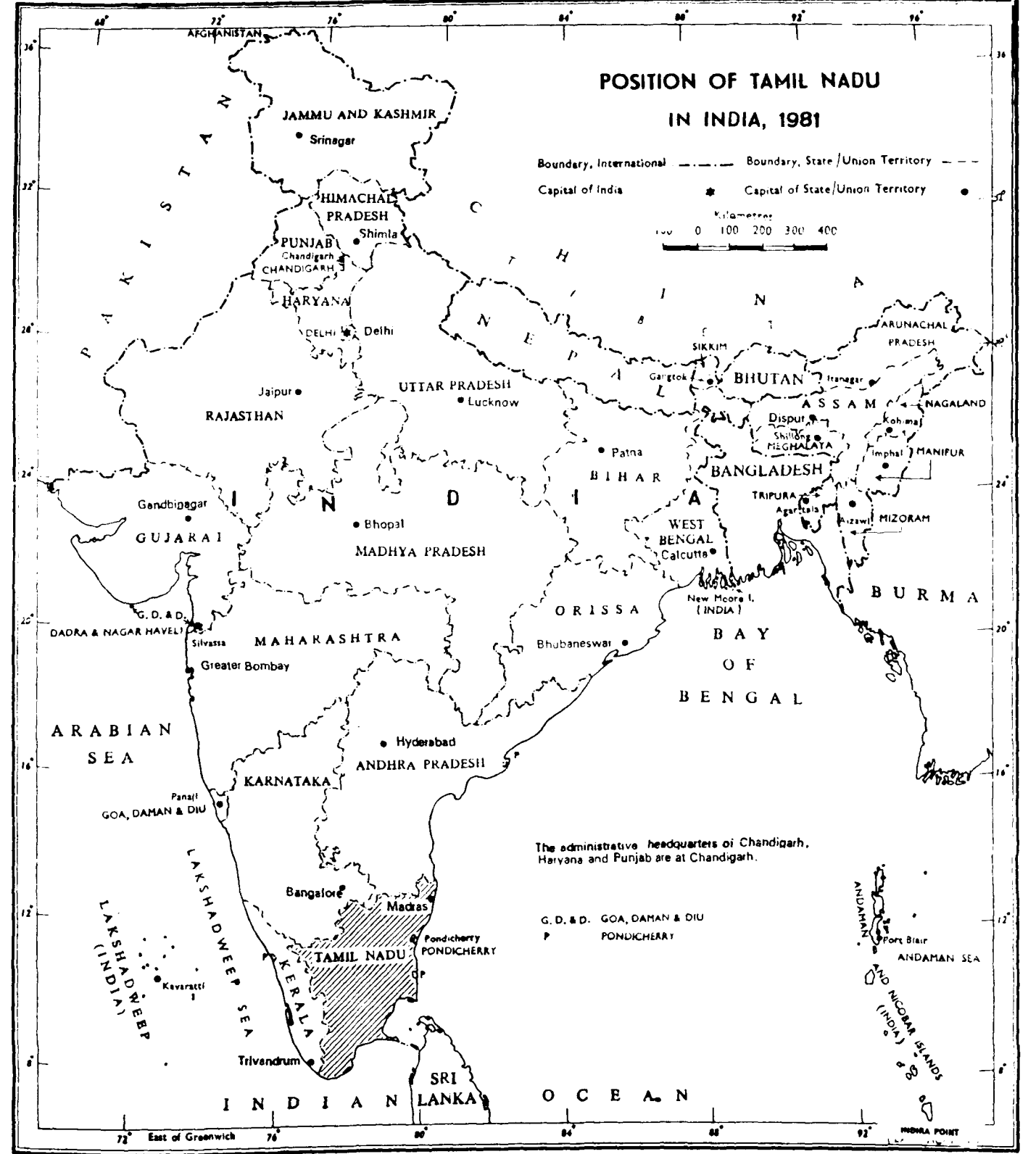


NEW TALUKS FORMED IN YEAR



2. PHYSICAL ASPECTS



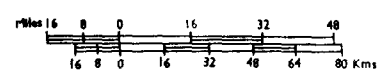


Based upon Survey of India map with the permission of the Surveyor General of India.
The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

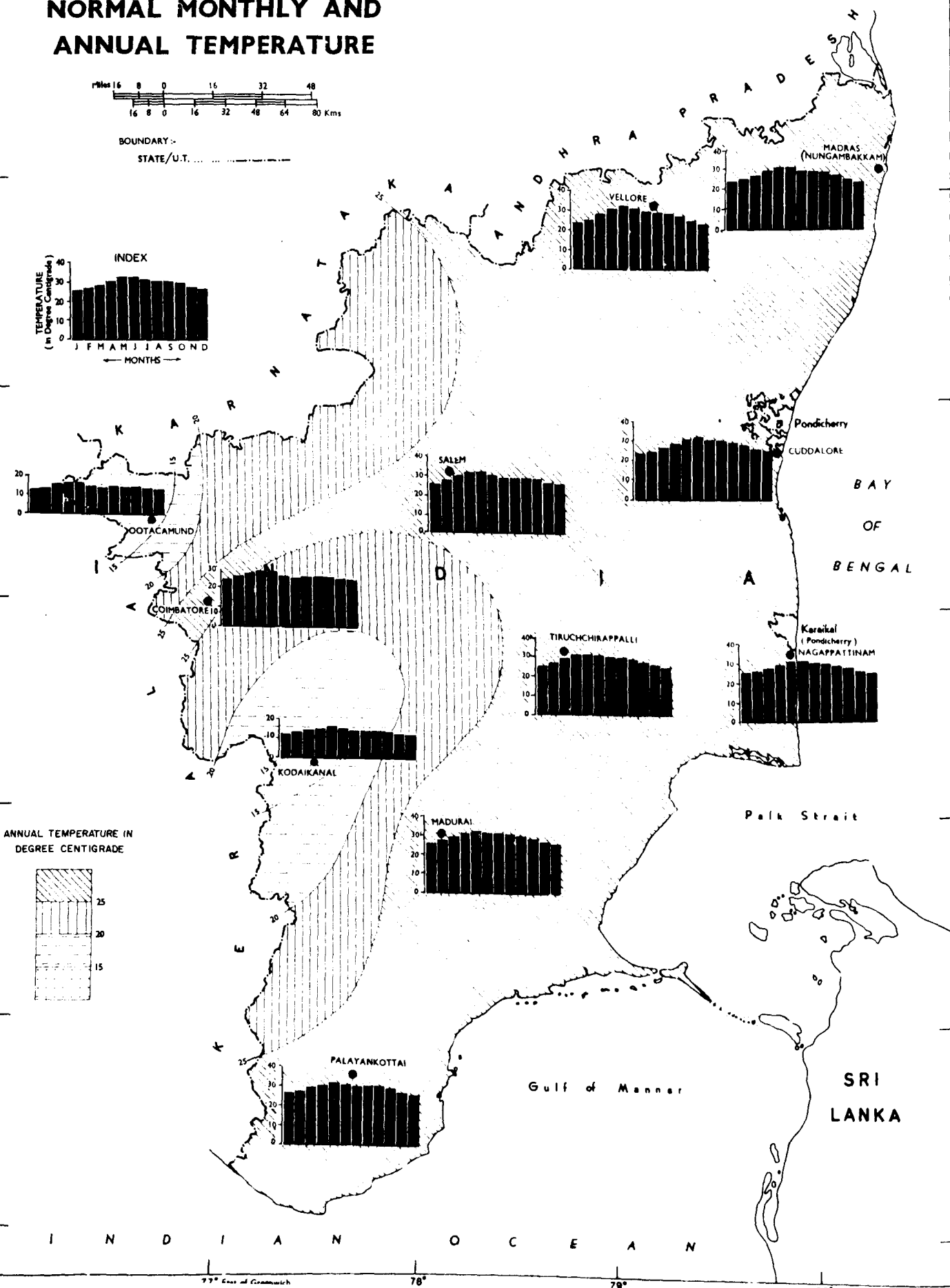
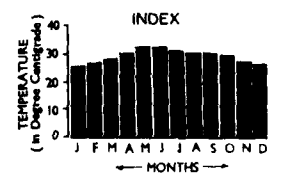
The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

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TAMIL NADU NORMAL MONTHLY AND ANNUAL TEMPERATURE



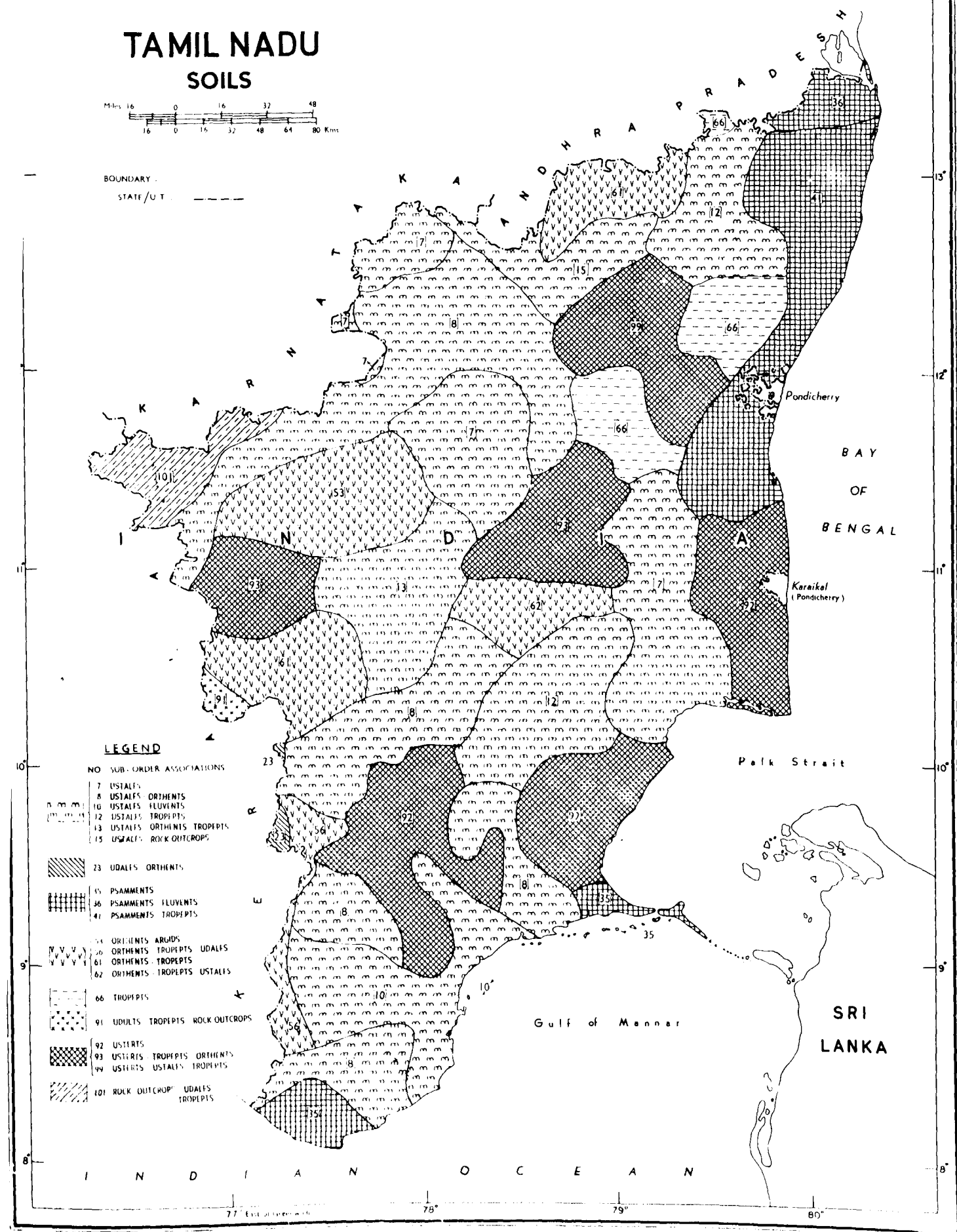
BOUNDARY -
STATE/U.T. - - - - -



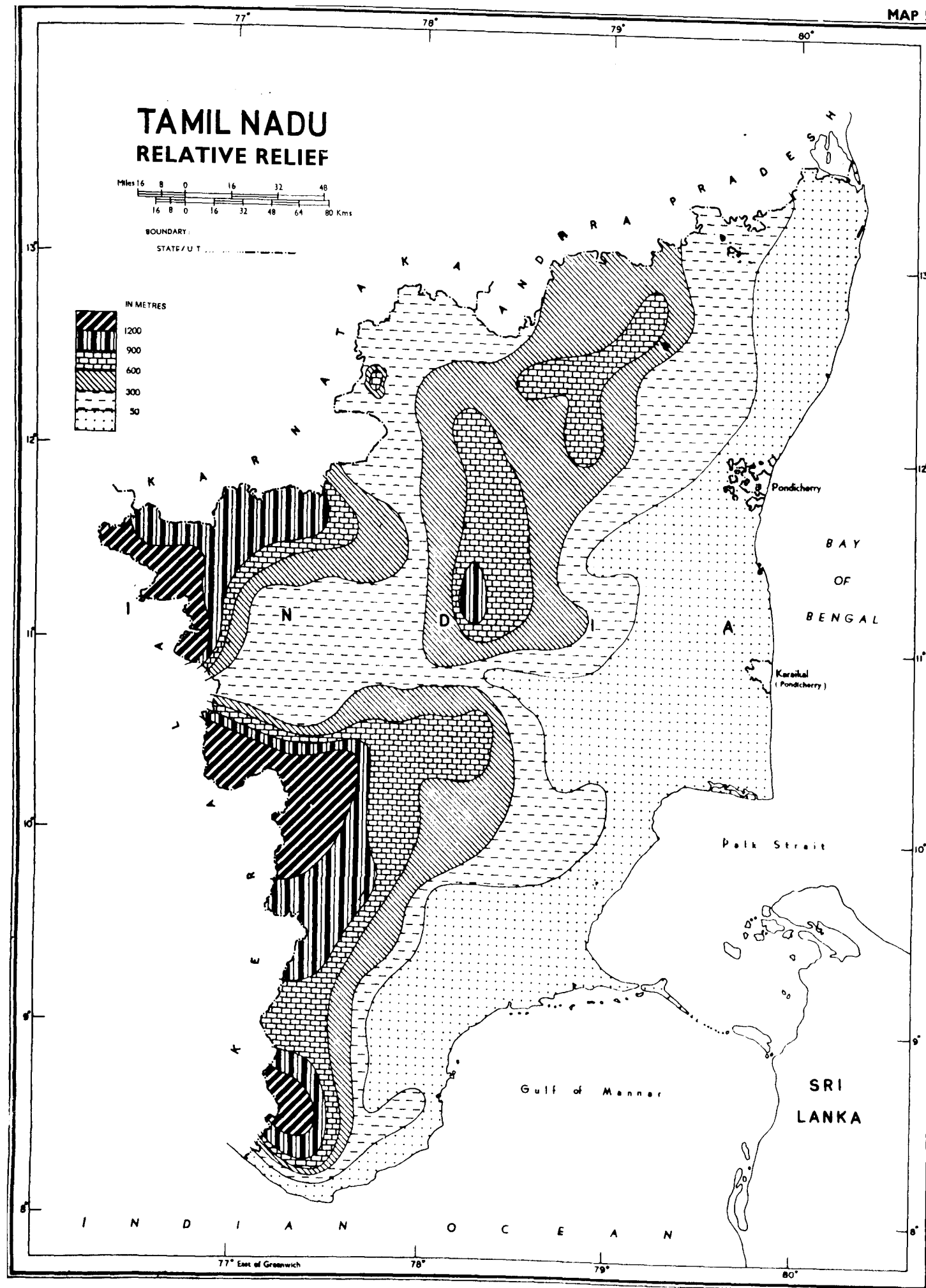
TAMIL NADU SOILS



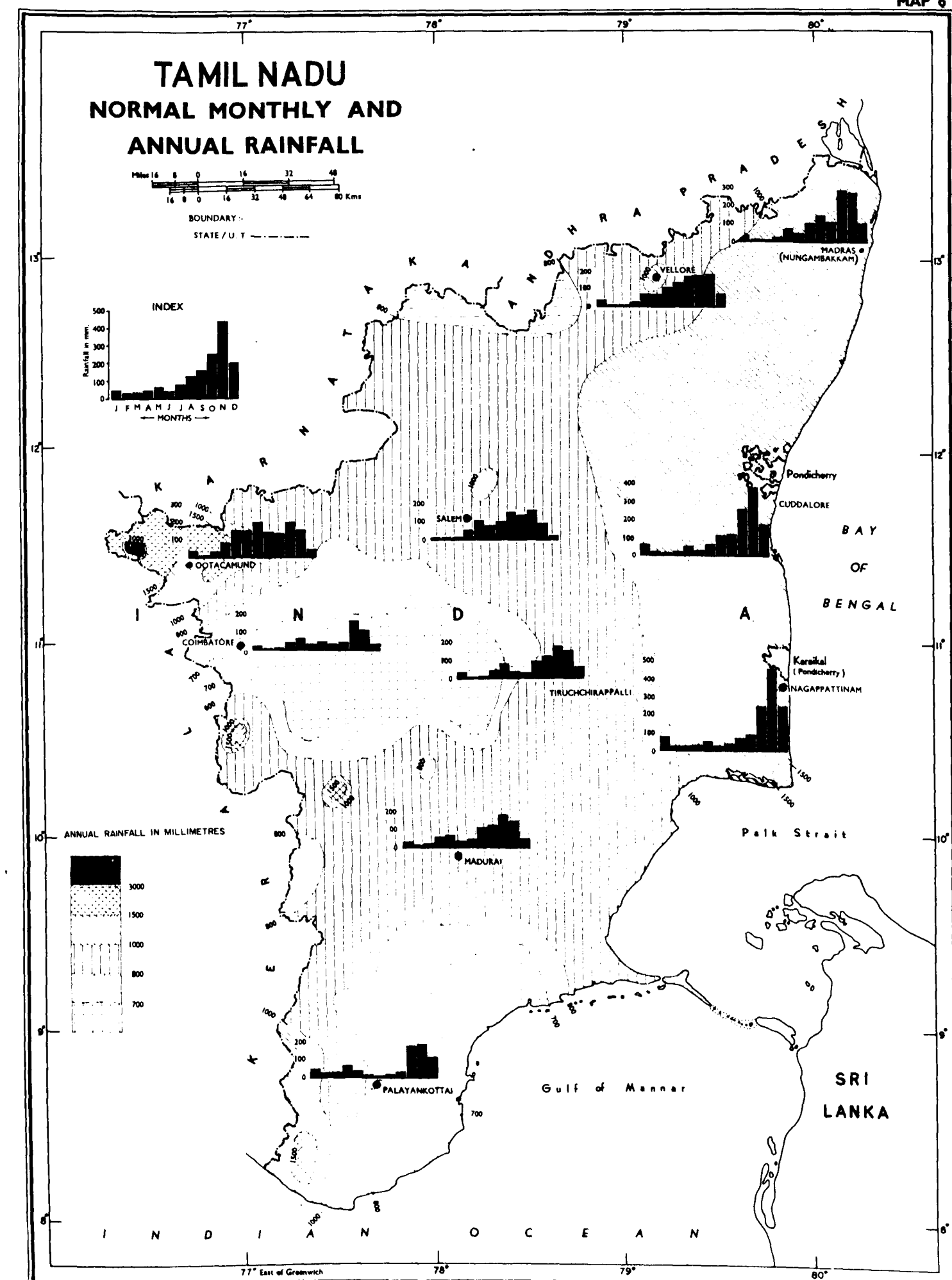
BOUNDARY -
STATE/U.T. - - - - -



MAP 5



MAP 6



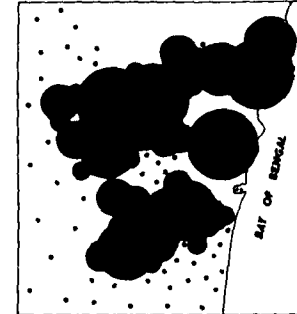
II. DEMOGRAPHIC STRUCTURE AND TRENDS

3. DISTRIBUTION, DENSITY AND GROWTH

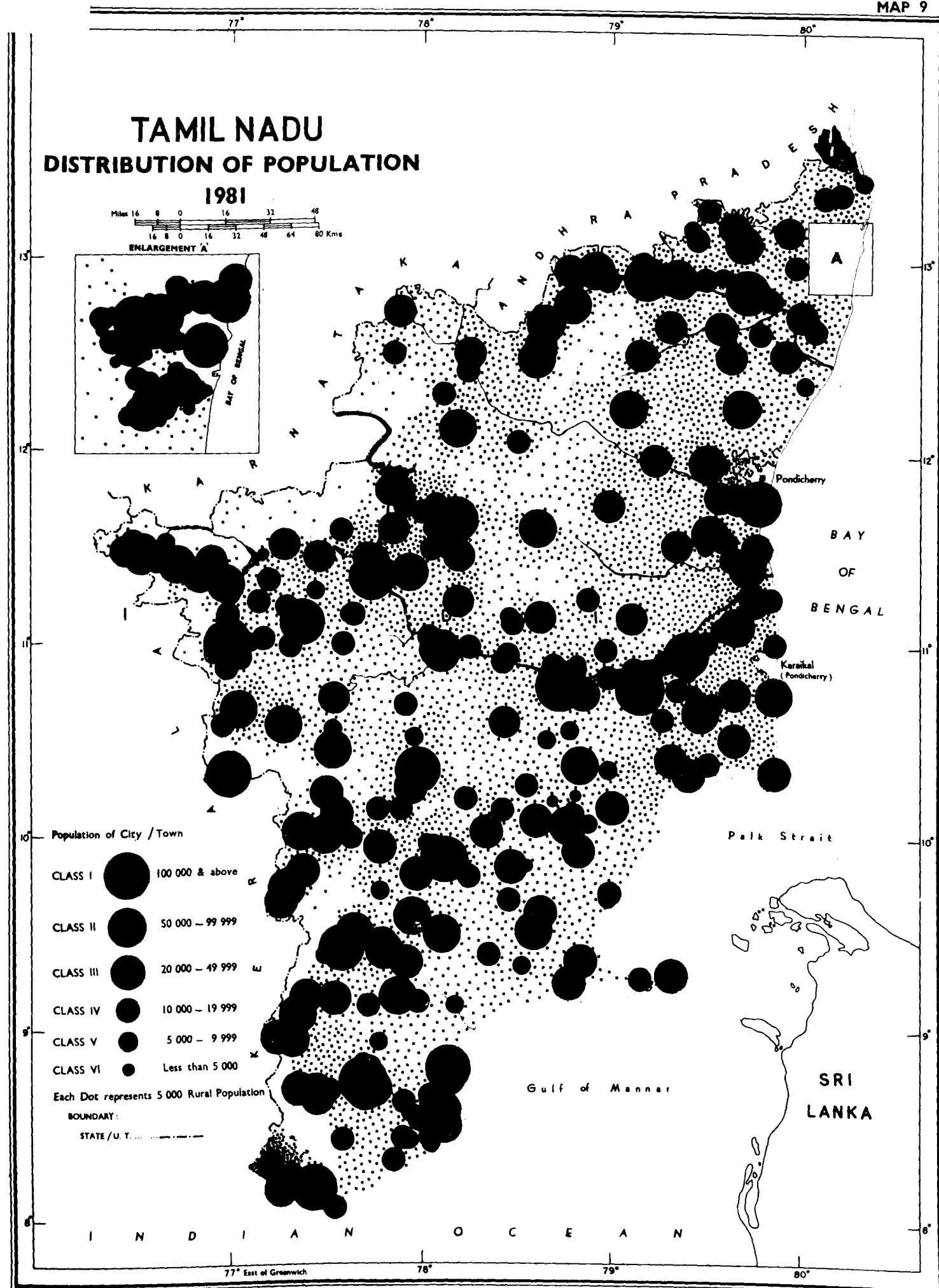
TAMIL NADU DISTRIBUTION OF POPULATION 1981

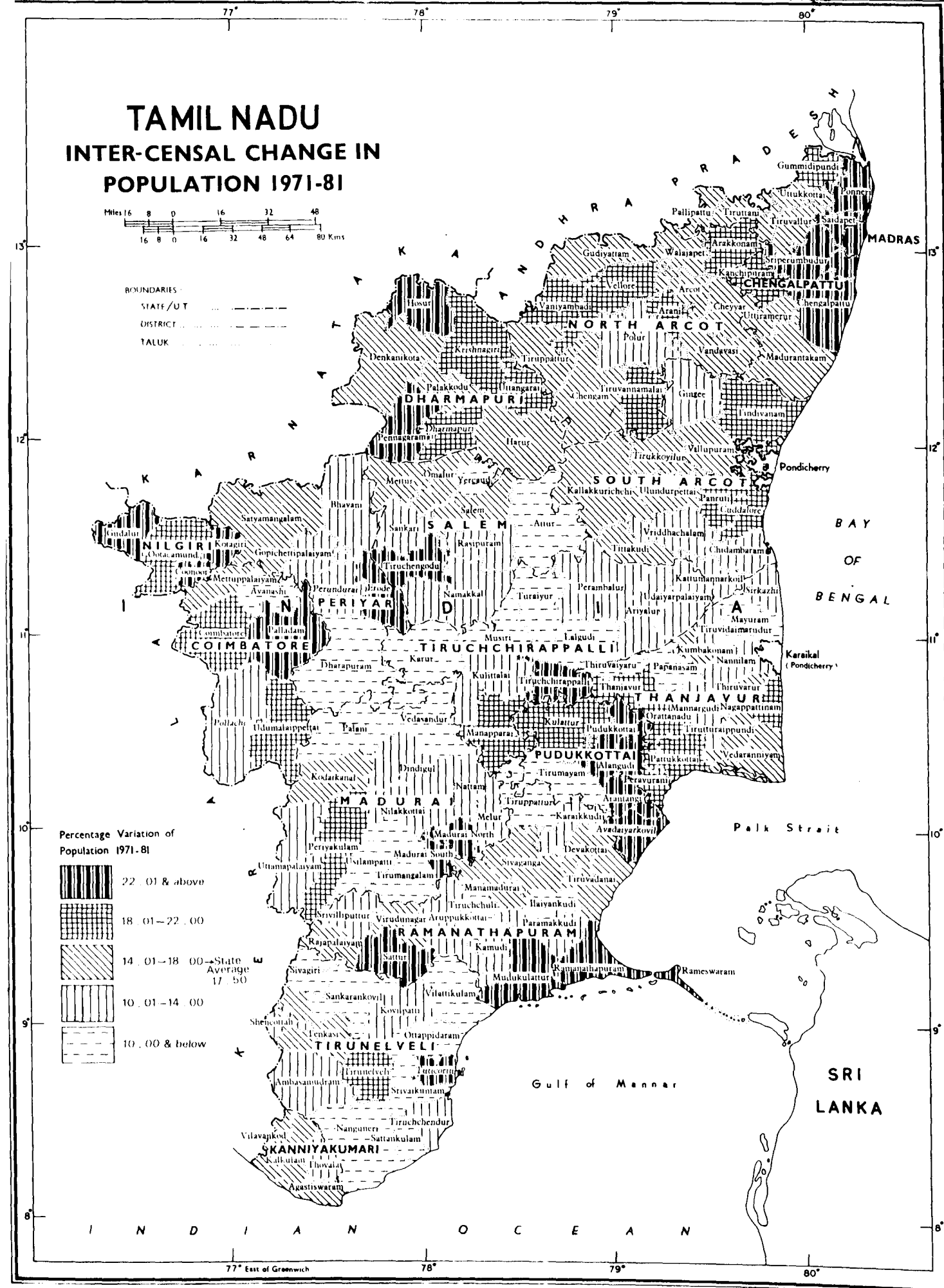
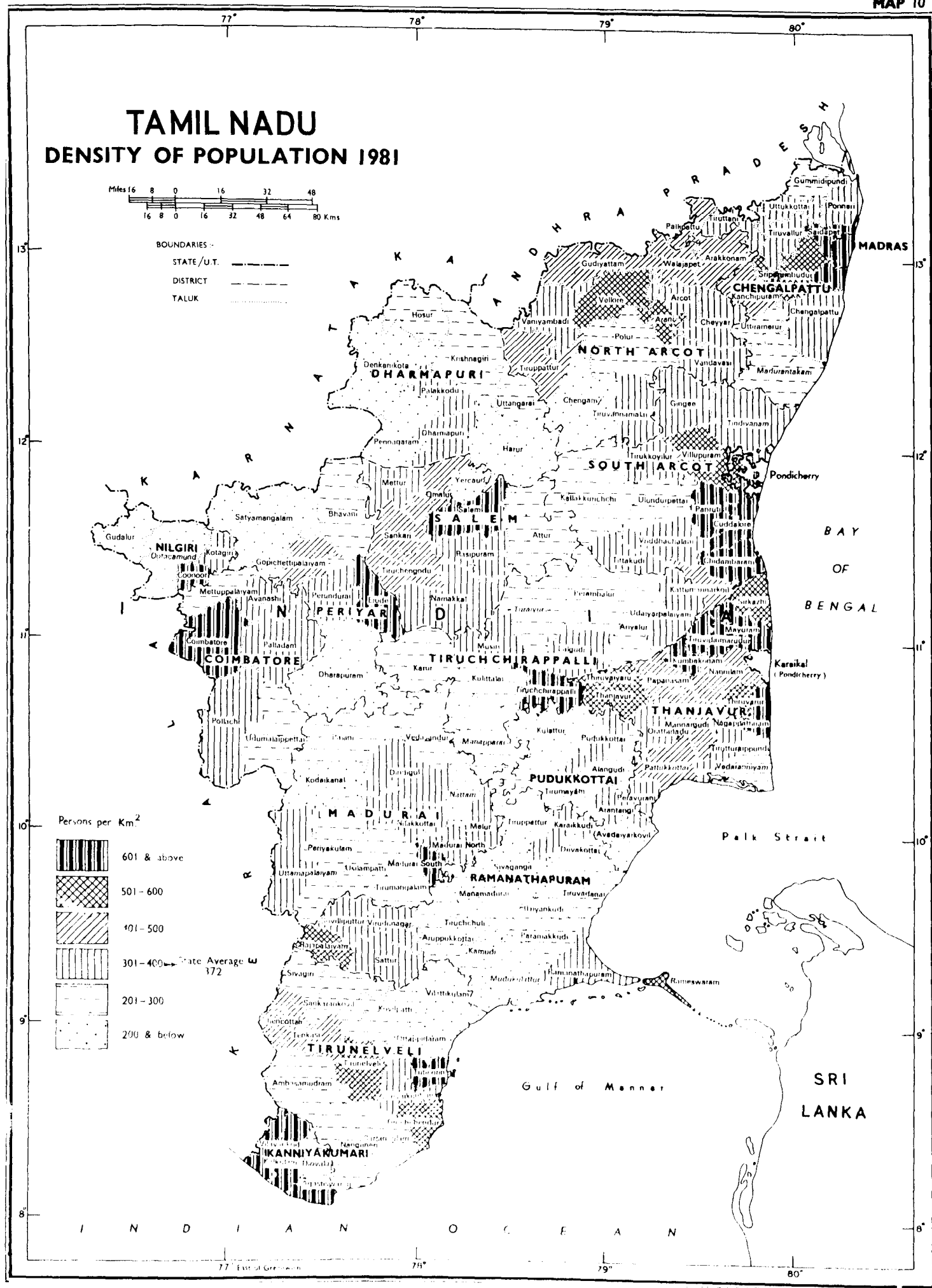
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16 8 0 16 32 48 64 80 Kms

ENLARGEMENT A

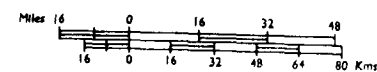


- Population of City / Town
- CLASS I 100 000 & above
 - CLASS II 50 000 - 99 999
 - CLASS III 20 000 - 49 999
 - CLASS IV 10 000 - 19 999
 - CLASS V 5 000 - 9 999
 - CLASS VI Less than 5 000
- Each Dot represents 5 000 Rural Population
- BOUNDARY:
STATE / U. T.

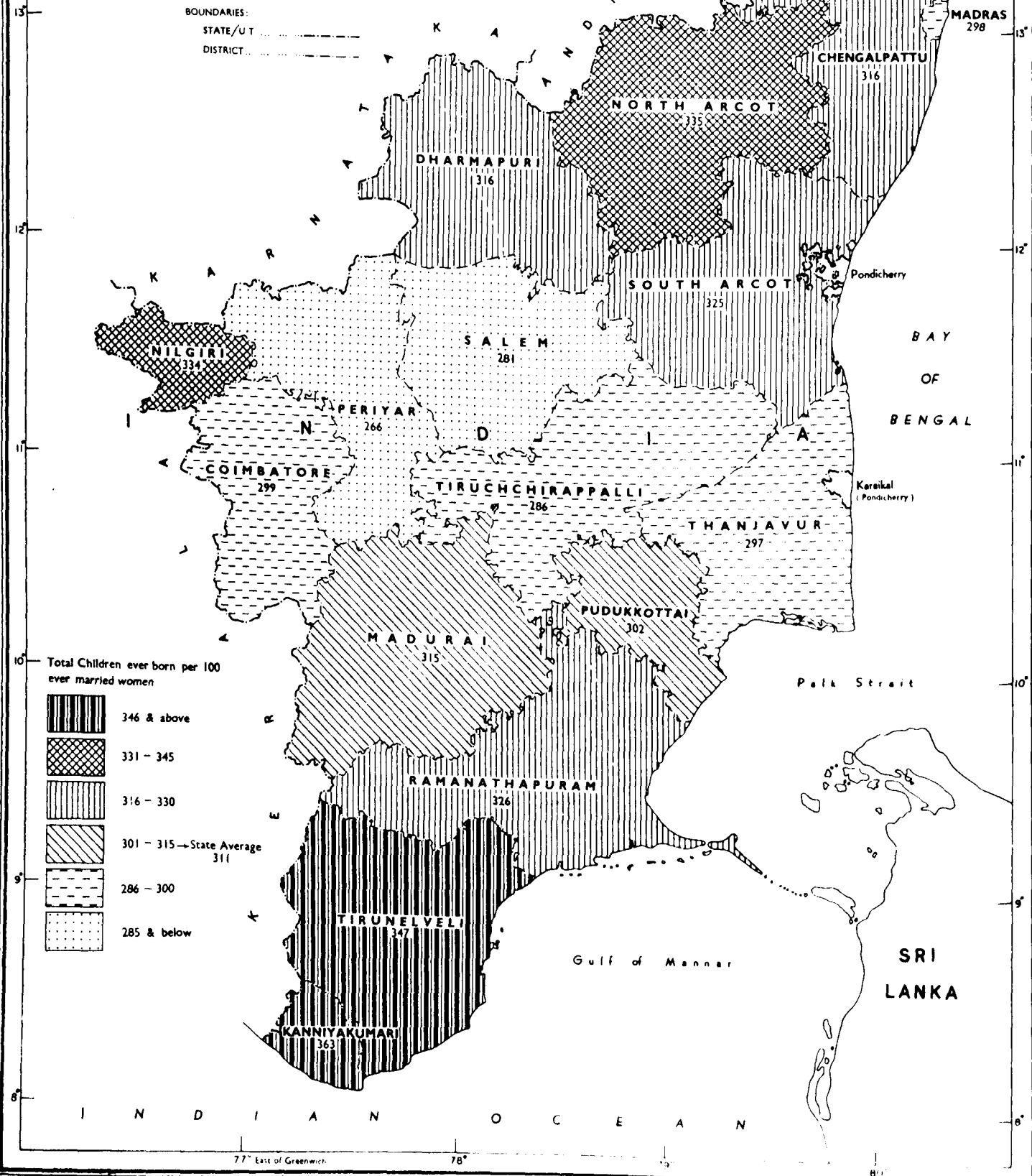




TAMIL NADU EVER MARRIED WOMEN AND TOTAL CHILDREN BORN TO THEM 1981

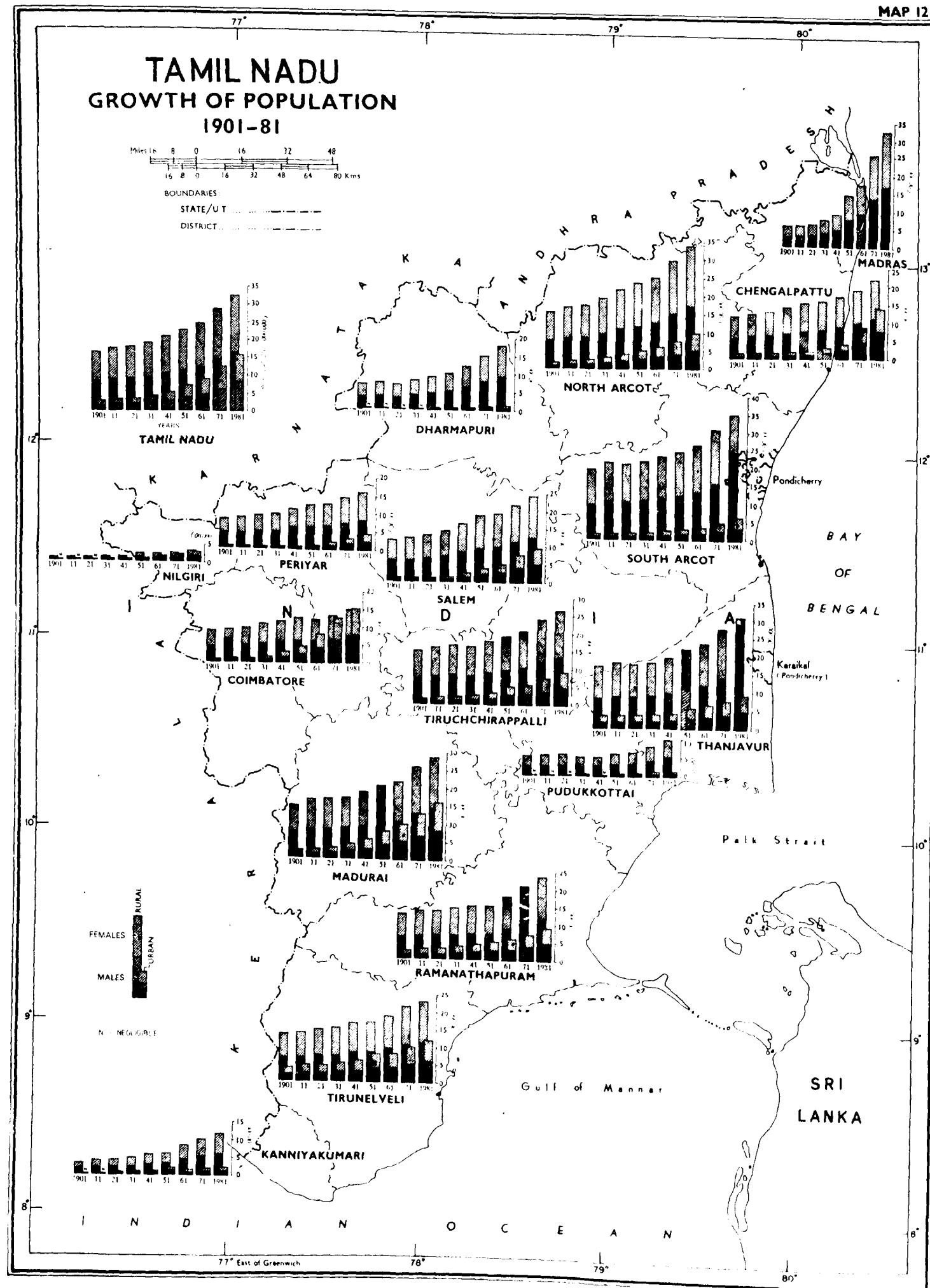


BOUNDARIES:
STATE/U.T.
DISTRICT

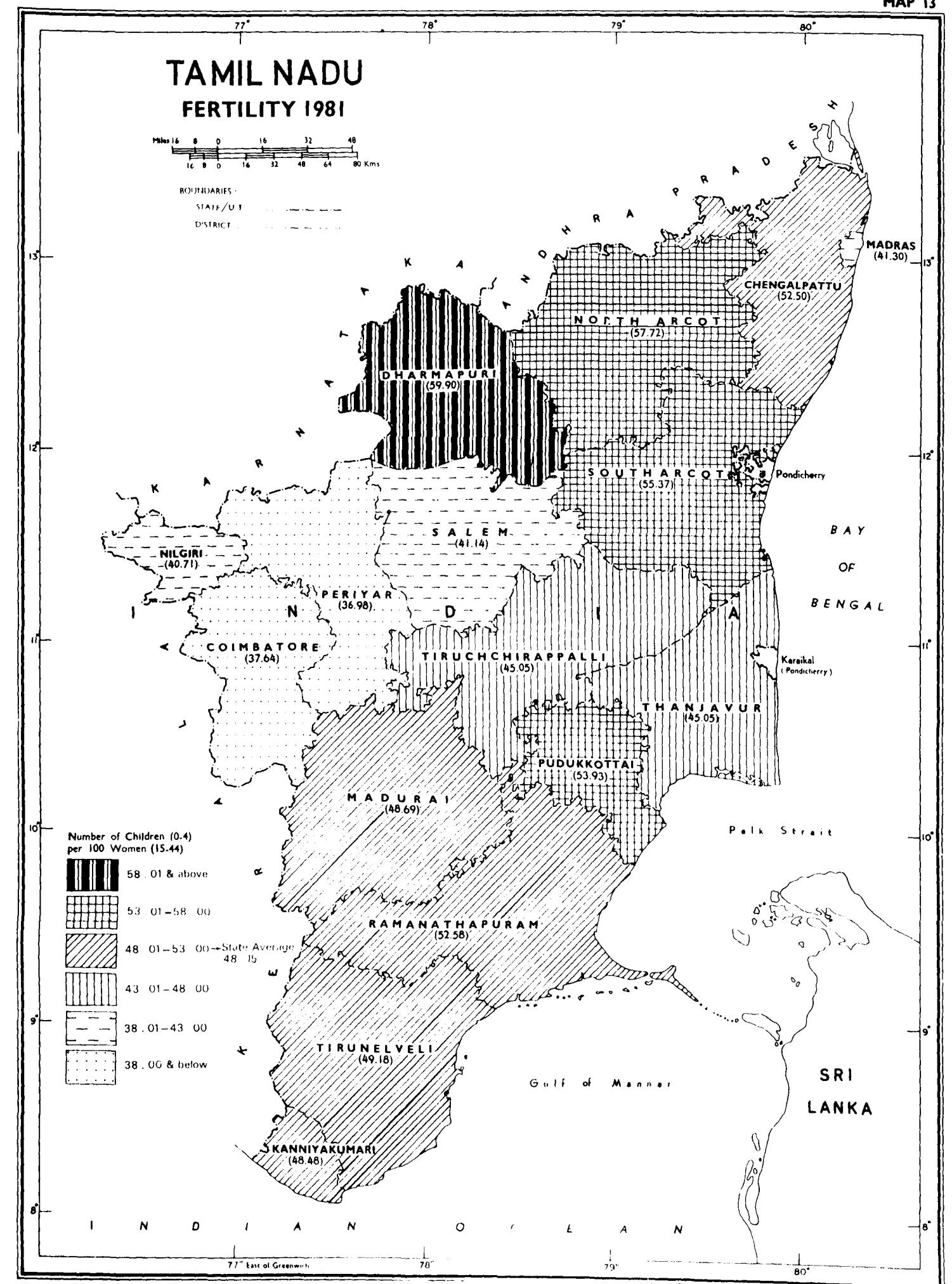


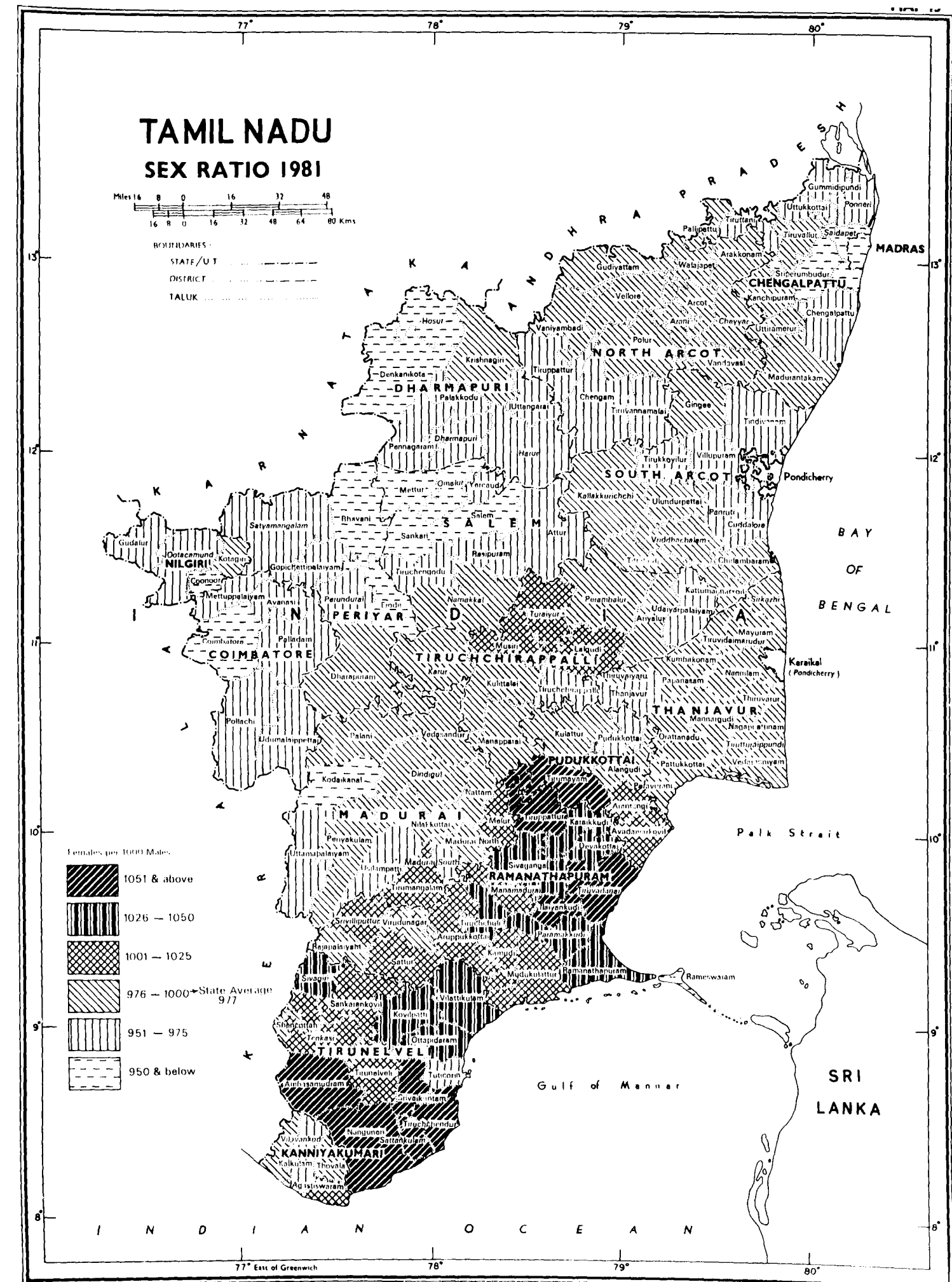
4. SEX AND AGE STRUCTURE

MAP 12

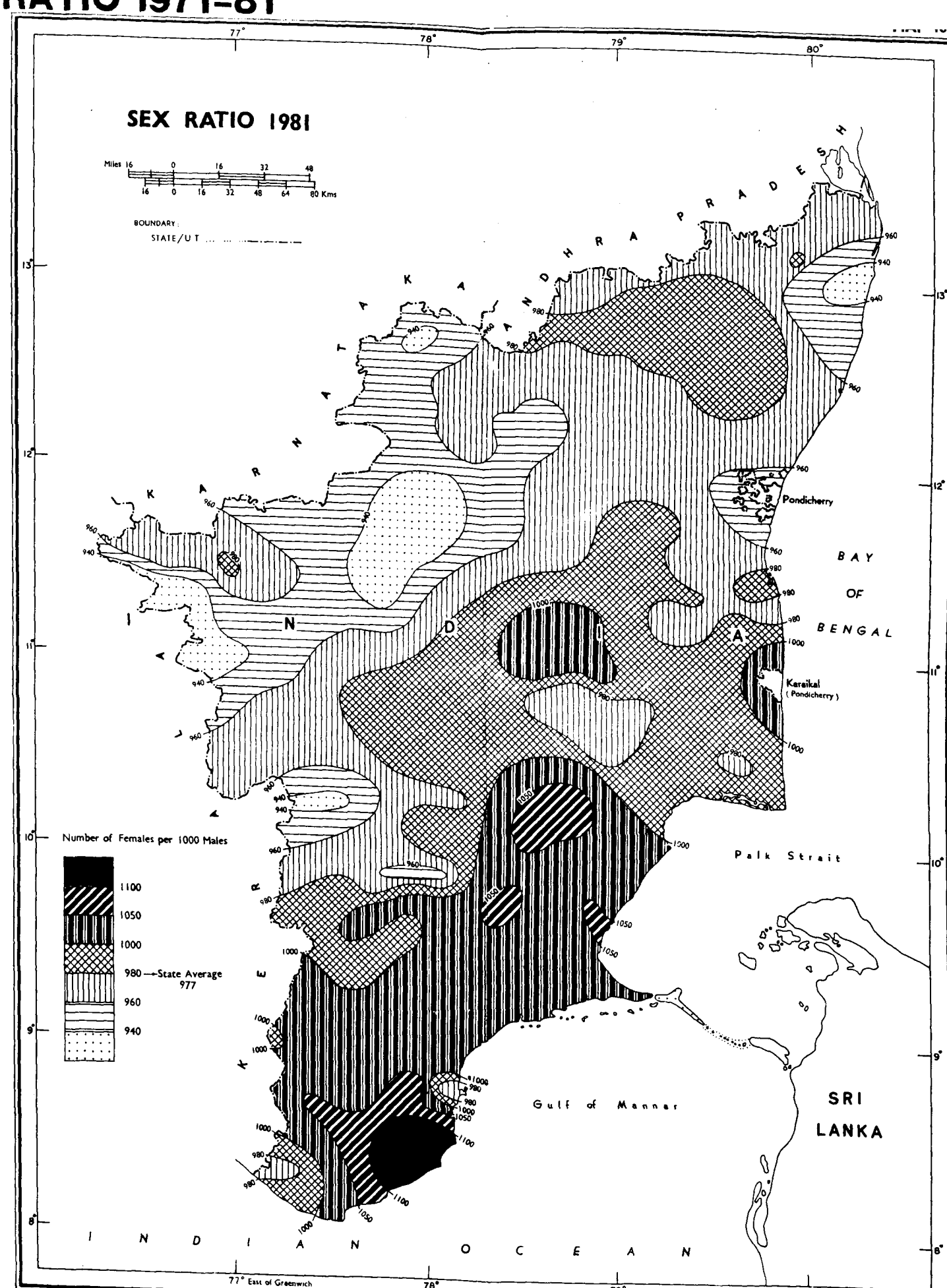
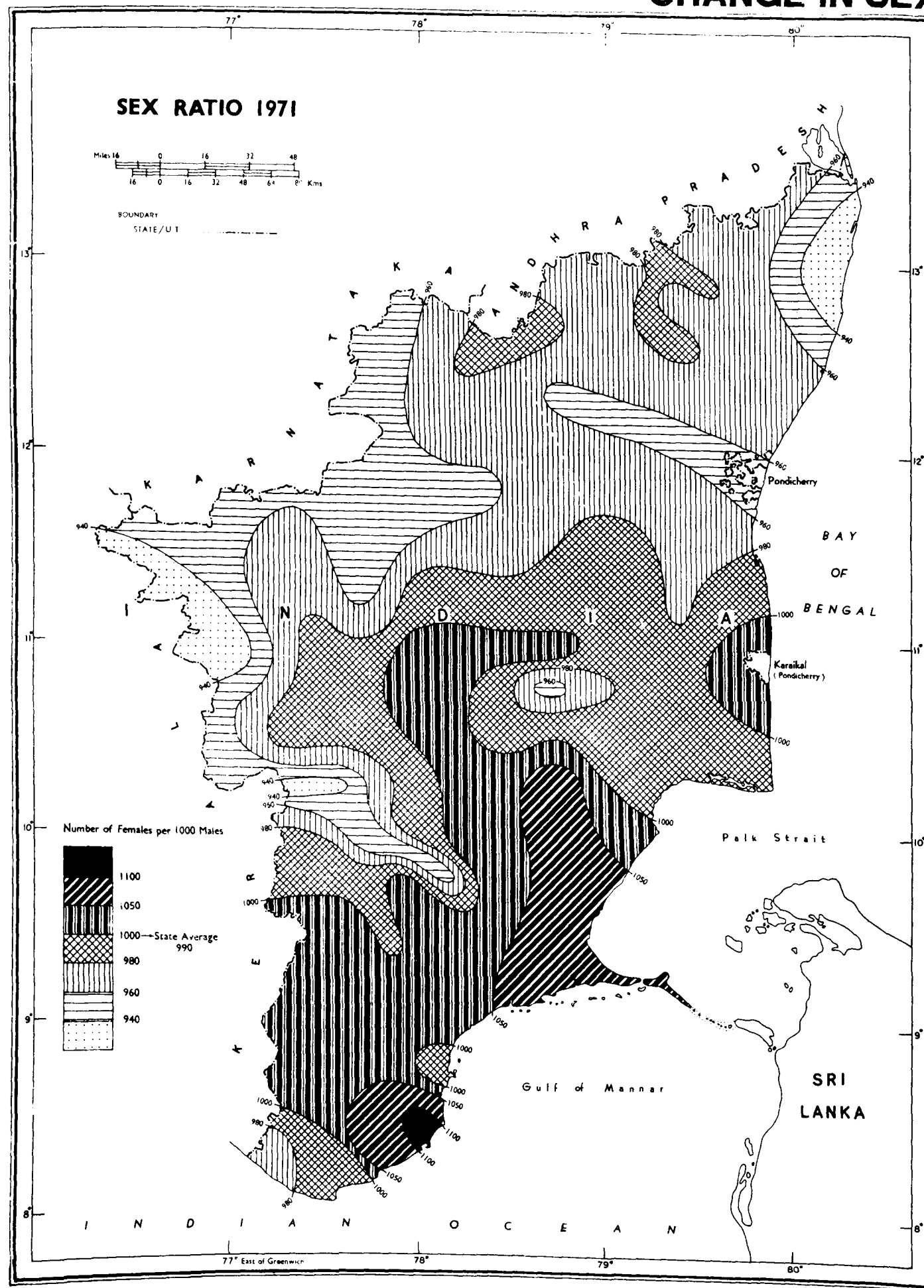


MAP 13



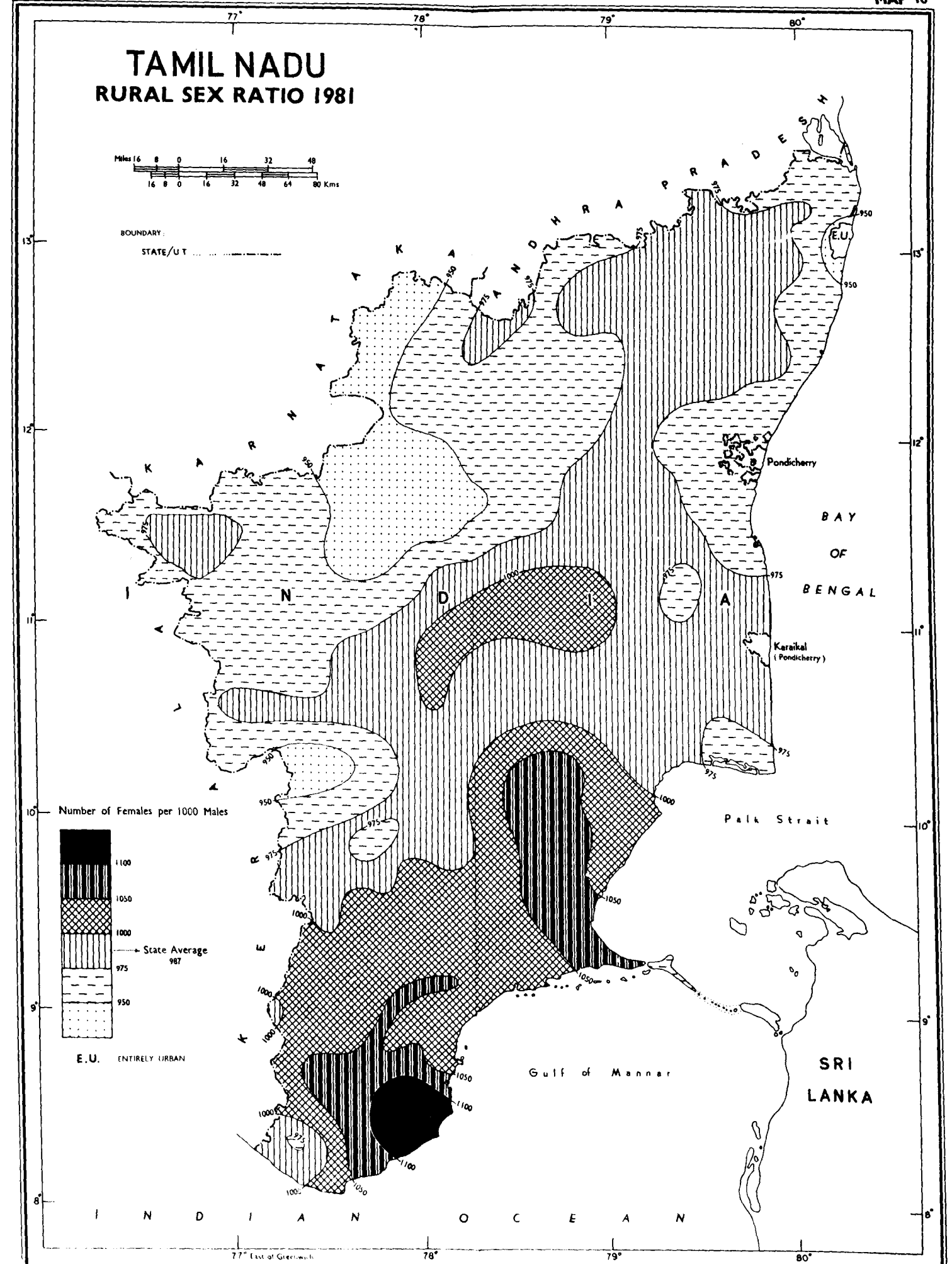
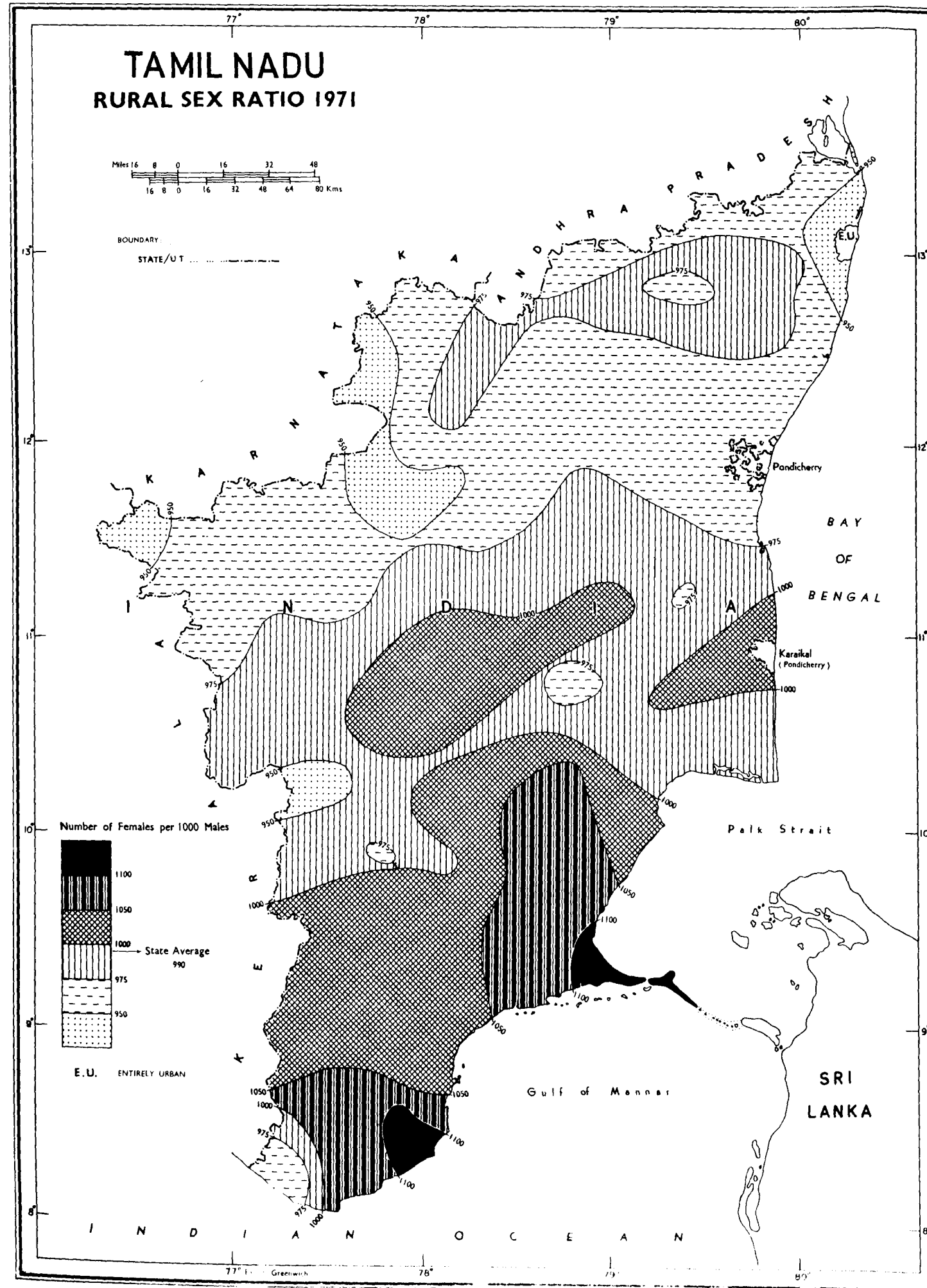


CHANGE IN SEX RATIO 1971-81



CHANGE IN RURAL SEX RATIO 1971-81

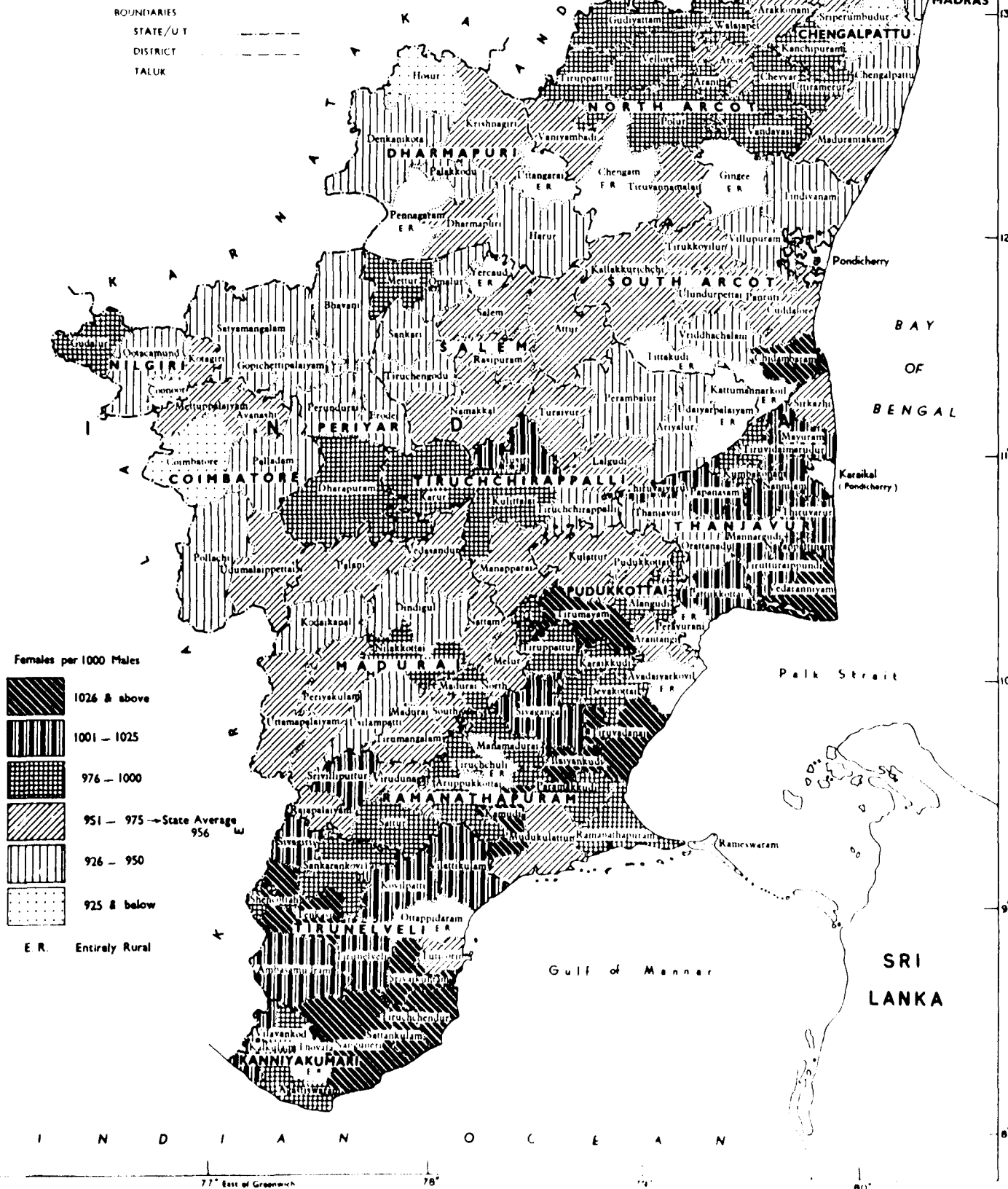
MAP 18



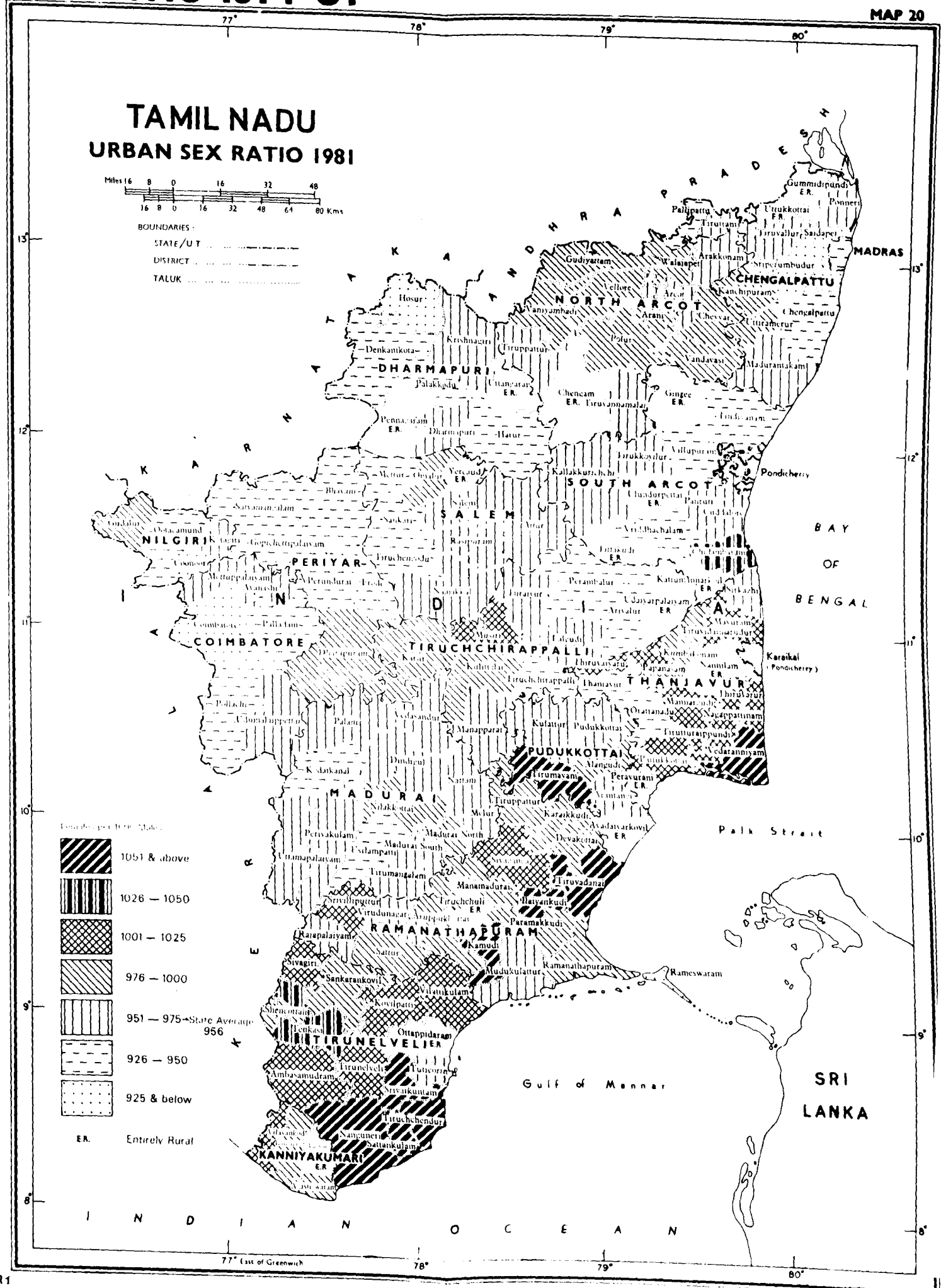
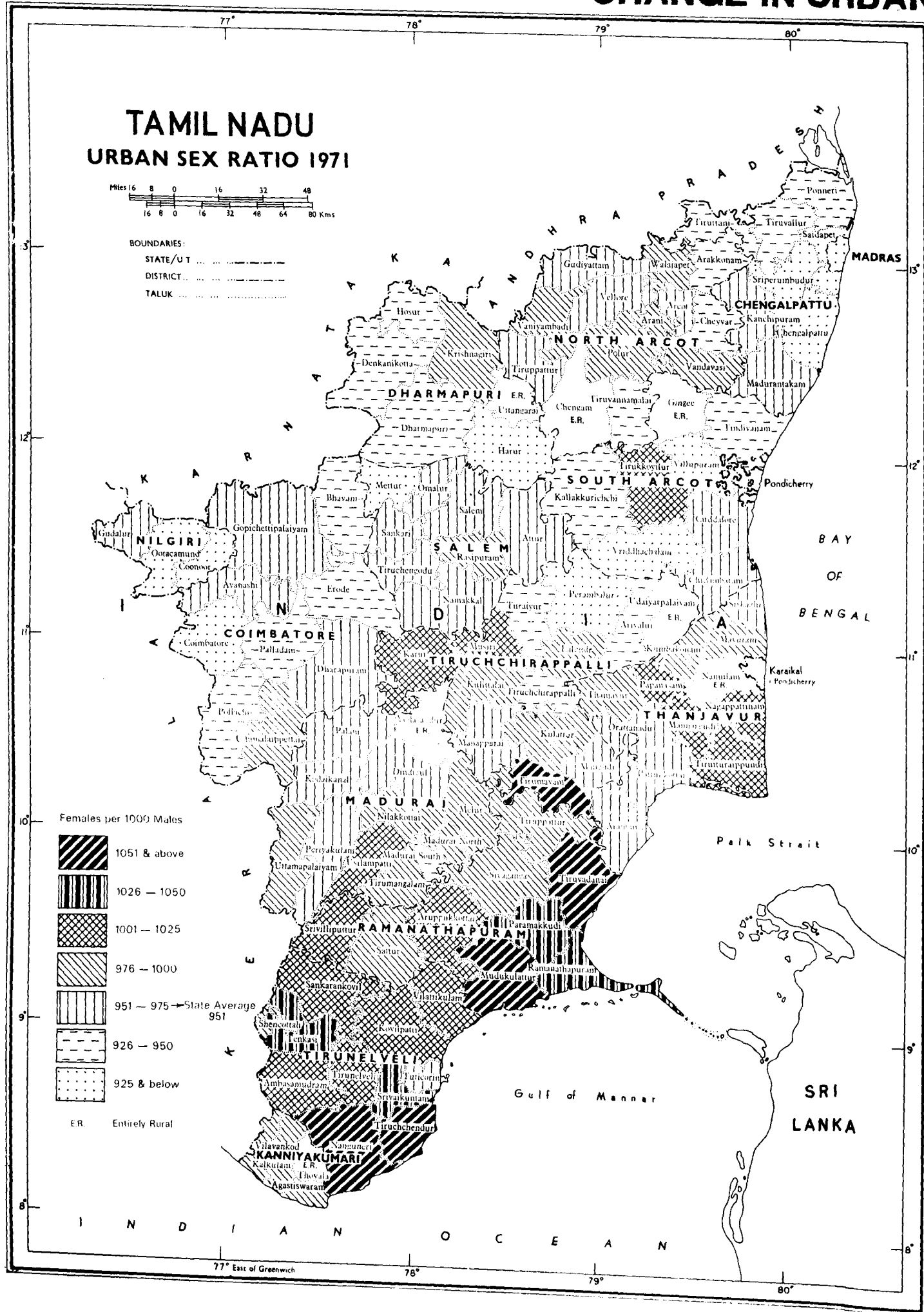
TAMIL NADU URBAN SEX RATIO 1981



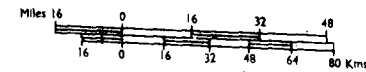
BOUNDARIES
STATE/U.T. ---
DISTRICT - - -
TALUK . . .



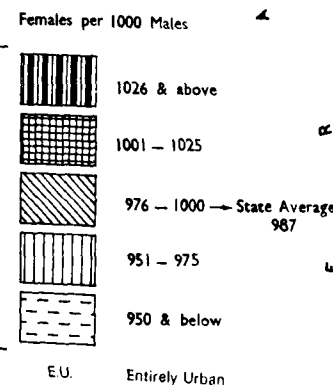
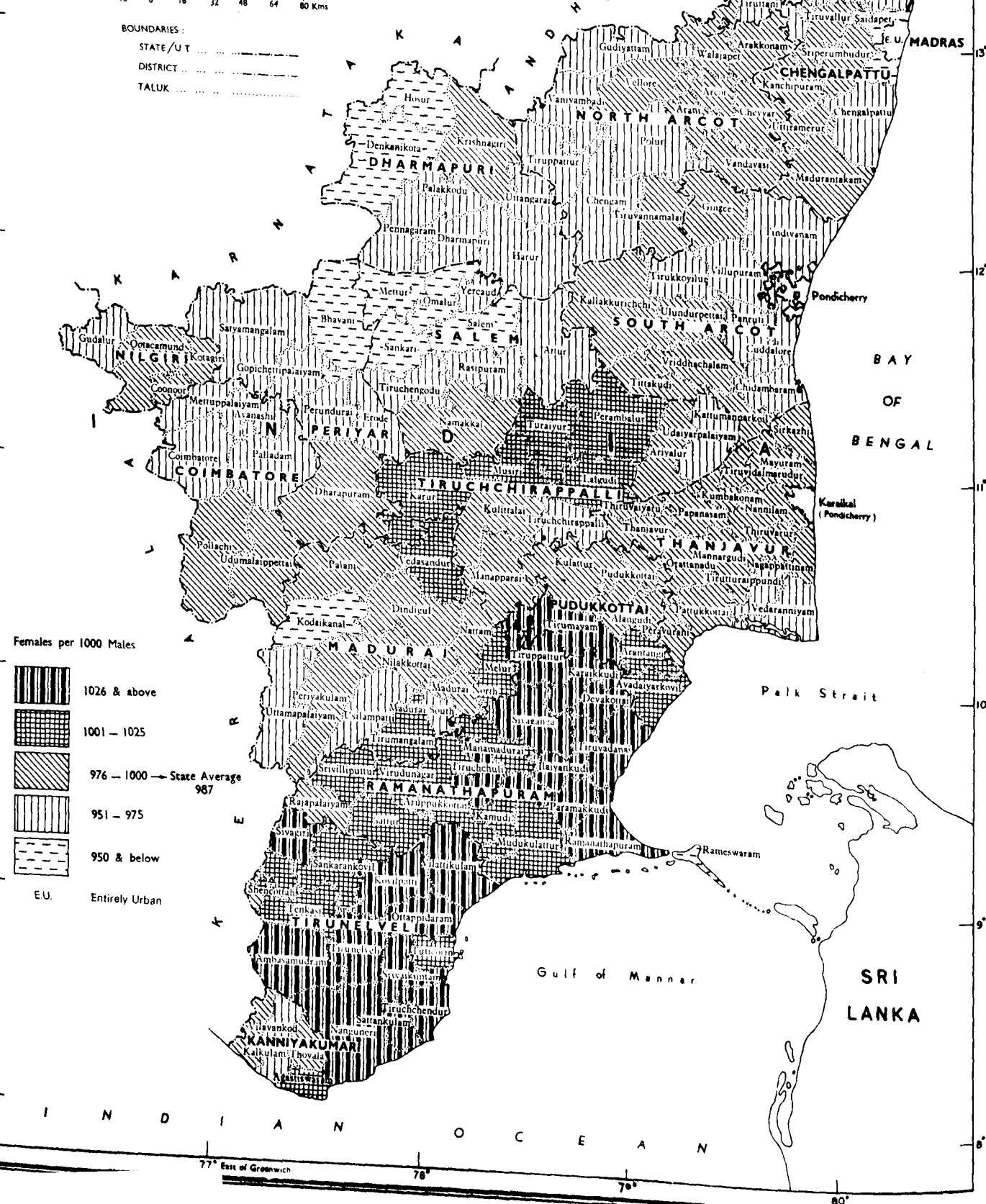
CHANGE IN URBAN SEX RATIO 1971-81

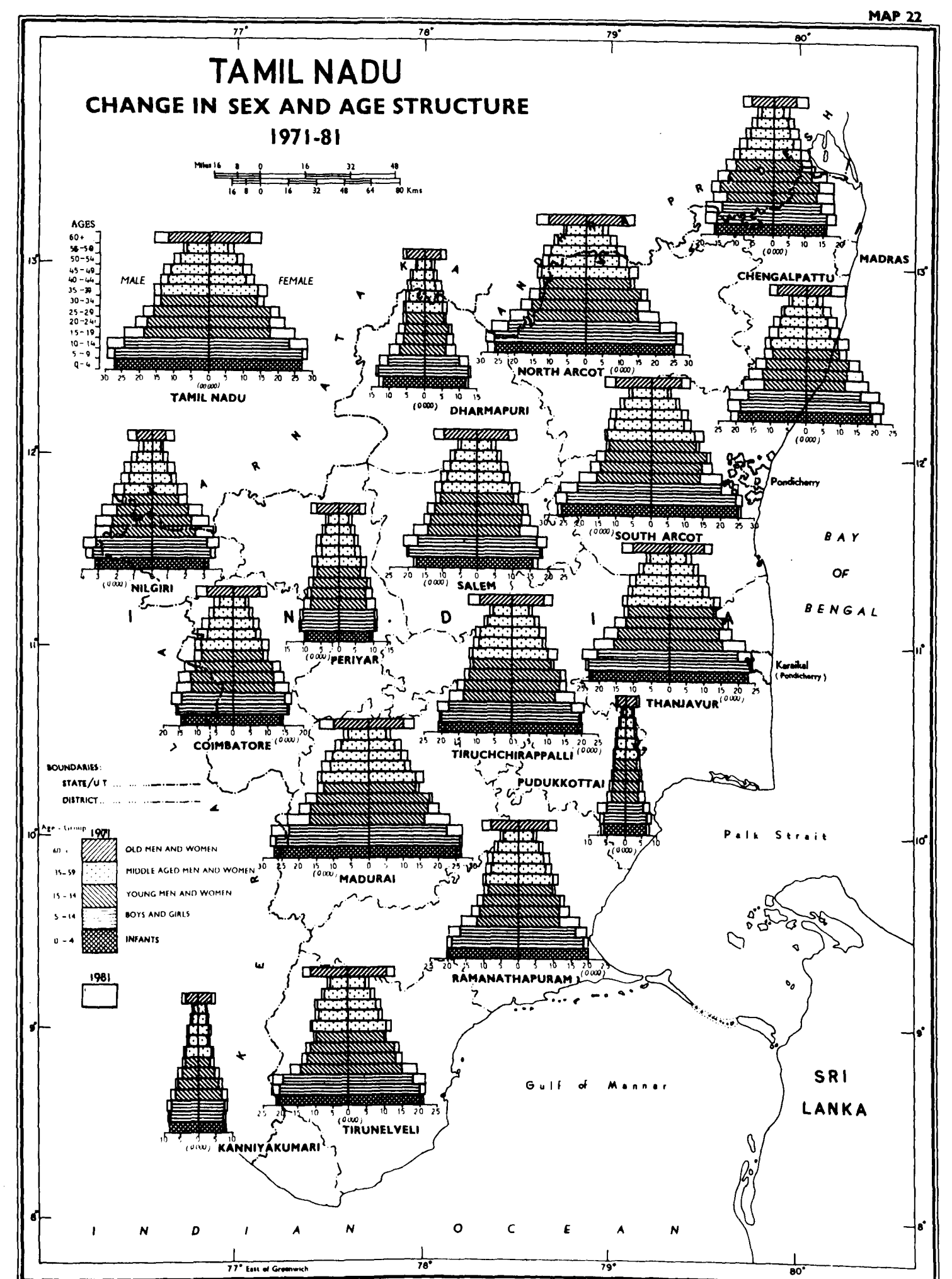
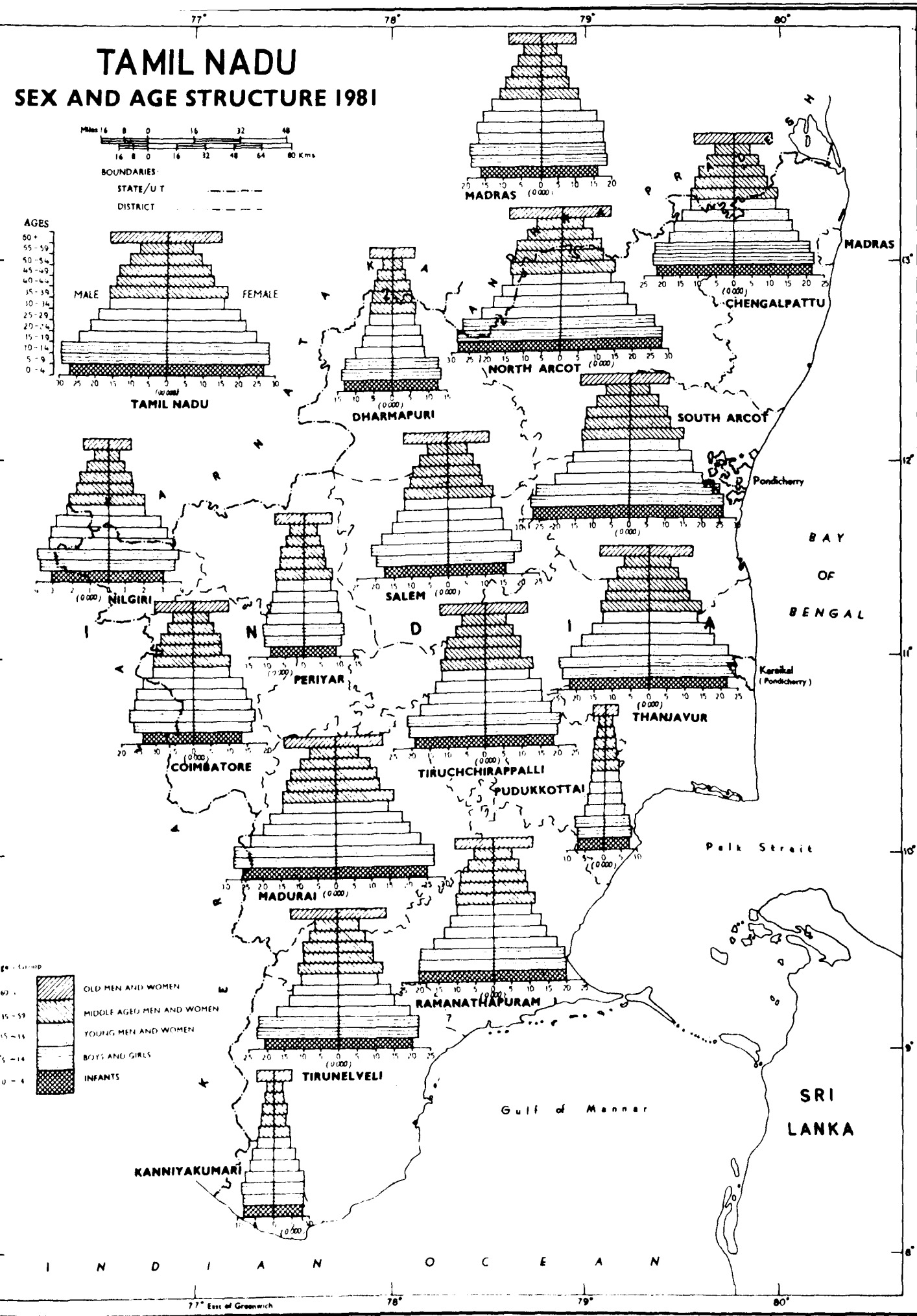


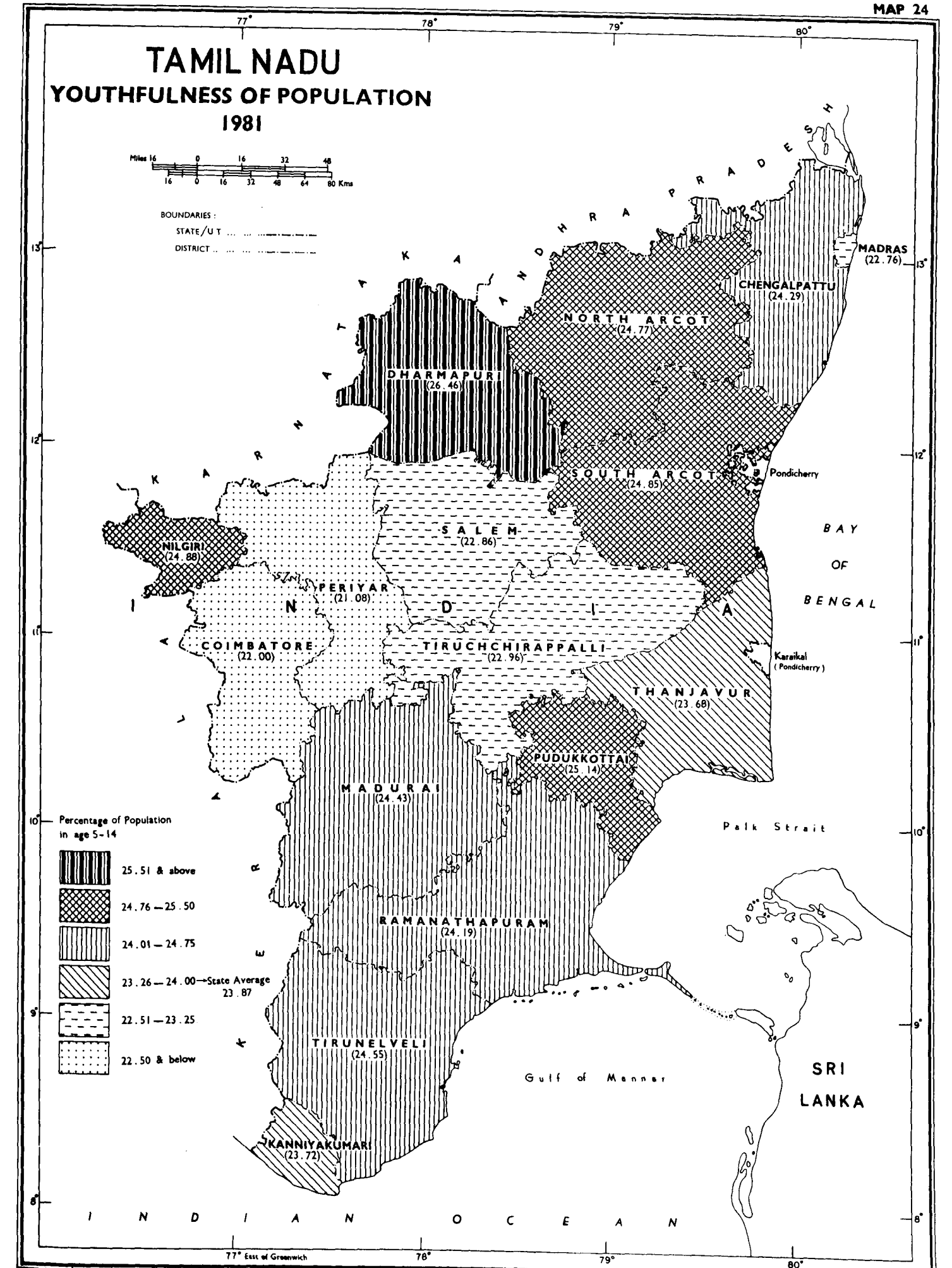
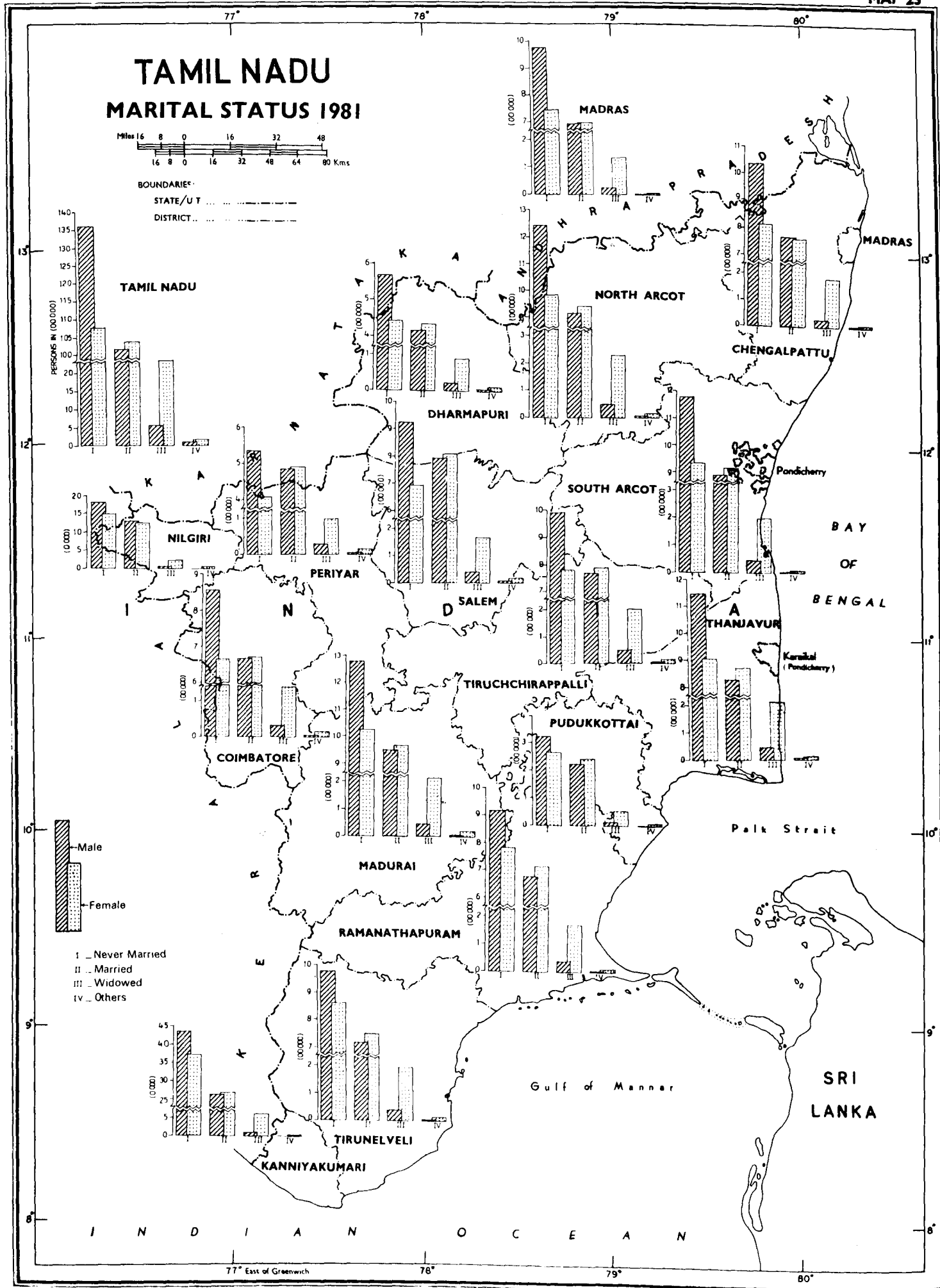
TAMIL NADU RURAL SEX RATIO 1981

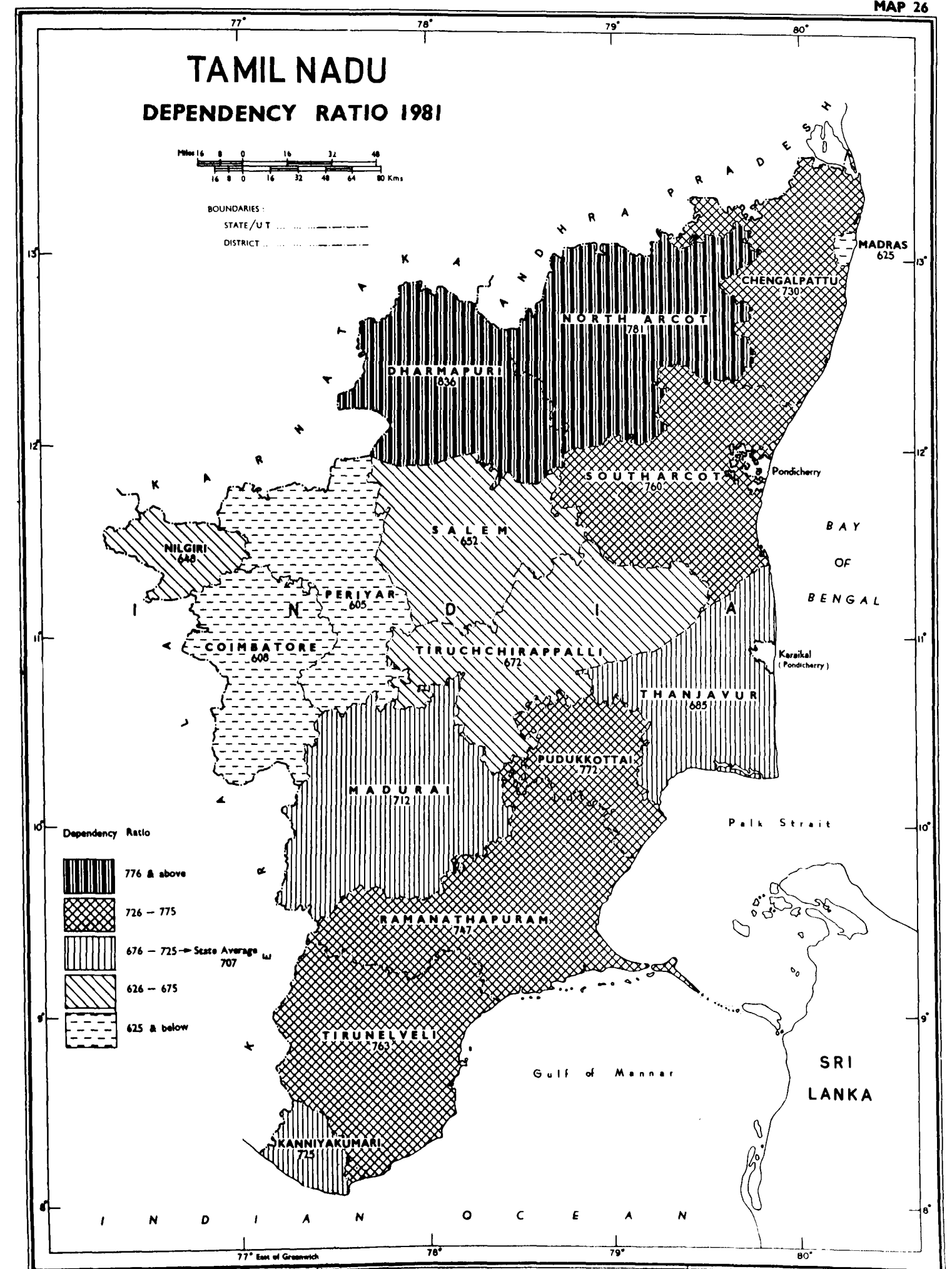
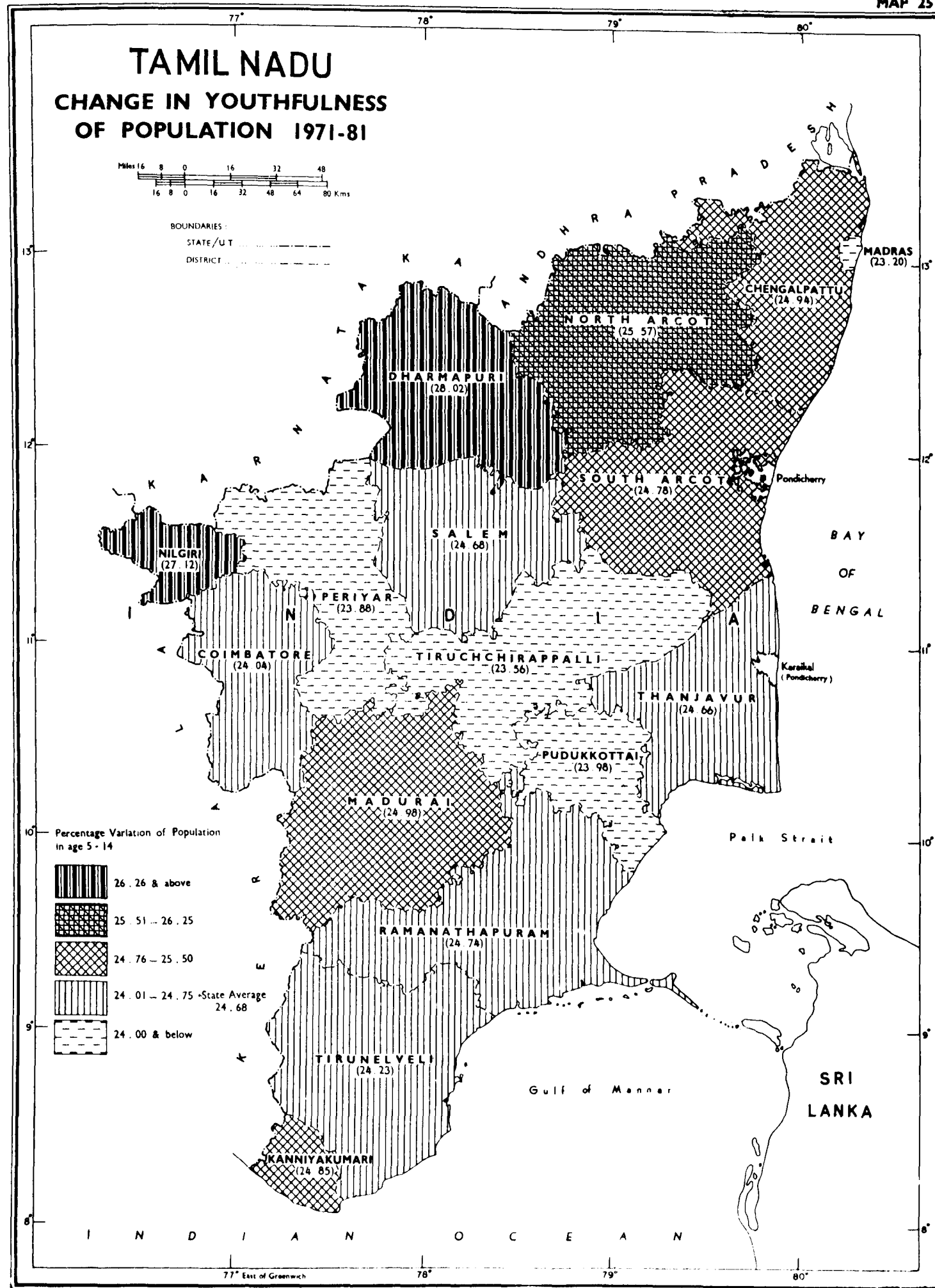


BOUNDARIES :
STATE/UT
DISTRICT
TALUK





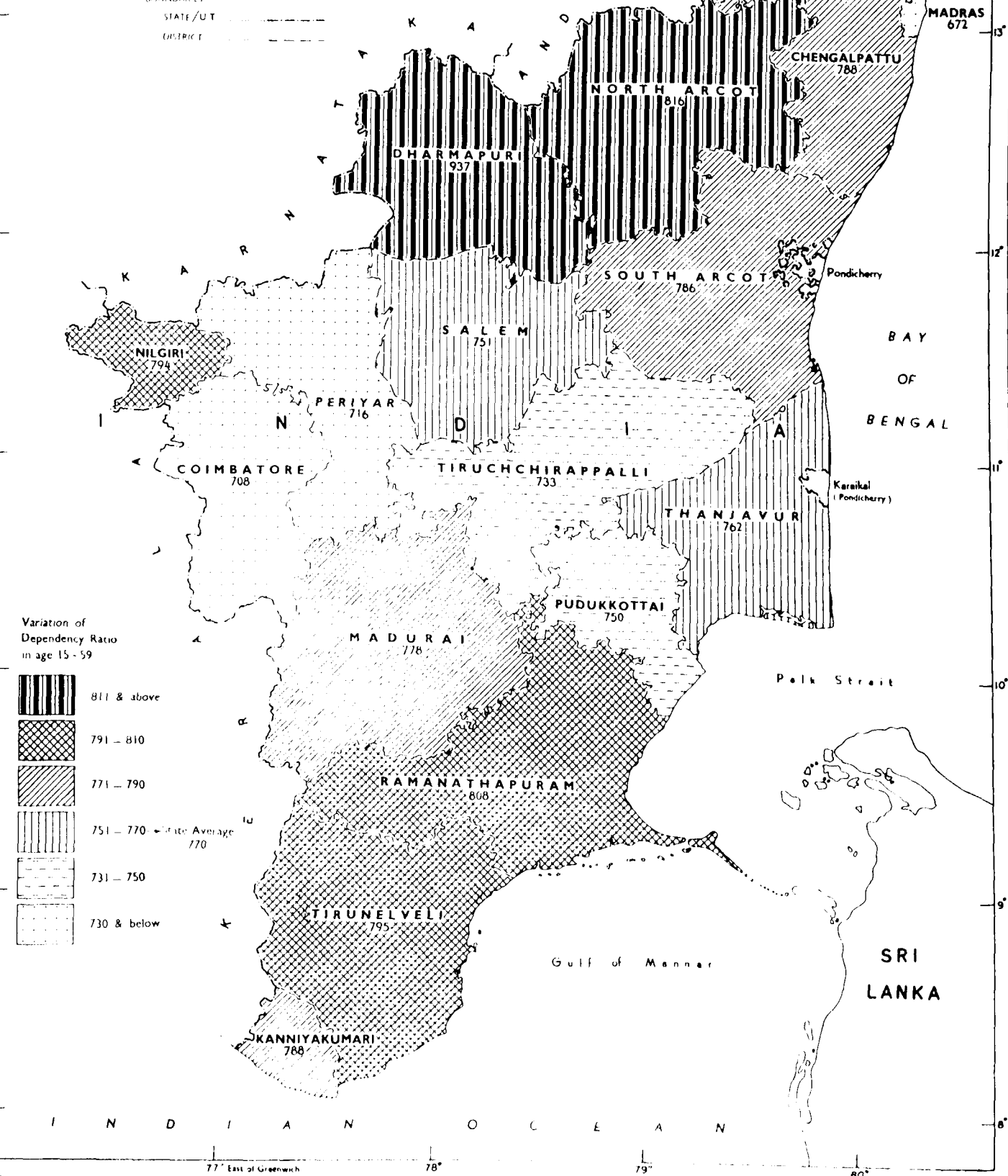




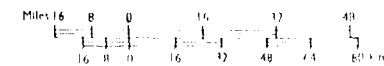
TAMIL NADU CHANGE IN DEPENDENCY RATIO 1971-81



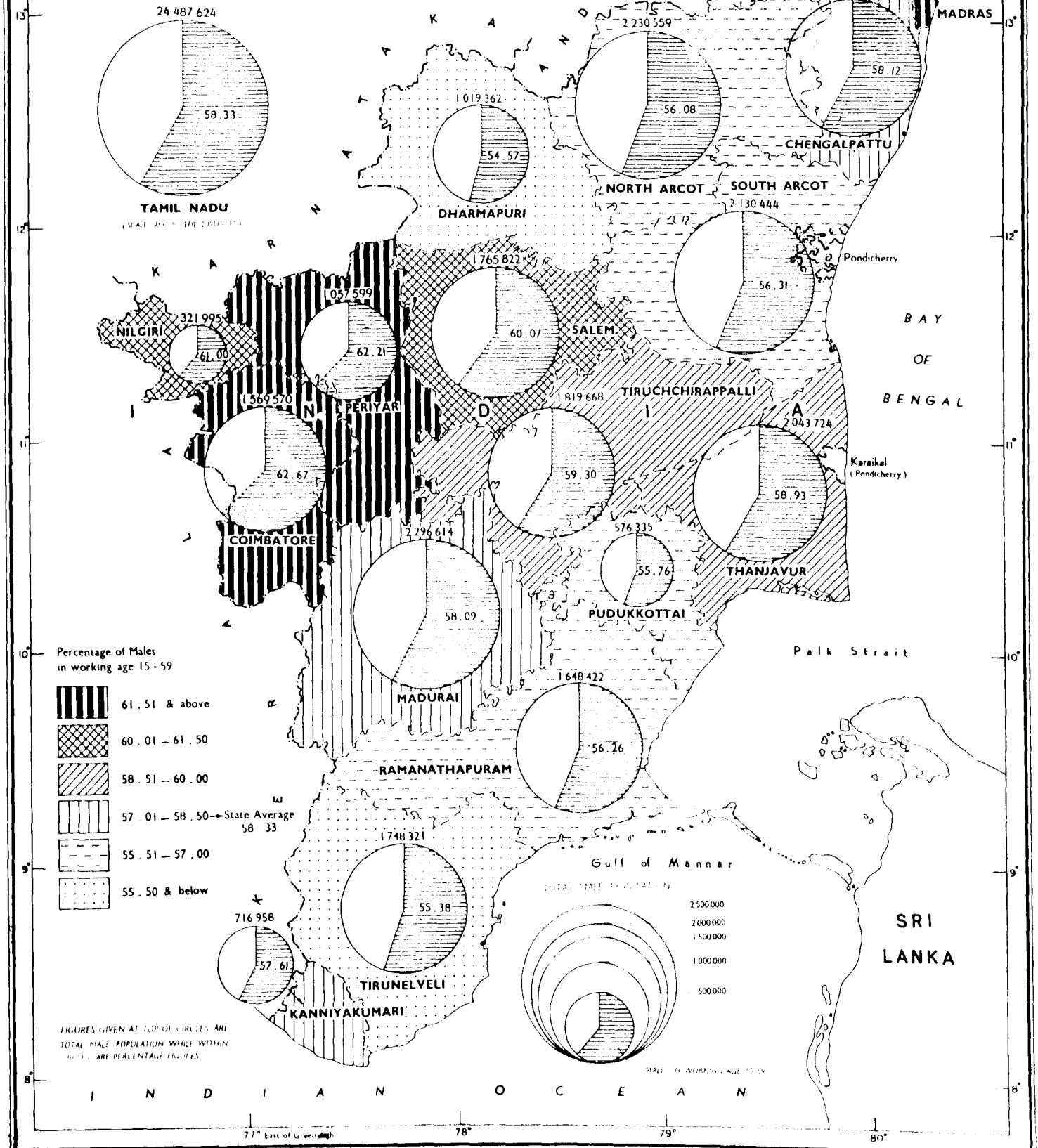
BOUNDARIES
STATE/UT
DISTRICT



TAMIL NADU MALES IN WORKING AGE 15-59 1981



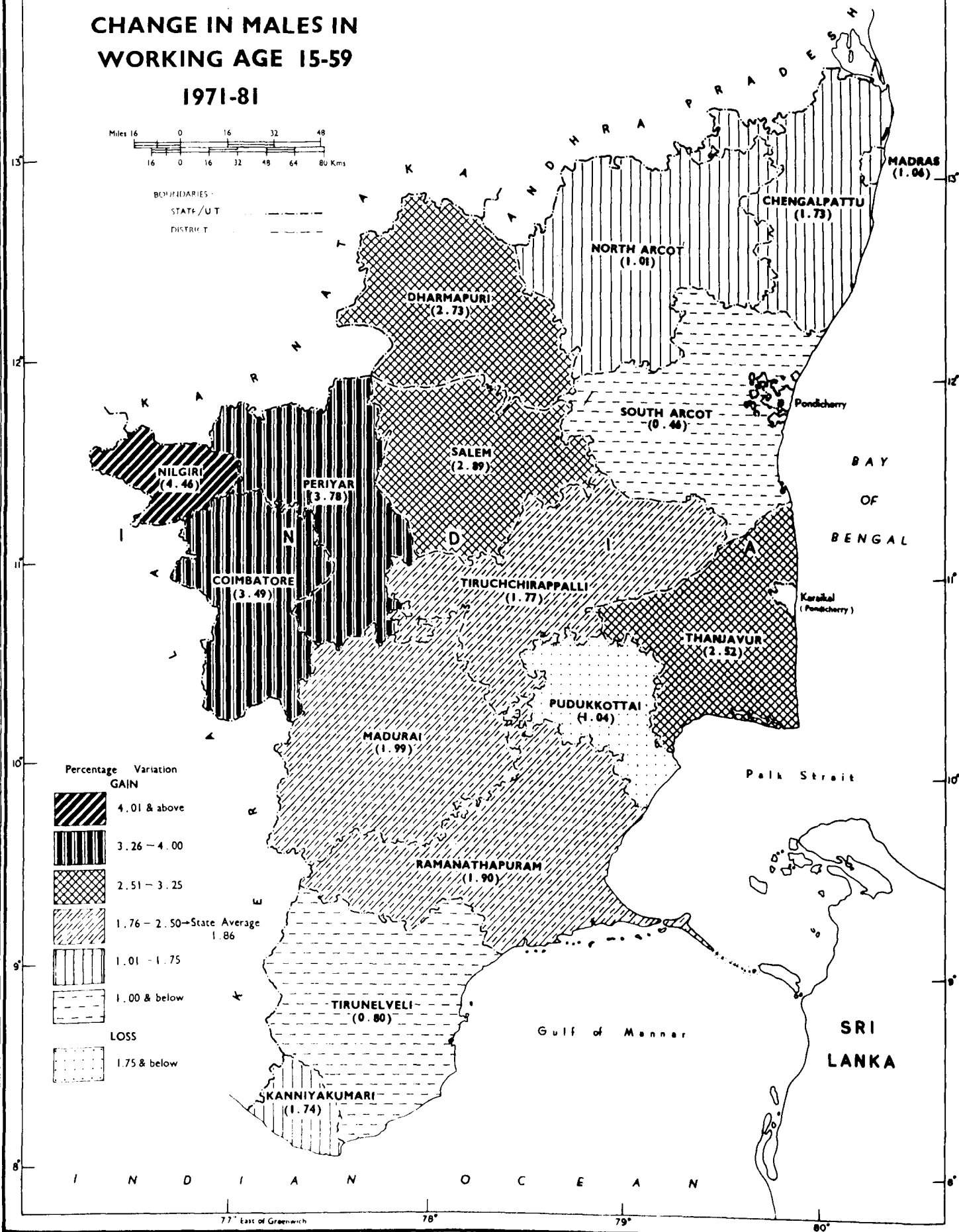
BOUNDARIES
STATE/UT
DISTRICT



TAMIL NADU CHANGE IN MALES IN WORKING AGE 15-59 1971-81



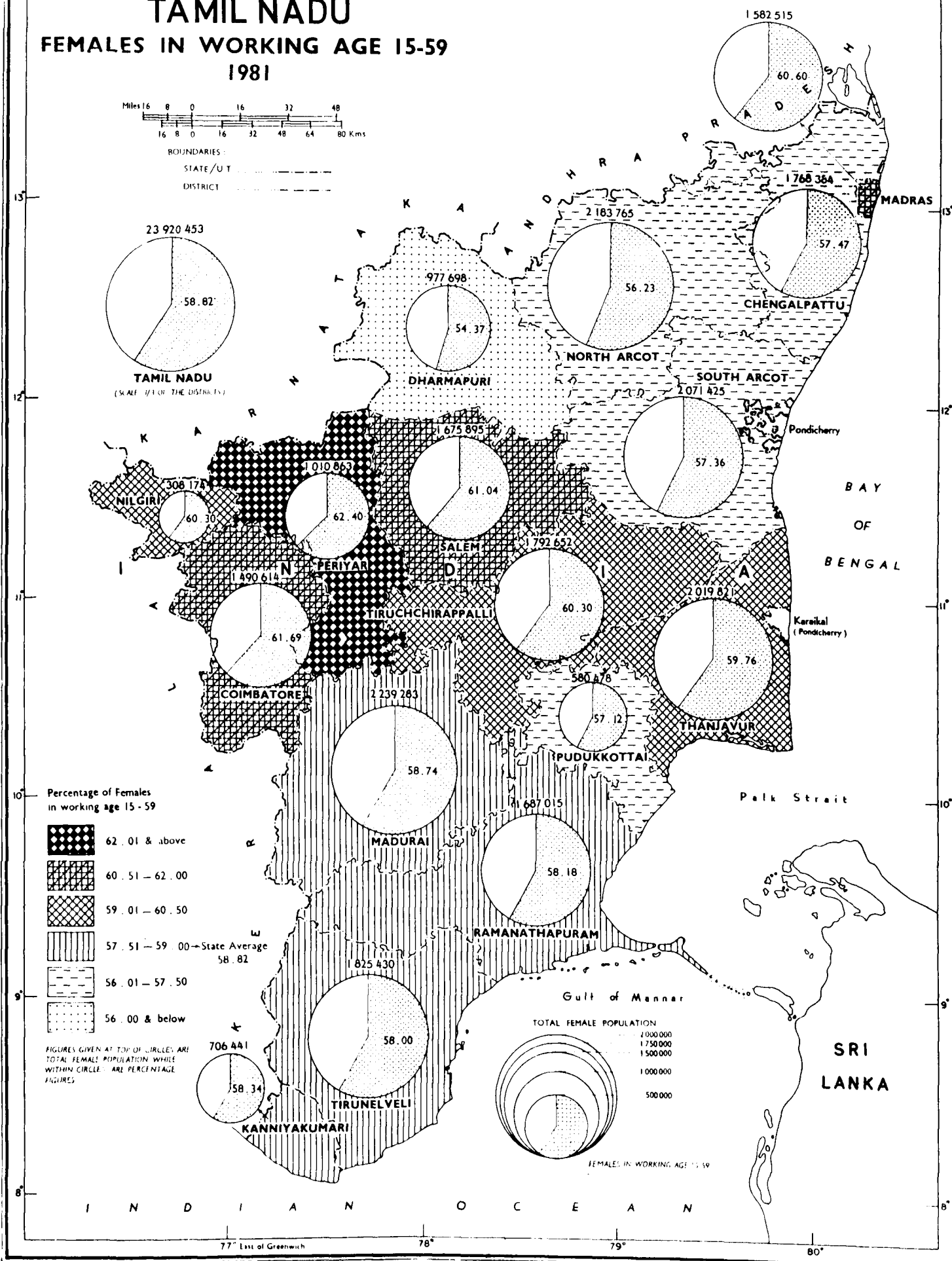
BOUNDARIES:
STATE/UT
DISTRICT



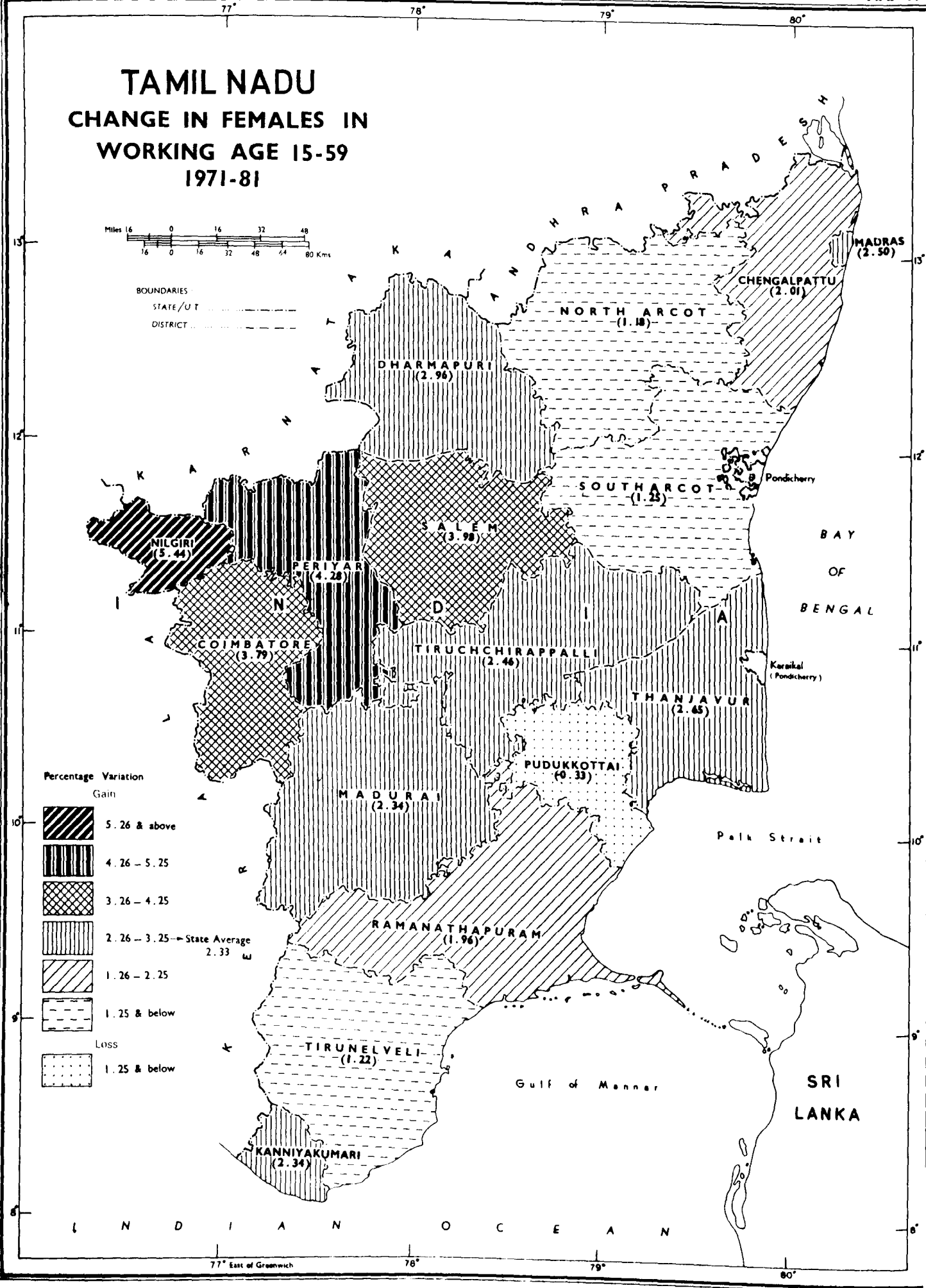
TAMIL NADU FEMALES IN WORKING AGE 15-59 1981



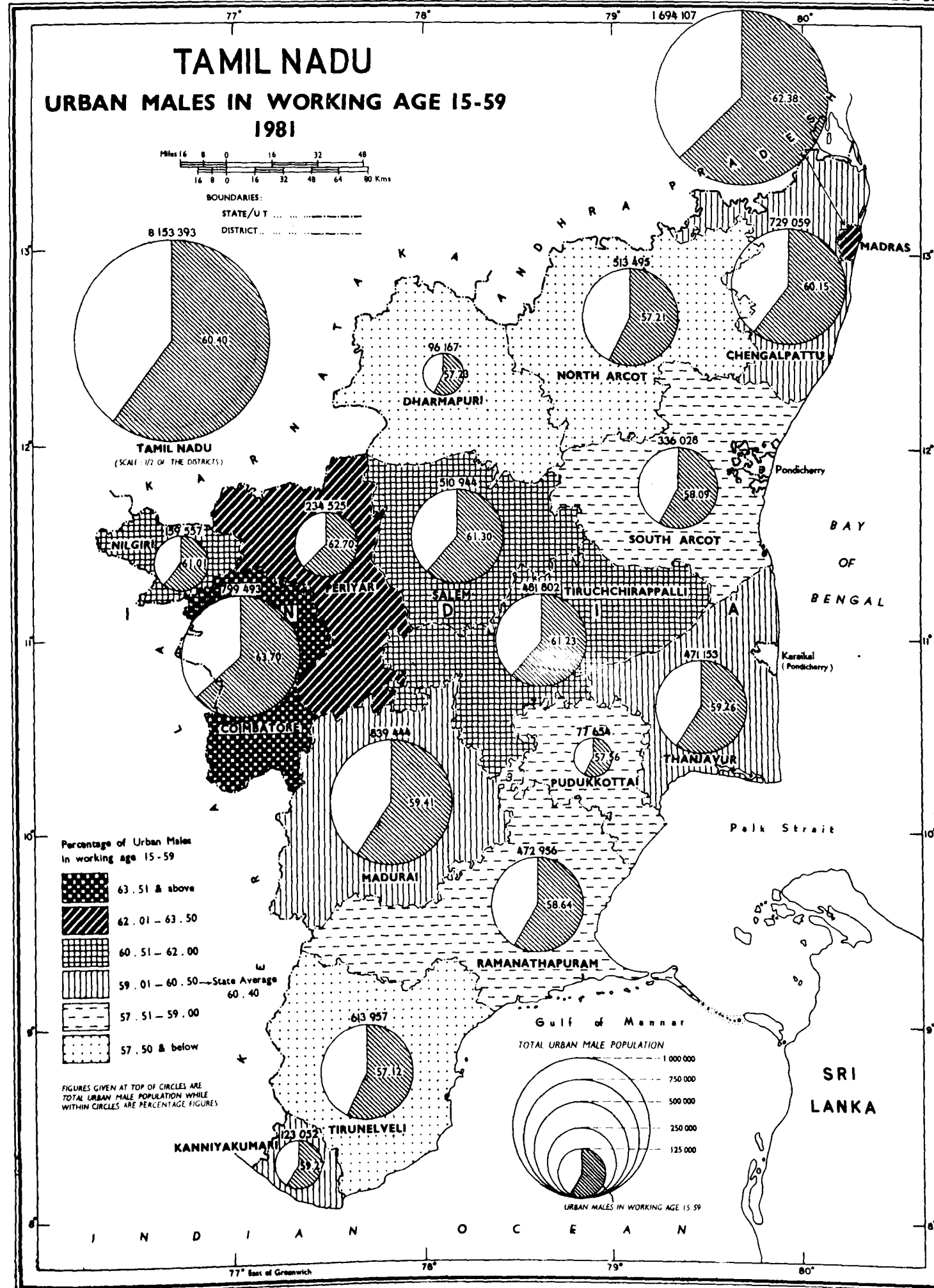
BOUNDARIES:
STATE/UT
DISTRICT



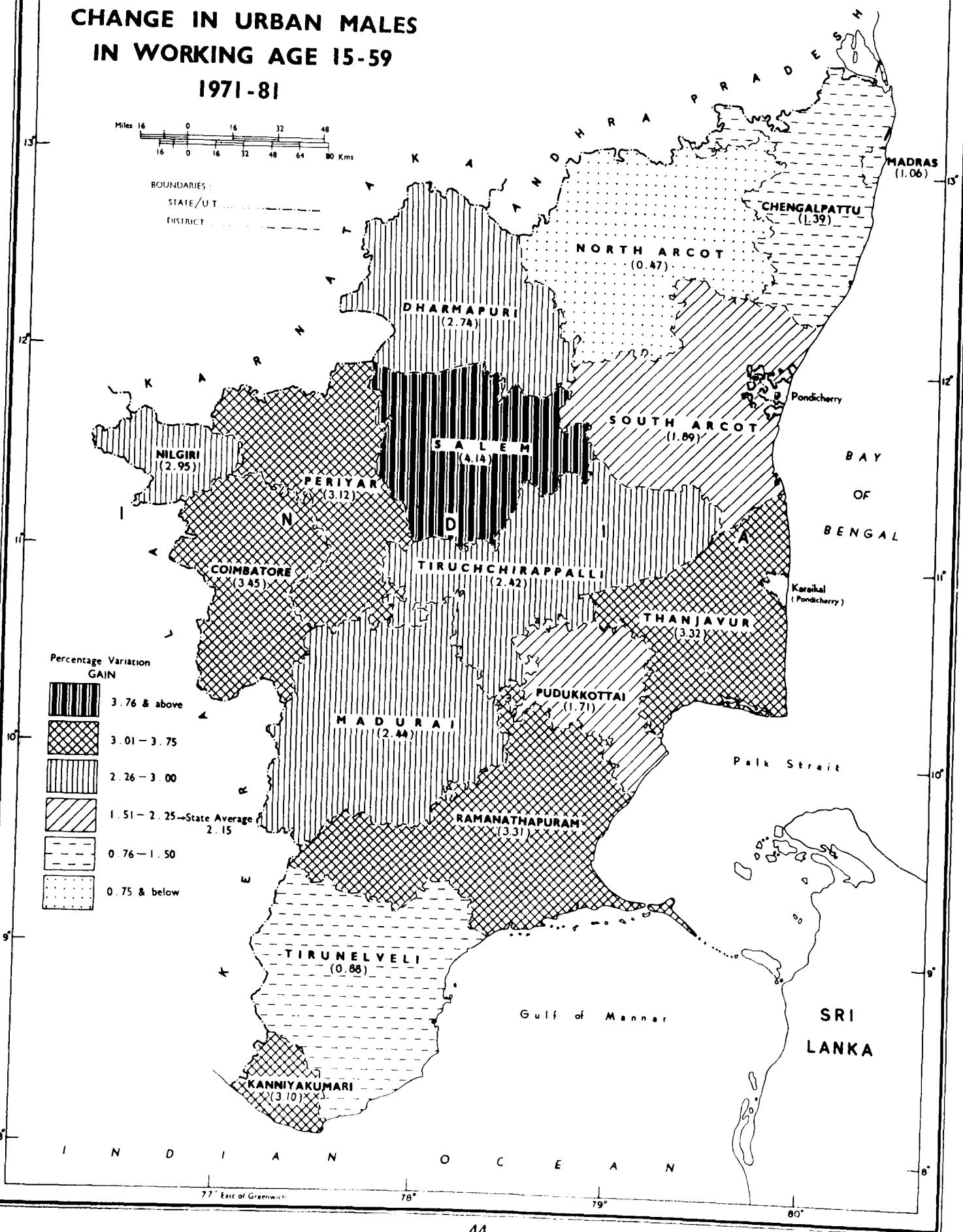
TAMIL NADU CHANGE IN FEMALES IN WORKING AGE 15-59 1971-81



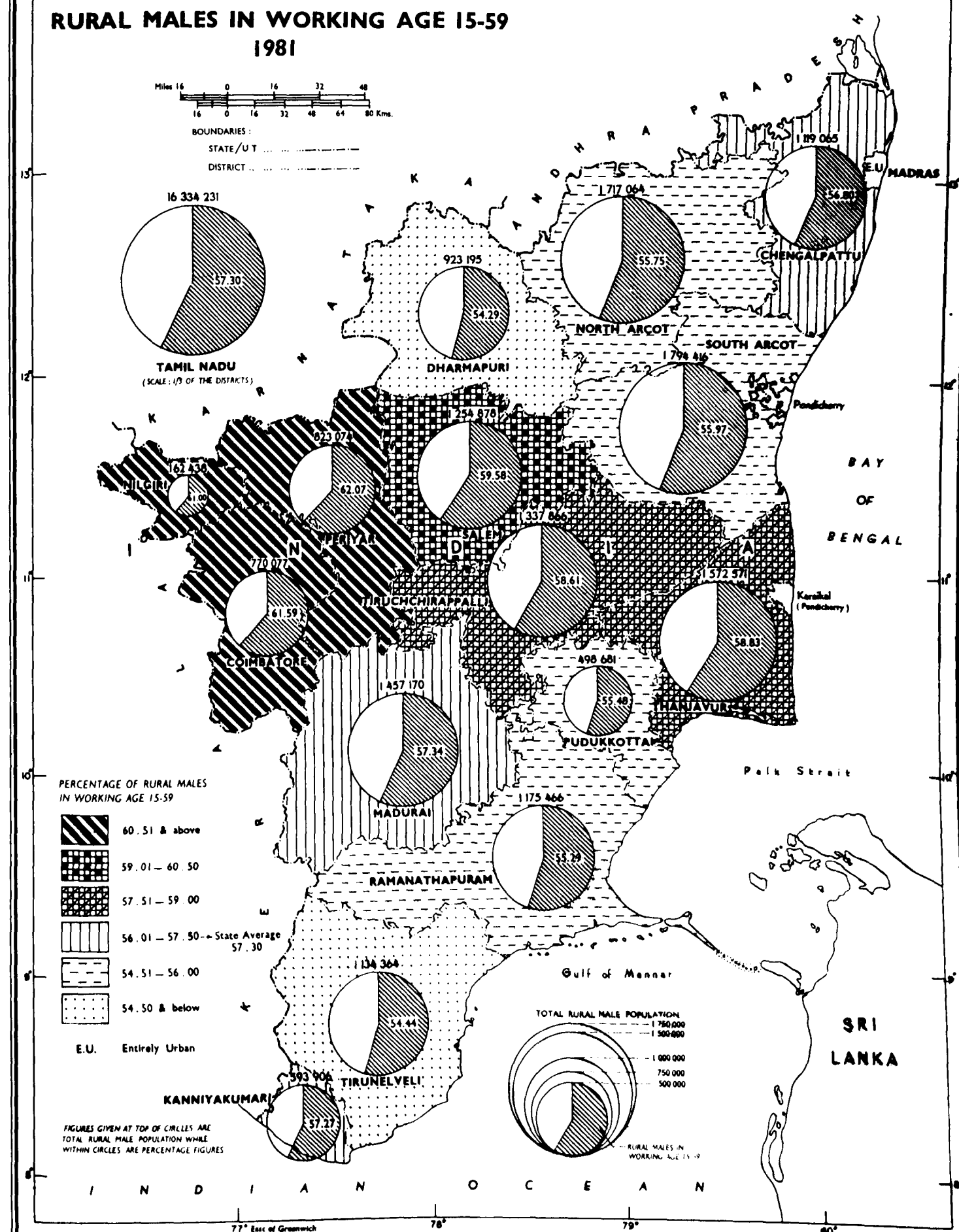
TAMIL NADU URBAN MALES IN WORKING AGE 15-59 1981



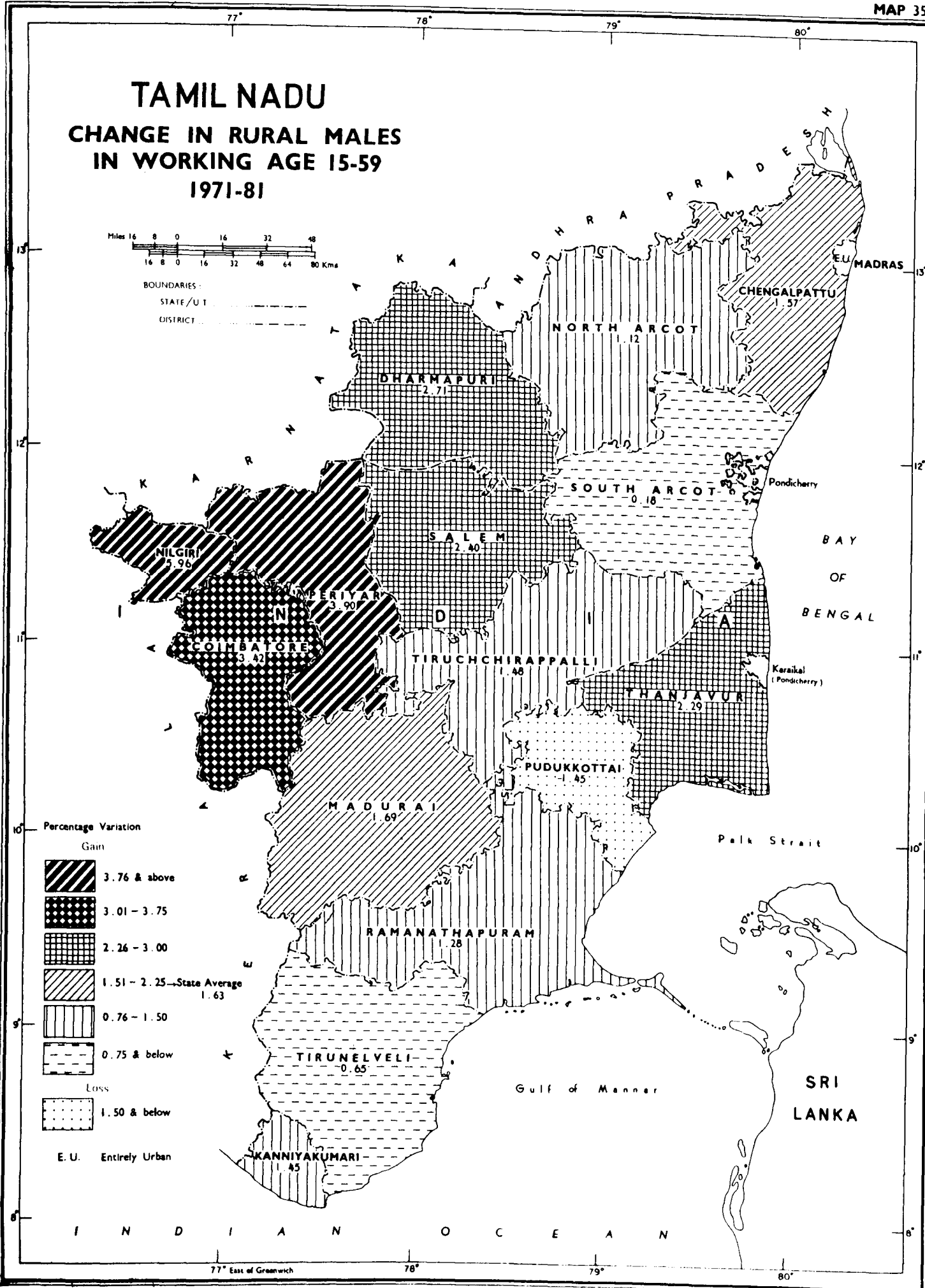
TAMIL NADU CHANGE IN URBAN MALES IN WORKING AGE 15-59 1971-81



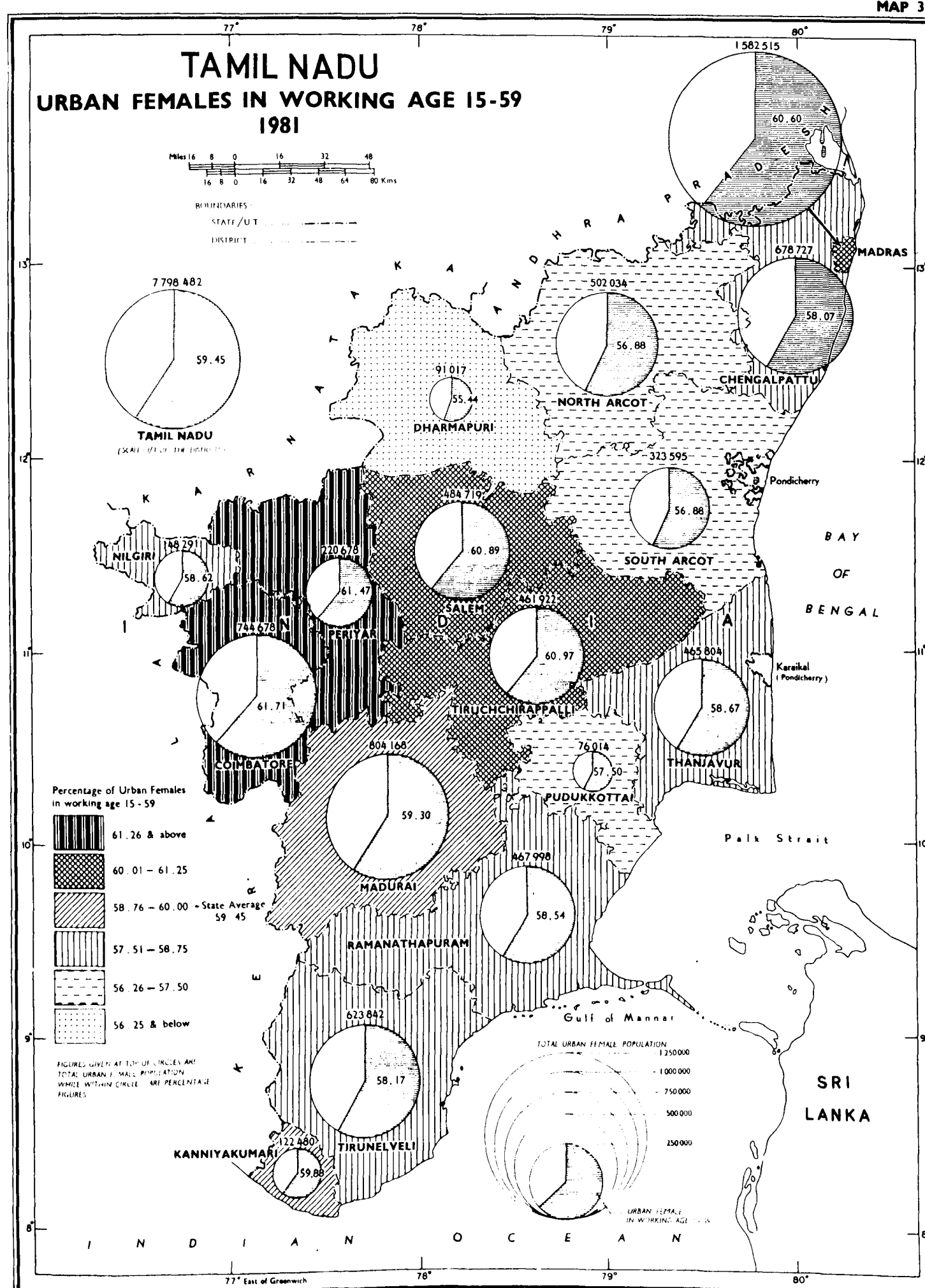
TAMIL NADU RURAL MALES IN WORKING AGE 15-59 1981

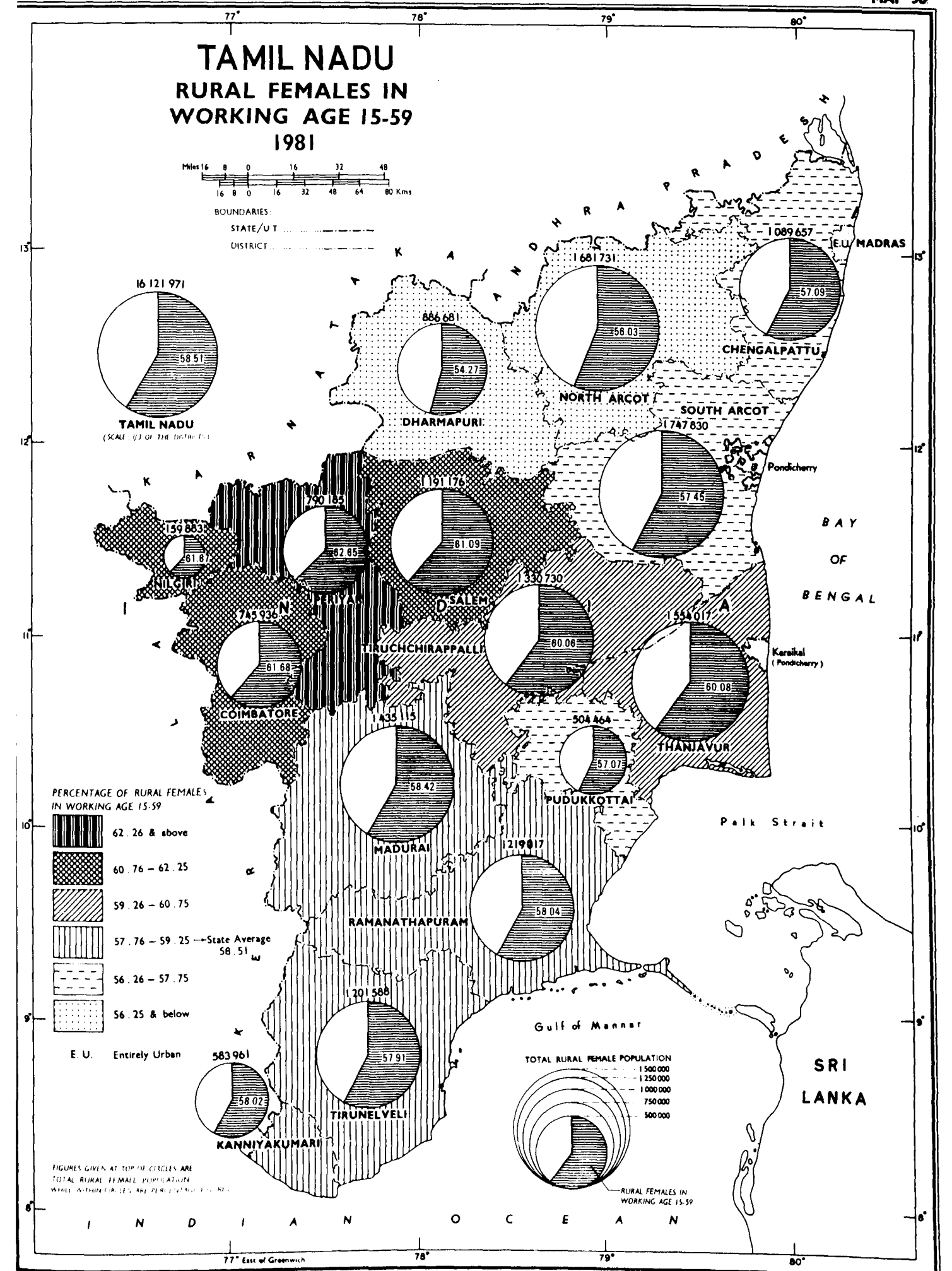
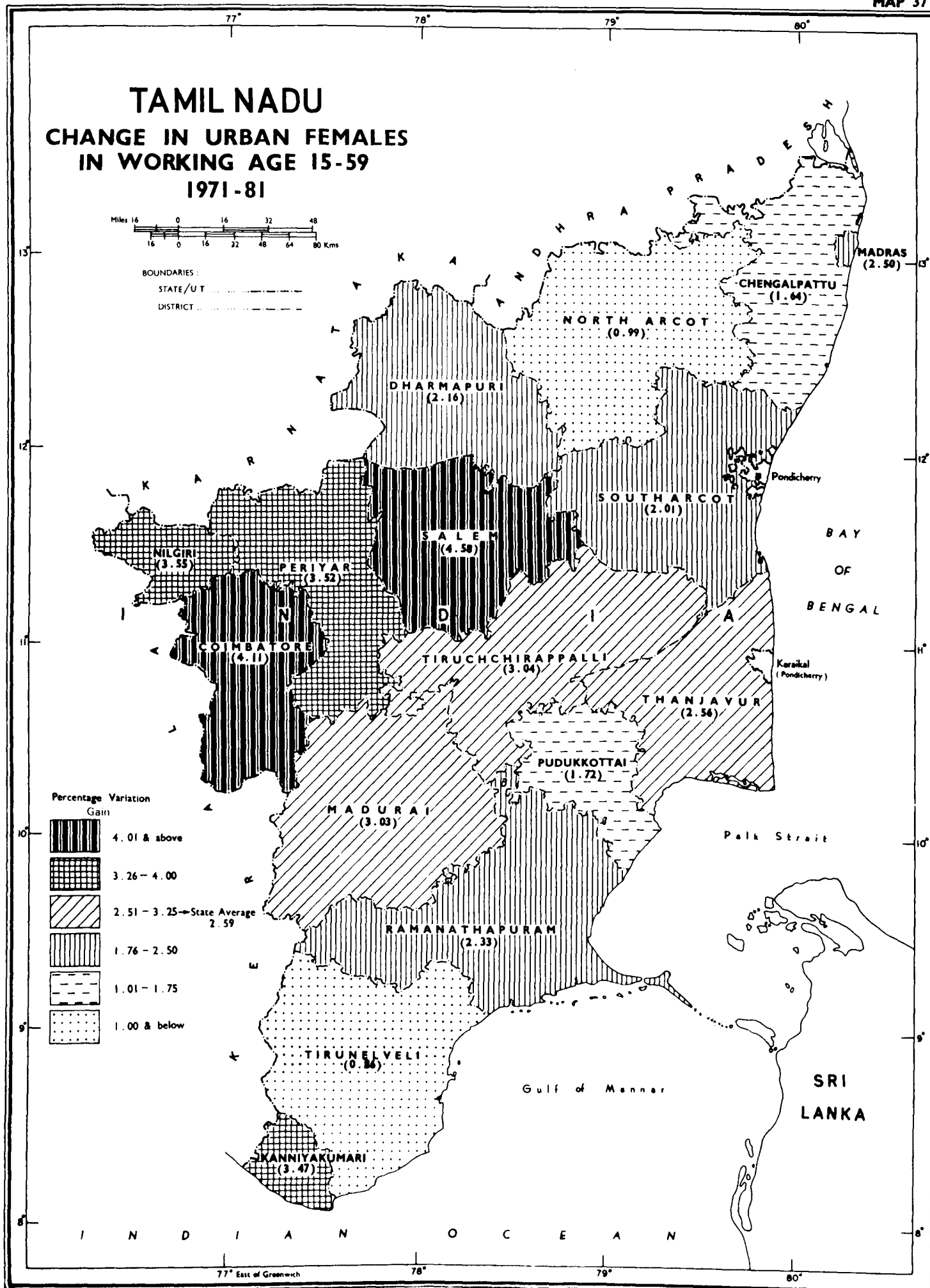


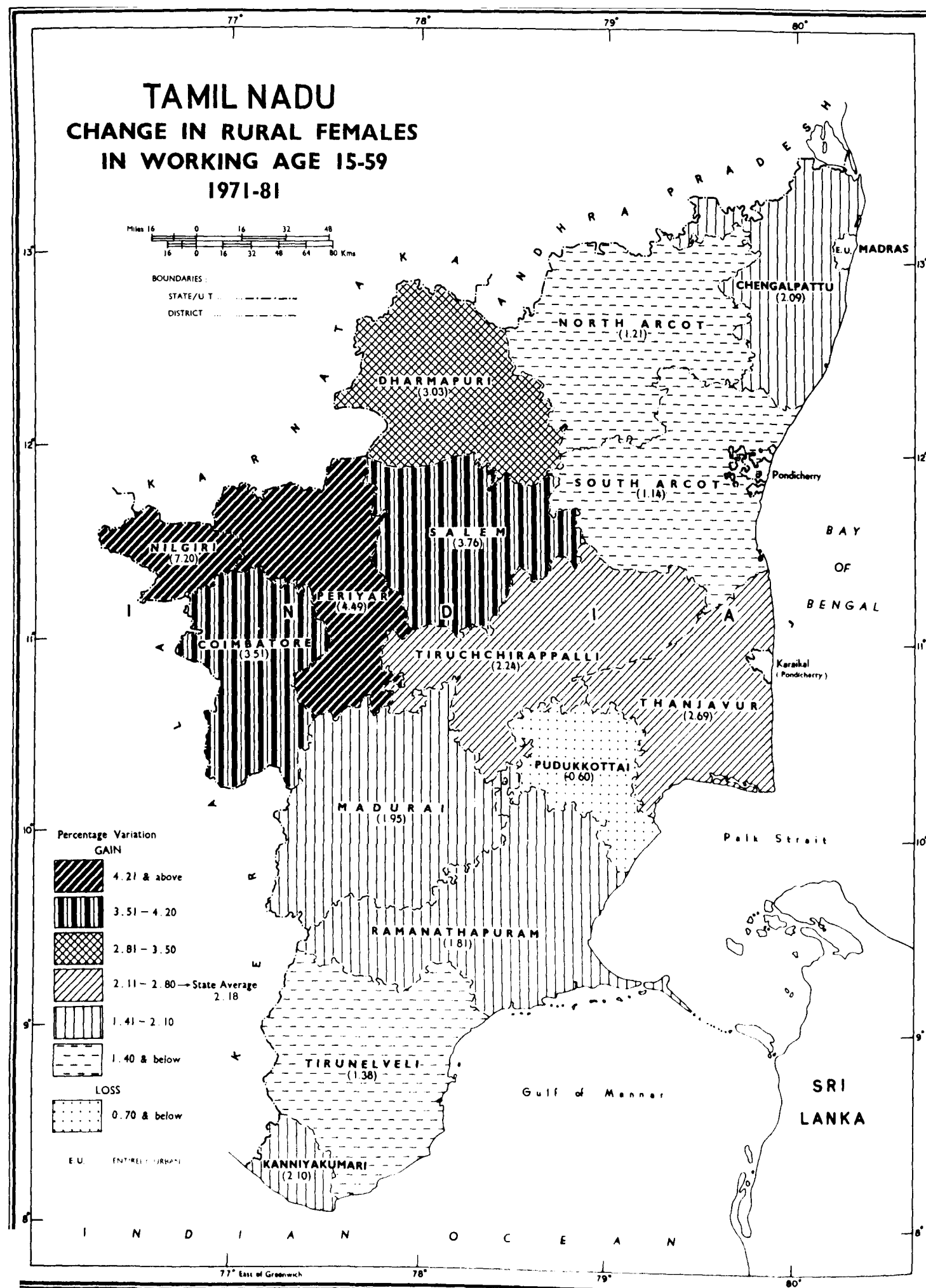
TAMIL NADU CHANGE IN RURAL MALES IN WORKING AGE 15-59 1971-81



TAMIL NADU URBAN FEMALES IN WORKING AGE 15-59 1981

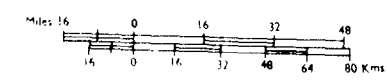




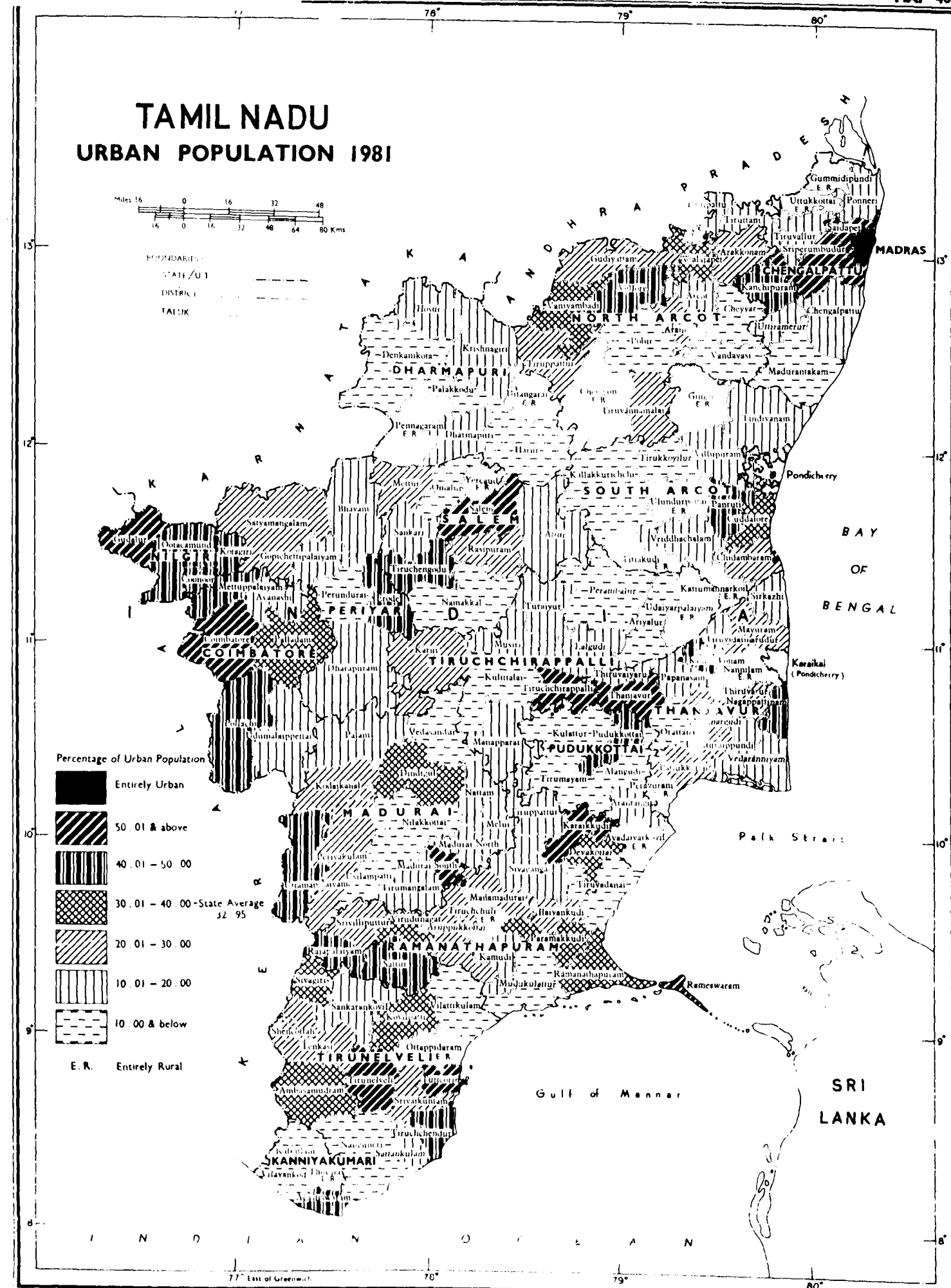
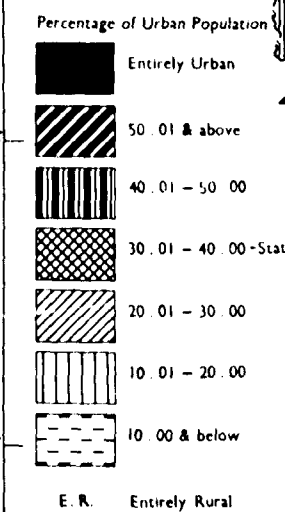


5. URBANISATION

TAMIL NADU URBAN POPULATION 1981



BOUNDARIES:
STATE / U.T.
DISTRICT
TALEUK

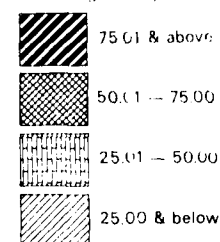


TAMIL NADU GROWTH OF URBAN CENTRES 1971-81

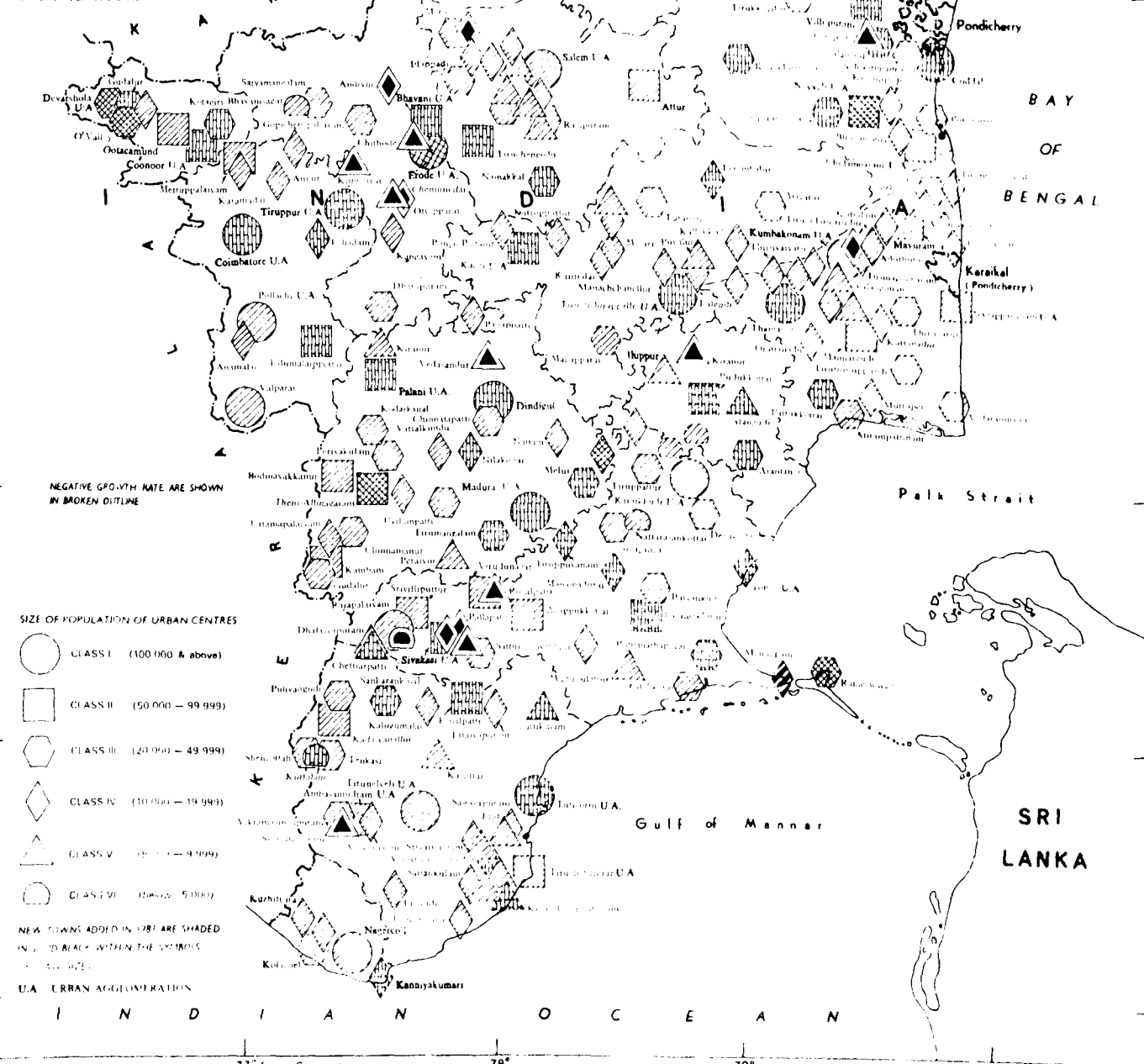


BOUNDARIES
STATE/U.T.
DISTRICT

Percentage of Population Growth

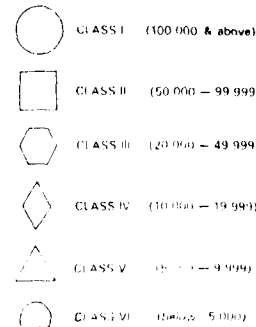


NAMES OF CLASS I AND OTHER SELECTED TOWNS
ARE GIVEN FOR REFERENCE



NEGATIVE GROWTH RATE ARE SHOWN
IN BROKEN OUTLINE

SIZE OF POPULATION OF URBAN CENTRES



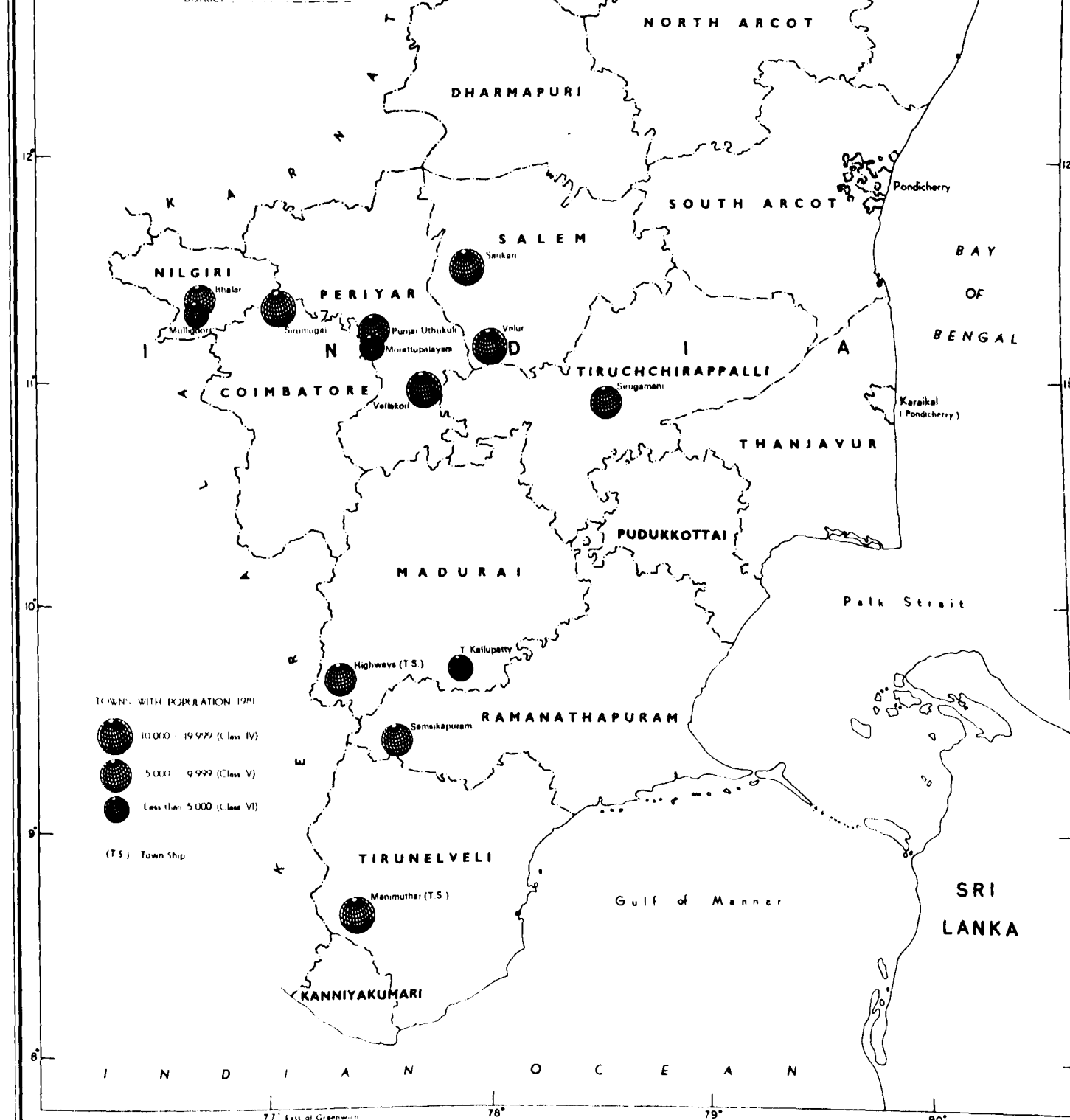
NEW TOWNS ADDED IN 1981 ARE SHAD-
ED IN BLACK WITHIN THE SYMBOLS

U.A. URBAN AGGLOMERATION

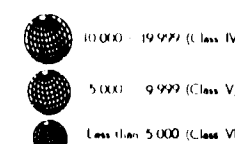
TAMIL NADU TOWNS THAT LOST URBAN STATUS DURING 1971 - 81



BOUNDARIES
STATE/U.T.
DISTRICT



TOWNS WITH POPULATION 1981

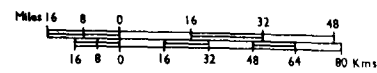


(T.S.) Town Ship

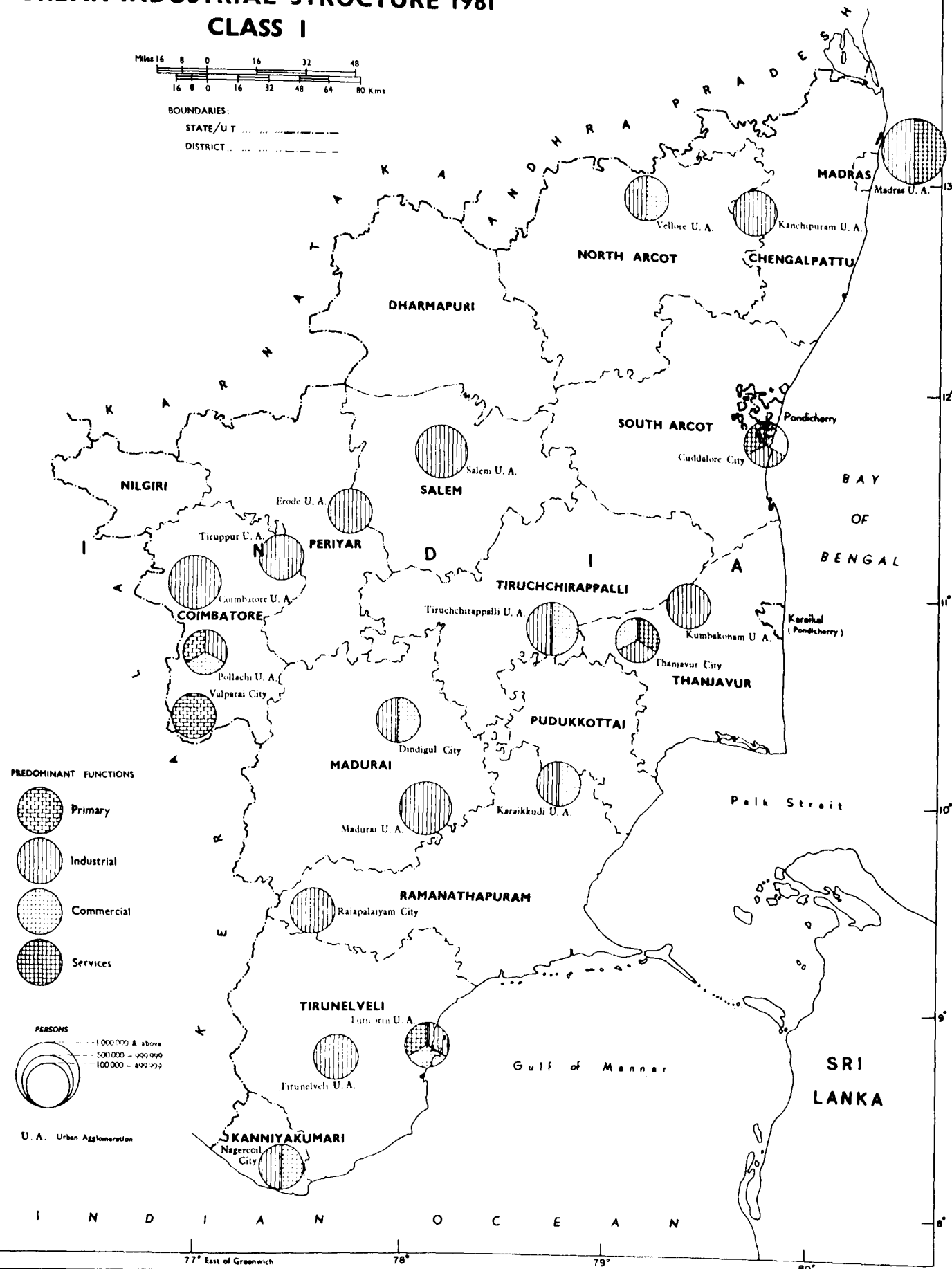
TAMIL NADU

URBAN INDUSTRIAL STRUCTURE 1981

CLASS I

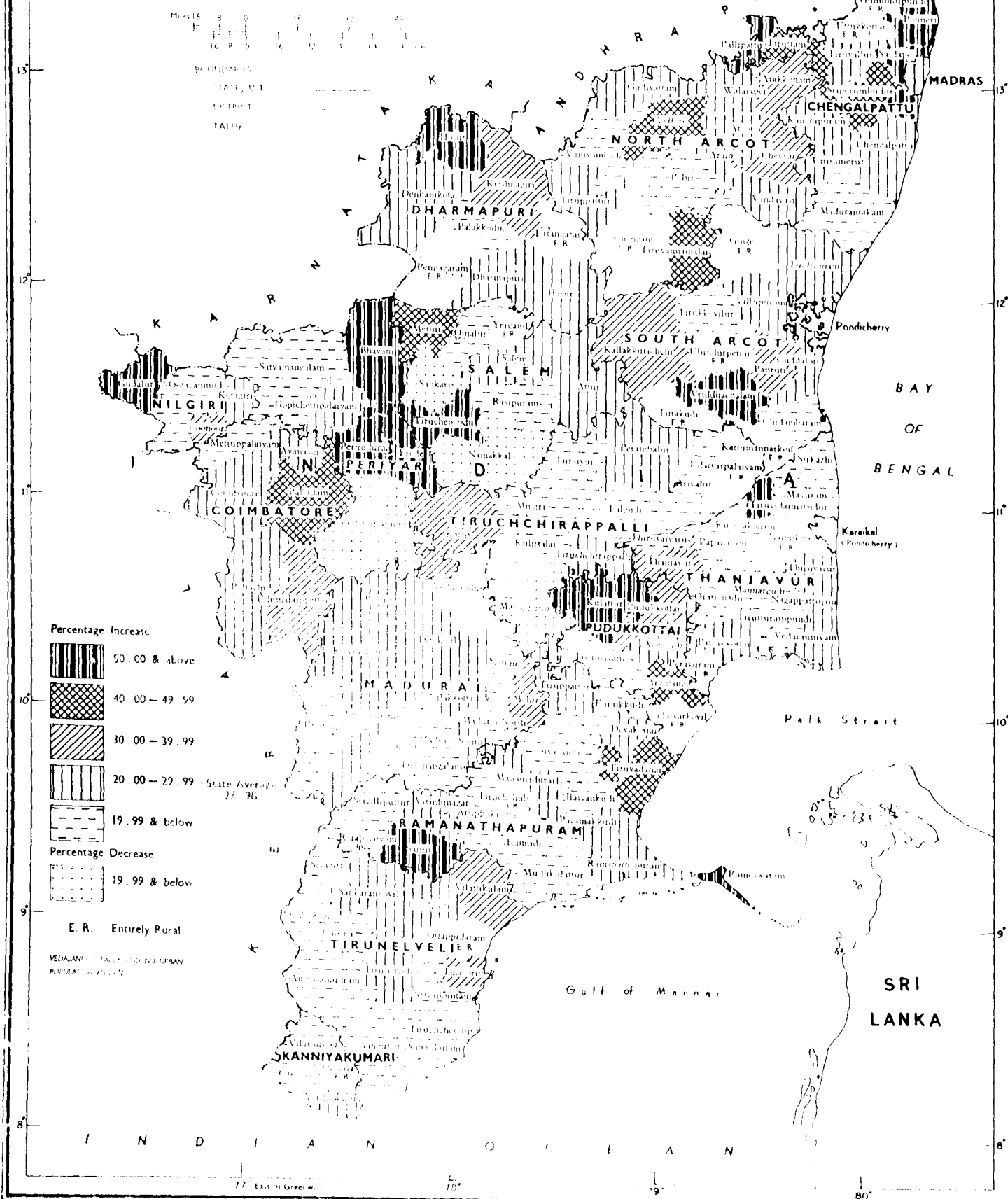


BOUNDARIES:
STATE/U.T.
DISTRICT

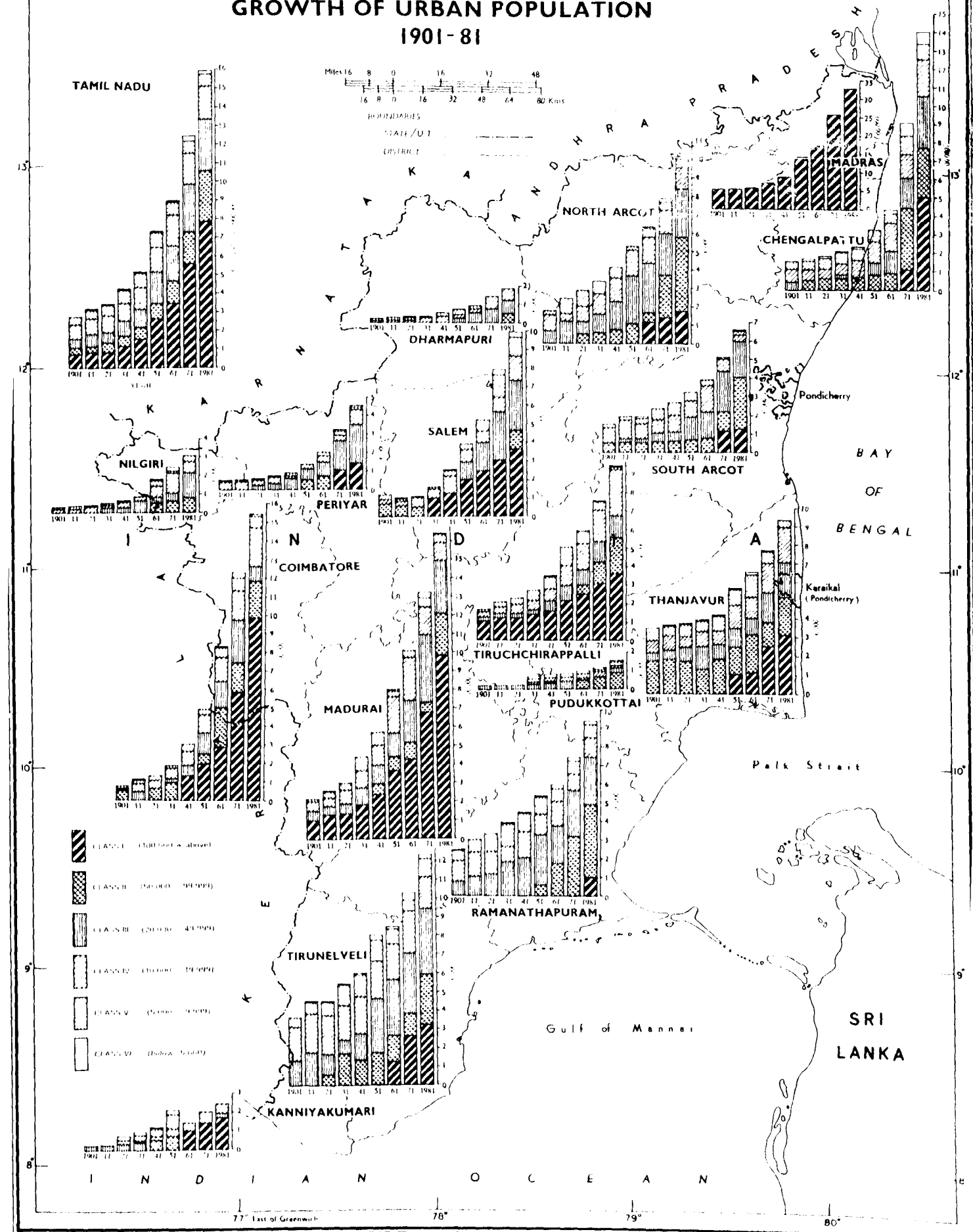


6. MIGRATION

TAMIL NADU CHANGE IN URBAN POPULATION 1971 - 81



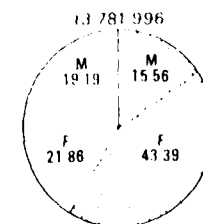
TAMIL NADU GROWTH OF URBAN POPULATION 1901 - 81



TAMIL NADU IN-MIGRANTS 1981

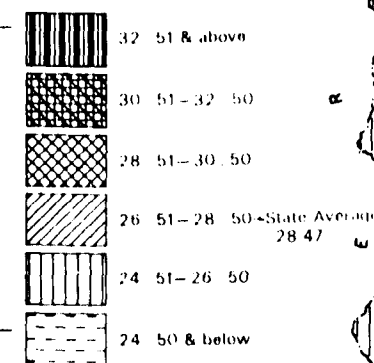


BOUNDARIES
STATE/UT
DISTRICT

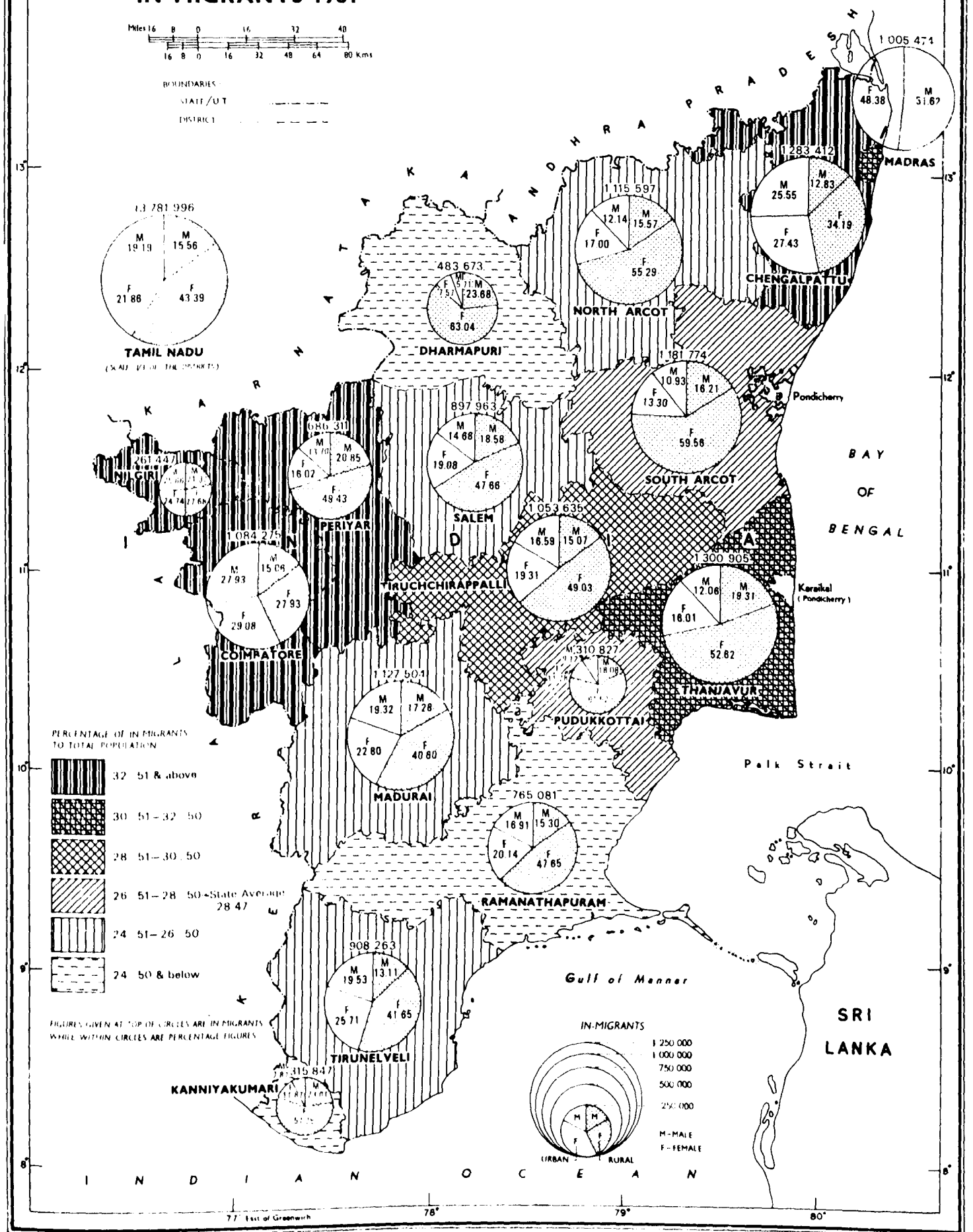


TAMIL NADU
(SCALE: 1% OF THE POPULATION)

PERCENTAGE OF IN-MIGRANTS
TO TOTAL POPULATION



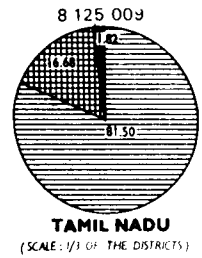
FIGURES GIVEN AT TOP OF CIRCLES ARE IN-MIGRANTS
WHILE WITHIN CIRCLES ARE PERCENTAGE FIGURES



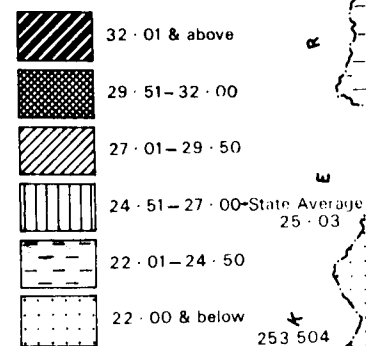
TAMIL NADU RURAL IN-MIGRANTS TO TOTAL RURAL POPULATION 1981



BOUNDARIES
STATE/UT
DISTRICT



Percentage of Rural In-Migrants
to Rural Population



EU Entirely Urban

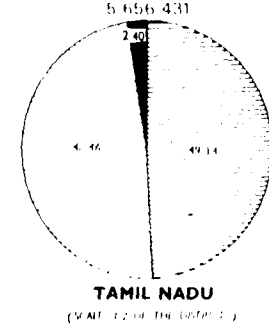
FIGURES GIVEN AT TOP OF CIRCLES ARE
RURAL IN-MIGRANTS WHILE WITHIN
CIRCLE ARE REMAINING RURAL



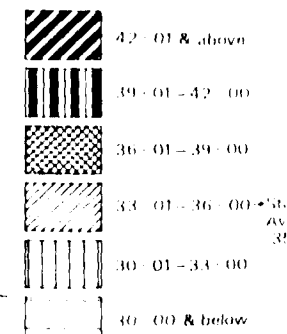
TAMIL NADU URBAN IN-MIGRANTS TO TOTAL URBAN POPULATION 1981



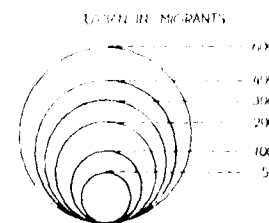
BOUNDARIES
STATE/UT
DISTRICT



Percentage of Urban
In-Migrants to Urban Population



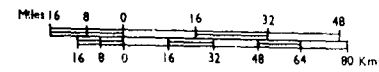
FIGURES GIVEN AT TOP OF CIRCLES ARE
URBAN IN-MIGRANTS WHILE WITHIN CIRCLE
ARE REMAINING URBAN



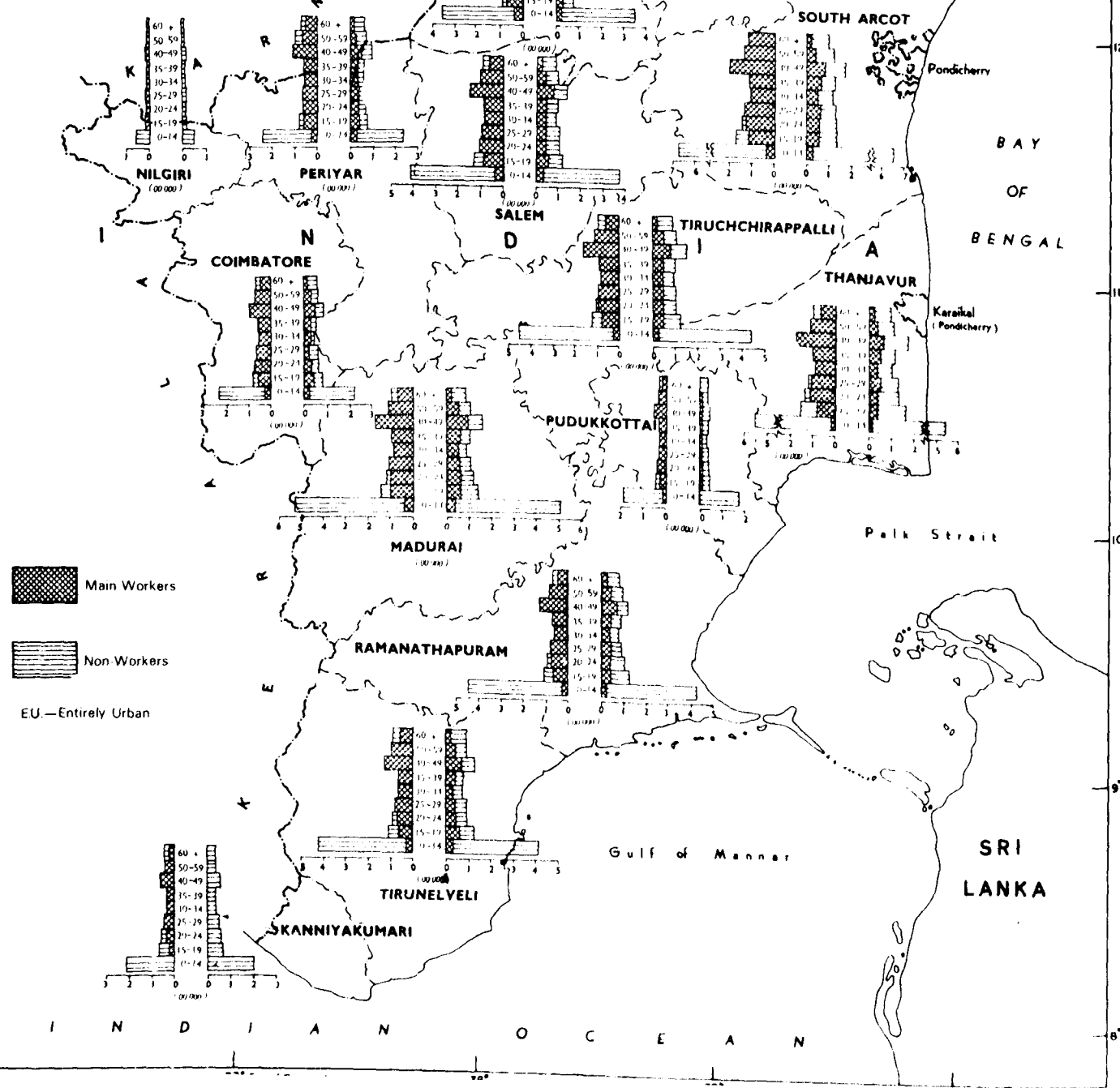
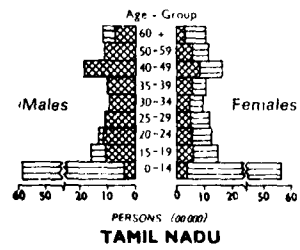
III. ECONOMIC ASPECTS

7. INDUSTRIAL

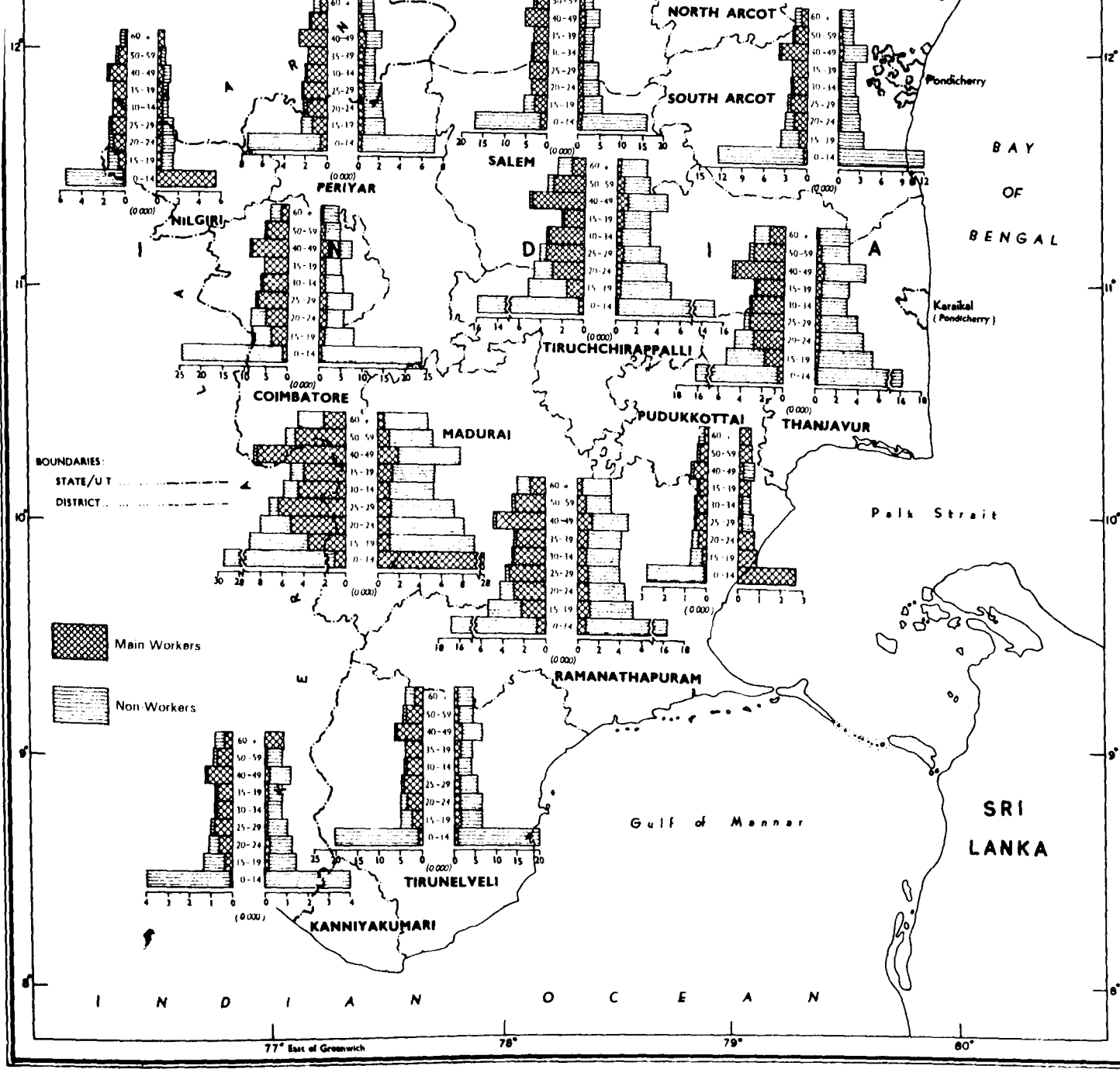
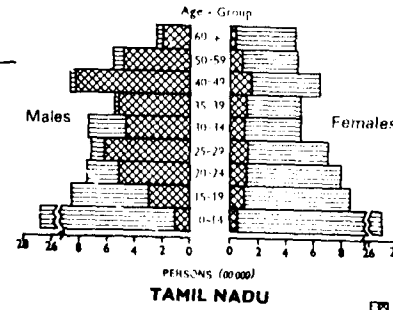
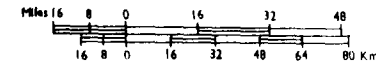
TAMIL NADU RURAL MAIN WORKERS AND NON-WORKERS 1981



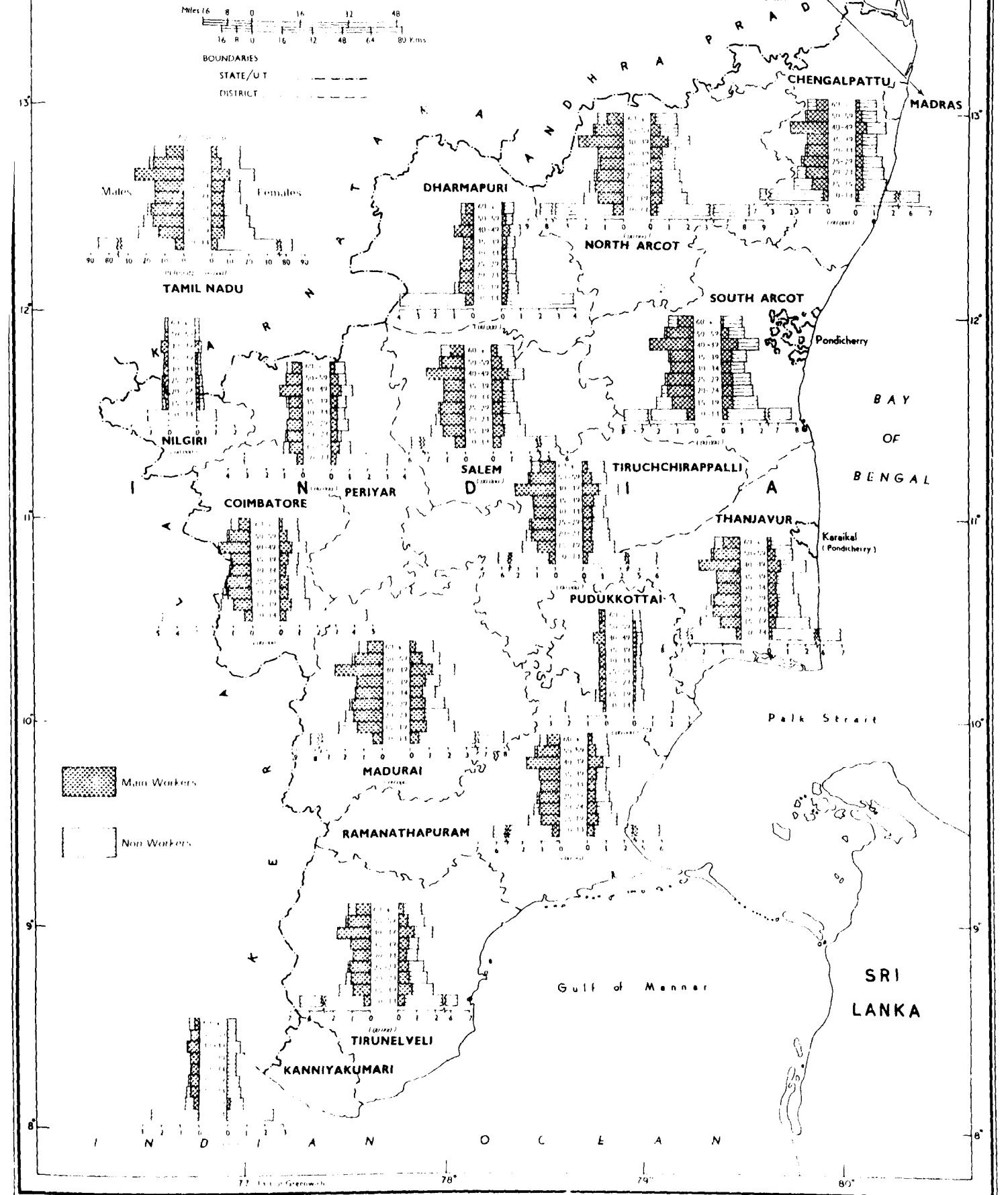
BOUNDARIES:
STATE/U.T.
DISTRICT



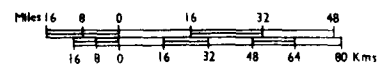
TAMIL NADU URBAN MAIN WORKERS AND NON-WORKERS 1981



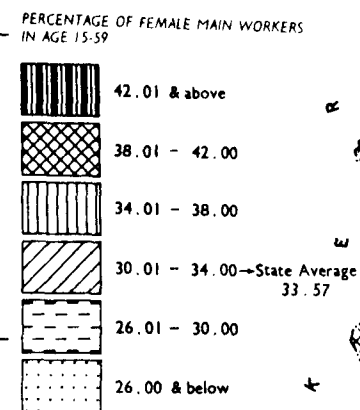
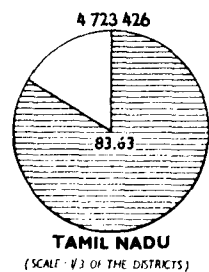
TAMIL NADU MAIN WORKERS AND NON-WORKERS IN TOTAL POPULATION 1981



TAMIL NADU FEMALE MAIN WORKERS 1981

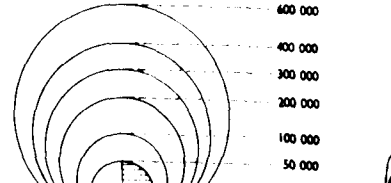


BOUNDARIES:
STATE/U.T.
DISTRICT



FIGURES GIVEN AT TOP OF CIRCLES ARE
FEMALE MAIN WORKERS WHILE WITHIN
CIRCLES ARE PERCENTAGE FIGURES

PERCENTAGE OF FEMALE MAIN WORKERS IN AGE 15-59

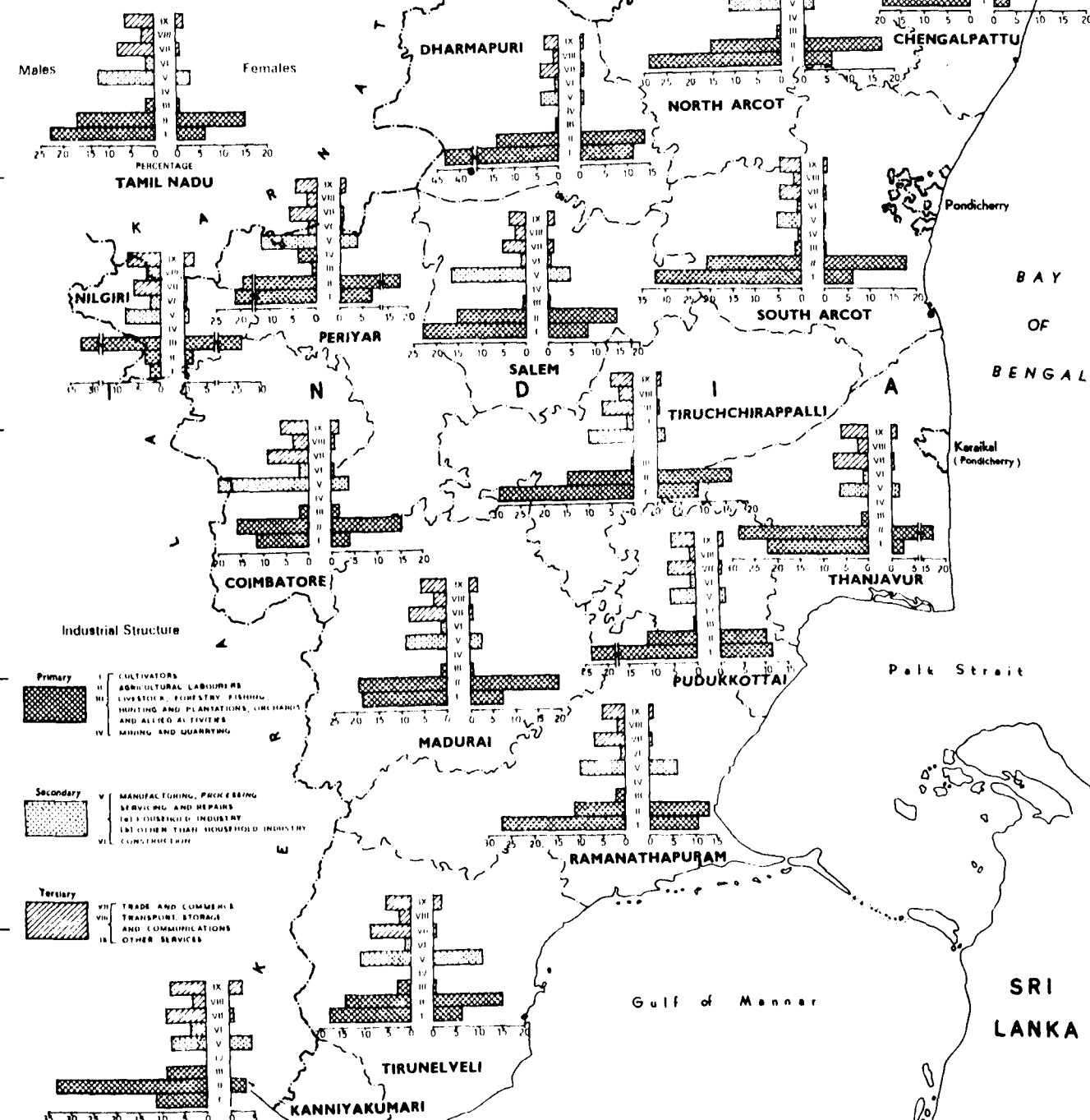


Urban Female Workers Rural Female Workers

TAMIL NADU MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981



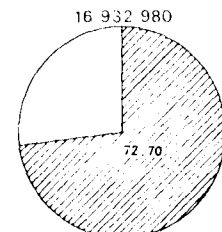
BOUNDARIES:
STATE/U.T.
DISTRICT



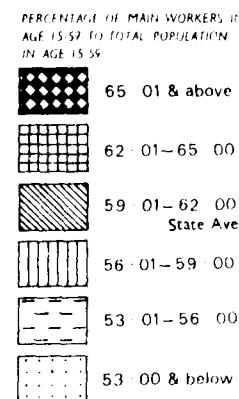
TAMIL NADU MAIN WORKERS 1981



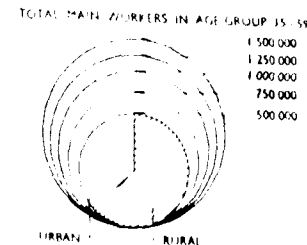
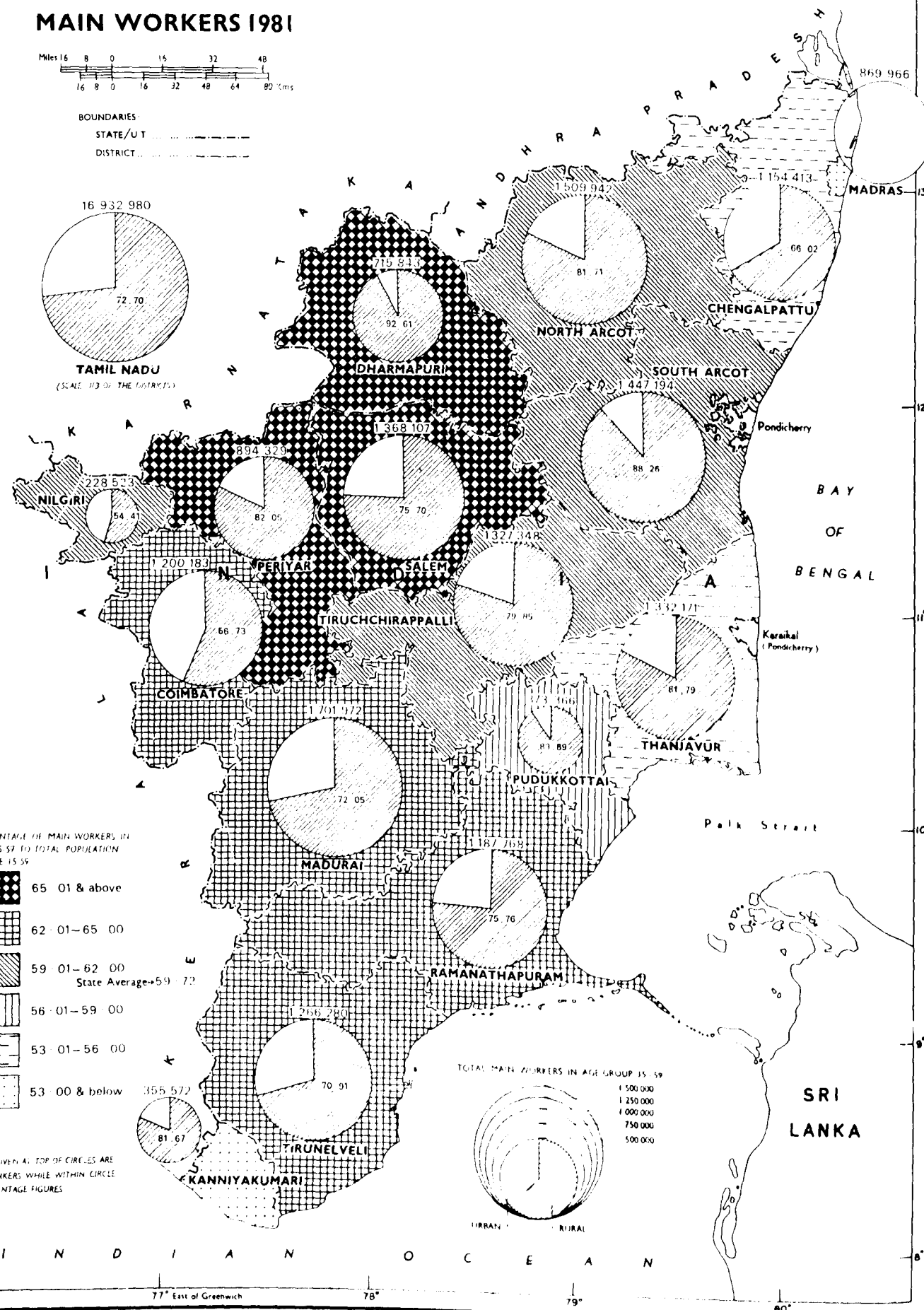
BOUNDARIES
STATE/U.T.
DISTRICT



TAMIL NADU
(Scale: 1/3 of the Districts)



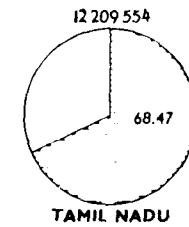
FIGURES GIVEN AT TOP OF CIRCLES ARE MAIN WORKERS WHILE WITHIN CIRCLE ARE PERCENTAGE FIGURES



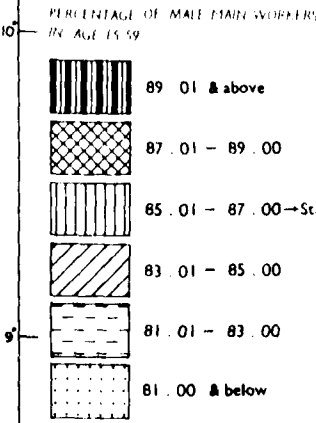
TAMIL NADU MALE MAIN WORKERS 1981



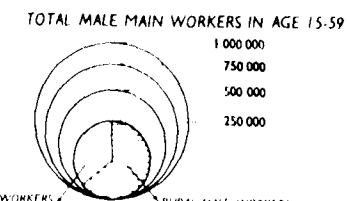
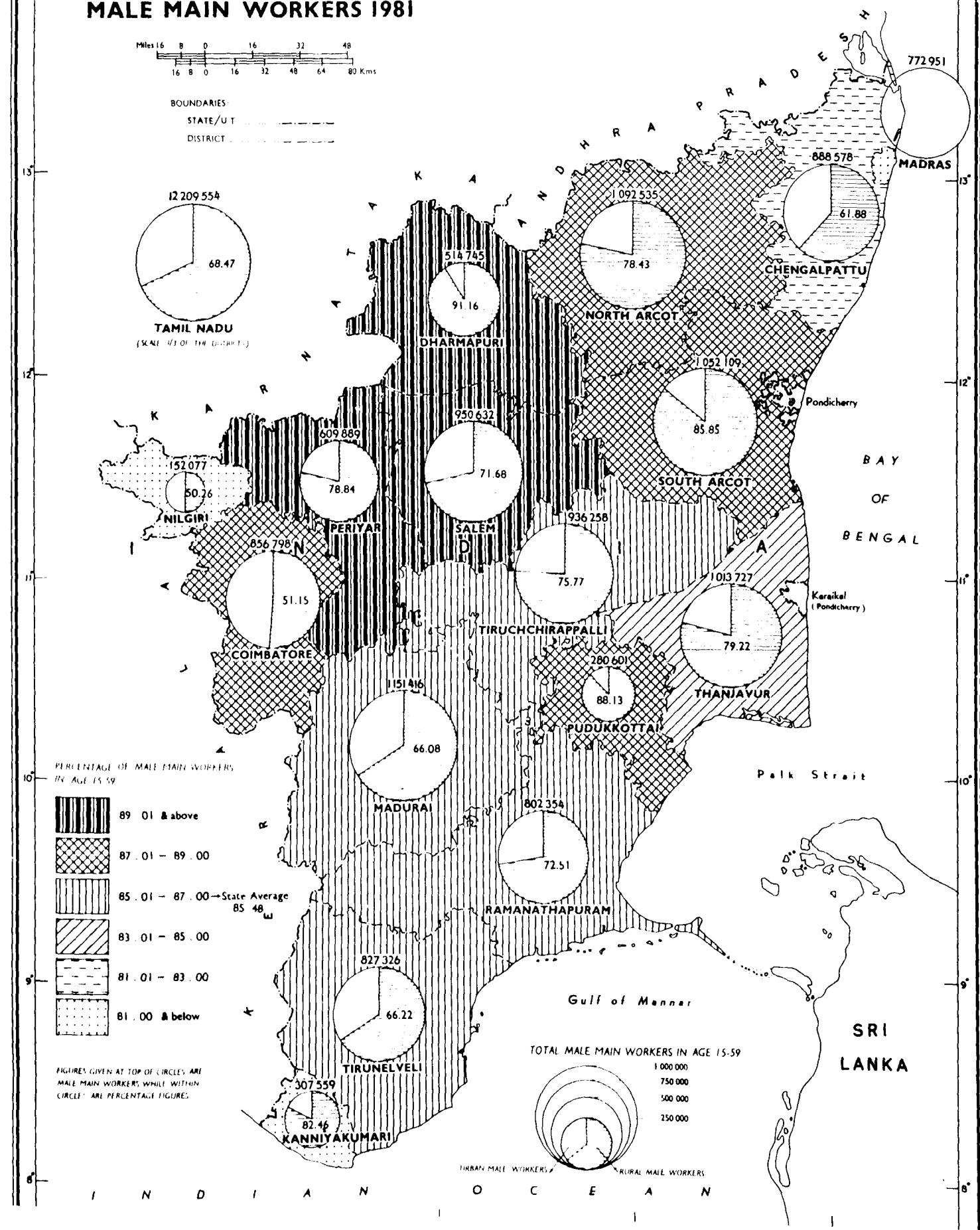
BOUNDARIES
STATE/U.T.
DISTRICT



TAMIL NADU
(Scale: 1/3 of the Districts)



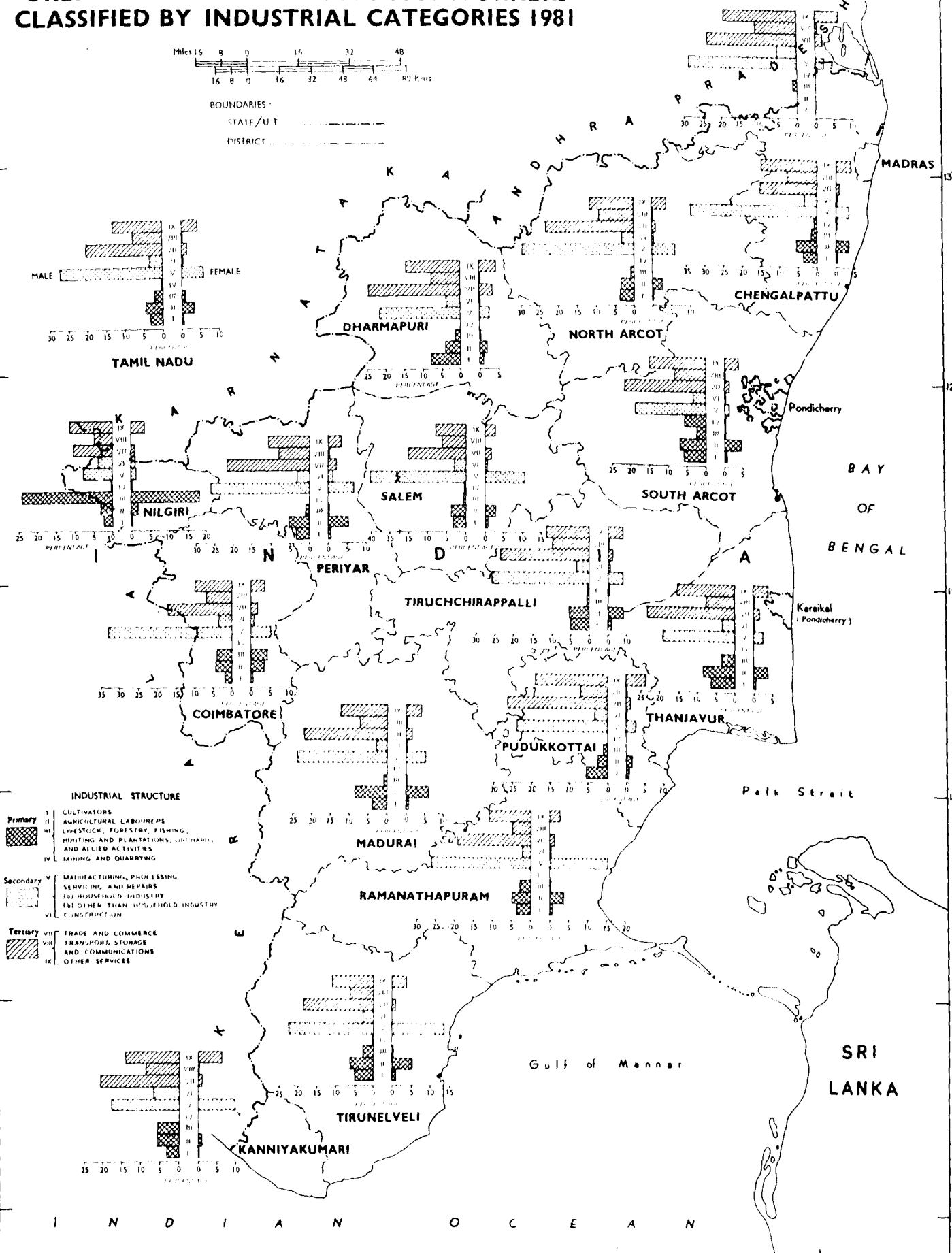
FIGURES GIVEN AT TOP OF CIRCLES ARE MALE MAIN WORKERS WHILE WITHIN CIRCLE ARE PERCENTAGE FIGURES



TAMIL NADU URBAN MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

Miles 16 8 0 16 32 48
16 8 0 16 32 48 64 80 Kms

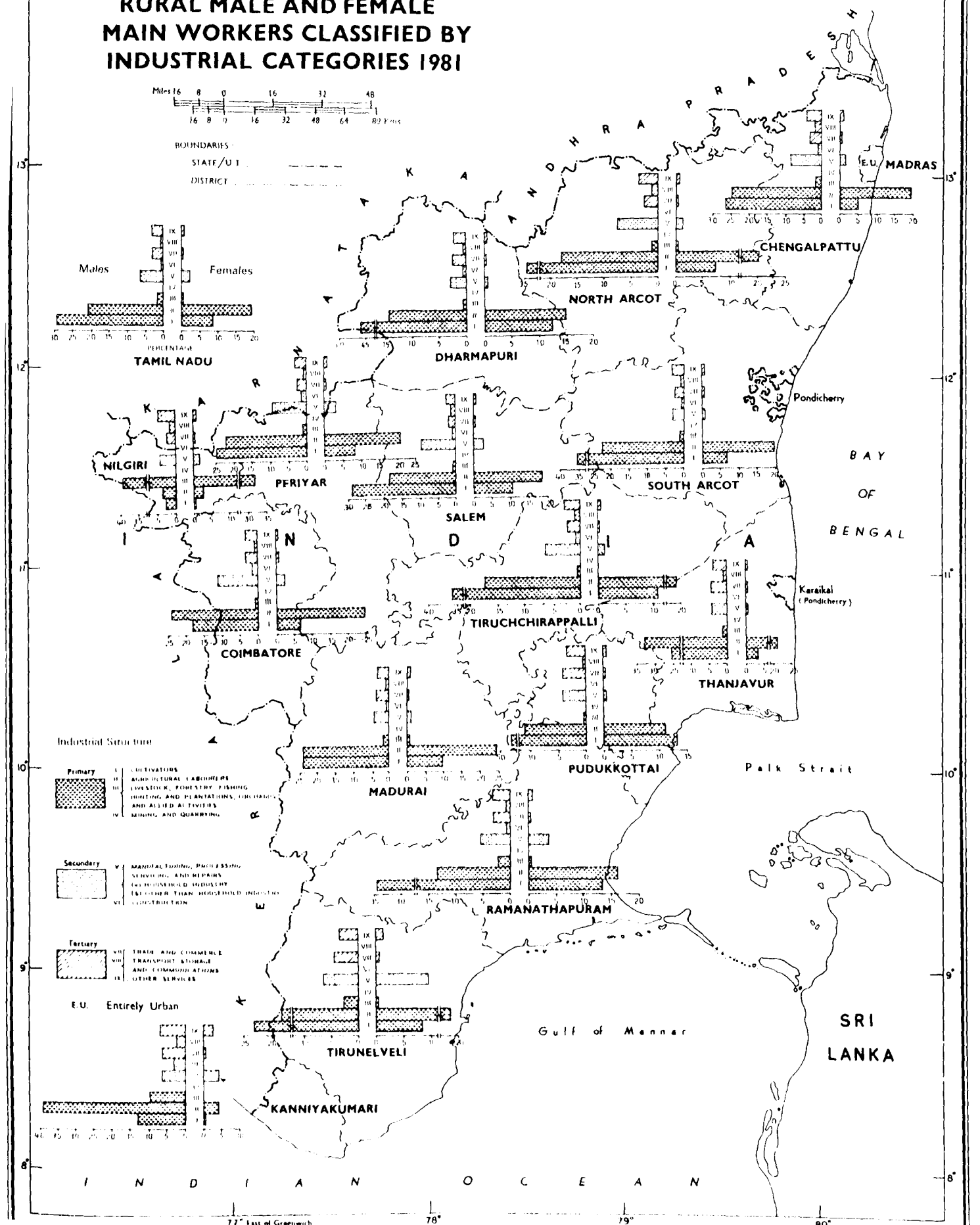
BOUNDARIES
STATE/U.T.
DISTRICT



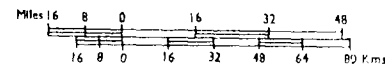
TAMIL NADU RURAL MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

Miles 16 8 0 16 32 48
16 8 0 16 32 48 64 80 Kms

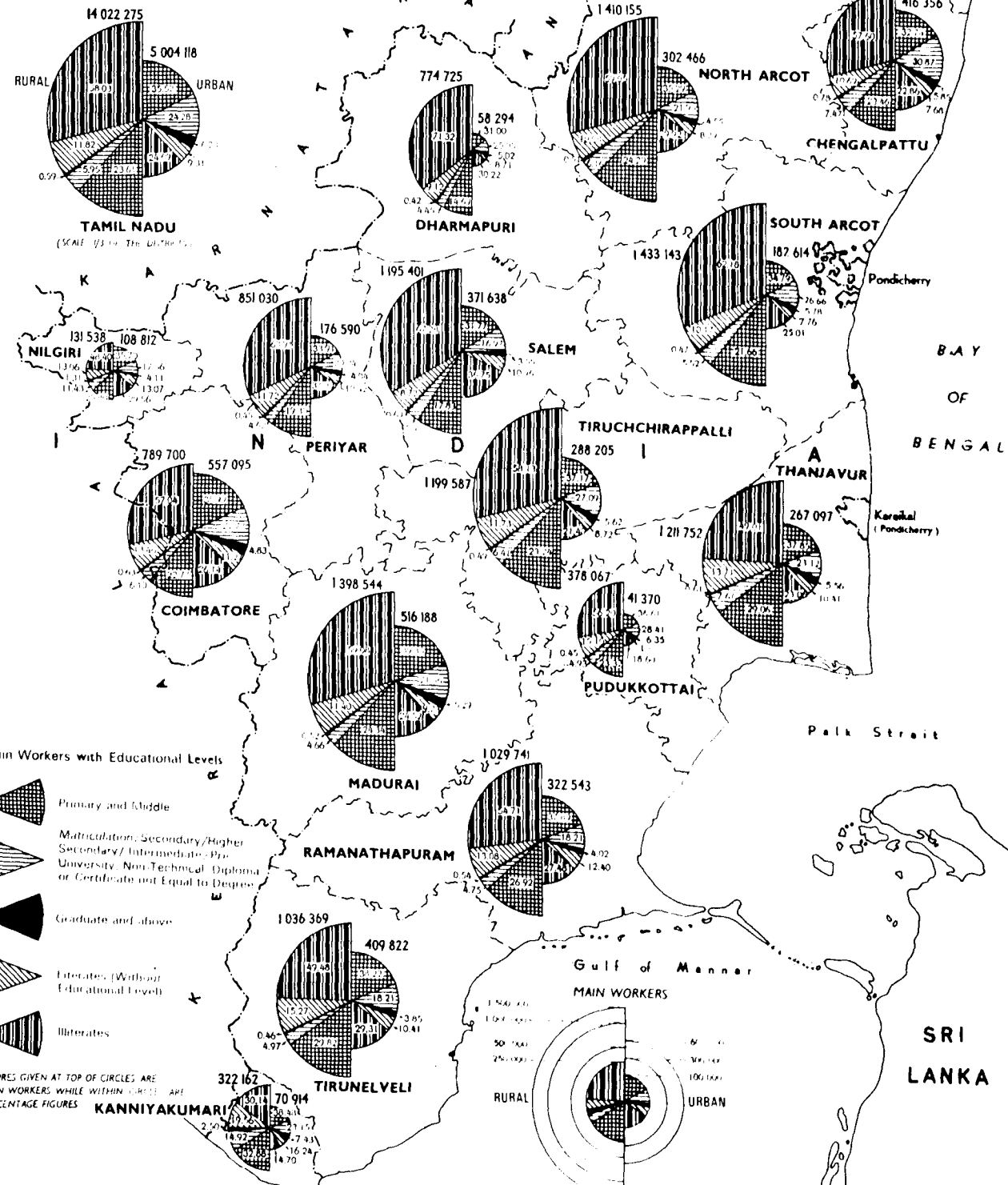
BOUNDARIES
STATE/U.T.
DISTRICT



TAMIL NADU MAIN WORKERS WITH EDUCATIONAL LEVELS 1981



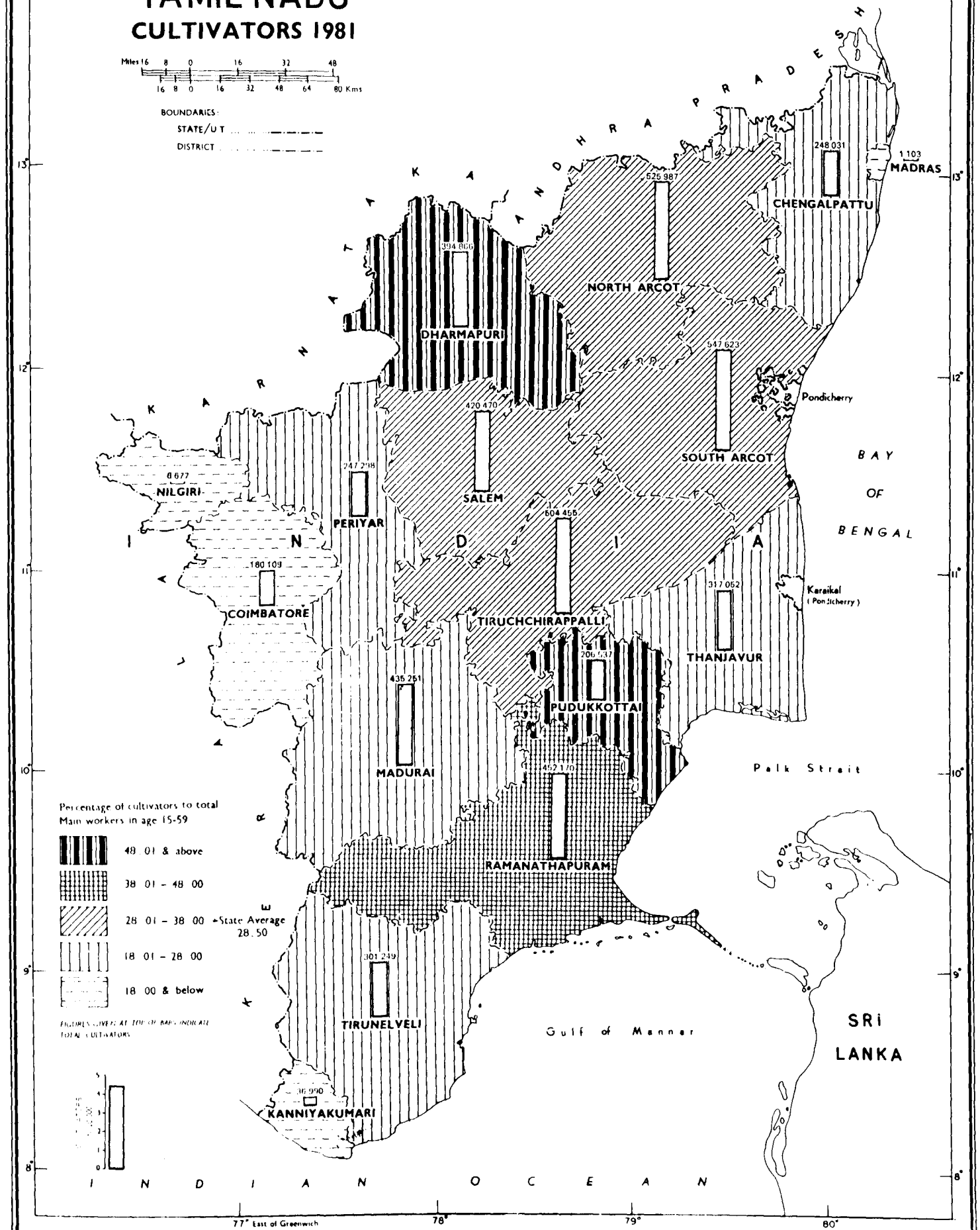
BOUNDARIES:
STATE/U.T.
DISTRICT



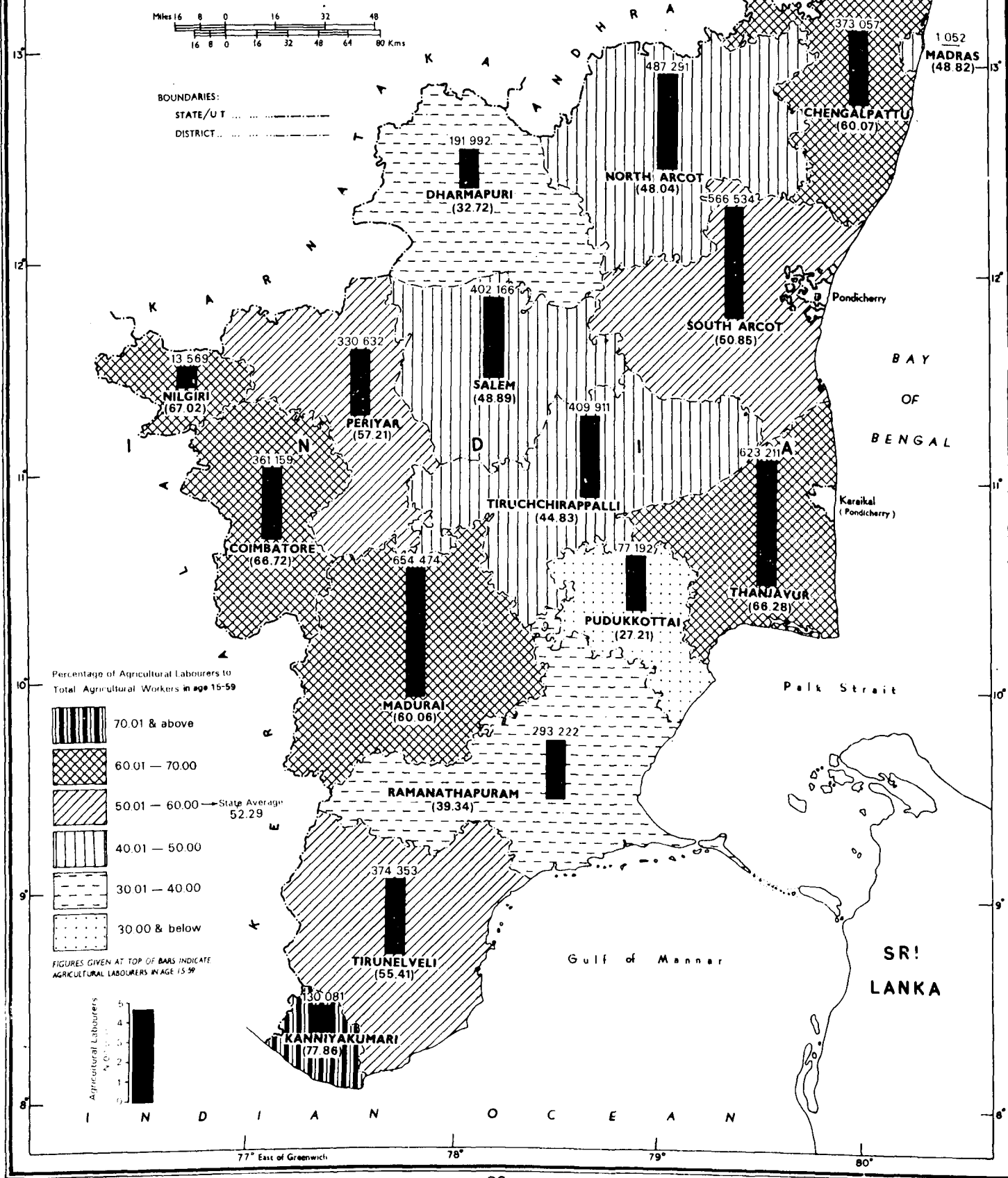
TAMIL NADU CULTIVATORS 1981



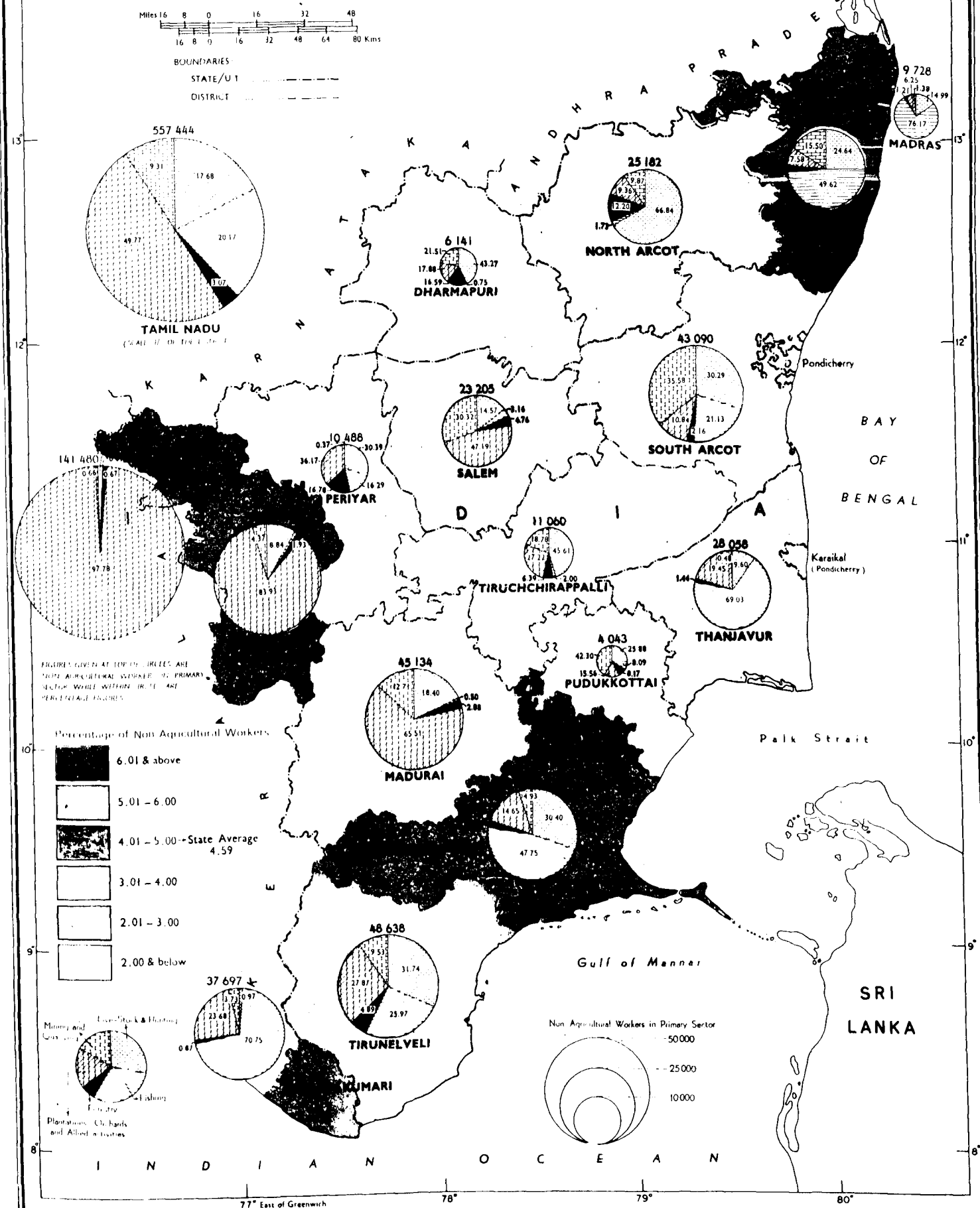
BOUNDARIES:
STATE/U.T.
DISTRICT

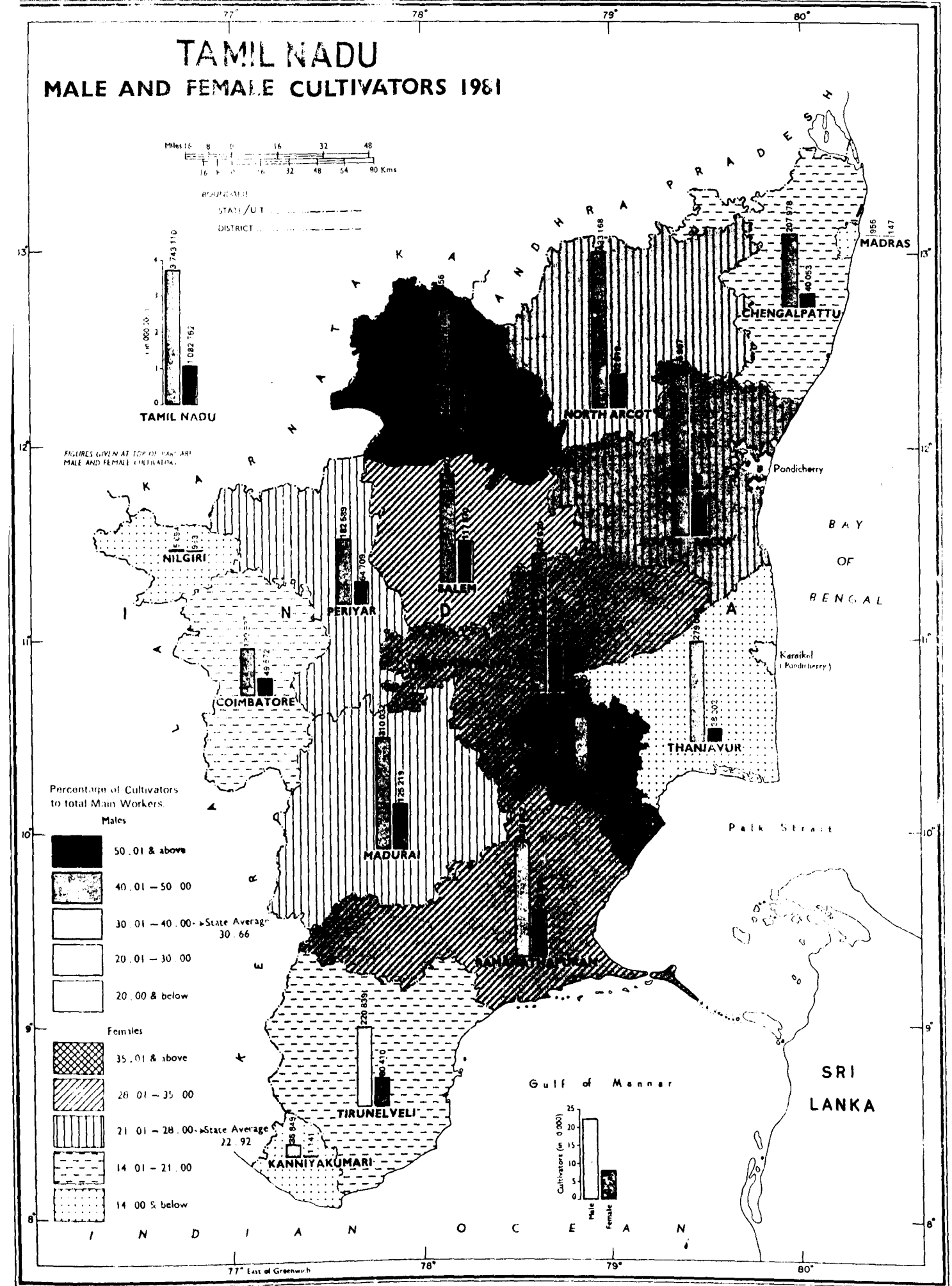
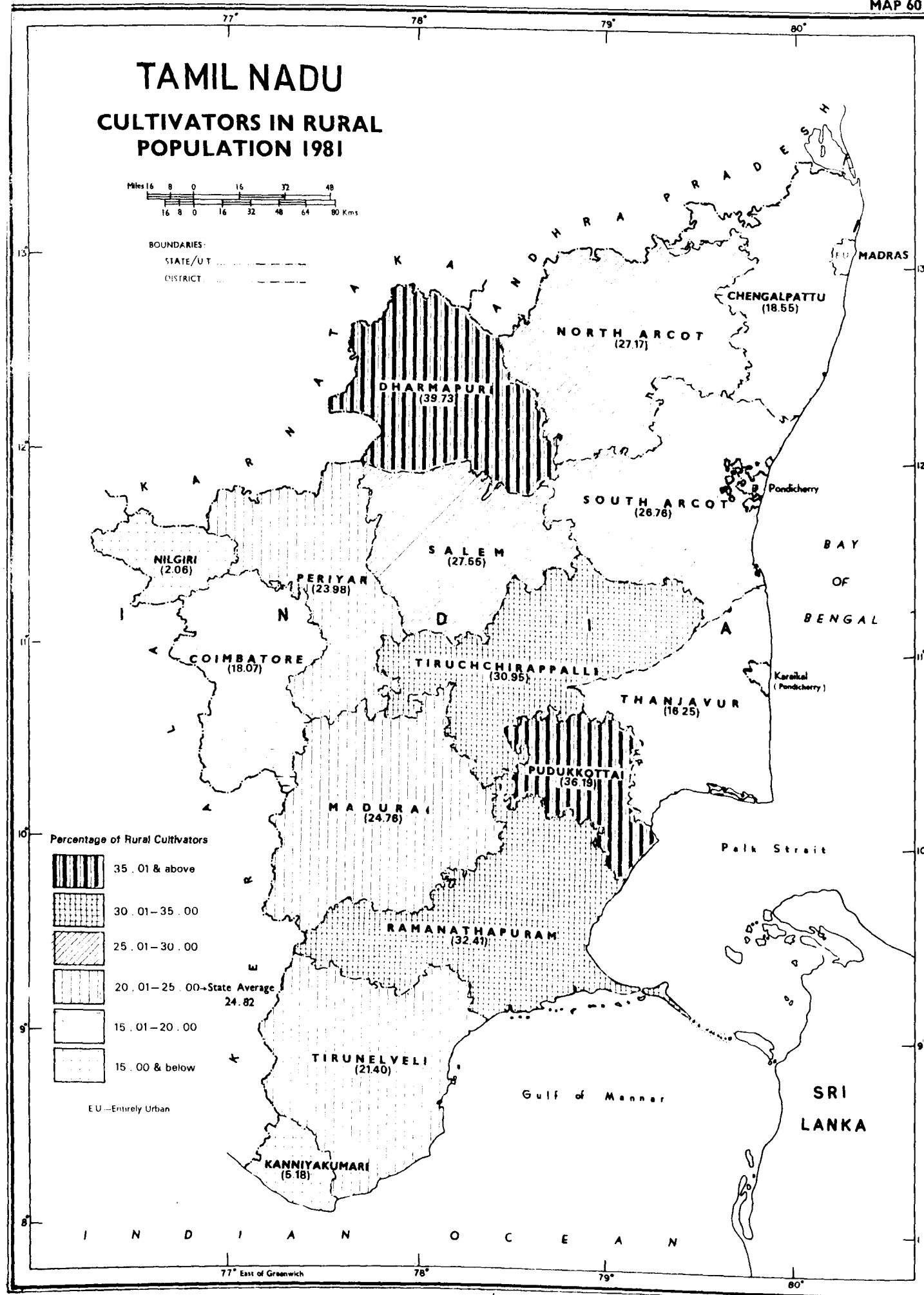


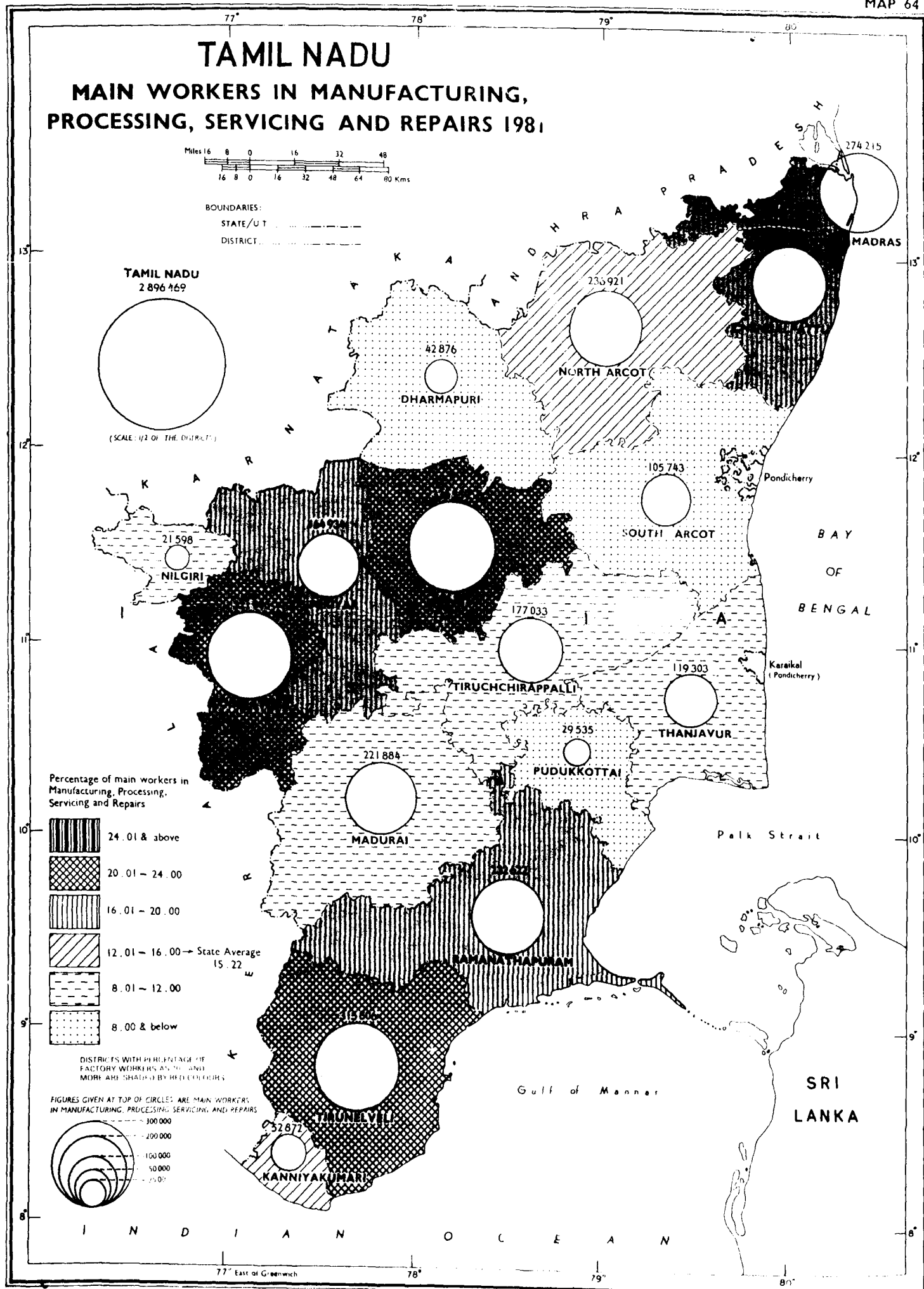
TAMIL NADU AGRICULTURAL LABOURERS IN TOTAL AGRICULTURAL WORKERS 1981



TAMIL NADU NON-AGRICULTURAL WORKERS IN PRIMARY SECTOR 1981





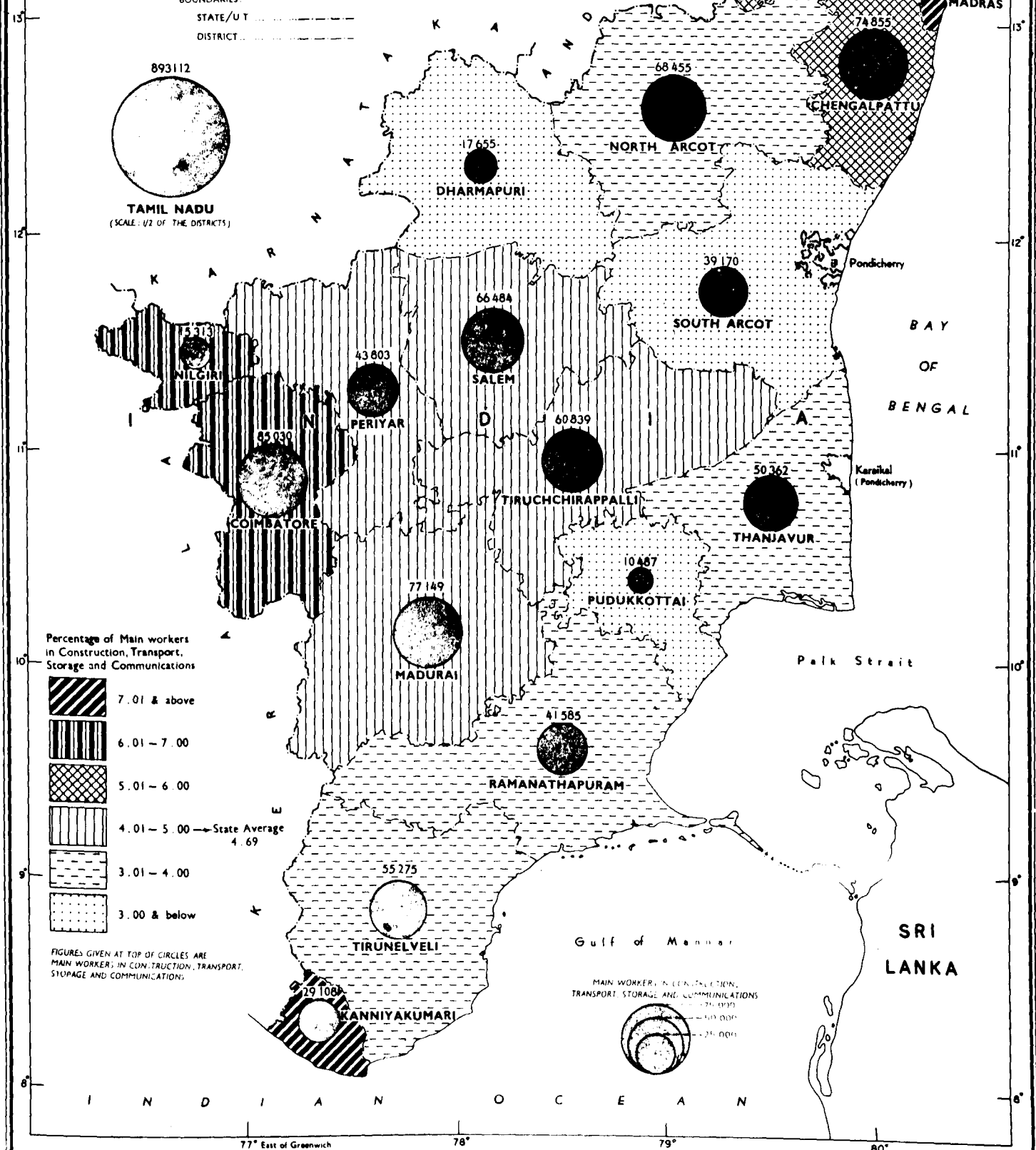
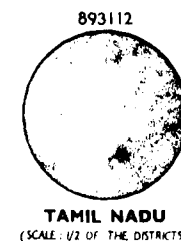


8. TRANSPORT AND COMMUNICATIONS

TAMIL NADU MAIN WORKERS IN CONSTRUCTION, TRANSPORT, STORAGE AND COMMUNICATIONS 1981



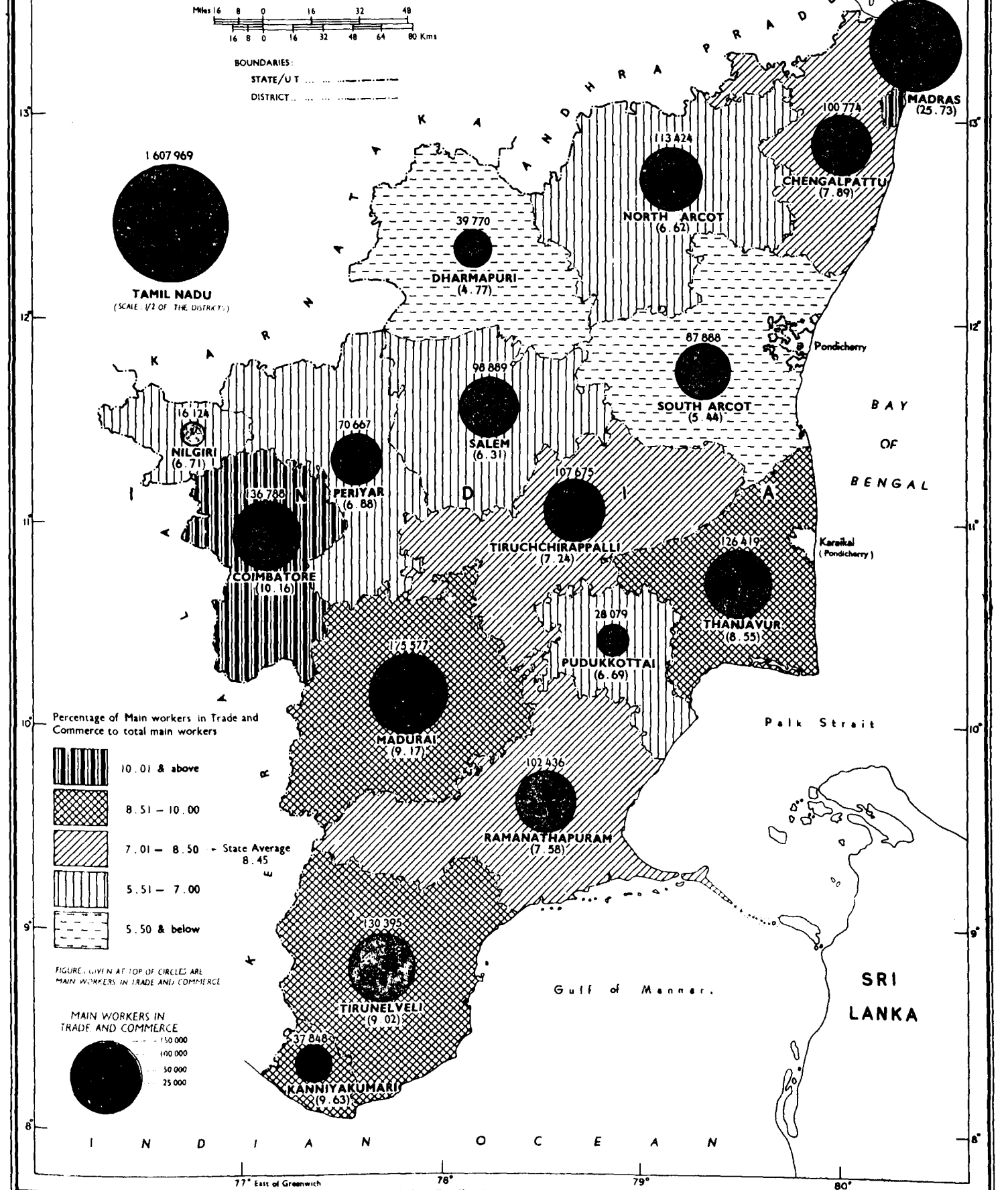
BOUNDARIES
STATE/U.T.
DISTRICT



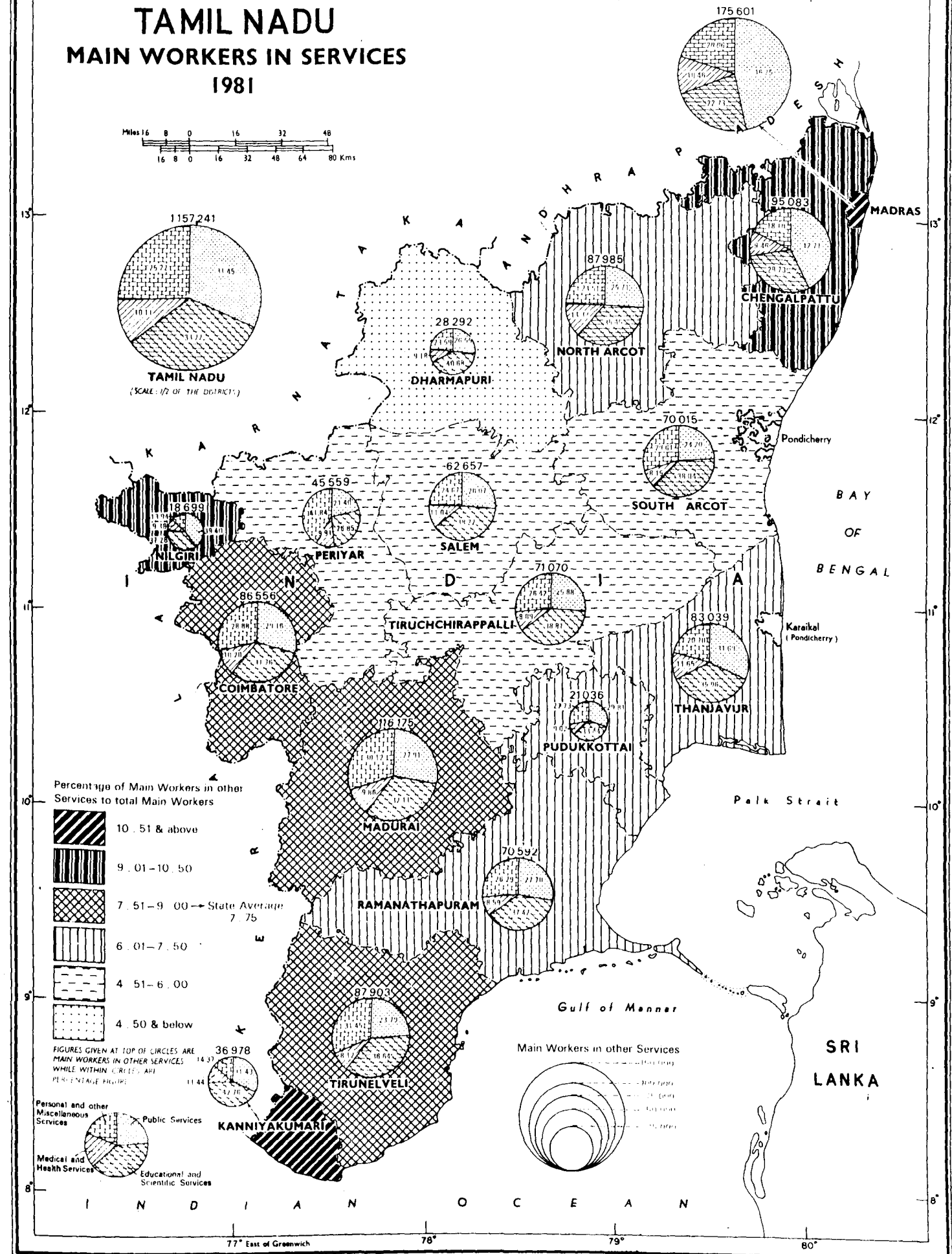
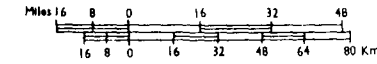
9. TRADE AND COMMERCE

10. SERVICES

TAMIL NADU MAIN WORKERS IN TRADE AND COMMERCE 1981

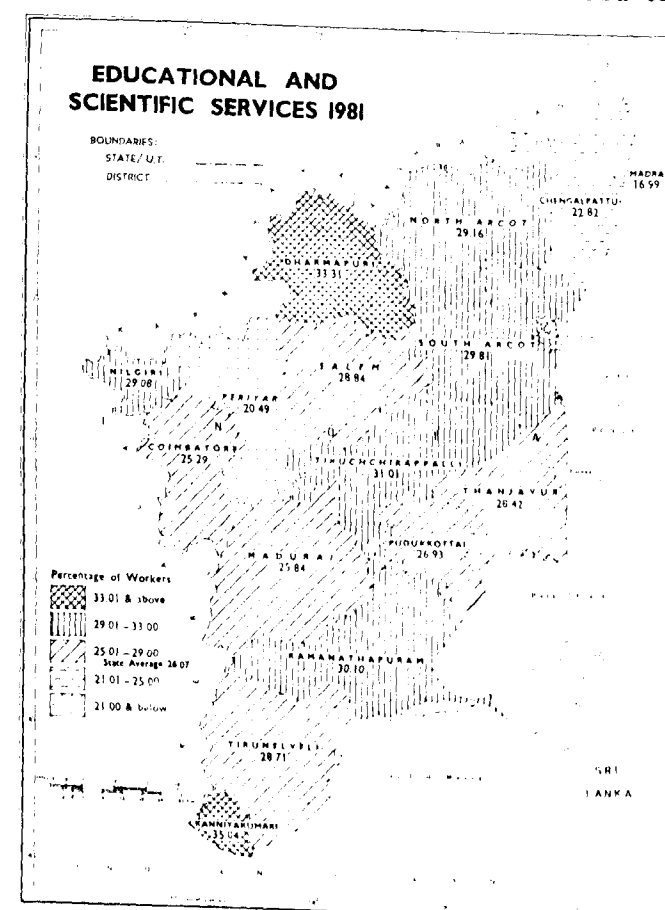
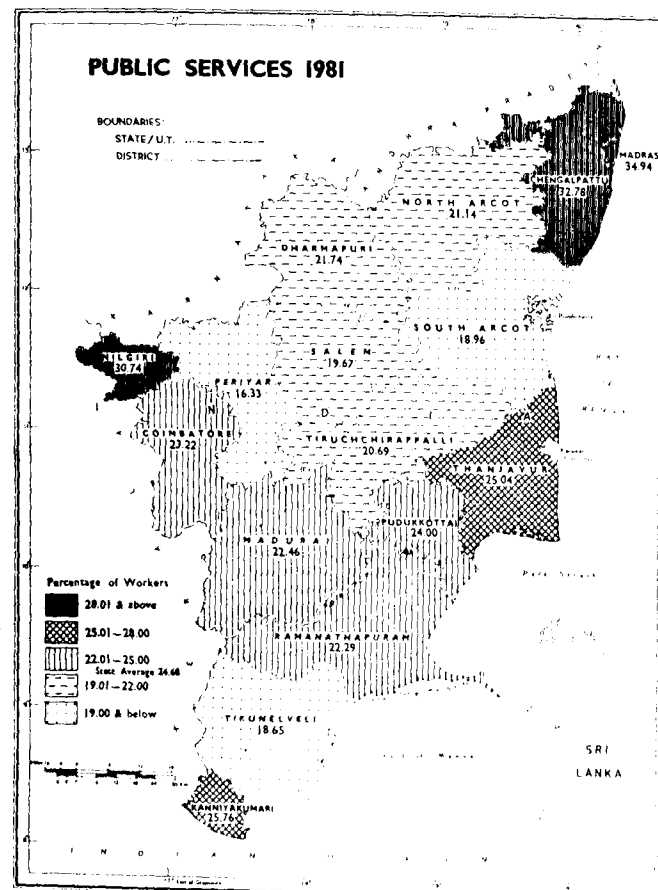


TAMIL NADU MAIN WORKERS IN SERVICES 1981

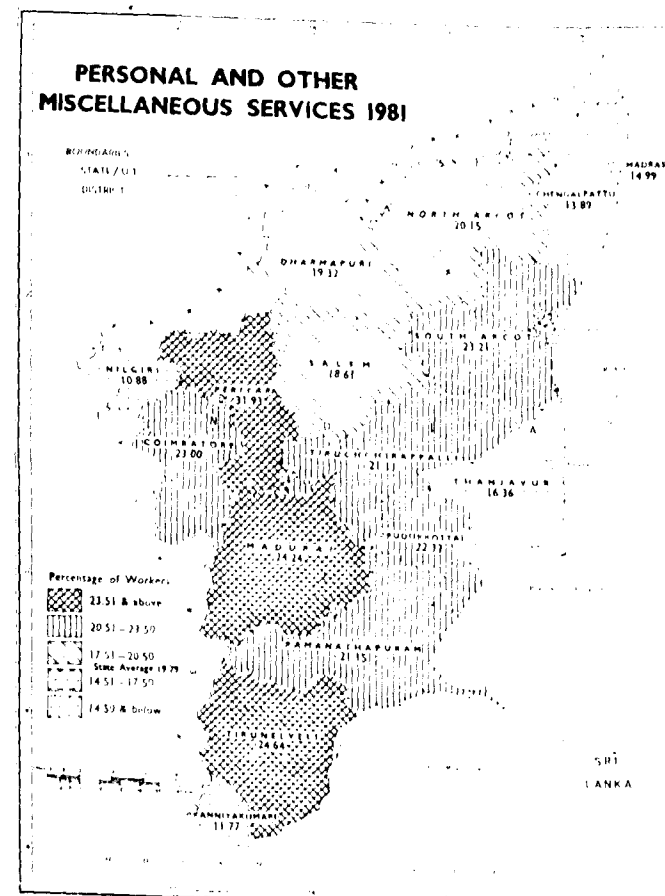
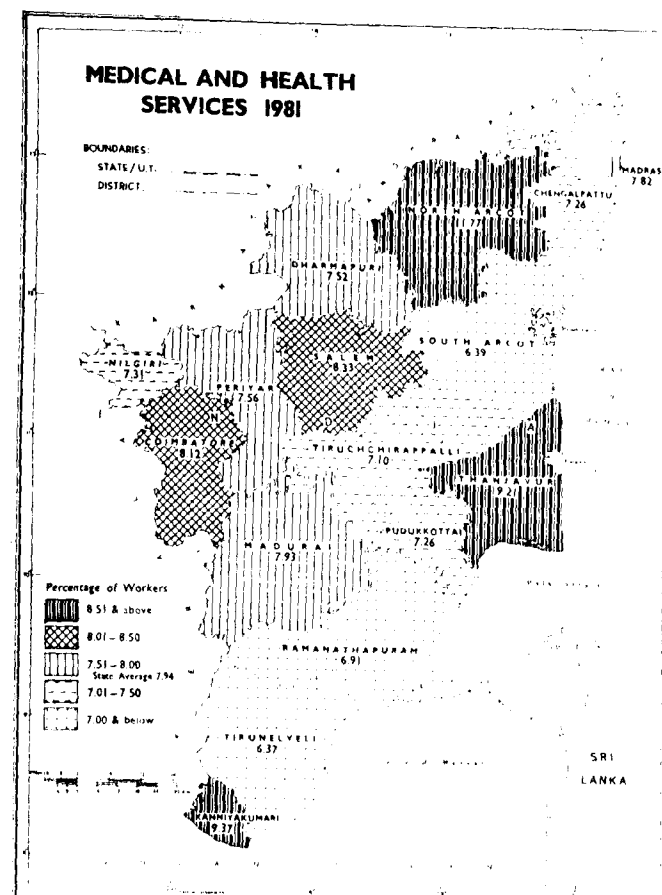


TAMIL NADU MAIN WORKERS IN VARIOUS SERVICES 1981

MAP 68



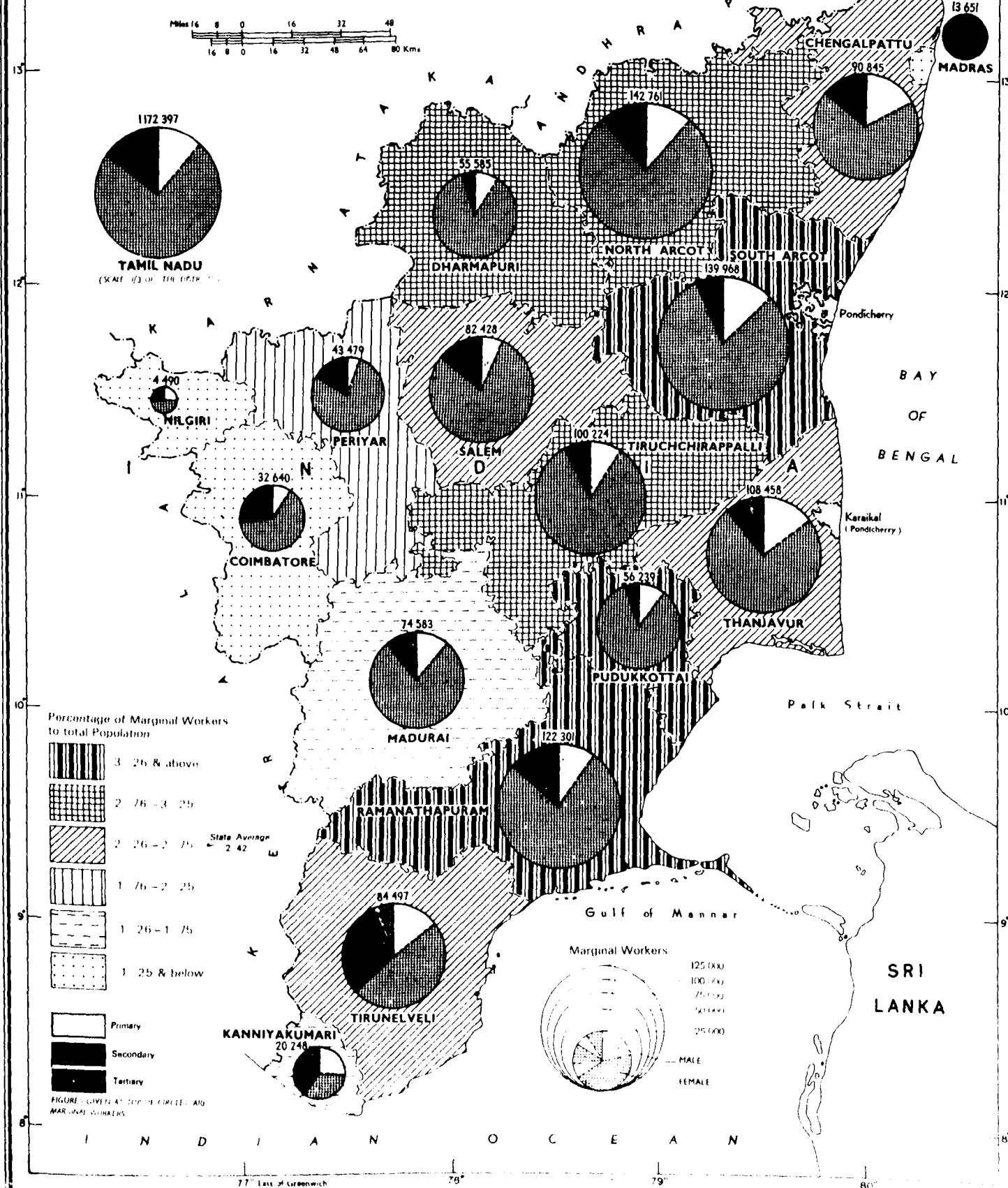
11. MARGINAL WORKERS



IV. SOCIO-CULTURAL ASPECTS

12. CASTES AND TRIBES

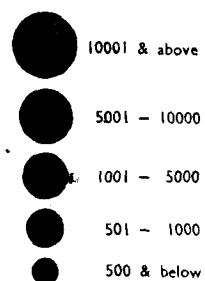
TAMIL NADU MALE AND FEMALE MARGINAL WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981



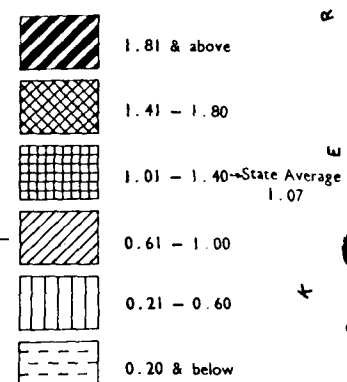
TAMIL NADU SCHEDULED TRIBES 1981



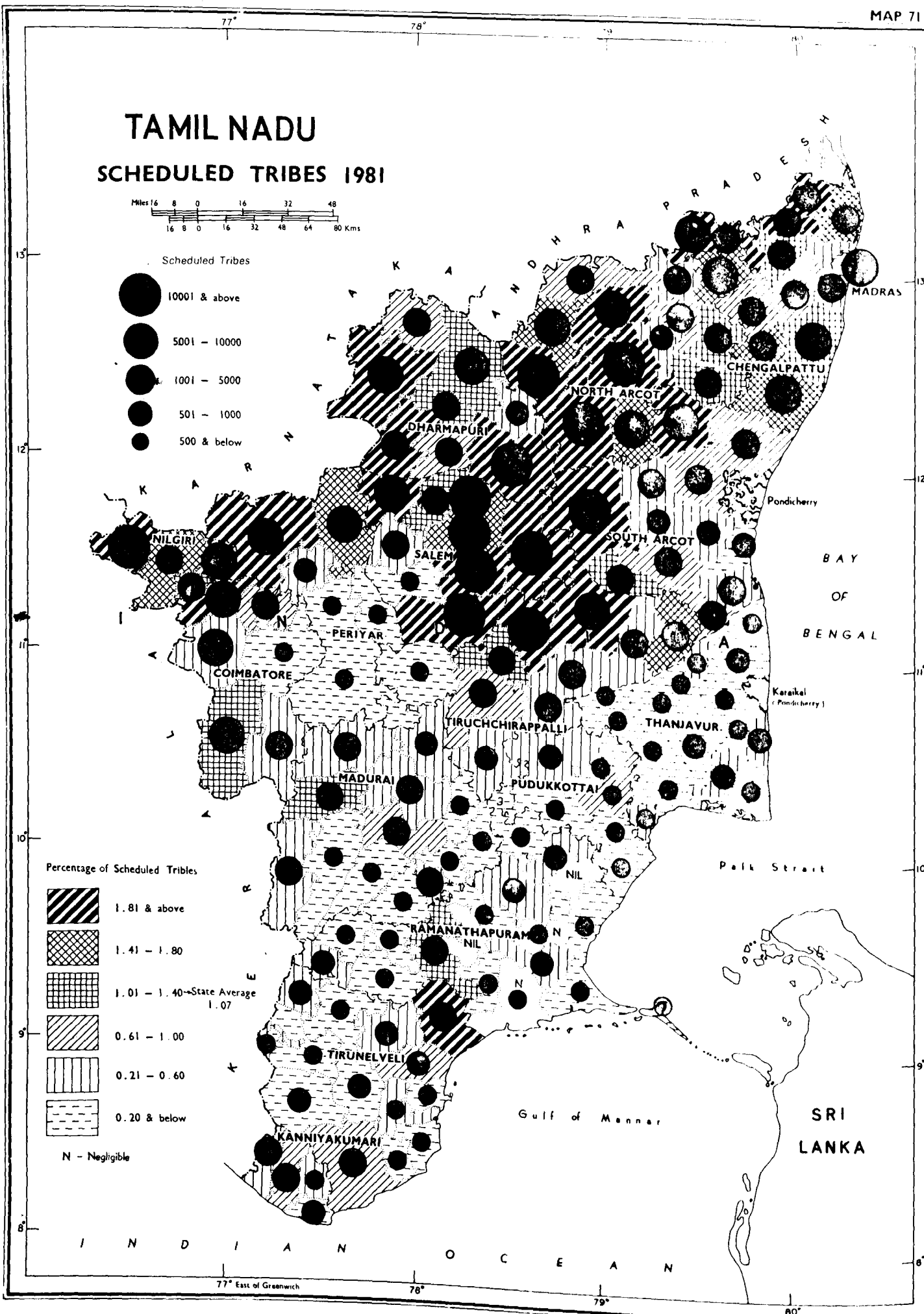
Scheduled Tribes



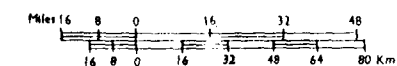
Percentage of Scheduled Tribes



N - Negligible



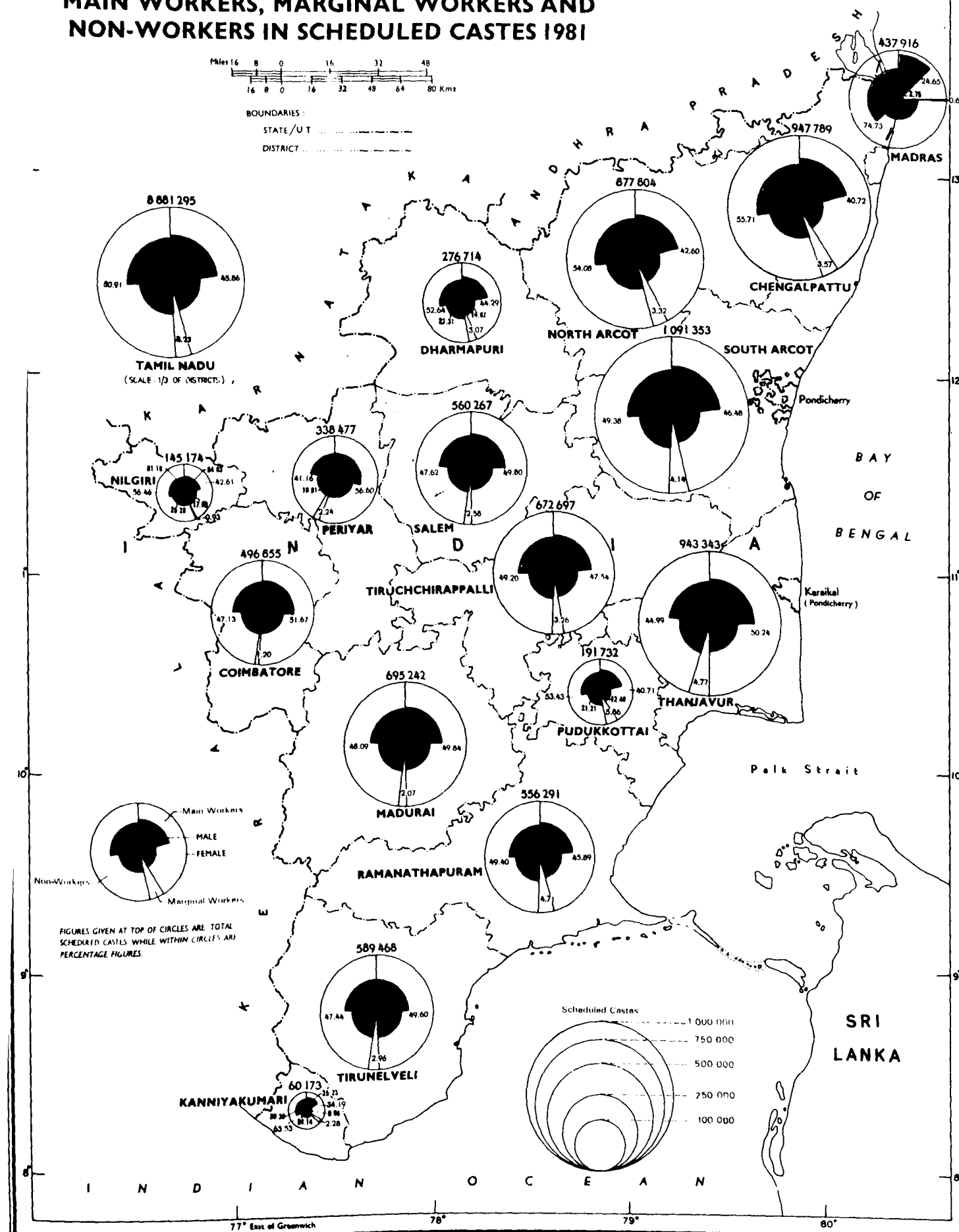
TAMIL NADU MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS IN SCHEDULED CASTES 1981



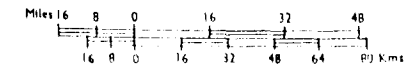
BOUNDARIES:

STATE / U.T.

DISTRICT

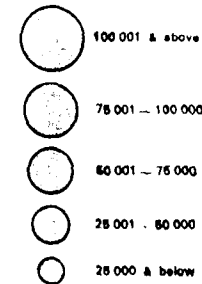


TAMIL NADU SCHEDULED CASTES 1981

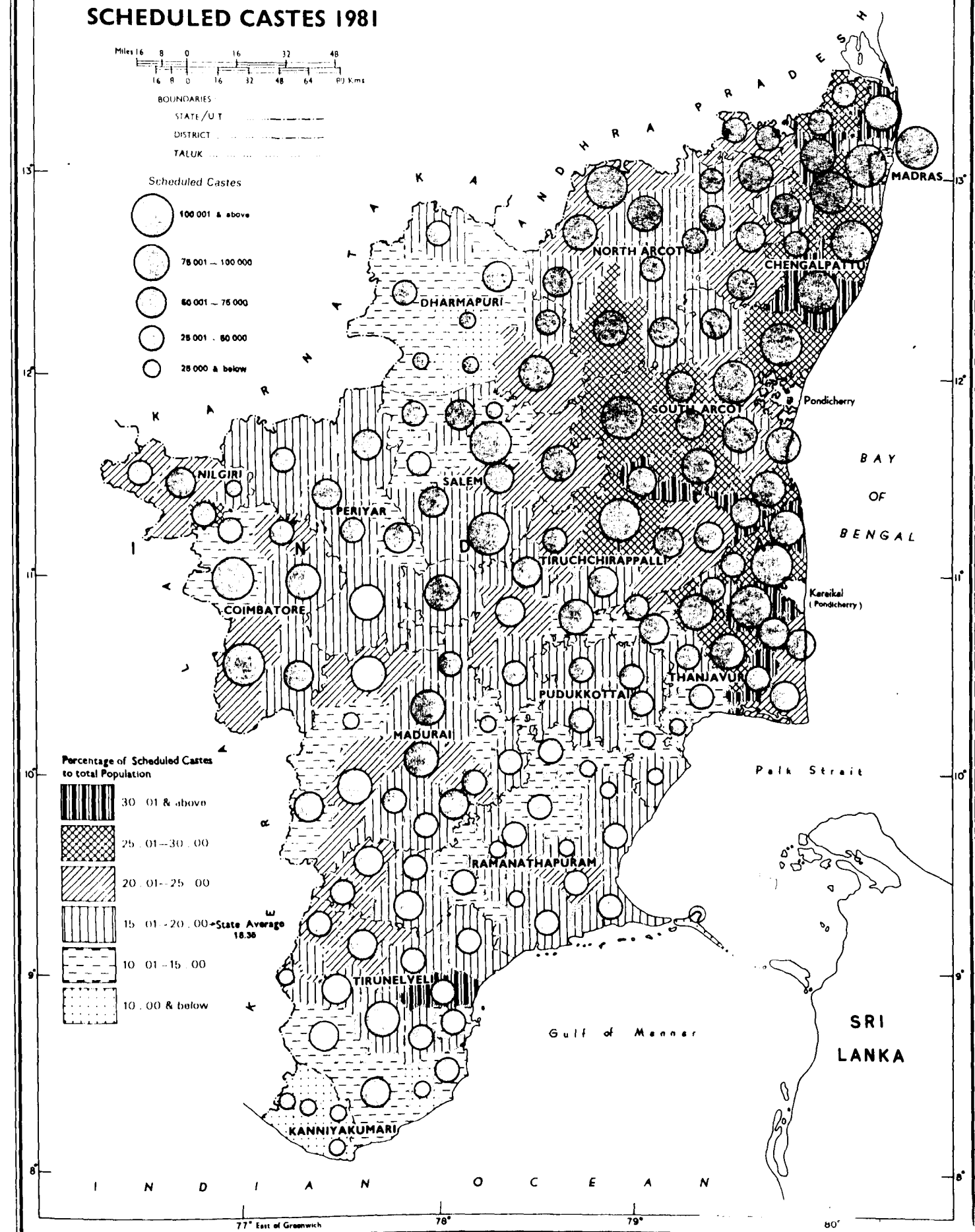
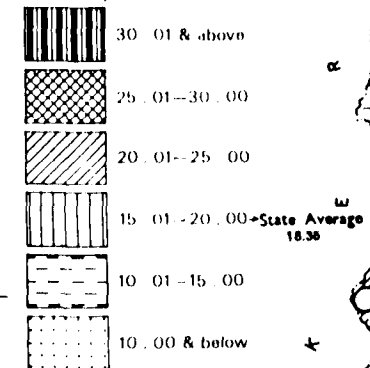


BOUNDARIES
STATE / U T
DISTRICT
TALUK

Scheduled Castes

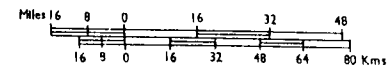


Percentage of Scheduled Castes to total Population



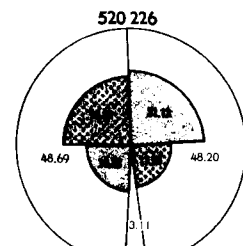
TAMIL NADU

MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS IN SCHEDULED TRIBES 1981



BOUNDARIES:

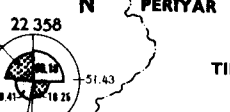
STATE/UT
DISTRICT



TAMIL NADU
(SCALE: 1/2 OF DISTRICTS)



NILGIRI



COIMBATORE



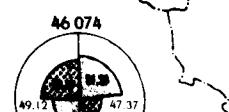
MADURAI



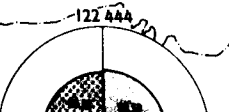
TIRUNELVELI



KANNIYAKUMARI



DHARMAPURI



SALEM



TIRUCHIRAPPALLI



PUDUKKOTTAI



RAMANATHAPURAM



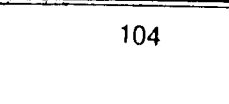
NORTH ARCOT



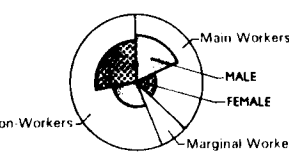
SOUTH ARCOT



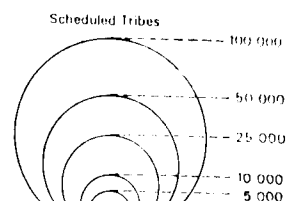
CHENGALPATTU



MADRAS

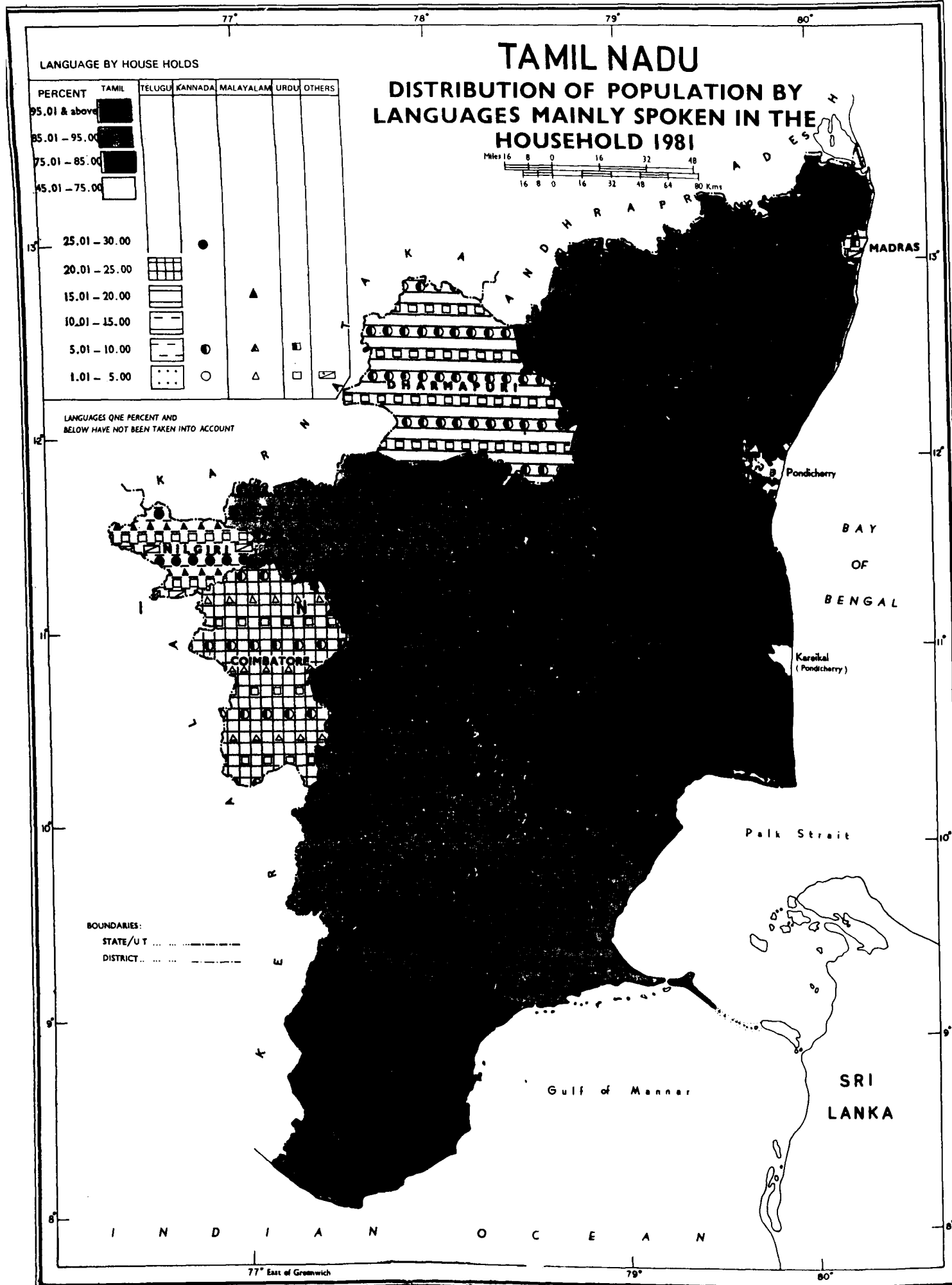


FIGURES GIVEN AT TOP OF CIRCLES ARE TOTAL
SCHEDULED TRIBES WHILE WITHIN CIRCLES ARE
PERCENTAGE FIGURES.



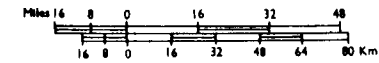
SRI
LANKA

13. RELIGION AND LANGUAGE

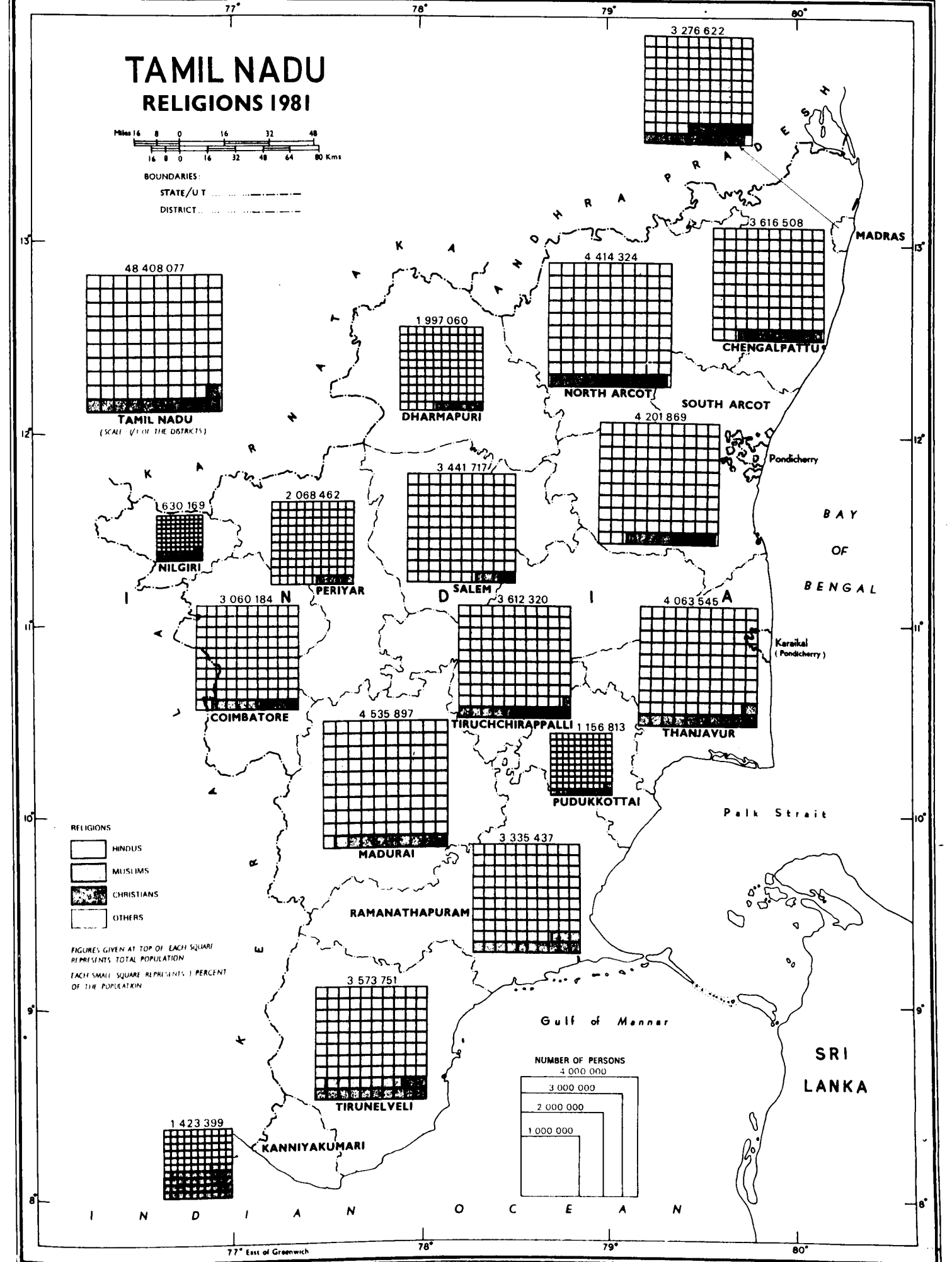


14. LITERACY AND EDUCATION

TAMIL NADU RELIGIONS 1981



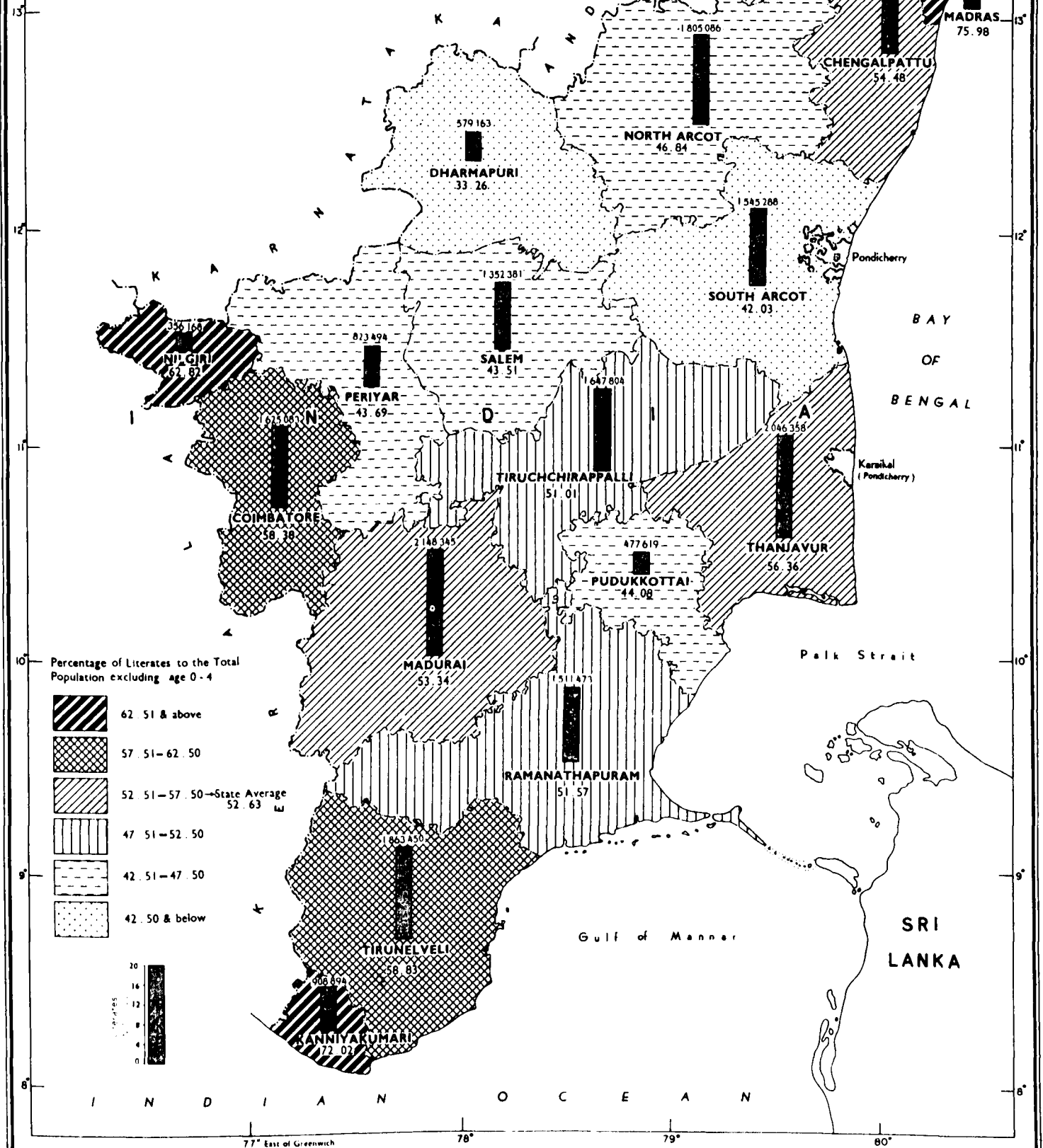
BOUNDARIES:
STATE/U.T.
DISTRICT



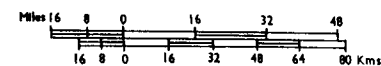
TAMIL NADU LITERACY 1981



BOUNDARIES
STATE / U T
DISTRICT

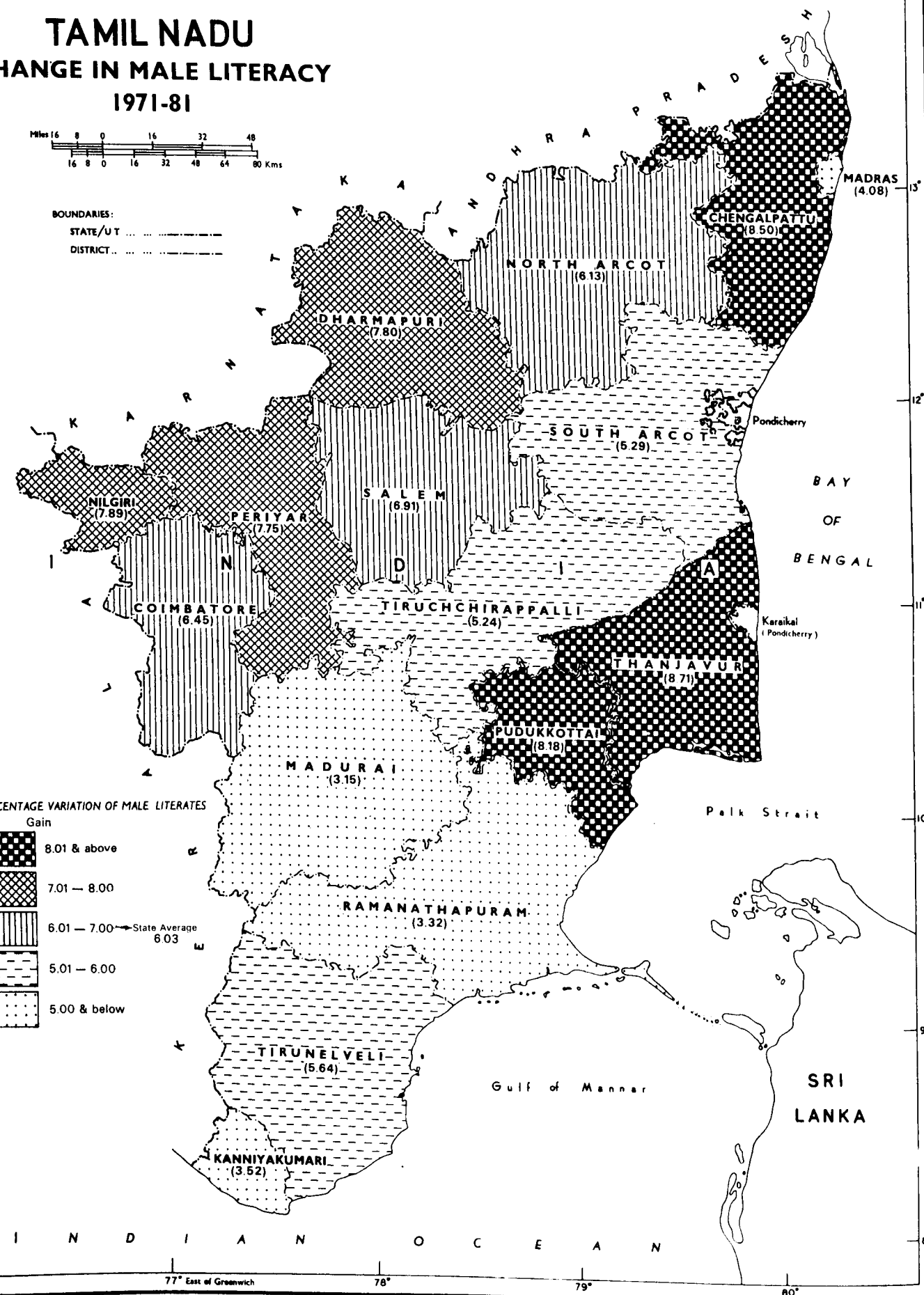
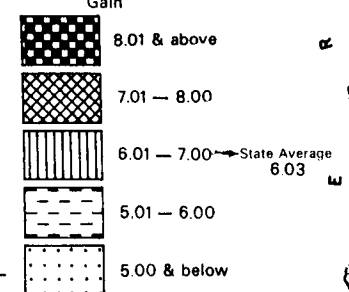


TAMIL NADU CHANGE IN MALE LITERACY 1971-81

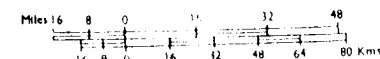


BOUNDARIES:
STATE/UT
DISTRICT

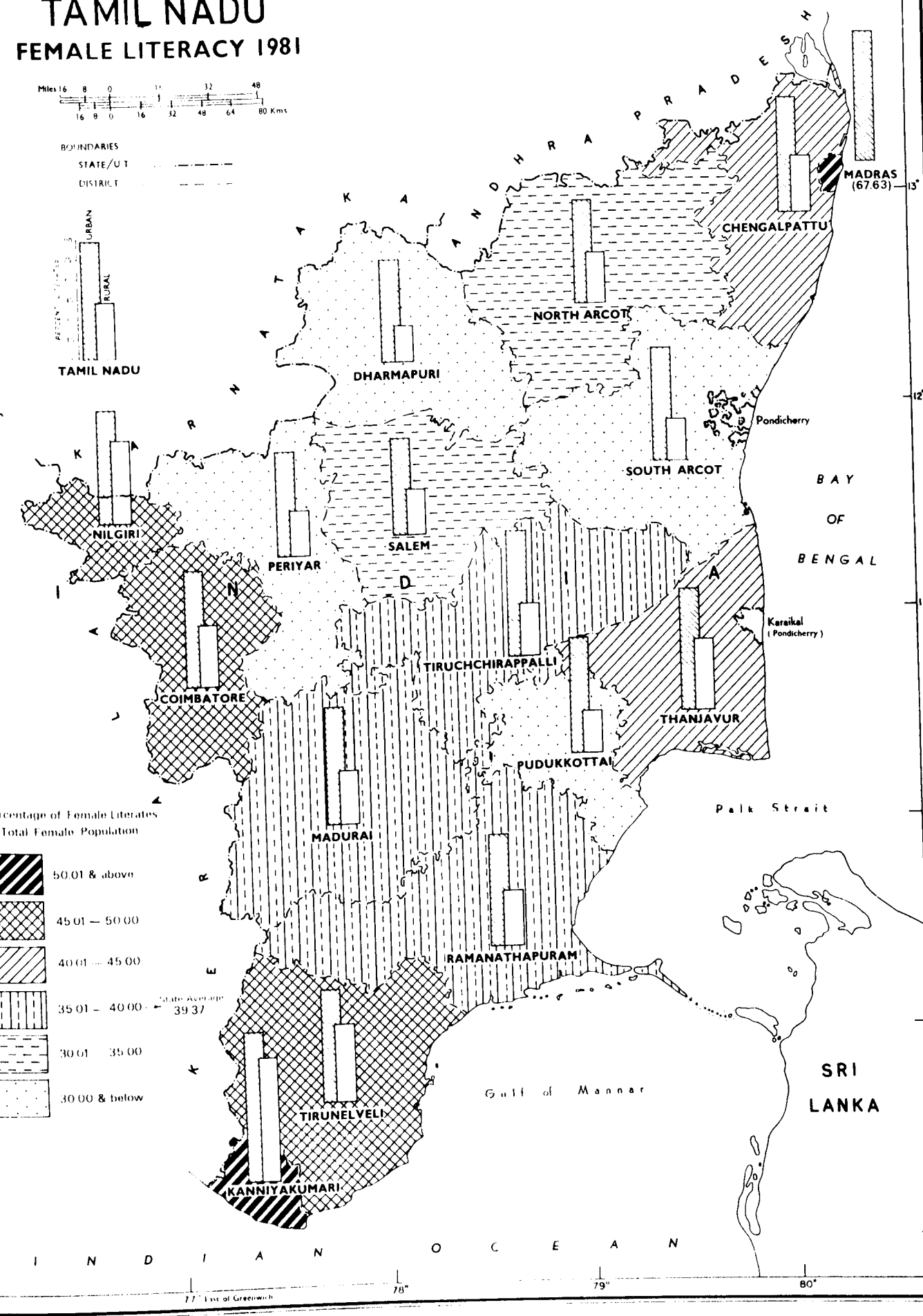
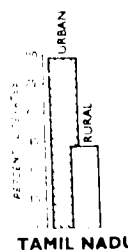
PERCENTAGE VARIATION OF MALE LITERATES

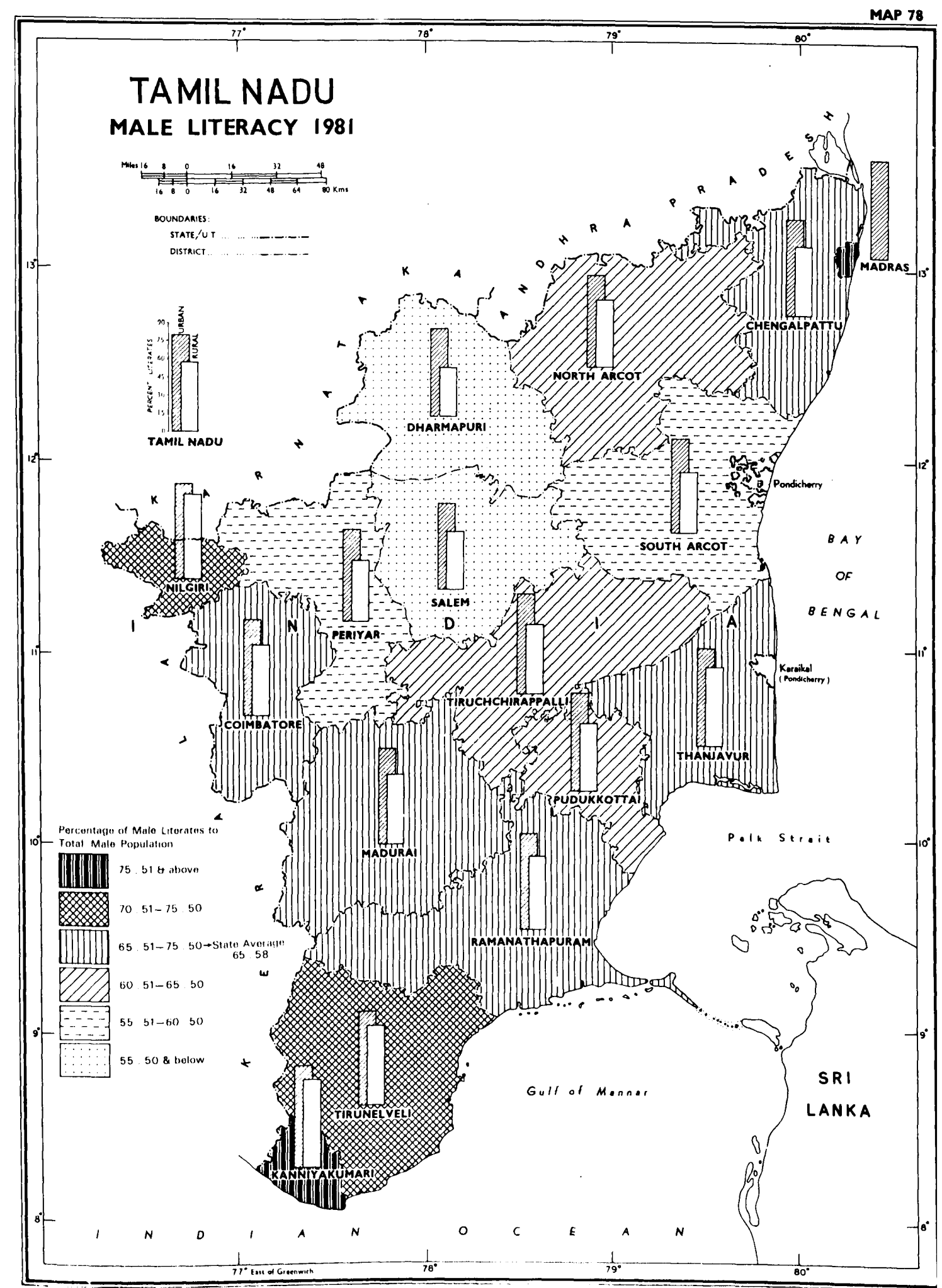
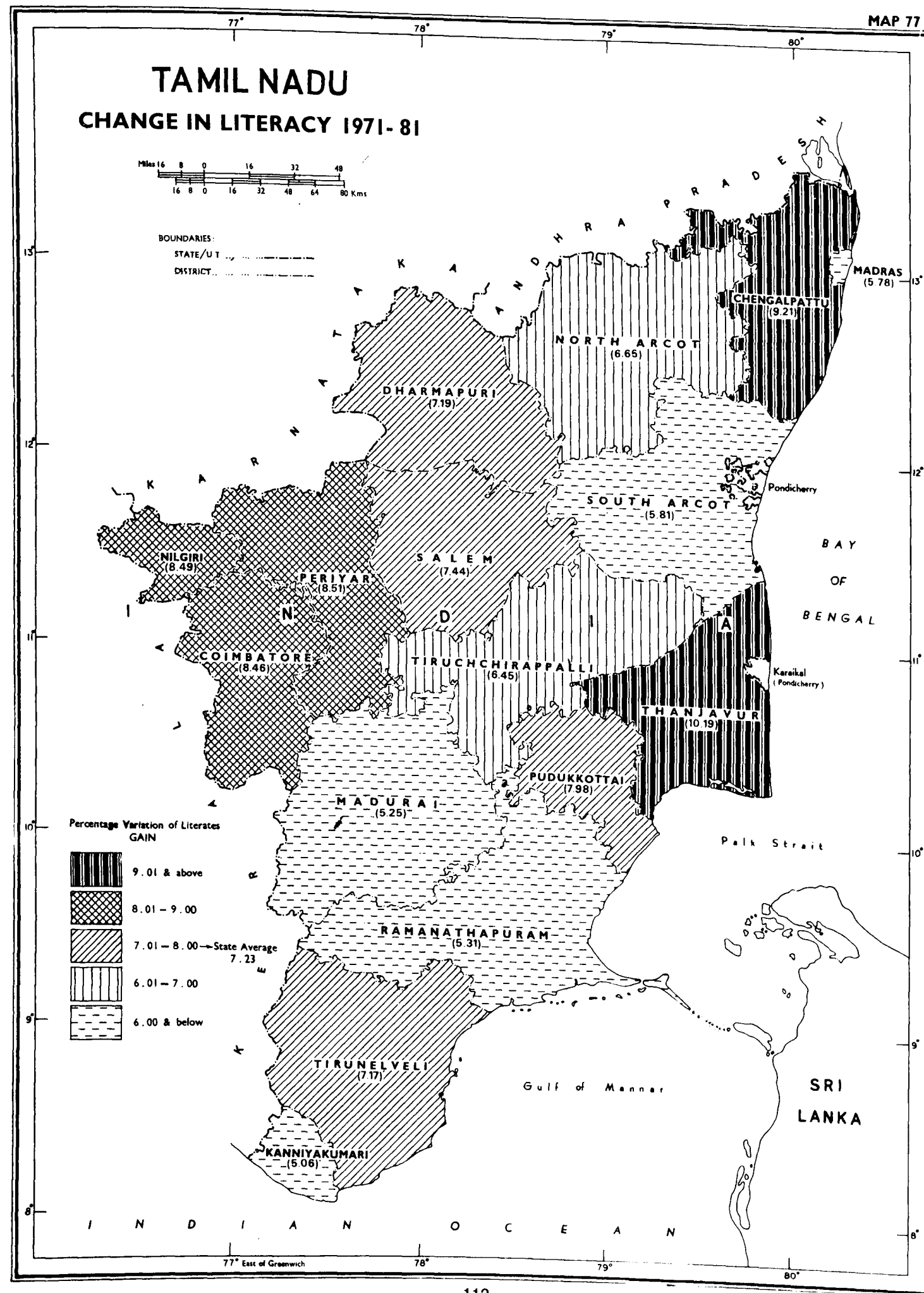


TAMIL NADU FEMALE LITERACY 1981

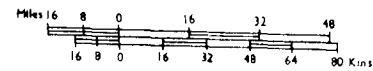


BOUNDARIES:
STATE/UT
DISTRICT

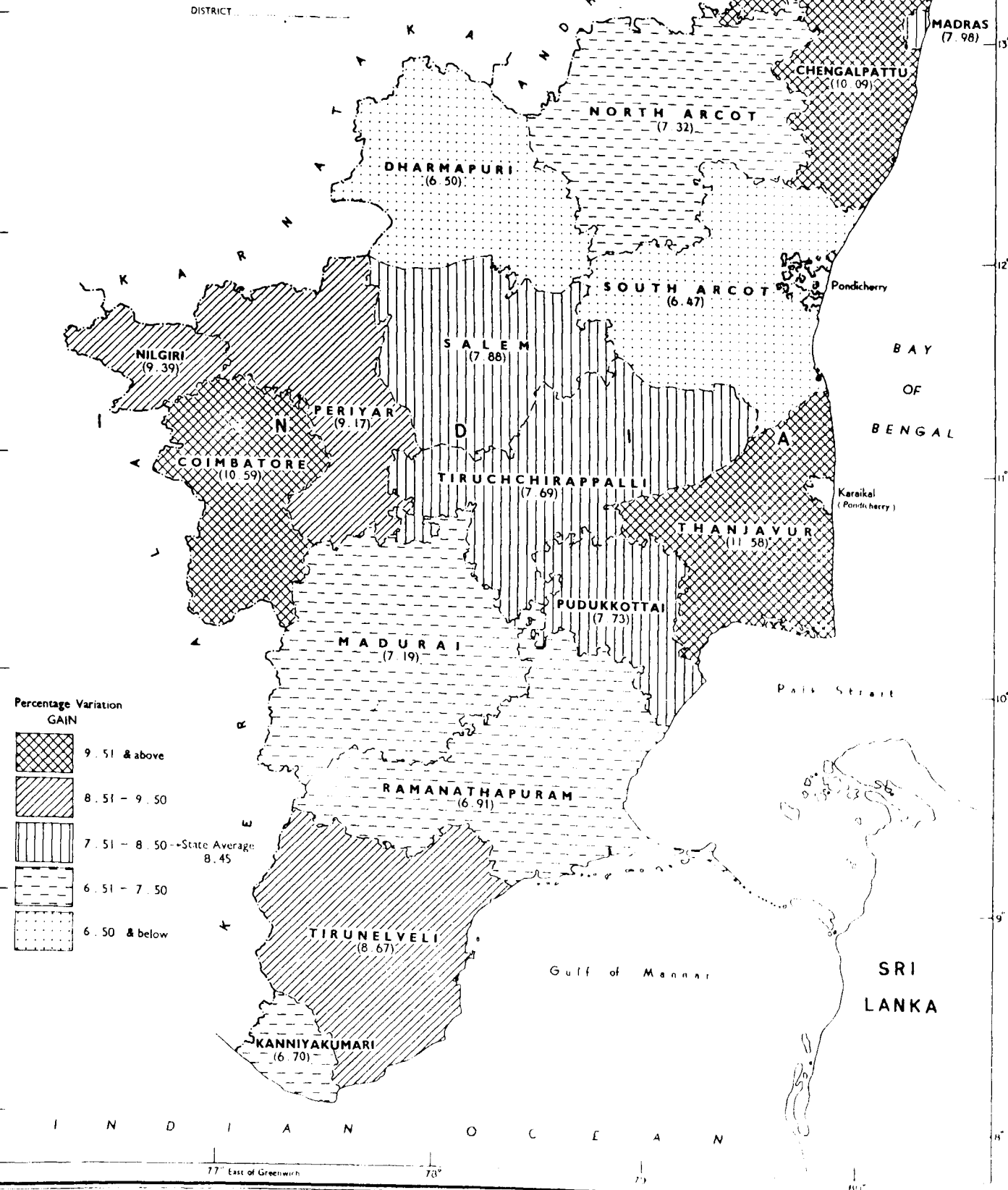




TAMIL NADU CHANGE IN FEMALE LITERACY 1971-81



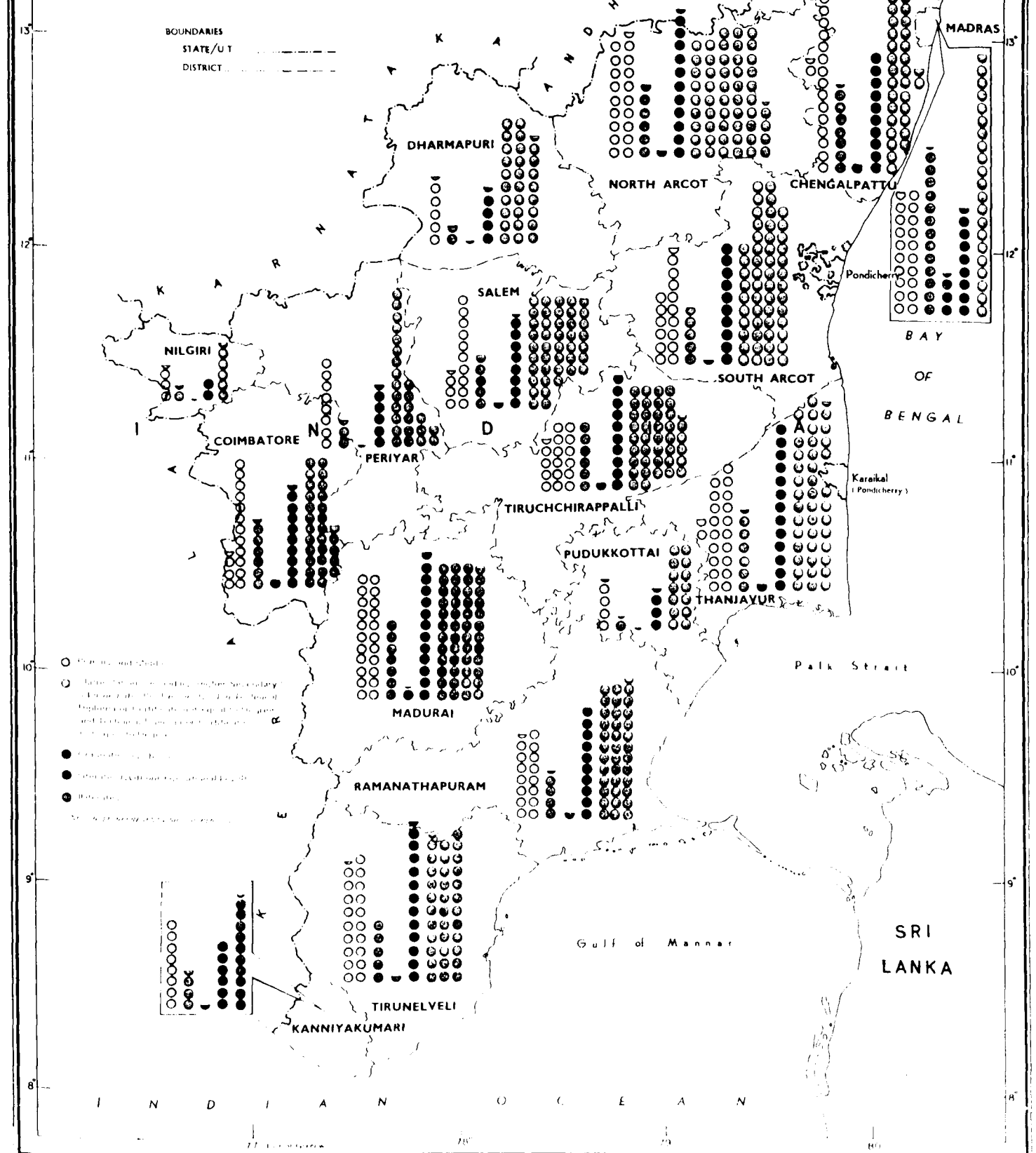
BOUNDARIES:
STATE/U.T.
DISTRICT

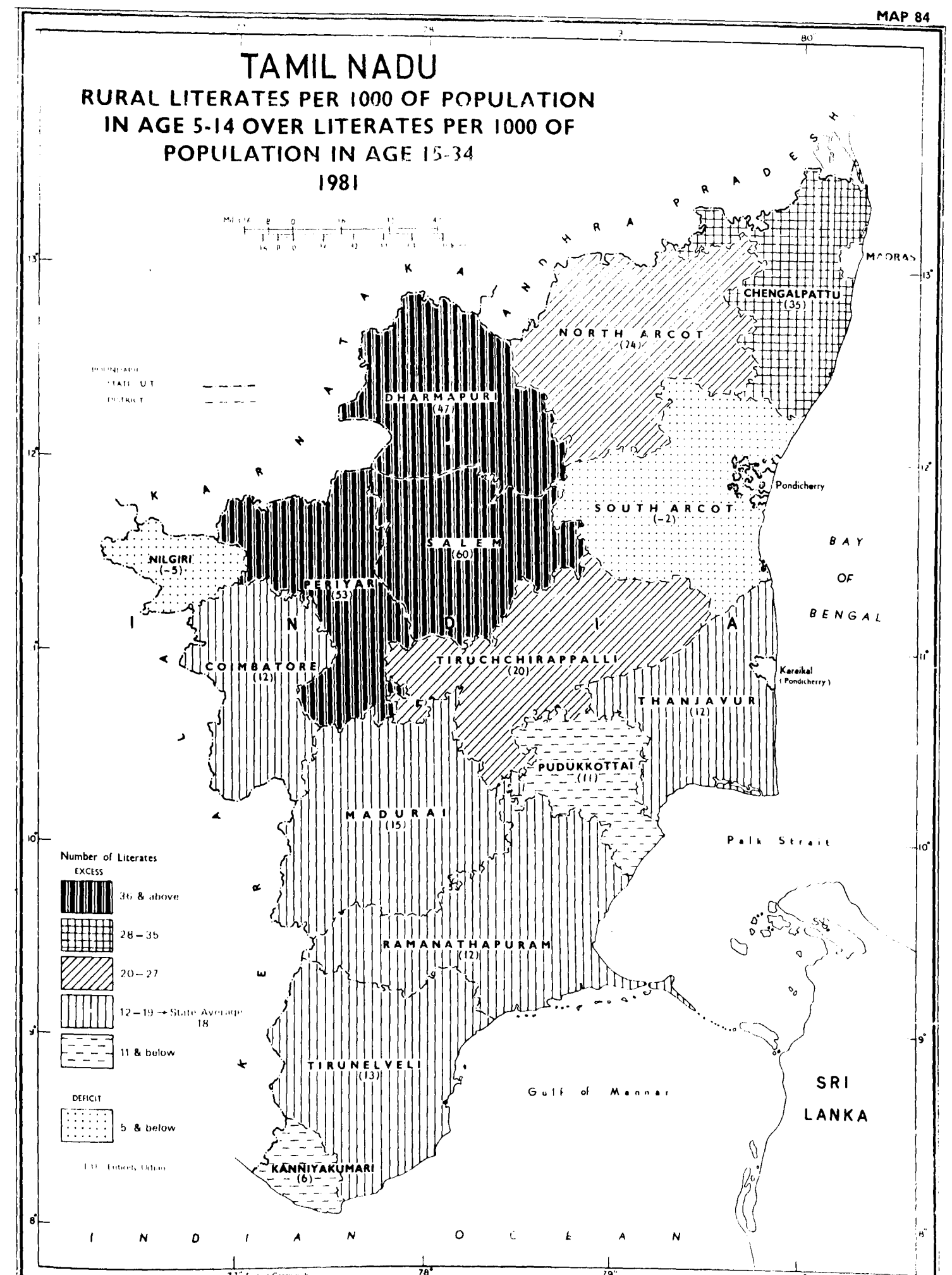
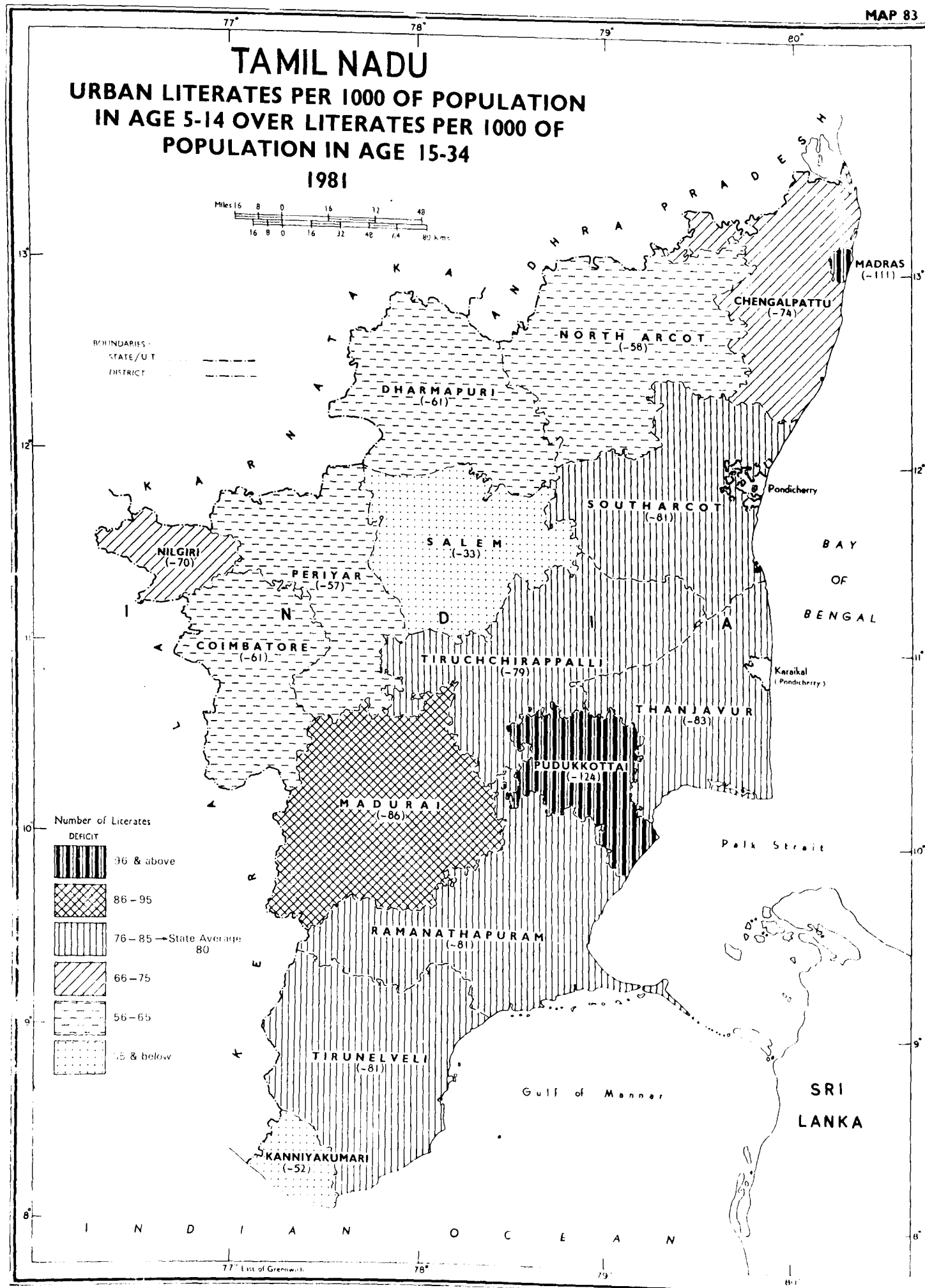


TAMIL NADU EDUCATIONAL ATTAINMENT 1981



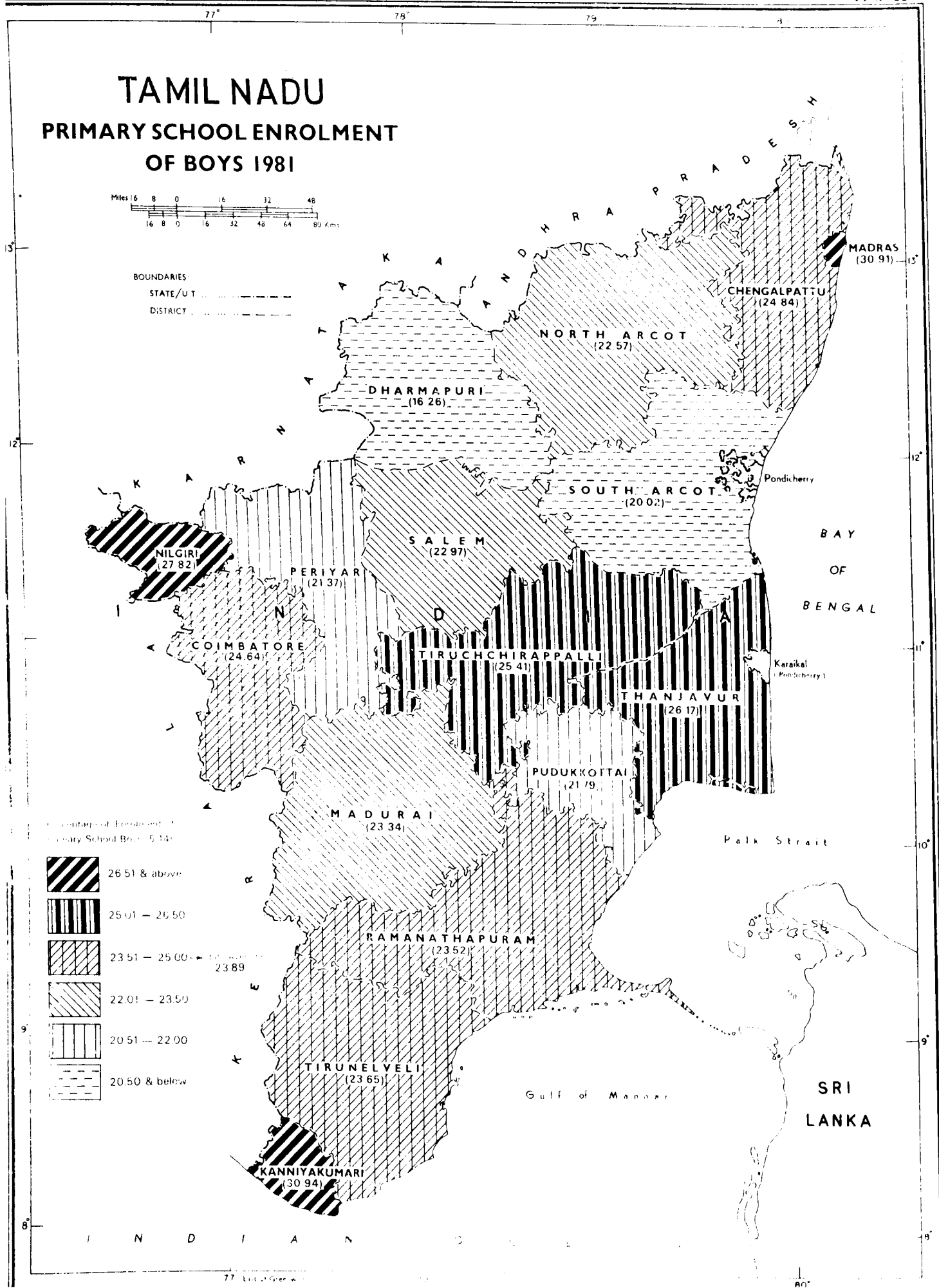
BOUNDARIES:
STATE/U.T.
DISTRICT



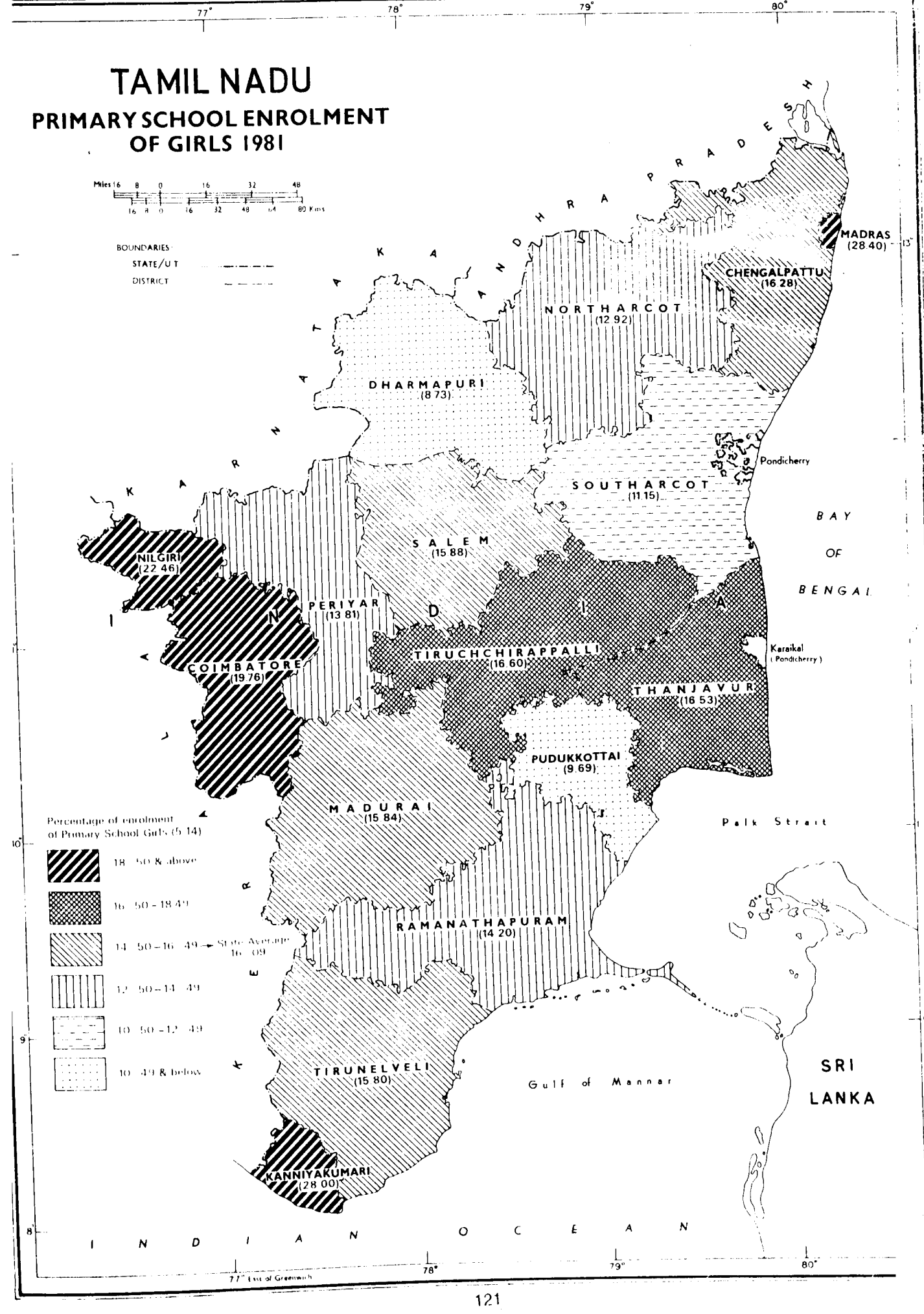


TAMIL NADU PRIMARY SCHOOL ENROLMENT OF BOYS 1981

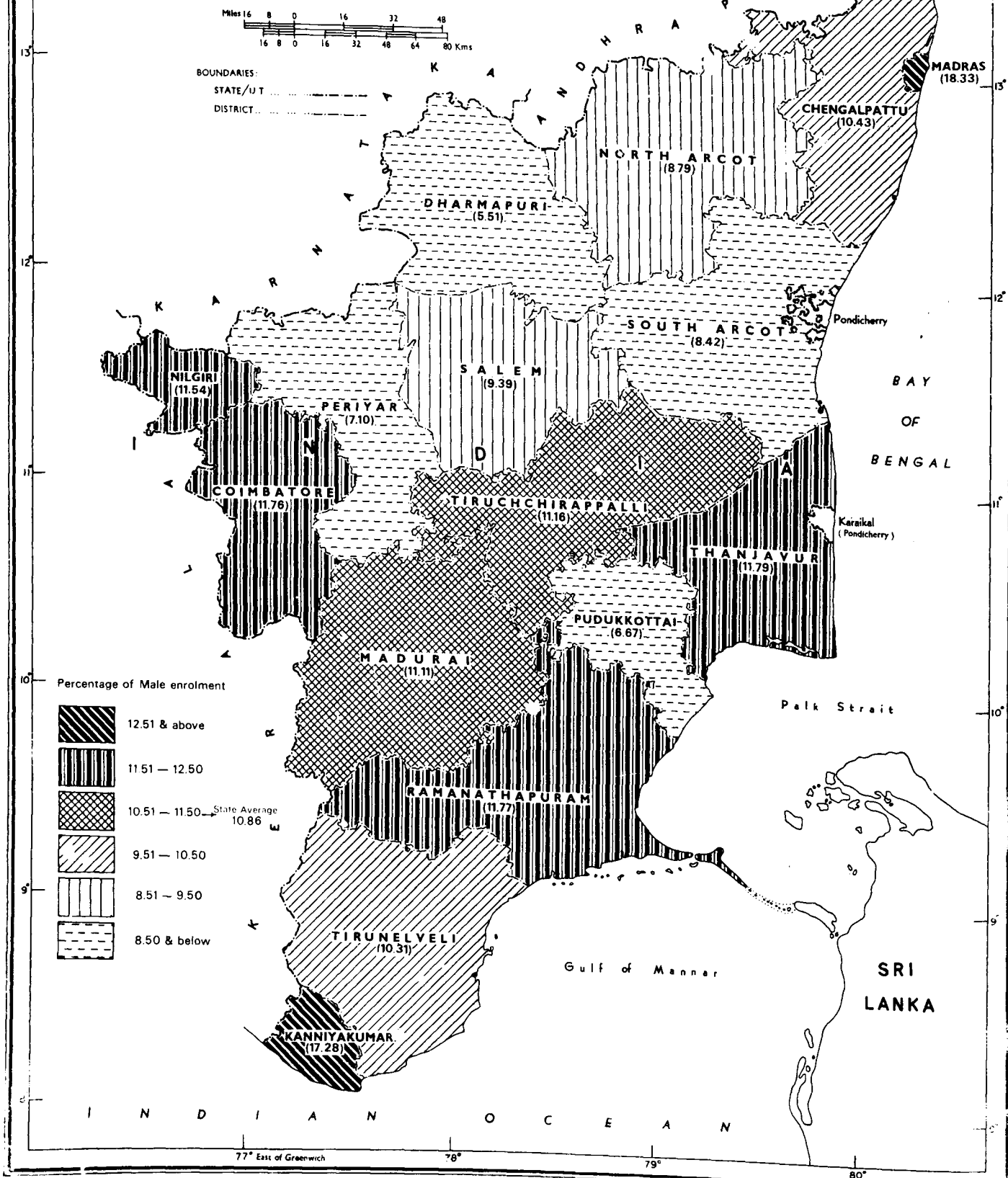
MAP 85



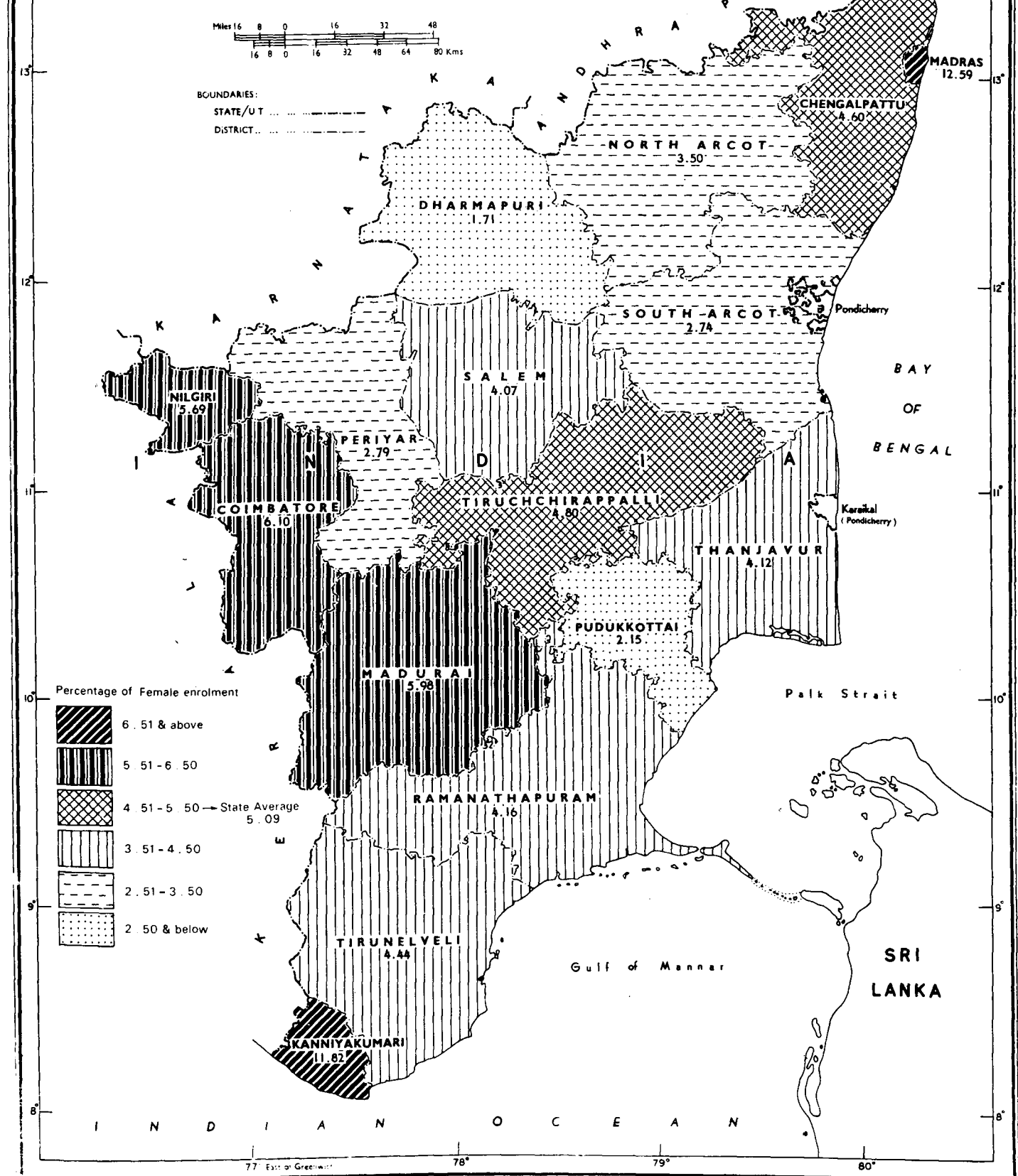
TAMIL NADU PRIMARY SCHOOL ENROLMENT OF GIRLS 1981



TAMIL NADU

EDUCATIONAL ENROLMENT OF MALES
AT MATRICULATION/ SECONDARY, HIGHER
SECONDARY AND HIGHER LEVELS 1981

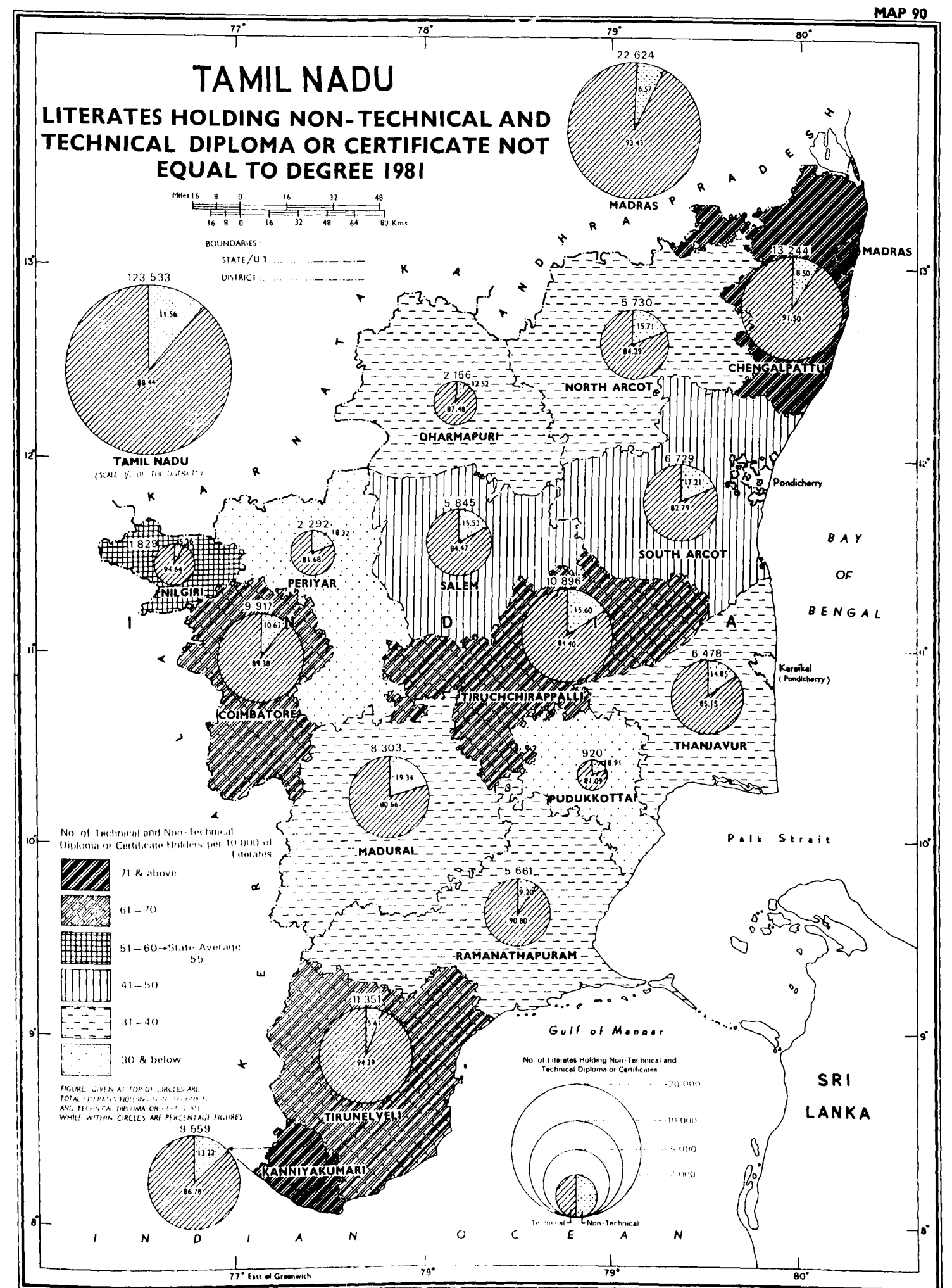
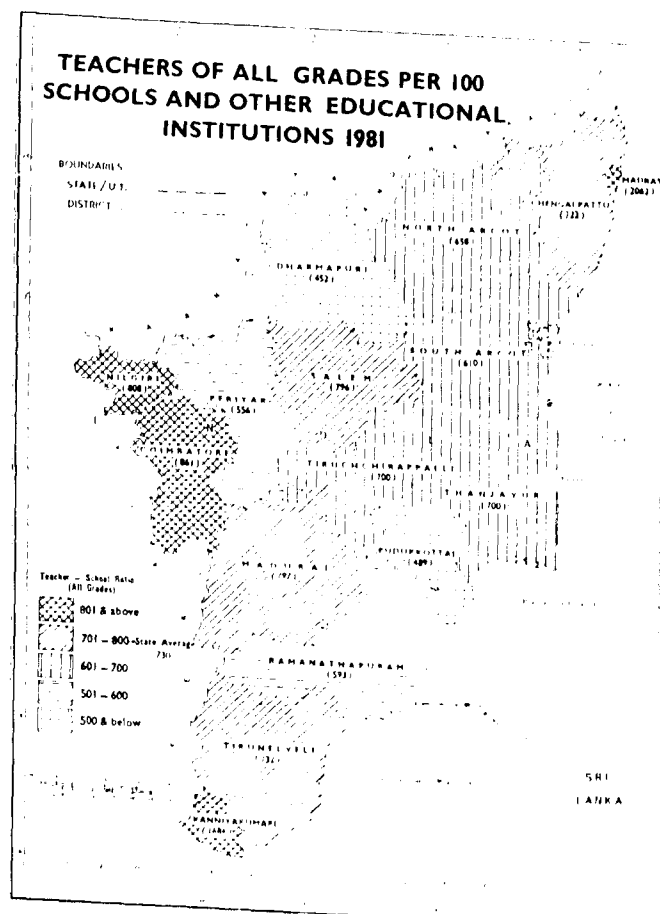
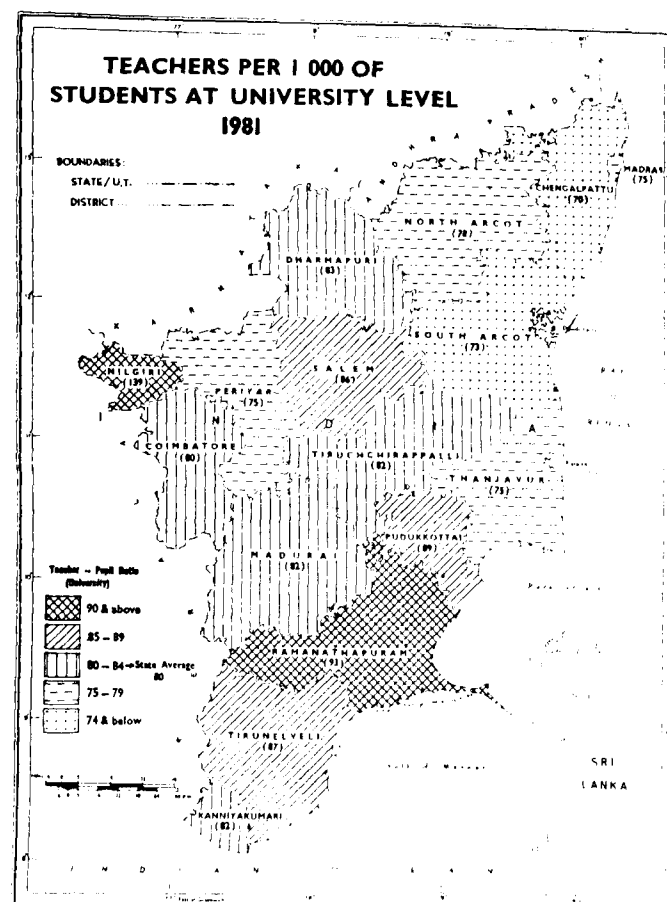
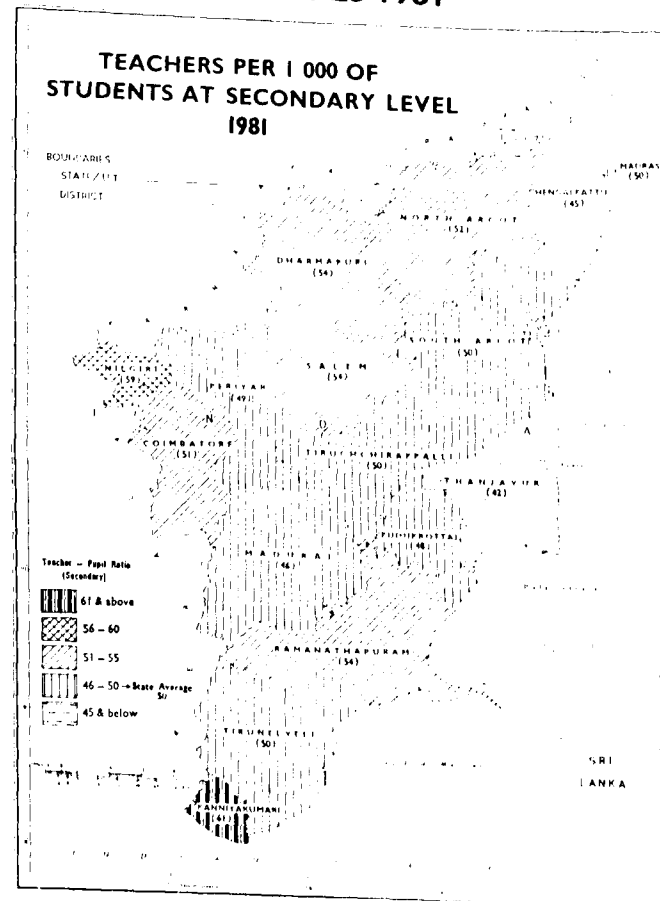
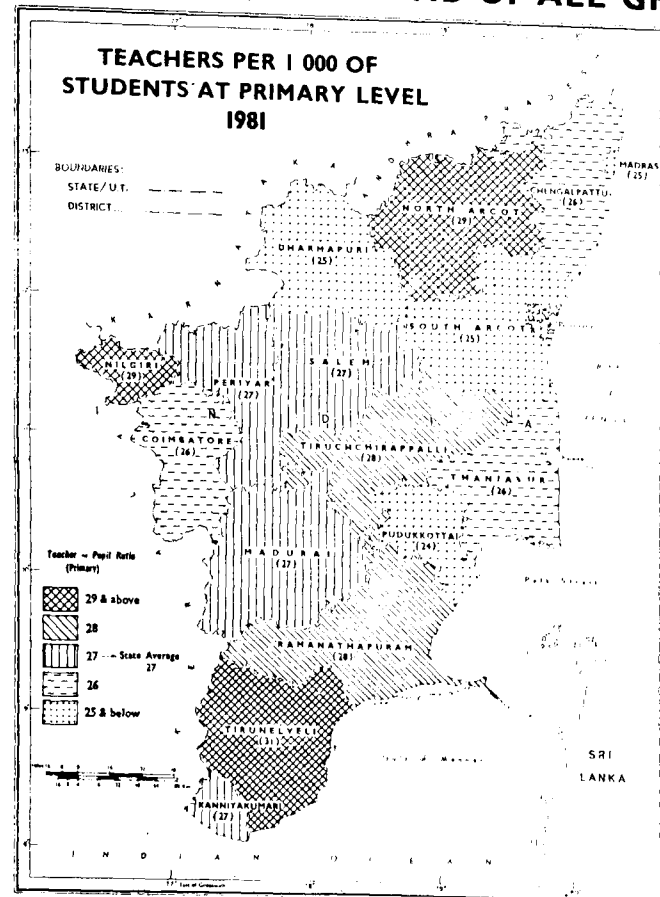
TAMIL NADU

EDUCATIONAL ENROLMENT OF FEMALES AT
MATRIC/SECONDARY/HIGHER SECONDARY
AND HIGHER LEVELS 1981

TAMIL NADU

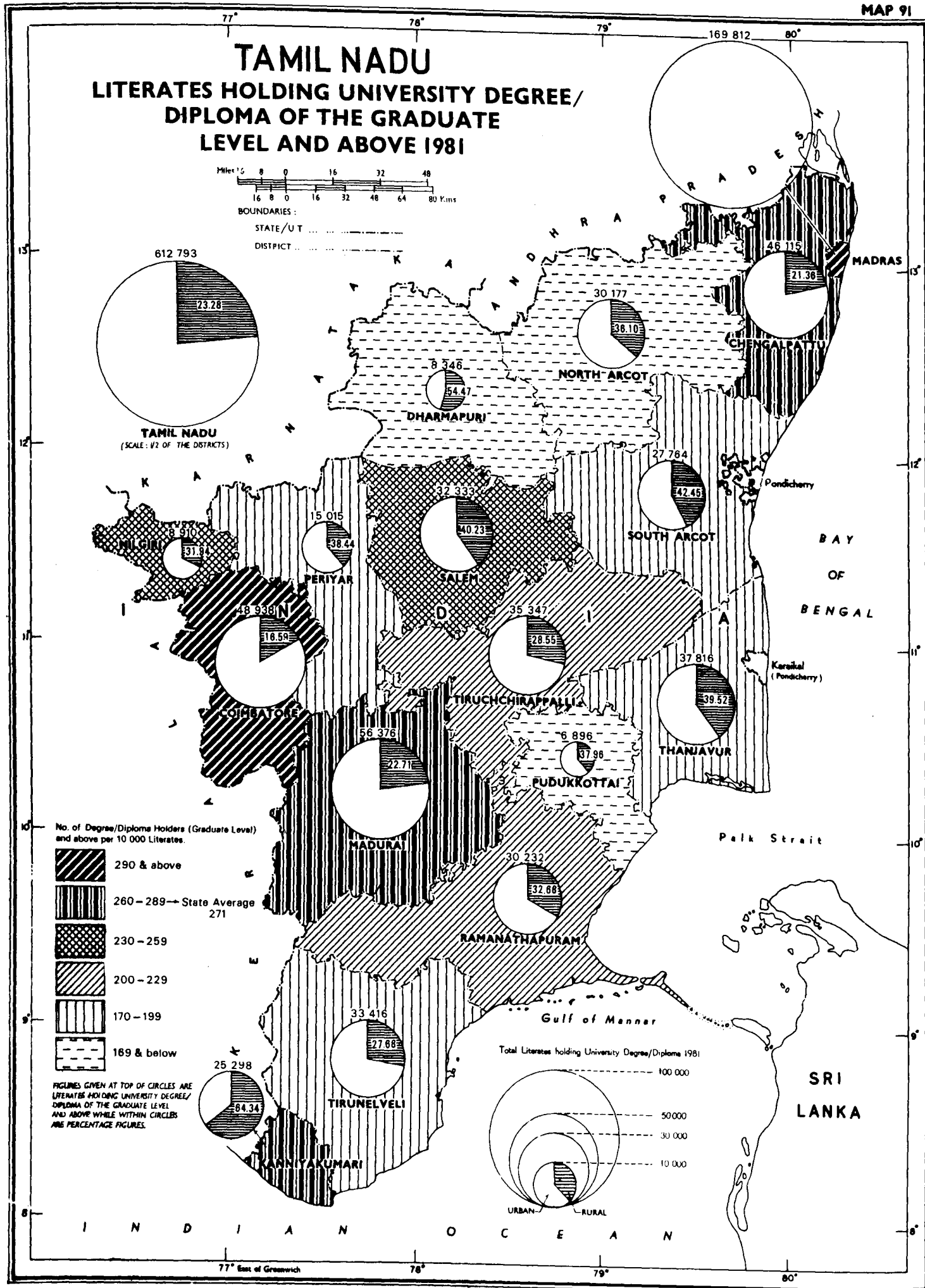
TEACHERS PER 1 000 OF STUDENTS AT PRIMARY, SECONDARY, UNIVERSITY LEVEL AND OF ALL GRADES PER 100 SCHOOLS 1981

MAP 89

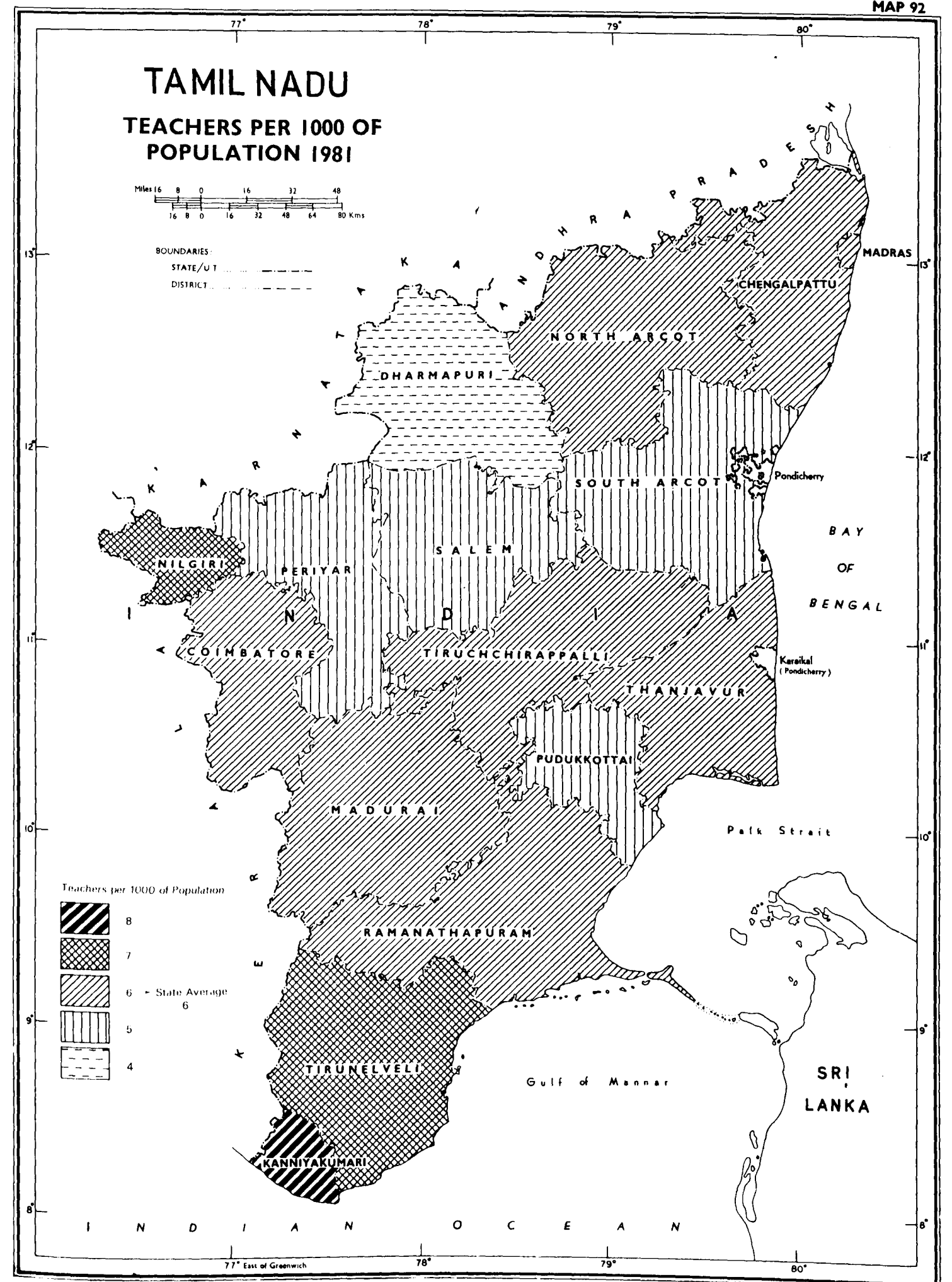


15. HOUSING

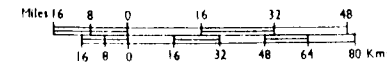
MAP 91



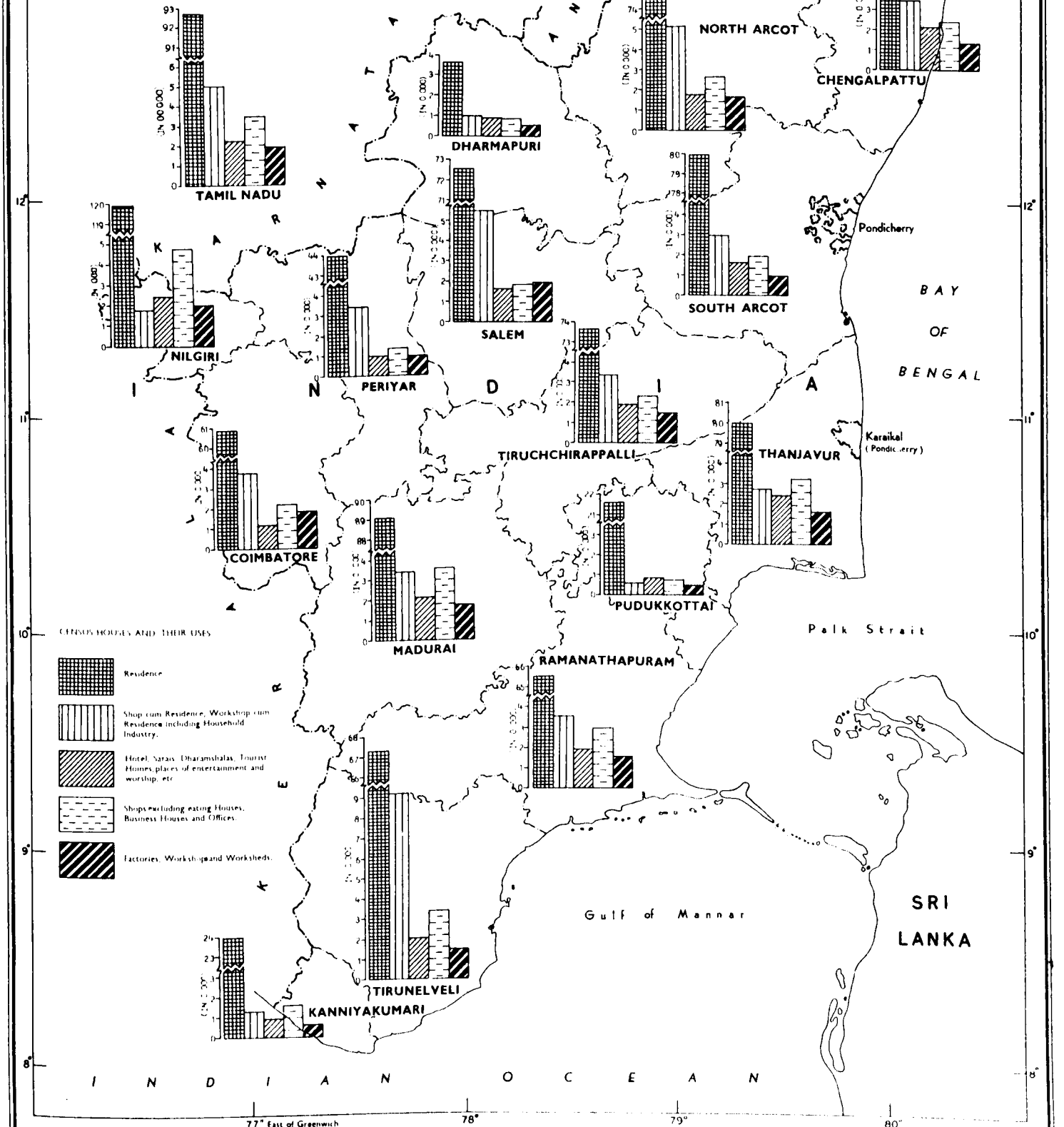
MAP 92

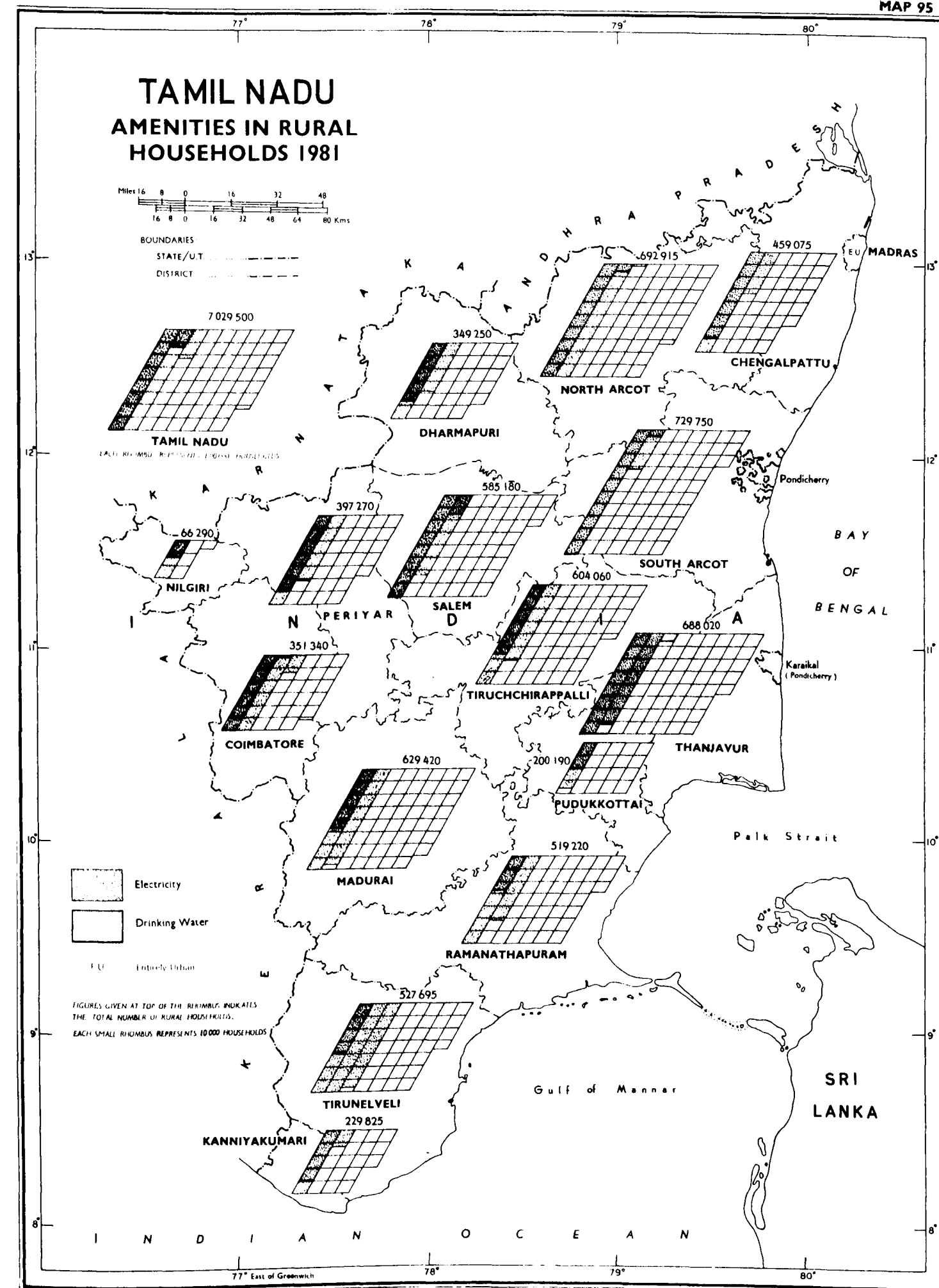
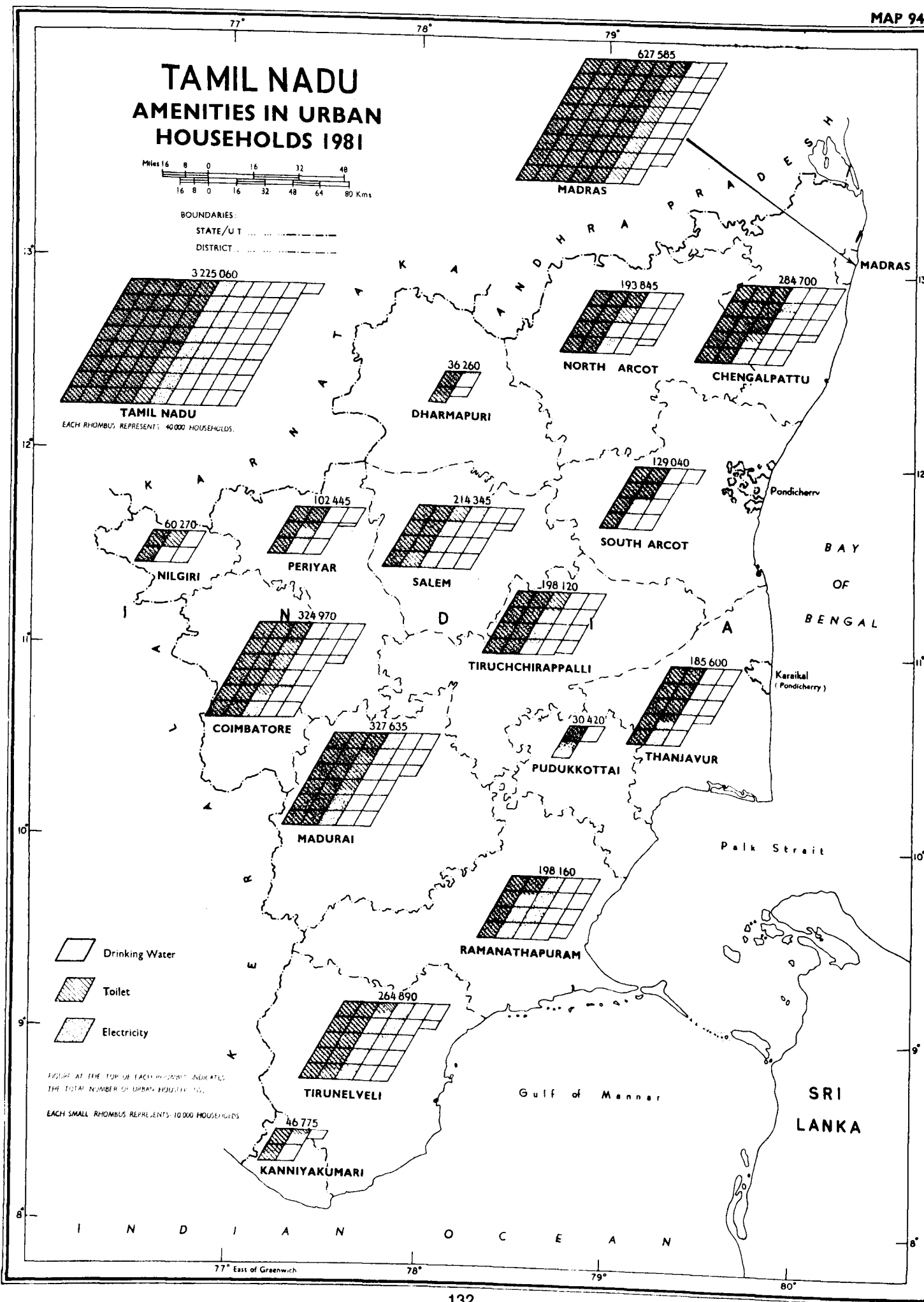


TAMIL NADU CENSUS HOUSES AND THEIR USES 1981



BOUNDARIES:
STATE / U.T. -----
DISTRICT - - - - -

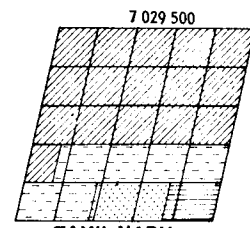




TAMIL NADU RURAL HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1981



BOUNDARIES
STATE/U.T.
DISTRICT



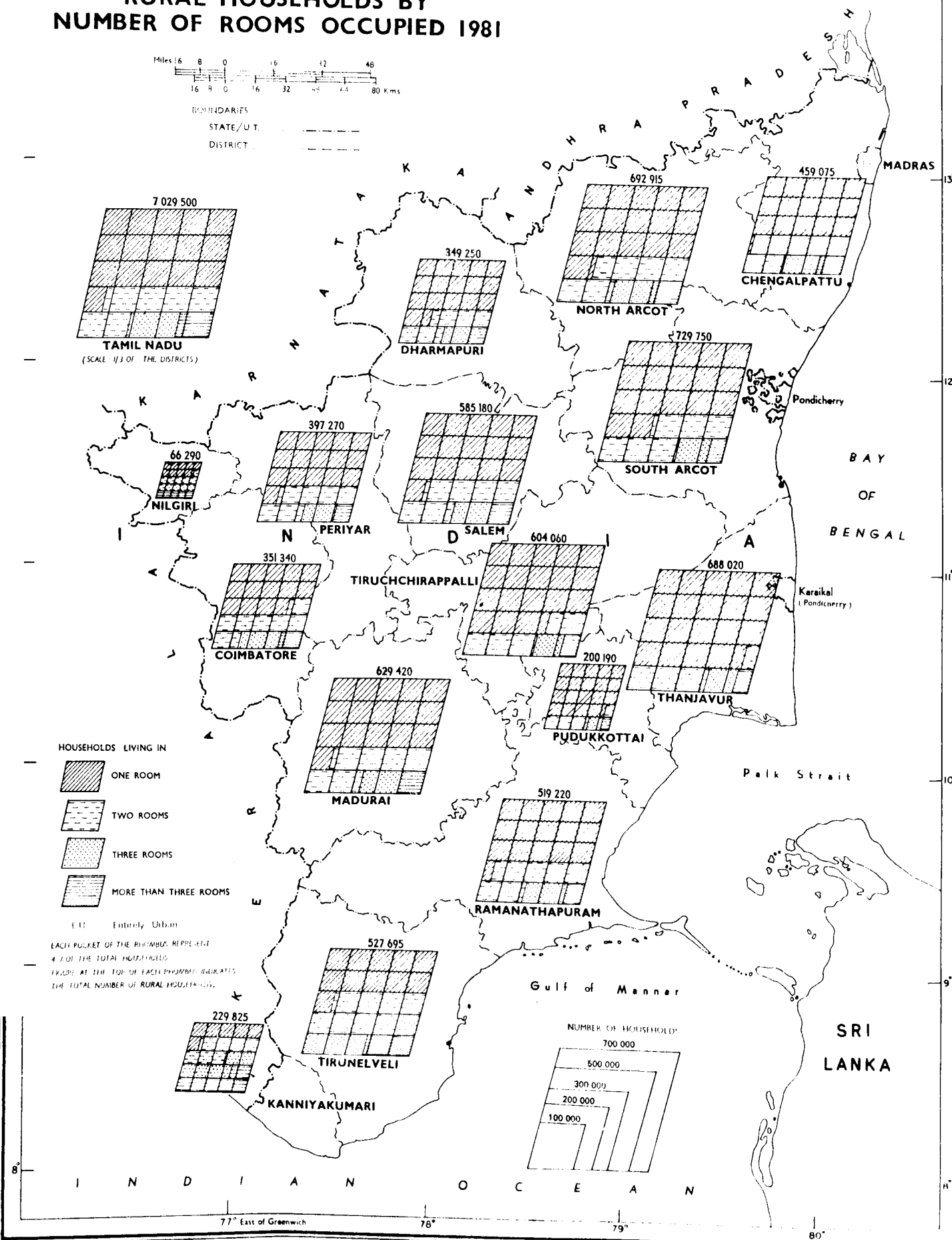
TAMIL NADU
(SCALE: 1/2 OF THE DISTRICTS)

HOUSEHOLDS LIVING IN

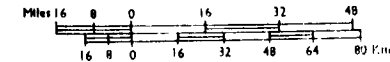
- ONE ROOM
- TWO ROOMS
- THREE ROOMS
- MORE THAN THREE ROOMS

(U) Entirely Urban

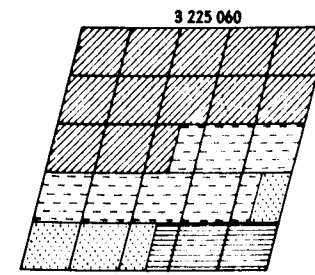
EACH POCKET OF THE RHOMBUS REPRESENTS
4% OF THE TOTAL HOUSEHOLDS
FIGURE AT THE TOP OF EACH RHOMBUS INDICATES
THE TOTAL NUMBER OF RURAL HOUSEHOLDS



TAMIL NADU URBAN HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1981



BOUNDARIES
STATE/U.T.
DISTRICT

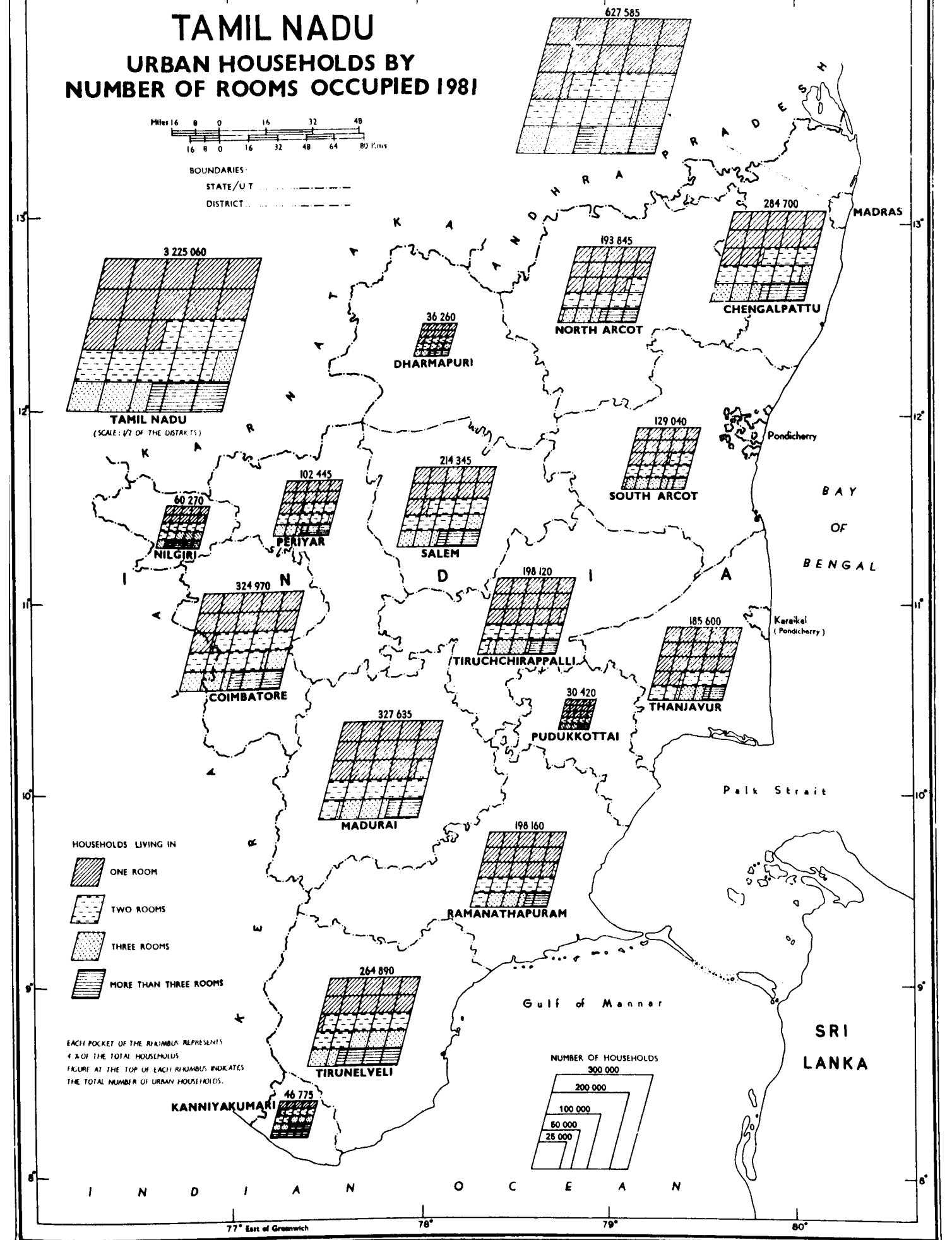


TAMIL NADU
(SCALE: 1/2 OF THE DISTRICTS)

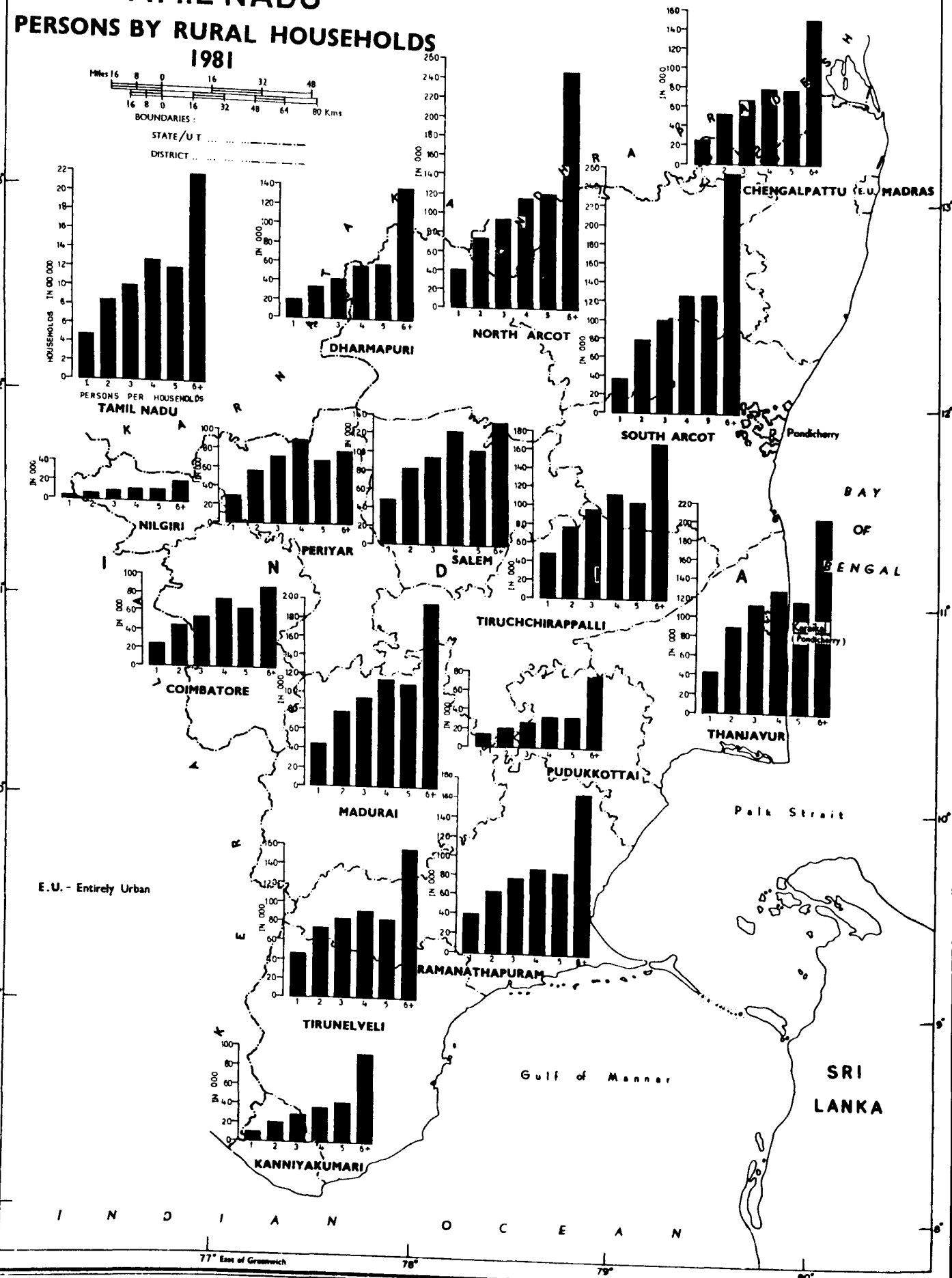
HOUSEHOLDS LIVING IN

- ONE ROOM
- TWO ROOMS
- THREE ROOMS
- MORE THAN THREE ROOMS

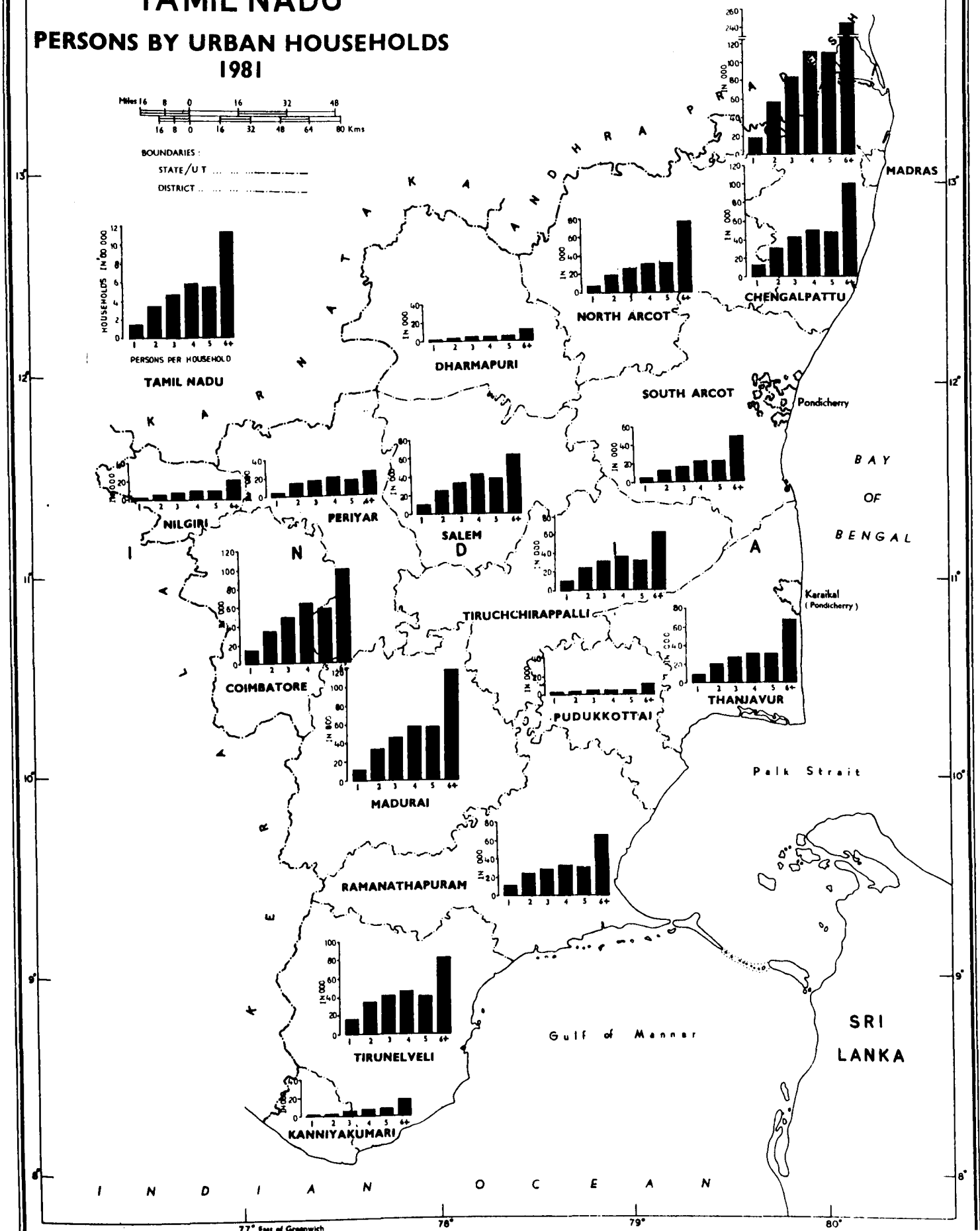
EACH POCKET OF THE RHOMBUS REPRESENTS
4% OF THE TOTAL HOUSEHOLDS
FIGURE AT THE TOP OF EACH RHOMBUS INDICATES
THE TOTAL NUMBER OF URBAN HOUSEHOLDS



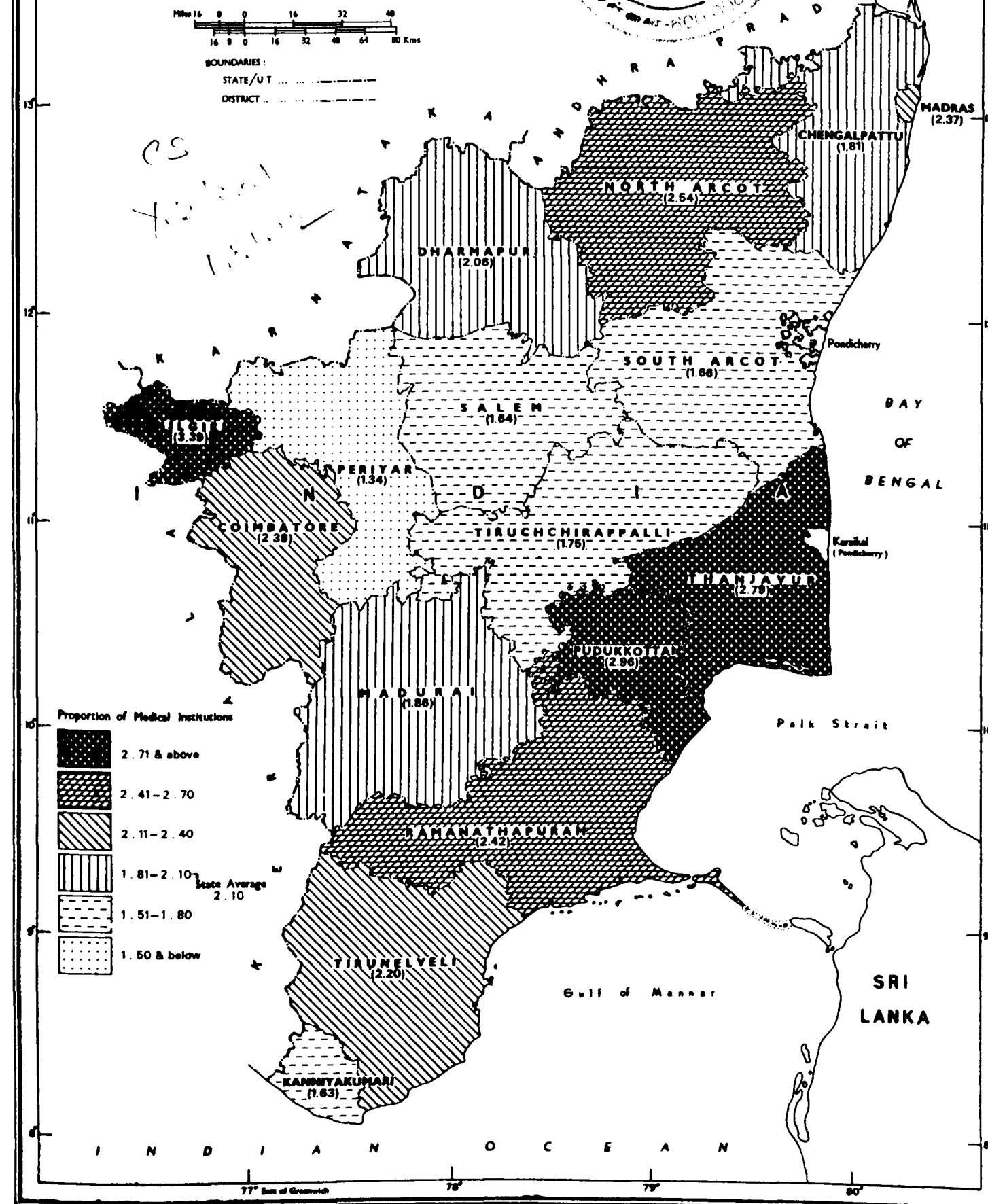
TAMIL NADU PERSONS BY RURAL HOUSEHOLDS 1981



TAMIL NADU PERSONS BY URBAN HOUSEHOLDS 1981



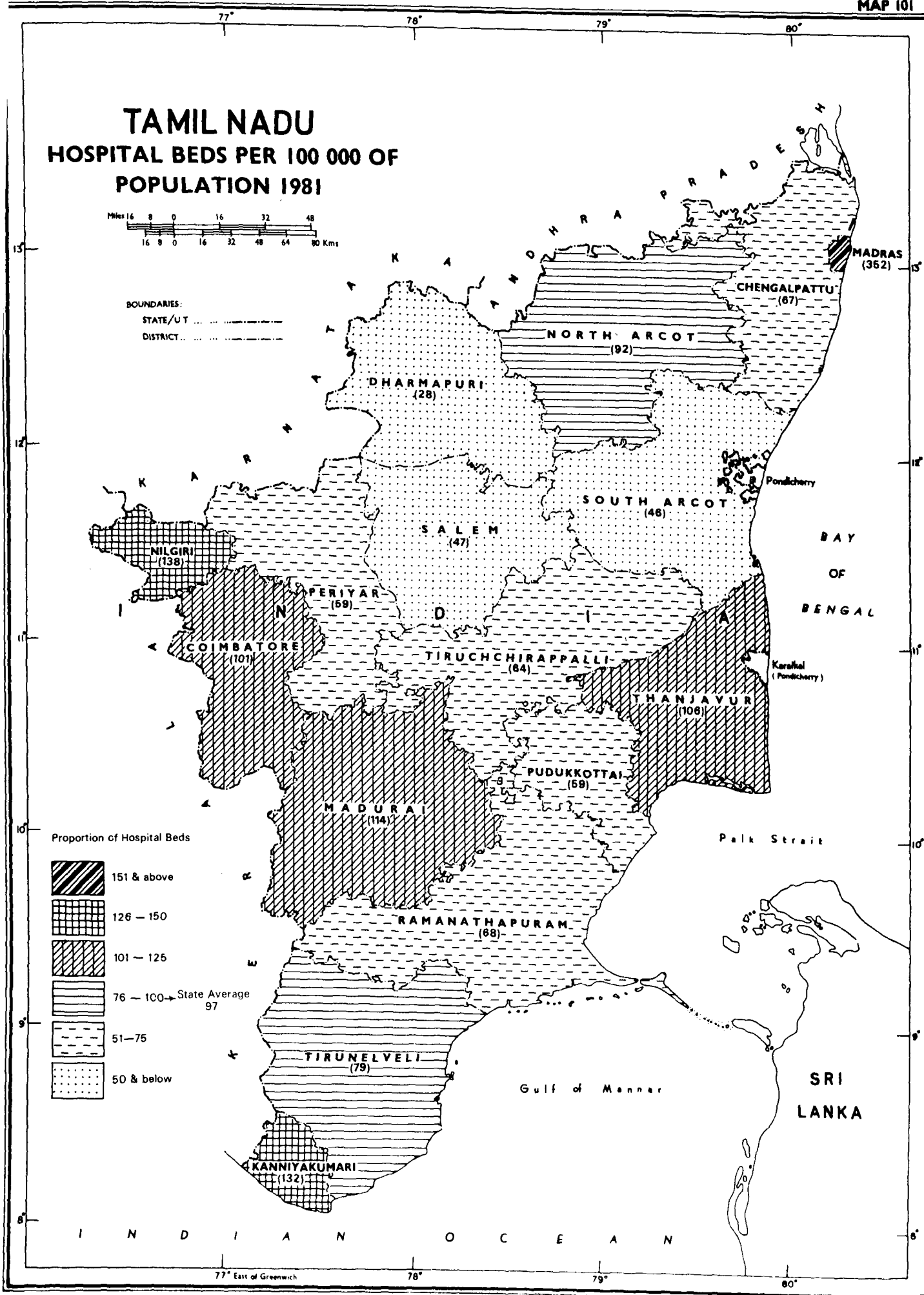
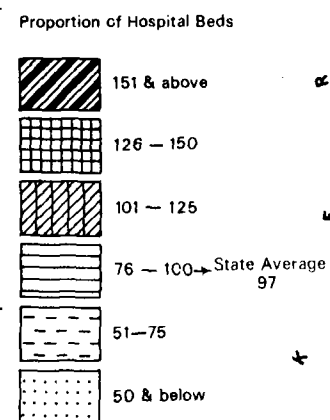
16. HEALTH



TAMIL NADU HOSPITAL BEDS PER 100 000 OF POPULATION 1981



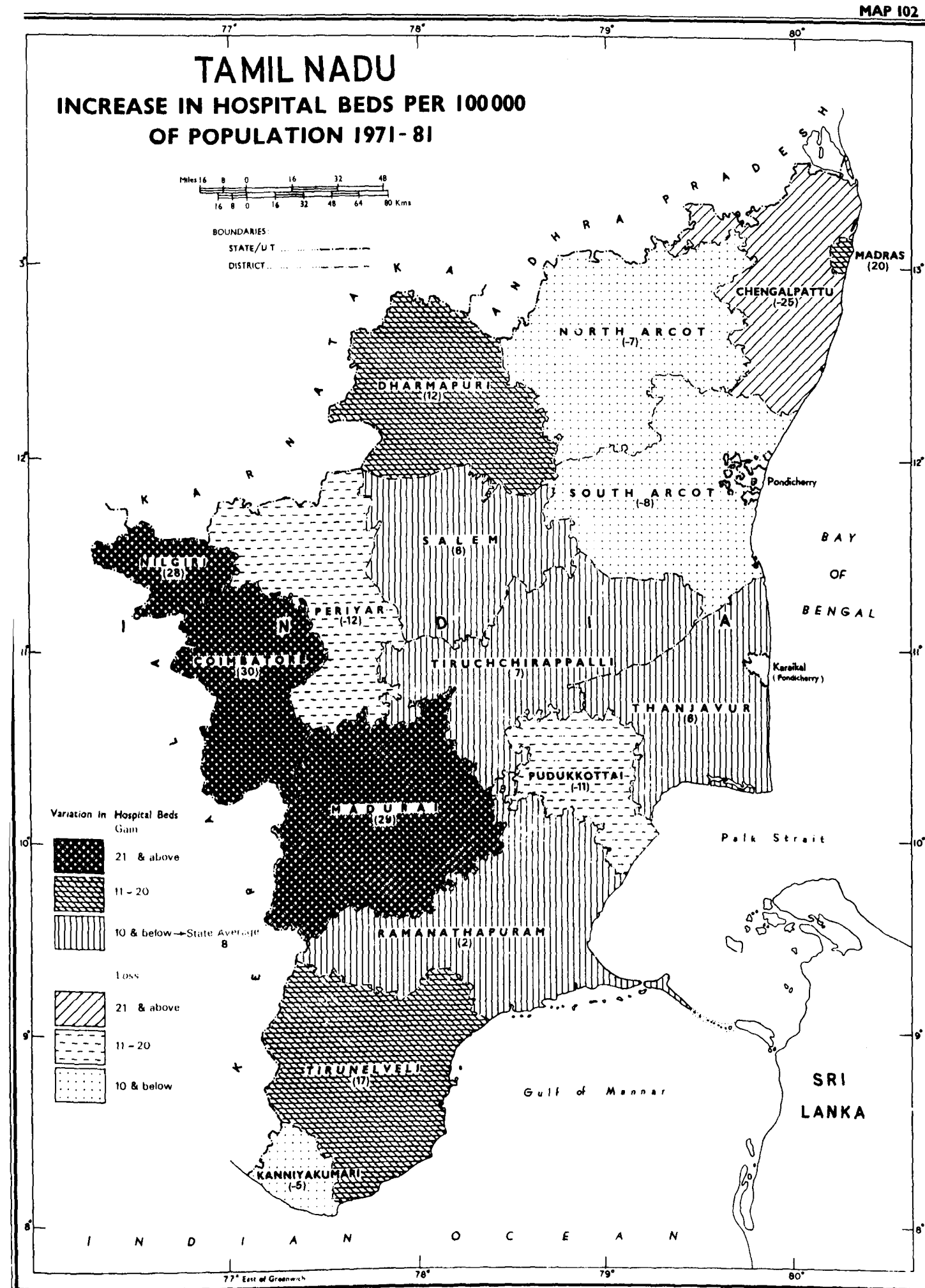
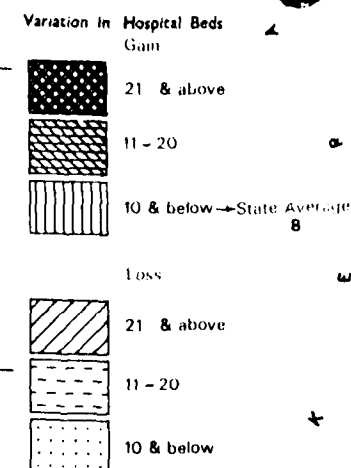
BOUNDARIES:
STATE/U.T.
DISTRICT



TAMIL NADU INCREASE IN HOSPITAL BEDS PER 100000 OF POPULATION 1971- 81



BOUNDARIES:
STATE/U.T.
DISTRICT



INTERPRETATIONS

MAP 1
POSITION OF TAMIL NADU IN INDIA 1981

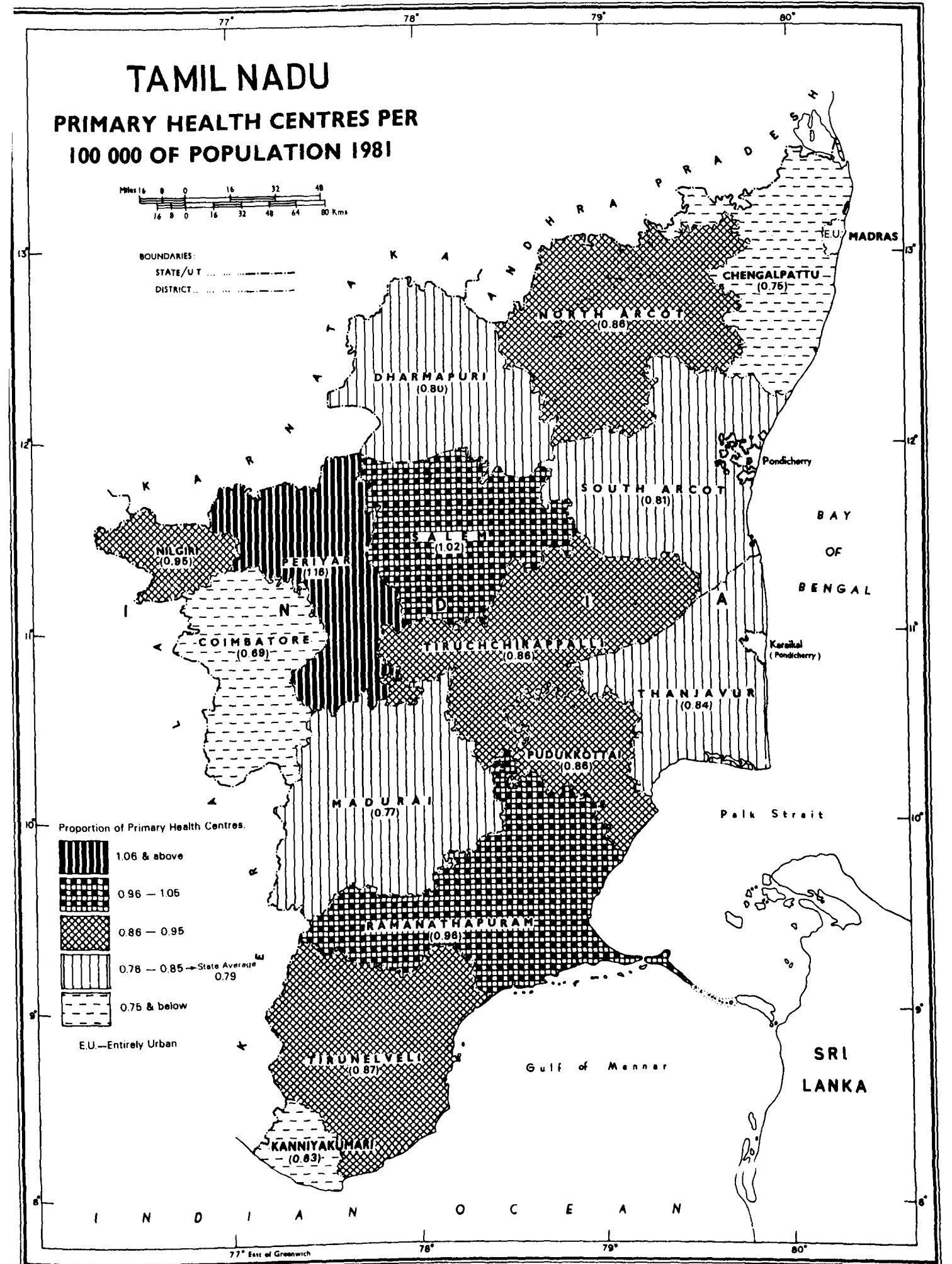
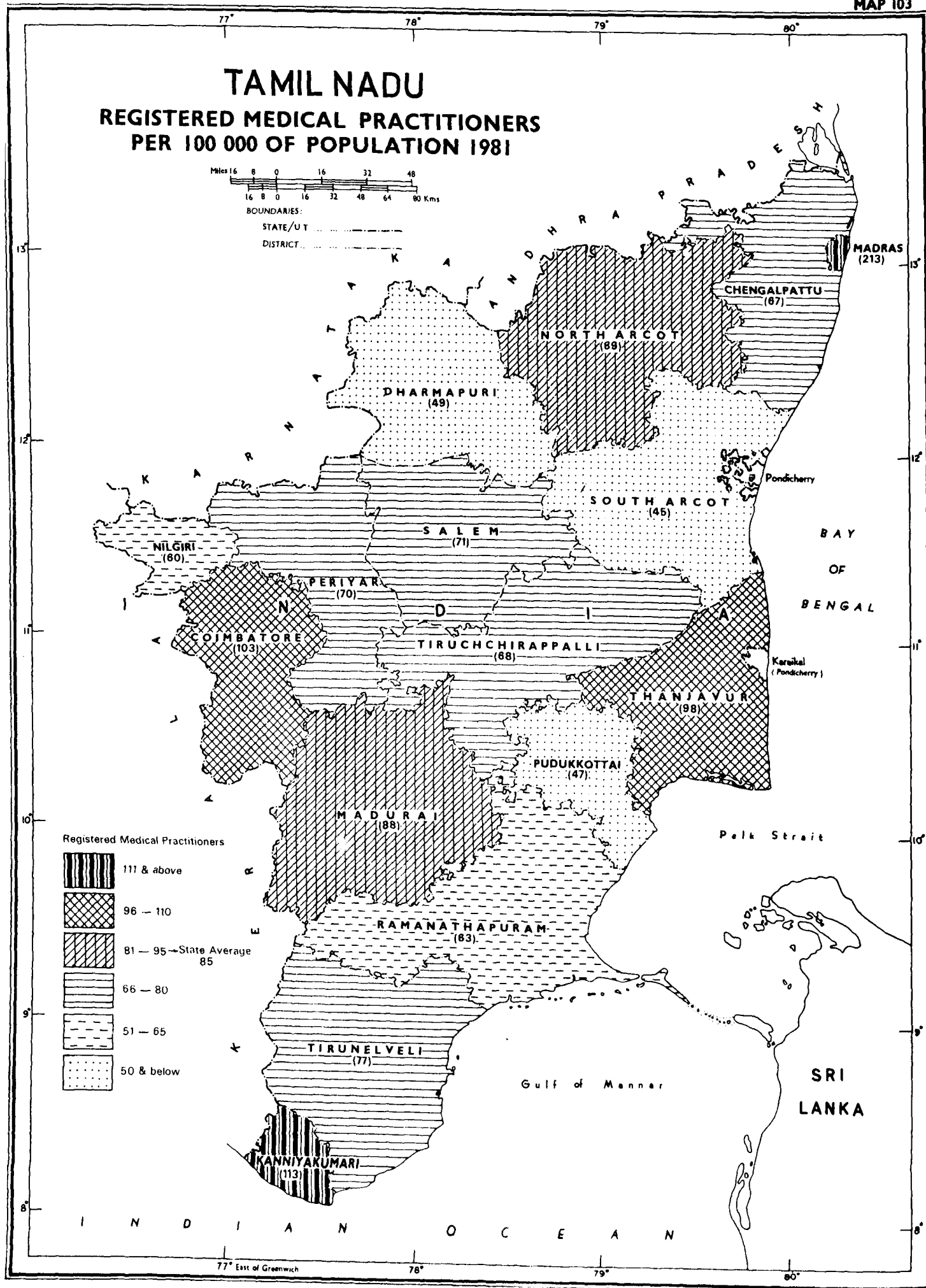
This map depicts the location of the state of Tamil Nadu in the country. As one may see from the hatched portion in the map of the Indian Sub-Continent, Tamil Nadu is in the extreme south of peninsular India. The state falls between 8°5' and 13°35' North latitudes and between 76°15' and 80°20' East longitudes. On the eastern and southern sides, the state's shores are washed by the Bay of Bengal and the Indian Ocean respectively. On the northern side, the state shares its borders with Karnataka and Andhra Pradesh and on the west lies Kerala state.

and this area constitutes 3.96 per cent of the total area of the country, viz., 3,287,263 km². In area, the state ranks eleventh among the 22 states and nine union territories of the country as existed during 1981. The state has a population of 48,408,077 as recorded during the Census on 1st March 1981 and ranks seventh in population among the states/union territories of India.

Area and population of states and union territories of India along with their ranks are given in the following statement.

Tamil Nadu extends over an area of 130,058 km²

State/Union Territory	Area in km ²	Rank in area	Population (1981)	Rank in population
1	2	3	4	5
INDIA @ &	3,287,263.00	-	685,184,692\$	-
STATES				
1. Andhra Pradesh	275,068	5	53,549,673	5
2. Assam	78,438	14	19,896,843#	13
3. Bihar	173,877	9	69,914,734	2
4. Gujarat	196,024	7	34,085,799	10
5. Haryana	44,212	17	12,922,618	15
6. Himachal Pradesh	55,678	15	4,280,818	18
7. Jammu and Kashmir@&	222,236	6	5,987,389	17
8. Karnataka	191,791	8	37,135,714	8
9. Kerala	38,863	18	25,453,680	12
10. Madhya Pradesh	443,446	1	52,178,844	6
11. Maharashtra	307,690	3	62,784,171	3
12. Manipur	22,327	20	1,420,953	20
13. Meghalaya	22,429	19	1,335,819	21
14. Nagaland	16,579	22	774,930	23
15. Orissa	155,707	10	26,370,271	11
16. Punjab	50,362	16	16,788,915	14
17. Rajasthan	342,239	2	34,261,862	9
18. Sikkim	7,096	25	316,385	28
19. Tamil Nadu	130,058	11	48,408,077	7
20. Tripura	10,486	23	2,053,058	19
21. Uttar Pradesh	294,411	4	110,862,013	1
22. West Bengal	88,752	12	54,580,647	4



	1	2	3	4	5
UNION TERRITORIES					
1. Andaman & Nicobar Islands	8,249	24	188,741	29	
2. Arunachal Pradesh	83,743	13	631,839	24	
3. Chandigarh	114	30	451,610	27	
4. Dadra & Nagar Haveli	491	29	103,676	30	
5. Delhi	1,483	27	6,220,406	16	
6. Goa, Daman & Diu	3,814	26	1,086,730	22	
7. Lakshadweep	32	31	40,249	31	
8. Mizoram	21,081	21	493,757	26	
9. Pondicherry	492	28	604,471	25	

@ The population figures exclude population of the area under unlawful occupation of Pakistan and China where census could not be taken.

& Area figures include the area under unlawful occupation of Pakistan and China.

\$ Includes projected figures of Assam where census could not be held due to disturbed conditions prevailing there at the time of 1981 Census.

Projected figures

Note: The total area of the country represents provisional 'Geographical Area' as on 31st March 1982, supplied by the survey of India.

MAP 2

ADMINISTRATIVE DIVISIONS 1981

This map portrays the administrative divisions of the state, that have been made for administrative purposes, viz., the districts and taluks alongwith their boundaries and headquarters as existed at the time of the 1981 Census.

The state has been divided into 16 districts. Two new districts have been carved out during the 1971-81 decade. These are "Periyar" and "Pudukkottai" delineated from Coimbatore and Tiruchchirappalli and Thanjavur districts respectively. The boundary of Madras district is conterminous with the area administered by the Municipal Corporation of Madras. Madras City area expanded during 1971-81 as a result of inclusion of certain surrounding areas of Chengalpattu district within its jurisdiction. Barring the city district of Madras, the remaining 15 districts have been divided into 151 taluks (including six independent sub-taluks). In 1971, there were 133 taluks, including 17 independent sub-taluks in the 14 districts.

The district headquarters for Ramanathapuram has continued to be Madurai City in Madurai district. It is the only district whose headquarters lies in another district. For the two newly formed districts of Periyar and Pudukkottai, the district headquarters are Erode and Pudukkottai respectively. While seven districts (viz., Chengalpattu, North Arcot, South Arcot, Periyar, Nilgiri, Ramanathapuram and Kanniyakumari) have different cities or towns as their headquarters, the

other nine have cities/towns of the same name as the districts as their headquarters.

The districts vary in terms of area figures. Madurai district with an area of 12,624 km² is the largest district in the state. Ramanathapuram, North Arcot, Tirunelveli, Tiruchchirappalli and South Arcot are the other big districts of the state, each having an area of over 10,000 km². The city district of Madras is the smallest with the lowest area of 170 km². Three other districts of Kanniyakumari, Nilgiri and Pudukkottai are also comparatively smaller in size, each having an area of less than 5,000 km². The average district area in Tamil Nadu works to 8,129 km² and the area of ten out of the 16 districts exceeds this average.

The names of taluk headquarters are also depicted in the map. In most of the cases, the name of the taluk headquarters is the same as that of the taluk and wherever the name differs, the taluk name is given within bracket. Ramanathapuram district with 18 taluks has got the maximum number of taluks/independent sub-taluks in the state, while the Nilgiri and Kanniyakumari districts have the minimum number of four taluks each.

The table given below shows districtwise area and population and the number of taluks in each district as per the 1981 Census.

DISTRICT	Area in Km ²	Population in 1981	No. of taluks
1	2	3	4
TAMIL NADU	130,058	48,408,077	151
1. Madras	170	3,276,622	-
2. Chengalpattu	7,863	3,616,508	12
3. North Arcot	12,268	4,414,324	13
4. South Arcot	10,895	4,201,869	12
5. Dharmapuri	9,622	1,997,060	8
6. Salem	8,650	3,441,717	9

1	2	3	4
7. Periyar	8,209	2,068,462	6
8. Coimbatore	7,469	3,060,184	6
9. Nilgiri	2,549	630,169	4
10. Madurai	12,624	4,535,897	13
11. Tiruchchirappalli	11,095	3,612,320	10
12. Thanjavur	8,280	4,063,545	16
13. Pudukkottai	4,661	1,156,813	6
14. Ramanathapuram	12,590	3,335,437	18
15. Tirunelveli	11,429	3,573,751	14
16. Kanniyakumari	1,684	1,423,399	4

MAP 3 CHANGES IN ADMINISTRATIVE BOUNDARIES 1971-81

This map shows the changes in the administrative boundaries during the decade 1971-81. The areas which have under-gone changes are shown in different shades to indicate the different years in which the changes had taken place, as given in the legend of the map.

Two new districts, viz., Pudukkottai and Periyar have been newly formed in the state during 1971-81 which have increased the total number of districts in the state to 16 in 1981 from 14 in 1971. These two districts came into existence on 14-1-1974 and 17-9-1979 respectively. The then existing taluks of Gobichettipalayam, Bhavani, Erode, Dharapuram, Satyamangalam and Perundurai are newly created taluks (all belonging to the former Coimbatore district) constituted the new Periyar district. The whole of Kulattur, Alangudi and Tirumayam taluks of Tiruchchirappalli district, besides the Arantangi taluk and also 30 villages from Orattanadu taluk, 29 villages from Peravurani taluk and 5 villages from Thanjavur taluk of Thanjavur district formed the newly Pudukkottai district.

An important inter-district area transfer in the decade was caused by the expansion of Madras city

region. Ten urban areas and three villages belonging to the adjoining Saidapet taluk of Chengalpattu district were added to Madras district (which is conterminous with Madras City Corporation area) during 1978.

There were 133 taluks in the state in 1971 Census. In 1981 Census this figure increased to 151 taluks. Eighteen new Taluks had been formed during the 10 year period of 1971-81. While four taluks each were formed by bifurcation of existing taluks in both South Arcot and Thanjavur districts, two taluks each were similarly formed in Periyar and Pudukkottai districts and one each in Dharmapuri, Coimbatore, Nilgiri, Madurai, Ramanathapuram and Tirunelveli districts.

Besides the above mentioned major changes, one village from Sankari taluk was transferred to Tiruchengodu taluk of Salem district and one village and five towns (two towns partly) were transferred from Madurai North taluk to Madurai south taluk of Madurai district. Due to the limitation of the scale of the map, such smaller transfers could not be depicted on the map.

Details of new taluks which were formed during 1971-81 are given in the following statement.

District	Taluk from which the new taluk was carved out	Name of the new taluk	Year in which formed
1	2	3	4
South Arcot	Tirukkoyilur	Ulundurpettai	1974
	Cuddalore	Panruti	1975
	Vriddhachalam	Tittakudi	1979
	Chidambaram	Kattumannarkoil	1978
Dharmapuri	Dharmapuri	Pennagaram	1979
Periyar	Gobichettipalayam	Satyamangalam	1975
	Erode	Perundurai	1979
Coimbatore	Avanashi	Mettupalaiyam	1979
Nilgiri	Coonoor	Kotagiri	1978
Madurai	Melur	Nattam	1979

1	2	3	4
Thanjavur	Kumbakonam	Tiruvidaimarudur	1979
	Thanjavur	Thiruvaiyaru	1979
	Nagappattinam	Thiruvavur	1975
	Tirutturaippundi	Vedaranniyam	1979
Pudukkottai	Alangudi,		
	Orattanadu & Thanjavur	Pudukkottai	1973
	Arantangi & Tirumayam	Avadaiyarkovil	1979
Ramanathapuram	Ramanathapuram	Rameswaram	1975
Tirunelveli	Tiruchchendur	Sattankulam	1979

MAP 4

RELIEF AND DRAINAGE

The map depicts the relief and drainage system of Tamil Nadu. In order to study the relief pattern, various heights have been shown by different colours as per the legend of the map. The state is bounded by mountain ranges on its western and north-western parts namely Western Ghats and Eastern Ghats and a 1000 kilometre long sea coast is on its eastern and southern borders facing the Bay of Bengal and the Indian Ocean. The southern-most tip of the state is called Cape Comorin where the water of Bay of Bengal and Arabian Sea mix with the Indian Ocean. Physiographically the state has been divided into two natural division, i.e., the Western hilly tract and the eastern coastal plain. The hilly tract comprises the Western Ghats and Eastern Ghats which are on the periphery of the vast Deccan Plateau. The Western Ghats has lofty mountain ranges like Nilgiris, Anamalais, Cardamom Hills, Varushanad and Andipatti ranges and Agastiya hills. The Western Ghats have an almost unbroken trend with a gap of about 25 kms width near Palghat, known as the Palghat Gap. However, there are two more passes, namely Aryankavu and Aramboly in the lower hills in the southern section. The Eastern Ghats enters in the state from Andhra Pradesh and have detached hill groups, viz., Javadis, the Shevaroyis, the Kalrayans, the Pachamalais, the Kollimalais and the Kanja malais. The Eastern Ghats consist of smaller hills with a height of less than 1000m. The Western and Eastern Ghats meet at a knot in Nilgiri. Near this, the highest peak of Tamil Nadu, the Doddabetta (2631 m), is located.

The Eastern coastal plain has three sections. They are (1) the northern low land consisting of Chengalpattu, South Arcot and North Arcot districts which is drained by the palar and the Pennaiyar rivers, (2) the fertile alluvial plain of Cauvery Delta which includes Thanjavur and parts of Tiruchchirappalli districts.

The thickness of sediments in the Cauvery basin is estimated at about 2500 metres of a very high order. These two sections are collectively known as 'Coromandel plain' and (3) the third section is the dry southern plain of Madurai, Ramanathapuram and Tirunelveli districts which is drained by the Vaigai and the Tambaraparani rivers.

The major river of the state is, the Cauvery which traverses practically across the state from west to east, with a length of 720 kms. The vast Cauvery delta extends over approximately 8000 km². Amaravathi, Noyil, Bhavani etc. are the tributaries of the Cauvery. About 15 kms ahead of Tiruchchirappalli city in the west, the Kollidam river branches off from the Cauvery and flows further east with many distributaries, depositing fertile alluvial soil in the delta. The other important rivers draining the state are the Palar, Ponnaiyar and the Cheyyar in the north and the Vaigai, the Vaippar and the Tambaraparani in the south. All these rivers are east-flowing rivers as the terrain slopes from west to east. Most of the rivers are dry in summer except the Cauvery which may be considered as a perennial river in strict sense of the term.

The coast line is generally straight with well-formed beaches. The transgression of the sea is taking place in recent years at some places. There are long and preserved sand bars all along the coast and Rameswaram Island is the best example. The sea is shallow. In the Gulf of Mannar and Palk Strait there is a chain of coral islands made up of coral limestones resulting into the fringing reefs. Along the Tuticorin coast, there are large number of sand dunes of 10 m height and along the Tirunelveli coast the sand dunes rise to cover 50m.in height and they are locally known as 'Theris'.

Month	Nagappattinam		Palayankottai		Ootacamund	
	Average monthly rainfall (in mm)	Percentage of rainfall	Average monthly rainfall (in mm)	Percentage of rainfall	Average monthly rainfall (in mm)	Percentage of rainfall
1	2	3	4	5	6	7
January	82.8	6.06	45.0	6.06	35.1	2.55
February	24.9	1.82	28.5	3.84	12.9	0.94
March	24.1	1.76	30.0	4.04	32.5	2.36
April	32.8	2.40	66.5	8.96	85.6	6.22
May	49.0	3.59	39.4	5.31	158.7	11.53
June	26.7	1.95	10.2	1.37	156.0	11.34
July	39.1	2.86	7.9	1.06	201.2	14.62
August	69.3	5.07	16.5	2.22	147.1	10.69
September	84.1	6.15	29.0	3.90	138.7	10.08
October	241.8	17.69	174.0	23.43	202.2	14.69
November	450.3	32.94	183.1	24.66	157.7	11.46
December	242.1	17.71	112.5	15.15	48.5	3.52
Year	1,367.0	100.0	742.6	100.0	1,376.2	100.0

Source: Memoirs of the Indian Meteorological Department, Volume XXXI part III

MAP 7

NORMAL MONTHLY AND ANNUAL TEMPERATURE

The isotherms of different values shown on the map reveal the 'normal monthly and annual temperature' in the different regions of Tamil Nadu. The weather cycle of the state can be broadly segregated as follows.

- The hot-weather season (from mid-February to mid-June)
- The South-west monsoon season (from mid-June to mid-October)
- The retreating monsoon season (from mid-October to mid-December) and
- The cold weather season (from mid-December to mid-February)

The state has hot summers and warm winters. But, the extent of rainfall in different places influences the temperature distribution in the state. The drier areas have a great range of temperature than those which are wet or nearer the sea. The temperature is uniformly high throughout the year and the highest temperature extends upto 35°C, just before the rainy season in July.

The map depicts that the major part of the state

experiences high temperature. The whole of the eastern region of the state including the Kanniyakumari district has an annual average temperature of 25°C. The temperature is more than 30°C during April, May and June in coastal districts. The temperature zone, ranging between 20°C and 25°C, covers parts of Dharmapuri, Salem, Coimbatore, Madurai, the western parts of Ramanathapuram and Tirunelveli districts. The western parts of Nilgiri and Kodaikanal region of Madurai district enjoy a low temperature of less than 15°C. The average monthly temperature of Ootacamund and Kodaikanal varies from 12°C to 17°C. A few area around these two regions experience temperature between 15°C and 20°C.

Normally, the average temperature increases from February onwards and it raises to a high level till the month of May or middle June and afterwards it starts decreasing gradually every month. The lowest temperature is generally recorded during December or January.

Data on the monthly average temperature (in Centigrade) are presented below for four selected stations in the state.

Month	Average temperature (in Centigrade) in			
	Madras (Nungambakkam)	Nagappattinam	Palayankottai	Ootacamund
1	2	3	4	5
Year	28.1	28.6	29.3	14.3
January	24.6	25.3	26.5	12.5
February	25.3	26.1	27.7	13.5
March	27.3	27.7	29.7	15.2
April	29.6	29.7	30.7	16.2
May	31.5	31.5	31.8	16.5
June	31.9	31.8	31.0	14.6
July	30.1	30.8	30.4	13.7
August	29.7	30.2	30.6	14.1
September	29.4	29.7	30.7	14.3
October	28.0	28.2	29.5	14.4
November	26.0	26.4	27.2	13.6
December	24.8	25.3	26.4	13.0

MAP 5

RELATIVE RELIEF

The study of slopes is essential as it determines the drainage pattern and influences the flora and fauna of the land. They determine the land-use pattern, settlement pattern, establishment of transport and communications links etc. Relative relief or local relief helps to make an analysis of slope and to relate the altitude of the highest and lowest points in any particular area. This has been measured by 50, 300, 900 and 1200 metres of relative relief.

The map explains that the whole of Thanjavur district, a major portion of Chengalpattu and parts of South Arcot, Pudukkottai, Ramanathapuram and Tirunelveli districts have the relative relief value of less than 50. The coastal strips of Kanniyakumari district also falls in this level, viz., below 50. The western part of Chengalpattu, South Arcot, Pudukkottai and Ramanathapuram districts and the northern part of Dharmapuri and a major portion over the central part of Periyar and Coimbatore districts have the relative relief between 50 and 300 metres.

Higher values of relative relief are found in the western parts of the state except for a break in the Coimbatore district where Palghat Gap lies. The closed

isopleths on both the sides of Palghat Gap and in the southern part of Kanniyakumari district reveals that the degree of slope is very high in these areas. The relative relief value of above 1200m. is found widely in the western part of Nilgiri and Coimbatore districts and in a small portion in Tirunelveli and Kanniyakumari districts. From these areas the value is gradually decreasing towards east. The relative relief value ranging between 900 and 1200m. is wider over the northern parts of Nilgiri, Periyar and western part of Madurai districts. In general, it implies that the degree of slope is more in the western part of Nilgiri, Tirunelveli and Kanniyakumari districts and the slope is gradual over the eastern part of Coimbatore, Madurai and Ramanathapuram districts. The belt showing the lowest slope area is wider over the Thanjavur, South Arcot and Ramanathapuram districts than in Chengalpattu district and it narrows down over Tirunelveli and Kanniyakumari districts.

There is one more pocket comprising parts of North Arcot, Salem, Dharmapuri and Periyar districts where the relative relief value ranges between 300 and 600m. Over its central part, the isopleths of value 600 and 900m. encircle this region.

MAP 6

NORMAL MONTHLY AND ANNUAL RAINFALL

This map depicts the average monthly and annual rainfall in the different regions of the state. The isohyetal lines of different values are shown on the map to classify the rainfall regions. Rainfall occurs in the state during the monsoon season, viz., (i) South-west monsoon (from mid June to mid October) and (ii) the North-east monsoon or retreating monsoon (from mid-October to mid-December). The rainfall is more during the retreating monsoon than during the south-west monsoon. It is observed that the north-east monsoon rainfall amounts to near about 60 per cent of the annual rainfall in the coastal districts and about 40 per cent in the interior districts. There is more rain in October in the interior districts while the coastal districts have more rain during November. During October-December, Chengalpattu, South Arcot and Thanjavur districts receive more than 650 mm, Kanniyakumari, Ramanathapuram, Tirunelveli districts nearly 450 mm and the interior districts of Madurai, Tiruchchirappalli and North Arcot less than 400 mm of rainfall. In general, the state receives rainfall of about 750 to 1000 mm during this period. There is considerable variation in the north-east monsoon rainfall from year to year because the rainfall is largely determined by the occurrence and movement of depressions and cyclonic storms.

During the period May to September, no part of Tamil Nadu receives more than 500 mm rainfall due to the obstruction caused to the rain bearing south-west monsoon winds by the elevations of Western Ghats. During this season, the western part of Coimbatore, Salem, Nilgiri, Tirunelveli and Kanniyakumari districts alone receive good rainfall. Most of the other

regions of the state are said to fall under the "rain-shadow region" during this approaching monsoon season.

On studying the map, we can observe that Nilgiri, western parts of Kanniyakumari and a small portion of Coimbatore district have the highest rainfall ranging from 1500 to 3000 mm. The Coromandel plain which consists of Chengalpattu, North Arcot, South Arcot, Thanjavur and central part of Kanniyakumari district receives an average annual rainfall of 1000 to 1500 mm. The lowest rainfall-bearing region with less than 700 mm per annum lies in the central part of Tamil Nadu consisting of a portion of Coimbatore, Periyar and Tiruchchirappalli districts as also in the southern coastal area of Ramanathapuram and Kanniyakumari districts. The remaining parts of the state receive rainfall ranging between 700 and 1000 mm.

To sum up, the average rainfall of the state is about 1008 mm. The total rainfall in Chengalpattu, South Arcot, Thanjavur, Nilgiri and Kanniyakumari districts is higher than in the remaining parts of the state. Nilgiri, Anamalai region, Palani hills and Cardamom hill area and Kanniyakumari district receive rainfall during both the rainy seasons.

Data on the monthly average rainfall in millimetres and the percentage of monthly average rainfall to annual rainfall for three selected stations, viz., Nagappattinam, Palayankottai and Ootacamund are given in the next page.

MAP 8
SOILS

This map depicting the distribution of soils with their sub-order associations (along with their distinguishing numbers) is based on the soil map of India published by the National Bureau of Soil Survey and Land Use Planning (ICAR), 1983. The approximate traditional nomenclature of the soils is also given in the map.

The soils of the state have been classified into 8 major classes and 20 sub-order associations which are identified in terms of their principal characteristics. The generalised descriptions of the soils are given below.

The soil associations, viz., Ustalfs (7), Ustalfs-Orthents (8), Ustalfs-Fluvents (10), Ustalfs-Tropepts (12), Ustalfs-Orthents-Tropepts (13) and Ustalfs-Rock out-crops (15) occupy a major portion of the state spread almost over all the districts except Madras. Chengalpattu, Nilgiri and Kanniyakumari districts have this soil in lesser extent. The soils of this type are characterised by high base status, red loamy, red sandy and alluvial soils in which red sandy soils constitute a large proportion. Red loamy soil mainly occurs in South Arcot, Thanjavur and Tiruchchirappalli districts. The red soil is rich in potash, lime and magnesia due to the hornblende nature of gneiss. The forest loamy soil is developed in the western border of the state within the forest area on the weathered crystalline rocks. The upper layer is highly enriched with organic matter and the soil is dark reddish brown to black in colour.

Psamments (35), Psamments-Fluvents (36) and Psamments-Tropepts (41) soil associations are found over the northern coastal districts - Madras, Chengalpattu and South Arcot. This soil occurs also in Kanniyakumari district and Ramanathapuram and Rameswaram taluks of Ramanathapuram district. In general these are sandy soils. This soil has originated from recent deposits. Generally, the content of lime and potash is adequate and the content of nitrogen and organic matter is low in these soils.

- USTALFS : High base status-red loamy, red sandy and alluvial soils.
- UDALFS : High base status soil of humid region.
- ORTHENTS : Recently formed soil.

The soil associations Usterts (92), Usterts-Tropepts Orthents (93) and Usterts-Ustalfs-Tropepts (99) occur in the central part of Coimbatore and South Arcot districts, southern part of North Arcot and Madurai districts, northern part of Tiruchchirappalli district, eastern part of Thanjavur district, a major part of Ramanathapuram district and a little portion of Tirunelveli district. These are shallow black to deep black soils and are denoted as black cotton soil as it is conducive to cotton cultivation. These are dark in colour, low in organic matter calcareous, moderately alkaline and high in clay content. The shrinking as well as swelling capacity of this soil type is also high and the higher proportion of clay makes it sticky. The soils over North Arcot and South Arcot are mixed red sandy, black and alluvial soils.

The northern and southern portions of Coimbatore and Madurai districts, the central part of Periyar district, the northern part of North Arcot district, some portions of Tiruchchirappalli district and a narrow strip of the western border of Tirunelveli district have the soil units of Orthents-Argids (53), Orthents-Tropepts-Udalfs (56), Orthents-Tropepts (61) and Orthents-Tropepts-Ustalfs (62). These are all recently formed soils. They vary from red sandy to black and alluvial soils. The soils over Periyar district are Orthents-Argids (53) which are recently formed soils of arid characteristics.

The other soils are : (i) Udults-Tropepts-Rock out-crops (91) which are in a small portion in the southern borders of Coimbatore district and which are laterite soils. Generally, this laterite soil is acidic and poor in nitrogen, phosphorous, potash and organic matter. (ii) Tropepts (66) are found in South Arcot district and it represents shallow black, brown and alluvial soils of southern region.

The approximate traditional nomenclature of the soil sub-order associations given on the map is explained below:

- USTERTS : Deep black soils.
- TROPEPTS : Shallow black, brown and alluvial soils of Southern region.
- FLUVENTS : Alluvial soil (Recent alluvium).
- PSAMMENTS : Sandy soil.
- ARGIDS : Soils of Arid region with clay accumulation in lower horizon.
- UDULTS : Laterite soils.

MAP 9

DISTRIBUTION OF POPULATION 1981

The distribution of population in the rural and urban areas of the state as per the 1981 Census has been portrayed in this map. The degree of concentration of people in the rural and urban areas can easily be perceived from this map. The rural population is indicated by dots, (each representing 10,000 persons), while the urban population is depicted by six different sizes of coloured circles, drawn according to the population size class of towns as per the legend of the map.

The hilly parts of western and eastern ghats and their neighbouring areas have low population density in the state. The elevated portions of North Arcot, Dharmapuri, Salem, Coimbatore and Nilgiri districts are sparsely populated areas. A similar trend is also observed in the hilly tracts of the southern region, which extends over Madurai, Ramanathapuram and Tirunelveli districts.

The urban population is generally concentrated in big cities/towns. As a result of continuous large scale urban-ward migration, the big urban centres have become very dense that people have even settled down in the suburbs of such centres. Such contiguous suburban centres, taken together with the core city (town) have been recognised as "Urban Agglomerations" in Census. There are 34 such Urban Agglomerations in the state and among them, Madras

with 4.3 million population (49 urban constituent units including Madras City) is the largest. Coimbatore, Madurai, Tiruchchirappalli and Salem are the other prominent urban agglomerations with 5-10 lakh population each. The state's urban population has rapidly increased from 8.99 million in 1961 to 15.95 million in 1981. Chengalpattu district, which encircles Madras City, has the maximum number of urban centres (66) among the districts followed by Tirunelveli (52) and Salem (44). Dharmapuri, Pudukkottai and Kanniyakumari districts have fewer number of urban units. There are, in all 434 towns (or urban units) in the state, as per the 1981 Census.

There are 15,831 inhabited villages of variable sizes in the state. The rural population of 32.46 million living in these villages constitute 67.05 per cent of the total population. There are over three million rural population in each of the three agriculturally predominant districts of North Arcot, South Arcot and Thanjavur. Chengalpattu, Salem, Madurai, Tiruchchirappalli, Ramanathapuram and Tirunelveli districts have also sizable rural population of 2-3 million each. Agriculture is the mainstay of the people in these districts.

Data on number of inhabited villages, rural population, number of towns and urban population are presented at state and district level in the table given below.

State/District	Rural		Urban	
	No. of inhabited villages	Rural population	No. of towns	Urban population
1	2	3	4	5
TAMIL NADU	15,831	32,456,202	434	15,951,875
1. Madras	-	-	1	3,276,622
2. Chengalpattu	1,856	2,208,722	66	1,407,786
3. North Arcot	1,873	3,398,795	34	1,015,529
4. South Arcot	2,280	3,542,246	17	659,623
5. Dharmapuri	1,065	1,809,876	7	187,184
6. Salem	972	2,446,054	44	995,663

	1	2	3	4	5
7. Periyar		481	1,613,259	18	455,203
8. Coimbatore		447	1,516,013	36	1,544,171
9. Nilgiri		43	322,321	15	307,848
10. Madurai		1,000	2,892,285	32	1,643,612
11. Tiruchchirappalli		894	2,668,596	29	943,724
12. Thanjavur		1,728	3,126,588	32	936,957
13. Pudukkottai		747	1,003,145	8	153,668
14. Ramanathapuram		1,411	2,394,483	38	940,954
15. Tirunelveli		947	2,335,952	52	1,237,799
16. Kanniyakumari		87	1,177,687	5	245,532

MAP 10
DENSITY OF POPULATION 1981

This map portrays the density of population per km² at taluk level. The figures obtained by dividing the population by the geographical area of the taluk are grouped into six convenient ranges of high to low density and shaded, as shown in the legend of the map.

Madras City (which has been considered as a single unit here) has the highest ratio of 19,274 persons per km² as the most important in south India. It stands out as the biggest commercial and manufacturing centre of the state. It has a high influx of migrants from other districts of the state and even other states. Leaving Madras, which strictly speaking, cannot be compared with the density of other taluks of the state, we find that out of the 151 taluks, Madurai South taluk shows the highest density of population with 3,328 persons per km². Saidapet taluk with a density of 1,710 stands as the next densest taluk of the state. The reasons for such density in these taluks is obvious. While Madurai South taluk has the second biggest city of Tamil Nadu, viz., Madurai city along with its suburban towns within its area, Saidapet taluk happens to include a number of suburban towns encircling Madras city. A high density of 1,442 is exhibited by Agasteeswaram taluk in Kanniyakumari district in the southern-most tip of the sub-continent. In addition to the above mentioned three taluks, there are three more taluks which have recorded a density of over 1,000 persons per km² and these are Kumbakonam, Tiruchchirappalli and Vilavankod.

The average density of population in the state as per the 1981 Census, is 372. Out of the 151 taluks in the state (excluding Madras which is a city district) 97 taluks have recorded lower density than the state as a whole. The other 54 taluks show higher density than the state average of 372. Nineteen taluks including

Madras district fall under the highest density range of '601 and above'. These are distributed as four taluks in Thanjavur district, three taluks each in the districts of South Arcot and Kanniyakumari and one taluk each in the districts of Chengalpattu, Madras, Salem, Periyar, Nilgiri, Coimbatore, Madurai, Tiruchchirappalli and Tirunelveli.

The density range of 501 - 600 covers 12 taluks of the state. In this range also we noticed that Thanjavur district has the largest number of taluks (4). Seventeen taluks fall in the third range of 401-500.

Largest number of taluks (44) are covered in the range of 301-400. Apart from the northern districts of North Arcot and South Arcot which have five taluks each under this range, Madurai and Ramanathapuram in the south also contribute five taluks each for this range.

The two lower density ranges of '201 - 300' and '200 and below' cover respectively 41 and 19 taluks.

The hilly Kodaikanal taluk of Madurai district, a well known hill resort, has recorded to lowest density among the taluks of the state (76). Low density of less than 100 persons per km² is also observed in the hilly Yercaud taluk (Salem district). The other taluks with low density of 100-150 km² are Denkanikotta and Penagaram in the hilly Dharmapuri district, Satyamangalam in Periyar district and Vilattikulam and Ottappidaram in Tirunelveli district.

The density of population for the state and districts and the number of taluks with density above and below the state average in each district are given below.

State/District	Density of population per km ²	Number of taluks with density	
		Above state average	Below state average
1	2	3	4
TAMIL NADU	372	55*	97
1. Madras	19,274	1	-
2. Chengalpattu	460	5	7
3. North Arcot	360	9	4
4. South Arcot	386	6	6
5. Dharmapuri	208	-	8
6. Salem	398	4	5
7. Periyar	252	2	4
8. Coimbatore	410	2	4
9. Nilgiri	247	1	3
10. Madurai	359	2	11
11. Tiruchchirappalli	326	1	9
12. Thanjavur	491	12	4
13. Pudukkottai	248	-	6
14. Ramanathapuram	265	2	16
15. Tirunelveli	313	5	9
16. Kanniyakumari	845	3	1

* Includes the district of Madras

MAP 11

INTER-CENSAL CHANGE IN POPULATION 1971-81

The decadal variation in population during 1971-81 at taluk level is depicted in this map. The percentage increase in the population in all the taluks is presented by grouping them under five broad ranges which are shaded differently as per the legend of the map.

The total population of Tamil Nadu has increased from 41.2 million in 1971 to 48.4 million in 1981, registering a growth rate of 17.50 per cent during 1971-81. This is lower than the all-India growth rate of 25.00 per cent in the same period. Seven out of the 16 districts in the state have recorded higher growth rate than the state average during the decade. The highest decadal growth rate has been recorded by Chengalpattu district (29.26 per cent) while the lowest is observed in Tirunelveli district (11.66 per cent).

There are 24 taluks in the state that fall under the highest growth rate of 22.01 per cent and above. Of these taluks, four each belong to Chengalpattu, Pudukkottai and Ramanathapuram and three to Nilgiri district. The remaining 9 taluks are distributed as 2 each in Dharmapuri and Madurai districts and one each in Coimbatore, Periyar, Salem, Tirunelveli and Tiruchchirappalli respectively. Madras district also falls under this range. The highest increase is noticed in the small island taluk of Rameswaram (61.84 per cent which consists of a town (Rameswaram Township) and another village. It is closely followed by Saidapet

taluk which has recorded a growth rate of 58.77 per cent in population during the decade. In the range of 18.01 - 22.00 per cent, there are 25 taluks. Of these, five taluks each are in Thanjavur and North Arcot districts and three each are in South Arcot and Dharmapuri districts.

The range 14.01 - 18.00 per cent consists of the largest number of taluks (viz., 41) for any range. Except Tiruchchirappalli, Nilgiri and Pudukkottai districts, every other district has one or more taluks falling under this range. The districts with larger number of taluks in this range are North Arcot (7 taluks), Chengalpattu (6 taluks) and Ramanathapuram (6 taluks).

There are 35 taluks in the growth range of 10.01-14.00 per cent and another 26 taluks fall under the lowest range of 10.00 per cent and below. The lowest growth rate in 1971-81 for any taluk is observed in Ottappidaram taluk of Tirunelveli district (2.68 per cent). The other taluks with very poor decadal increase of less than five per cent are Sattankulam (3.05 per cent), Turaiyur (4.52 per cent) and Srivaikuntam (4.98 per cent).

The percentage growth of population during 1971-81 for the state and districts along with the number of taluks in each district that have increased at a rate above and below the state average growth (17.50 per cent) are given in the following statement.

State/District	Percentage growth of population 1971-81	Number of taluks which have a growth rate of population during 1971-81	
		Above the state average (17.50)	Below the state average
1	2	3	4
TAMIL NADU	17.50	-	-
1. Madras	27.04	1	-
2. Chengalpattu	29.26	6	6
3. North Arcot	17.53	6	7
4. South Arcot	16.15	4	8
5. Dharmapuri	19.03	6	2

	1	2	3	4
6.	Salem	15.01	1	8
7.	Periyar	15.11	1	5
8.	Coimbatore	18.79	3	3
9.	Nilgiri	27.56	4	-
10.	Madurai	15.18	3	10
11.	Tiruchchirappalli	13.16	2	8
12.	Thanjavur	14.46	5	11
13.	Pudukkottai	22.11	5	1
14.	Ramanathapuram	16.62	4	14
15.	Tirunelveli	11.66	2	12
16.	Kanniyakumari	16.43	2	2

MAP 12
GROWTH OF POPULATION 1901-81

This map portrays the decadal variation of rural and urban population in Tamil Nadu and its districts with sex break-up as observed during the nine Censuses 1901-81. For this map the Census population data of 1901 to 1971 as adjusted to the 1981 Census jurisdiction of the districts have been used. Proportionate bars have been drawn to indicate the absolute rural and urban population for each Census year from 1901-81. The rural and urban bars drawn for the districts thus have been proportionately divided to represent their male and female population in each Census year.

During the 80 years period, viz., 1901-81, the state population has more than doubled and it has increased by 151.44 per cent. The increase in population in the rural areas works to 96.37 per cent while in the urban areas it is 485.44 per cent. The highest growth rate in population of the state for any one decade is 22.30 per cent and this was recorded during the decade 1961-71 and it is followed by 17.50 per cent registered during 1971-81 Census. The lowest growth rate in population, viz., 3.47 per cent has been recorded between 1911-21 in the state. It was during this period the great influenza epidemic (of 1918) took a heavy toll of life in many parts of our land.

The highest decadal increase in the rural population of the state since 1901 has been registered during 1961-71 (16.35 per cent) and the lowest is 2.52 per cent in the decade 1911-21. In the urban area of the state, 41.75 per cent is the highest ratio for a decade and this was registered during 1941-51. The lowest rate of 8.86 per cent increase in urban population is observed during 1911-21 decade.

Frequent visitation of famines and droughts and

the resultant colossal deaths besides the prevalence of big epidemics like small pox, cholera, plague etc. during the first half of this century have caused wide variations in the population growth in the different districts. During the decade 1951-61 the highest decadal increase for rural population, viz., 38.77 per cent is noticed in Kanniyakumari district while there is a decline in the rural population (- 2.18 per cent) in Coimbatore district. Nilgiri district has registered the highest growth rate of 102.10 per cent in its urban population during 1951-61.

During 1961-71 the highest percentage increase in rural population (27.02 per cent) is seen in Pudukkottai district. In Chengalpattu district, where the suburban towns encircling Madras City grew rapidly because of faster industrialisation, the growth rate during 1961-71 was a high 108.44 per cent.

During the decade 1971-81, the state's rural population increased by just 12.95 per cent while the urban population grew by 27.98 per cent. Urban population of Chengalpattu, North Arcot, South Arcot, Dharmapuri, Periyar and Pudukkottai districts have increased during this period at a higher rate than the state average level. Constant migration of the population from villages towards cities and towns in search of educational and employment opportunities has been a major factor contributing towards faster urban population growth in the various districts in the last 2-3 decades.

A statement showing the decadal percentage variations of the rural and urban population of the state and districts for three recent decades, (i.e. 1951-61, 1961-71 and 1971-81) is presented by the table given at next page.

State/District	Percentage increase in population during the decade					
	1951-61		1961-71		1971-81	
	Rural	Urban	Rural	Urban	Rural	Urban
1	2	3	4	5	6	7
TAMIL NADU	8.39	22.59	16.35	38.64	12.95	27.98
1. Madras	—	22.09	—	45.20	—	27.04
2. Chengalpattu	7.72	32.64	10.30	108.44	16.83	55.18
3. North Arcot	6.06	19.50	18.19	24.06	14.33	29.68
4. South Arcot	8.42	19.81	16.91	30.76	14.09	28.58
5. Dharmapuri	22.00	22.67	23.80	54.37	18.00	30.04
6. Salem	3.38	32.58	12.81	51.76	11.32	25.18
7. Periyar	2.62	48.71	14.21	59.14	9.76	39.13
8. Coimbatore	- 2.18	66.67	8.78	48.69	12.54	25.64
9. Nilgiri	3.01	102.10	9.30	35.23	28.53	26.56
10. Madurai	5.22	26.13	19.05	30.37	10.65	24.12
11. Tiruchchirappalli	6.94	16.72	17.32	27.85	9.65	24.44
12. Thanjavur	7.34	14.32	17.40	18.49	12.53	21.42
13. Pudukkottai	5.55	14.27	27.02	20.83	20.52	33.65
14. Ramanathapuram	18.08	11.31	15.99	24.55	13.29	26.02
15. Tirunelveli	10.84	5.11	15.33	21.42	7.60	20.23
16. Kanniyakumari	38.77	- 30.56	16.83	36.20	15.69	20.12

MAP 15
SEX RATIO 1981

The sex ratio, i.e., the number of females per 1000 males, as per the 1981 Census, is portrayed in this map at the taluk level. Based on the sex ratio, all the 151 taluks including Madras district (which has been treated as a single unit) have been grouped and presented in the map under six broad ranges.

At the state level, there are 977 females per 1000 males. There are 89 taluks which have recorded sex ratios above the state average. Two taluks, viz., Palani and Tirutturaippundi, have revealed sex ratios similar to that of the state average, viz., 977. The remaining 60 taluks have registered lower sex ratios than the state ratio of 977. In as many as 36 taluks, all of which are in the southern region of the state, females outnumber males. Fifteen taluks out of the 18 in Ramanathapuram besides, 12 taluks out of the 14 in Tirunelveli district besides three taluks each in Tiruchchirappalli and Pudukkottai districts, two in Madurai district and one in Kanniyakumari districts, have revealed higher sex ratio i.e., above the parity (1000). The highest taluk level sex ratio of 1149 is observed in Sattankulam taluk of Tirunelveli district which is closely followed by Tiruchchendur taluk (1137) of in the same district. Only these two taluks of the state have sex ratios of over 1100. A good number of males in working ages are said to migrate from these southern districts to other northern regions and even abroad in search of employment.

The largest number of taluks (60) to fall in any sex ratio range is observed to be the range 976 to

1000. It is noteworthy that in Thanjavur district, all the taluks except Thanjavur fall under this range. Ten out of the 13 taluks in North Arcot district, seven out of the 12 taluks in South Arcot district and seven out of the 13 taluks in Madurai district belong to this range. Chengalpattu and Tiruchchirappalli districts also have five taluks each in this range. All other districts except Madras and Coimbatore have at least one taluk under this range. Veda sandur taluk in Madurai district and Nagappattinam taluk in Thanjavur district have registered sex ratios of exactly 1000. In the range of 951 to 975, there are 41 taluks and most of these lie in the northern and western districts of the state. Chengalpattu, South Arcot, Dharmapuri and Coimbatore districts have five taluks each under the above range. Four taluks in Salem district and three taluks each in North Arcot, Periyar and Madurai districts fall in this range.

In the lowest range of 950 and below, fall 14 taluks besides Madras city (934). Salem district has recorded the maximum number of taluks (4) under this range. The lowest ratio of 909 is observed in Sankari taluk of Salem district. Omalur (923) Coonoor (922), Saidapet (922) and Mettur (921) are the other taluks which have revealed very low sex ratios among the taluks.

Sex ratios in the state and district along with the number of taluks falling each of the six ranges as shown in the map are presented below.

State/District	Sex Ratio	Number of taluks in sex ratio range					
		1051 and above	1026 to 1050	1001 to 1025	976 to 1000	951 to 975	950 and below
1	2	3	4	5	6	7	8
TAMIL NADU	977	9	10	17	60	41	15
1. Madras	934	-	-	-	-	-	1
2. Chengalpattu	957	-	-	-	5	5	2
3. North Arcot	979	-	-	-	10	3	-
4. South Arcot	972	-	-	-	7	5	-

1	2	3	4	5	6	7	8
5. Dharmapuri	959	-	-	-	1	5	2
6. Salem	949	-	-	-	1	4	4
7. Periyar	956	-	-	-	1	3	2
8. Coimbatore	950	-	-	-	-	5	1
9. Nilgiri	957	-	-	-	1	2	1
10. Madurai	975	-	-	2	7	3	1
11. Tiruchchirappalli	985	-	-	3	5	2	-
12. Thanjavur	988	-	-	-	15	1	-
13. Pudukkottai	1,007	1	-	2	2	1	-
14. Ramanathapuram	1,023	3	6	6	2	-	1
15. Tirunelveli	1,044	5	4	3	1	1	-
16. Kanniyakumari	985	-	-	1	2	1	-

MAP 13

FERTILITY 1981

The child-woman ratio, which is an important index of fertility, is depicted in this map at district level. Based on this ratio, all the districts have been brought under six broad ranges, as shown in the legend of the map. The 'child-woman ratio' represents the number of children who are in the age-group 0-4 to every 100 women in the age-group 15-44.

The child-woman ratio for the entire state stands at 48.15. Nine out of the 16 districts of the state have revealed higher ratios than the state average. Dharmapuri district has registered the highest ratio of 59.90 among all the districts. Very high ratios exceeding 55 are also observed in its two neighbouring districts, viz., North Arcot and South Arcot. High fertility indices of over 50 are also noticed in three districts, viz., Chengalpattu, Pudukkottai and Ramanathapuram. The four southern districts of Madurai, Ramanathapuram, Tirunelveli and Kanniyakumari along with Chengalpattu in the north fall under the same range of child-woman ratio, viz., 48.53.

Periyar district with a child-women ratio of 36.98 has recorded the lowest index of fertility. Its adjoining district of Coimbatore from which it was formed a few years ago has also registered very low ratio of 37.64. Madras, Salem and Nilgiri districts have also shown low indices and are in the range 38.01 to 43.0. The two neighbouring districts of Tiruchchirappalli and Thanjavur have both recorded a similar child-woman ratio, viz., 45.05. With the sole exception of Madras, all the districts which have shown low fertility indices are lying contiguously in the western and central regions of the state.

The number of children in the age-group of 0-4 along with the number of women in the reproductive age-group of 15-44 and the ratio of the former to 100 of the latter are presented below for state and districts.

State/District	Children of 0-4 age-group	Women of 15-44 age-group	No. of Children per 100 women
1	2	3	4
TAMIL NADU	5,393,754	11,201,200	48.15
1. Madras	327,079	791,987	41.30
2. Chengalpattu	429,967	819,050	52.50
3. North Arcot	560,796	971,588	57.72
4. South Arcot	525,637	949,287	55.37
5. Dharmapuri	255,986	427,339	59.90
6. Salem	333,623	810,993	41.14
7. Periyar	183,790	496,959	36.98
8. Coimbatore	276,760	735,196	37.64
9. Nilgiri	63,246	155,376	40.71
10. Madurai	507,981	1,043,231	48.69
11. Tiruchchirappalli	382,163	848,317	45.05
12. Thanjavur	432,773	960,546	45.05
13. Pudukkottai	141,337	262,073	53.93
14. Ramanathapuram	404,772	769,877	52.58
15. Tirunelveli	406,420	826,441	49.18
16. Kanniyakumari	161,423	332,940	48.48

MAP 14

EVER MARRIED WOMEN AND TOTAL CHILDREN BORN TO THEM 1981

This map shows the ratio of children born per 100 ever married women at district level in Tamil Nadu, in 1981. Based on this ratio, the districts have been brought under six convenient ranges, from high to low, as shown in the legend of the map. 'Ever married' includes all women who may be currently married, widowed, separated and divorced. In short, it includes all women other than those who are 'Never married'. This ratio could be considered as an index of fertility.

At state level, we find that there are, on an average, 311 ever born children per 100 ever married women. Nine out of the 16 districts of the state have recorded higher ratios than the state average. Considering all the districts, we observe that the southern-most district of Kanniyakumari has registered the highest ratio of children per 100 ever married women of 363 followed by the districts of Tirunelveli

(347) North Arcot (335), Nilgiri (334) Ramanathapuram (326) South Arcot (325), Chengalpattu and Dharmapuri (316 each), Madurai (315) and Pudukkottai (302).

Seven districts have registered lower ratios than the state average of 311. Besides the city district of Madras, the five contiguous districts of Periyar, Coimbatore, Salem, Tiruchchirappalli and Thanjavur and the neighbouring district of Salem have all recorded very low ratio of less than 300 ever born children per 100 ever married women. Periyar district has revealed the lowest ratio of 266.

The total number of ever married women, total number of children ever born to them and the ratio of total children ever born per 100 ever married women for the state and the districts are presented in the following statement.

State/District	Total ever married women	Total children ever born to ever married women	Total children ever born per 100 total ever married women
1	2	3	4
TAMIL NADU	13,031,457	40,579,647	311
1. Madras	836,721	2,496,562	298
2. Chengalpattu	953,533	3,016,409	316
3. North Arcot	1,188,771	3,980,106	335
4. South Arcot	1,132,638	3,679,738	325
5. Dharmapuri	531,681	1,678,859	316
6. Salem	987,557	2,775,108	281
7. Periyar	600,995	1,598,865	266
8. Coimbatore	827,977	2,473,817	299
9. Nilgiri	154,568	516,677	334
10. Madurai	1,204,232	3,797,021	315
11. Tiruchchirappalli	1,009,390	2,891,234	286
12. Thanjavur	1,107,653	3,286,987	297
13. Pudukkottai	307,828	930,785	302
14. Ramanathapuram	899,739	2,937,612	326
15. Tirunelveli	957,690	3,319,132	347
16. Kanniyakumari	330,484	1,200,736	363

MAP 16
CHANGE IN SEX RATIO 1971-81

Two maps prepared by isopleth technique to represent the changing pattern of sex ratio as at 1971 and 1981 Censuses are juxtaposed here highlighting the feature. On the basis of the talukwise sex ratio figures, isopleths are drawn at suitable intervals and the intervening space between two isopleths are shaded according to high to low gradations, as shown in the legend of the map.

The sex ratio for the state has declined from 978 to 977 from 1971 to 81. The map reveals that the areas with high sex ratios (of over 1050) are all concentrated in the three coastal districts of Pudukkottai, Ramanathapuram and Tirunelveli. While there were 12 taluks in 1971 with high sex ratio exceeding 1050, the number has fallen to nine in 1981. This decline in the area of such high sex-ratio is due to the fact that four taluks in Ramanathapuram district have fallen from a higher range to the lower range. Sattankulam taluk of Tirunelveli district has recorded the highest sex ratio of 1148 in the state during 1981. The number of taluks under the range of 1000-1050 too have declined from 20 to 27 taluks during the 1971-81 decade. Most of

the high sex-ratio regions, that is areas with predominance of female population are all observed to be concentrated in the southern districts of the state.

There has been an increase in the area with sex ratio of 980-1000 (from 38 to 45 taluks) in the state during the decade and this is perceptible from the maps. On the contrary, decline in area is noticed under the range, 960-980. All these reflect the changes in the pattern of sex ratio in the taluks, that have taken place during the last decade. In the lower ranges of less than 980, there has been an increase in the area in 1981 over 1971. This is due to the increase in the number of taluks with a ratio of 960-980 from 18 in 1971 to 24 in 1981. The city district of Madras had recorded a low sex ratio of 904 in 1971 and in 1981 the ratio has increased to 934. At the district level, there is an increase in sex ratio in seven districts in the last decade while in nine districts the sex ratio has declined.

Data on the sex ratio for state and districts for 1971 and 1981 are presented below.

State/District	Sex Ratio	
	1971	1981
1	2	3
TAMIL NADU	978	977
1. Madras	904	934
2. Chengalpattu	949	957
3. North Arcot	971	979
4. South Arcot	969	972
5. Dharmapuri	969	959
6. Salem	963	949
7. Periyar	965	956
8. Coimbatore	951	950
9. Nilgiri	944	957
10. Madurai	986	975

1	2	3
1. Tiruchchirappalli	987	985
2. Thanjavur	994	988
3. Pudukkottai	1,011	1,007
4. Ramanathapuram	1,042	1,023
5. Tirunelveli	1,042	1,044
6. Kanniyakumari	972	985

MAP 17
RURAL SEX RATIO 1981

This map portrays the sex ratio in the rural areas at taluk level in Tamil Nadu. As observed earlier, sex ratio refers to number of females per 1,000 males. The rural sex ratio for all the 151 taluks have been grouped and presented in the map under five broad ranges.

We are aware that sex ratio may be above or below 1,000 and when it is exactly 1,000, the population is said to be perfectly balanced with equal number of males and females. Such an equality of sexes in a population which may perhaps be an ideal, rarely exists in reality. For the rural areas of the state as a whole, the ratio of sex stands at 987.

There are 20 taluks in the state that fall under the highest range of 1,026 and above (of females per 1,000 males) in the rural areas. Of these 20 taluks, as many as 19 are found in the southern-most districts of Tirunelveli and Ramanathapuram. Tirumayam taluk in Pudukkottai district is also in this range with a high ratio of 1,082. Sattankulam taluk in Tirunelveli district tops the list of taluks with the highest recorded rural sex ratio of 1,152 in Tamil Nadu, and this is closely followed by Tiruchchendur taluk with a ratio of 1,148. In the range of 1,001 to 1,025, there are 21 taluks and of these, seven taluks are in Ramanathapuram district, five in Tiruchchirappalli, three each in Madurai and

Tirunelveli, two in Pudukkottai and the remaining one in the southern-most district of Kanniyakumari.

The largest number of taluks (58) are found in the range of 976 to 1,000, in which also covers the average rural sex ratio of the state (987). It is interesting to note that 14 out of the 16 taluks of Thanjavur district are in this range. The remaining 44 taluks in this range are spread over all the other districts of the state. The districts of Chengalpattu, North Arcot, South Arcot and Madurai have six taluks each. In the rural areas of Orattanadu taluk in Thanjavur district, the sex ratio works out to exactly 1,000.

In the range of 951 to 975, there are as many as 42 taluks. It is noteworthy that most of these taluks are widespread in the northern and western regions of the state. Ten taluks come under the lowest range of 950 and below. The lowest sex ratio of 903 for the rural areas is recorded in Sankari taluk of Salem district. Mettur and Omalur taluks also have recorded low sex ratio of 917 and 918 respectively.

The rural sex ratio in the districts along with the number of taluks in each district that fall in the five broad ranges as shown in the map, are presented in the statement given below.

State/District	Sex Ratio in rural areas	Number of taluks with rural sex ratio in range of				
		1026 & above	1000-1025	976-1000	951-975	950 & below
1	2	3	4	5	6	7
TAMIL NADU	987	20	21	58	42	10
1. Madras	-	-	-	-	-	-
2. Chengalpattu	974	-	-	6	5	1
3. North Arcot	979	-	-	8	5	-
4. South Arcot	974	-	-	6	6	-
5. Dharmapuri	960	-	-	1	5	2
6. Salem	949	-	-	1	4	4
7. Periyar	960	-	-	1	4	1

	1	2	3	4	5	6	7
8. Coimbatore		969	-	-	2	4	-
9. Nilgiri		84	-	-	3	1	-
10. Madurai		985	-	3	6	3	1
11. Tiruchchirappalli		995	-	5	3	2	-
12. Thanjavur		988	-	-	14	2	-
13. Pudukkottai		1012	1	2	3	-	-
14. Ramanathapuram		1037	9	7	1	-	1
15. Tirunelveli		1059	10	3	1	-	-
16. Kanniyakumari		983	-	1	2	1	-

MAP 18

CHANGE IN RURAL SEX RATIO 1971-81

Two maps of the state representing the sex ratio in the rural areas as they were during the Censuses of 1971 and 1981 are drawn here to depict the variations that have taken place during the decade. In these maps, talukwise sex ratios were first plotted and the isopleth lines were then drawn, as indicated earlier in the notes for Map No. 17.

The sex ratio in the rural areas of Tamil Nadu was 990 in 1971 and it has decreased to 987 in 1981. Sixteen taluks have recorded high rural sex ratio exceeding 1050 females per 1000 males, both during 1971 and 1981 Censuses. Of these, two taluks each in Ramanathapuram and Tirunelveli districts had the highest rural sex ratios of over 1100 during 1971. During 1981, however, only two taluks (both in Tirunelveli district) have recorded high sex ratios. Among the 151 taluks of the state, Sattankulam (1152) in 1981 and Tiruchchendur (1128) in 1971 (both in Tirunelveli district) have registered the highest sex ratios in the rural areas. The two taluks of Tiruppattur and Ramanathapuram (in Ramanathapuram district) which had a sex ratio of over 1100 in 1971 came down to a lower level, viz., 1071 and 1070 in 1981, and this could be observed from the maps. Decline in the area under the sex ratio range 1050-1100 could also be observed in the southern region of the state.

The number of taluks with rural sex ratio values between 1000-1050 was 28 in 1971 and this has fallen to 25 in 1981. This again is seen from the reduced area under this range in 1981. Four taluks of Thanjavur district and three of Tirunelveli district with sex ratio exceeding 1000 but below 1050 in 1971 have fallen to the next lower range in 1981. The largest area to fall under any one sex ratio range is 975-1000. While 52 taluks had rural sex ratio in this range during 1971, a slightly higher number viz., 58 are in this range in 1981. It is significant to note that 14 out of the 16 taluks in Thanjavur district fall under this range. The next range of rural sex ratio, viz., 950-975 has the second largest number of taluks both during 1971 (45 taluks) and in 1981 (42 taluks). In the sex ratio range i.e. 950 and below, ten taluks each are noticed in the rural areas of the state both during 1971 and 1981. In the case of six districts, viz., Chengalpattu, North Arcot, South Arcot, Nilgiri, Tirunelveli and Kanniyakumari, it is observed from the map that barring a few places, most of taluks have recorded increase in sex ratios in 1981 as compared to 1971.

Rural sex ratio for 1971 and 1981 for state and districts are presented below.

1	2	3
12. Thanjavur	994	988
13. Pudukkottai	1,015	1,012
14. Ramanathapuram	1,053	1,037
15. Tirunelveli	1,051	1,059
16. Kanniyakumari	969	983

State/ District	Rural sex ratio	
	1971	1981
1	2	3
TAMIL NADU	990	987
1. Madras	-	-
2. Chengalpattu	965	974
3. North Arcot	972	979
4. South Arcot	972	974
5. Dharmapuri	970	960
6. Salem	967	949
7. Periyar	970	960
8. Coimbatore	978	969
9. Nilgiri	961	984
10. Madurai	998	985
11. Tiruchchirappalli	996	995

MAP 19

URBAN SEX RATIO 1981

This map shows the sex ratio, (number of females per 1000 males) in the urban areas at taluk level. There are 17 taluks which are completely rural in the state. Based on the sex ratio, the remaining 134 taluks as also the city district of Madras, which has been considered as a single unit for the purpose of this map, have been grouped under six broad ranges and hatched accordingly using choropleth technique.

The sex ratio for the urban areas of the state as a whole stands at 956. There are eleven taluks which come under the high sex ratio range of 1026 and above - five taluks in Tirunelveli district, three in Ramanathapuram district and one taluk each in South Arcot, Thanjavur and Pudukkottai districts. Sattankulam (1138), Nanguneri (1136), Ilaiyankudi (1129), Tiruchchendur (1126), Tiruvadanai (1101) and Kamudi (1101) are the prominent taluks with high ratios in this range. In the range of 1001 - 1025, there are 17 taluks almost all of which are located in the southern and eastern parts of the state. A significant contribution of eight out of sixteen taluks to this range of sex ratio is from Thanjavur district.

The next two ranges of urban sex ratio cover about 50 per cent of the taluks in the state. While 32 taluks are in the range of 976-1000, another 42 are in the range of 951-975. Eight taluks each in North

Arcot and Ramanathapuram districts have recorded urban sex ratio between 976-1000. Nine out of the 13 taluks in Madurai district have more or less a uniform urban sex ratio, ranging between 951 - 975. All the districts except Madras, Periyar and Kanniyakumari have atleast one taluk each in this range (951-975). Besides, Madras city (934), there are 26 taluks in the lower range of 926-950. Many of the taluks of this range are seen in the western and central region of the state.

Six taluks have been recorded in the lowest sex ratio range of 925 and below. These are Sriperumbudur (919) and Saidapet (918) taluks in Chengalpattu district, Hosur taluk (875) in Dharmapuri district, Coimbatore taluk (923) in Coimbatore district, Coonoor taluk (854) in Nilgiri district and Rameswaram sub-taluk (908) in Ramanathapuram district. The urban areas of Coonoor taluk have registered the lowest sex ratio among the taluks. Nilgiri district itself stands at the bottom when we consider the urban sex ratio of the districts as a whole. Apart from Coonoor taluk, Hosur taluk (875) has also a very low urban sex ratio falling below 900.

The urban sex ratio in each district and number of taluks falling in the six broad ranges as depicted in the map are presented in the statement give below.

State/District	Urban sex Ratio	Number of taluks with urban sex ratio in the range					
		1026 and above	1001-1025	976-1000	951-975	926-950	925 and below
1	2	3	4	5	6	7	8
TAMIL NADU	956	11	17	32	42	27	6
1. Madras	934	-	-	-	-	1	-
2. Chengalpattu	931	-	-	2	4	2	2
3. North Arcot	978	-	-	8	4	-	-
4. South Arcot	963	1	-	-	4	3	-
5. Dharmapuri	946	-	-	-	2	3	1
6. Salem	949	-	-	1	4	3	-

	1	2	3	4	5	6	7	8
7. Periyar		941	-	-	1	-	5	-
8. Coimbatore		931	-	-	-	3	2	1
9. Nilgiri		929	-	-	1	1	1	1
10. Madurai		958	-	-	2	9	2	-
11. Tiruchchirappalli		959	-	1	2	3	3	-
12. Thanjavur		989	1	8	2	1	2	-
13. Pudukkottai		979	1	-	1	3	-	-
14. Ramanathapuram		990	3	2	8	3	-	1
15. Tirunelveli		1,016	5	5	2	1	-	-
16. Kanniyakumari		995	-	1	2	-	-	-

MAP 20

CHANGE IN URBAN SEX RATIO 1971-81

Two maps are presented here side by side to indicate the decadal variation in the urban sex ratio at taluk level, the first one indicating the sex ratio as in 1971 and the second for 1981. These sex ratios have been worked out on the basis of the male/female population living in the cities and towns of each taluk in between the two Censuses. Based on the sex ratios, all the 151 taluks as also Madras district (which itself is one urban unit) have been grouped under seven broad ranges and are shaded with different hatchings as shown in the legend of the map.

During 1971, the state level urban sex ratio was 951 and it has marginally increased to 956 in 1981. There were 18 taluks in 1971 which were entirely rural and this number has now come down to 17 taluks in view of the new recognition of a town in a fully rural taluk of 1971.

Both in 1971 and 1981 Censuses, we notice that nine taluks have recorded very high sex ratios in their urban areas, exceeding 1050 and these are found only in the southern districts.

During 1971, the highest taluk level urban sex ratio of 1307 was recorded by Tiruvadanai taluk of Ramanathapuram district and Sattankulam of Tirunelveli district with a ratio of 1138 has taken away this distinction during 1981. Two other taluks which recorded very high urban sex ratios in 1971 were Ilaiyankudi (1194) and Sattankulam (1133). In 1981, Nanguneri (1136) and Ilaiyankudi (1129) taluks recorded the second and third rank in urban sex ratio. Five taluks in 1971 and two in 1981 are covered under the range 1026-1050. Most of these taluks with high urban sex ratio of over 1025 are in the southern districts of Ramanathapuram and Tirunelveli.

In both the 1971 and 1981 Censuses we observe that 17 taluks fall in the sex ratio range of 1001-1025. The actual taluks are however, not the same and are different in eight cases.

It is significant that the same five taluks of Tirunelveli district fall in the range 1001-1025 both in 1971 and 1981 Censuses. Also, four taluks of Thanjavur district in 1971 Census and eight taluks of the same district in 1981 Census are in this range.

The sex ratio range with the largest number of taluks falling under it, is 951-975. There were 39 taluks in this range in 1971 and this number has increased to 42 in 1981. In the range of 976-1000, there were 32 taluks in 1971 and this figure remained unchanged during 1981 also. In the districts of North Arcot, Madurai and Ramanathapuram, a large number of taluks are in these sex ratio ranges.

There were 21 taluks in the range of 926-950 in 1971, and in 1981 the number of taluks in this range has gone up to 26. In the lowest range of 925 and below, there were 10 taluks in 1971 while only six taluks exist in 1981. The lowest urban sex ratio in the taluks was recorded by Perambalur taluk (892) in 1971 and Coonoor (854) in 1981. Generally it is observed that in taluks having big cities/towns, the urban sex ratio is comparatively poorer due to larger male immigrants into such big urban centres in search of educational and employment opportunities.

The number of taluks with urban sex ratio above and below the state average in 1971 and 1981 Censuses for the districts are given in the next page.

State/District	No. of taluks with urban sex ratio above, equal or below the state average of			
	951 in 1971		956 in 1981	
	Above	Equal or below	Above	Equal or below
1	2	3	4	5
TAMIL NADU	98	36	93	42
1. Madras	-	1	-	1
2. Chengalpattu	4	6	6	4
3. North Arcot	9	3	10	2
4. South Arcot	4	4	5	3
5. Dharmapuri	1	5	2	4
6. Salem	6	2	3	5
7. Periyar	3	3	1	5
8. Coimbatore	1	5	1	5
9. Nilgiri	2	2	2	2
10. Madurai	11	1	10	3
11. Tiruchchirappalli	5	4	5	4
12. Thanjavur	14	-	12	2
13. Pudukkottai	5	-	5	-
14. Ramanathapuram	17	-	16	1
15. Tirunelveli	13	-	12	1
16. Kanniyakumari	3	-	3	-

MAP 22

CHANGE IN SEX AND AGE STRUCTURE 1971-81

This map depicts the variations in the age and sex composition of the population as between 1971 and 1981 Censuses for the state and districts. Age pyramids have been drawn for each district with horizontal bars for each age-group in proportion to the male/female population on either side of the vertical line at the centre of the pyramid, (as in the previous map) for 1971 and 1981. The age pyramid thus drawn for 1981 has been superimposed over the 1971 age pyramids so as to reflect the change in sex and age structure during the decade. Though the horizontal bars represent the five year age-group population the five important age-groups (viz. 0-4, 5-14, 15-34, 35-59 and 60+) are distinguished by hatchings as shown in the legend of the map.

At state level, we observe that the percentages of population (both males and females) in the age-groups of 0-4 and 5-9 have declined in 1981 when compared with 1971. In the subsequent age-groups of 10-14, 15-19 and 20-24 however, an increase in the percentages is observed in 1981 over 1971. In the age groups of 25-29, while the percentage for males has increased in 1981, the ratio for females has declined. Again, a fall in percentages is noticed in the age-group 30-34 for both the sexes. From the age group 40-44 onwards an increase in ratio in every five-year age-group is recorded in 1981 over that in 1971, considering the respective state's population.

The change in the pattern of sex and age structure in the districts is almost similar to the state pattern with some variations in a few districts. Con-

sidering infants (i.e. 0-4 age-group), a decrease in their ratio to population is recorded in 1981 over that of 1971 in all the districts of the state both in the case of males and females. Among them, decrease is somewhat significant in the case of Nilgiri, Madurai, Coimbatore, Salem and Tiruchchirappalli districts than in others. In the age-group 5-14 (boys and girls) also, a fall in the percentages to total population is found in 1981 in all the districts except Pudukkottai and Tirunelveli. The decrease in the ratio of population in the lower age-groups, observed in 1981 in the different districts, is compensated by increase in the ratio in higher age-groups. All districts reveal an increase in the percentages of young men and women in 15-34 age-group in 1981 over that of 1971. An increase in ratio of both male and female population belonging to the middle ages of 35-59 is observed in all the districts of the state except Pudukkottai. The ratio of older men and women belonging to the age-group 60 years and over has also increased in 1981 over that of 1971 in all the districts. This can be considered to reflect to some extent the improved medical and health services that are now available even in rural areas and the consequent improvement in the standard of living and life expectancy of the people of the state.

The percentage of distribution of the population in the state and districts in the five broad age-groups of 0-4, 5-14, 15-34, 35-59 and 60+ for 1971 are presented below. For 1981, data are given in the note of the previous map.

State/District	Percentage of 1971 population by age-groups				
	0-4	5-14	15-34	35-59	60 +
1	2	3	4	5	6
TAMIL NADU	13.09	24.68	32.24	24.25	5.74
1. Madras	11.99	23.21	37.33	22.45	5.02
2. Chengalpattu	13.71	24.94	32.31	23.62	5.42
3. North Arcot	13.74	25.58	30.99	24.07	5.62
4. South Arcot	14.03	24.78	31.30	24.69	5.20

	1	2	3	4	5	6
5. Dharmapuri		14.40	28.02	29.40	22.23	5.95
6. Salem		12.08	24.68	32.93	24.19	6.12
7. Periyar		11.09	23.88	33.08	25.20	6.75
8. Coimbatore		11.44	24.05	34.11	24.44	5.96
9. Nilgiri		13.43	27.13	34.50	21.22	3.72
10. Madurai		13.68	24.98	31.99	24.27	5.08
11. Tiruchchirappalli		12.94	23.57	32.05	25.64	5.80
12. Thanjavur		12.72	24.67	31.88	24.89	5.84
13. Pudukkottai		13.03	23.99	31.58	25.54	5.86
14. Ramanathapuram		14.10	24.74	30.73	24.58	5.85
15. Tirunelveli		13.23	24.23	30.97	24.74	6.83
16. Kanniyakumari		13.07	24.85	33.79	22.16	6.13

MAP 21 SEX AND AGE STRUCTURE 1981

This map depicts the districtwise sex and age structure of the population as per the 1981 Census. Age pyramids have been drawn for each district according to the ratio of males/females composition of its population in each five age-groups from 0-4 to 55-59 and 60+ levels. Age pyramids have been drawn with horizontal bars on both sides of the vertical central axis, representing the male and female population in the age-groups mentioned above. The male and female population has been categorised according to the age-groups as infants (0-4 age-group), boys and girls (5-14), young men and women (15-34), middle aged men and women (35-59) and old aged men and women (60+) and these five categories are distinctly shown by colour hatchings.

According to the 1981 Census, male and female population of the state constitutes respectively 50.58 and 49.42 per cent of the total population. We notice that male population is more than female population in most of the five year age-groups, the exceptions being 15-19, 20-24, 25-29 and 35-39 age-groups. Among the state's total population, infants (0-4) form 11.14 per cent in which males are slightly more (5.64 per cent) than the females (5.50 per cent). While boys and girls (5-14 age-group) constitute one fourth (23.88 per cent) of the total population, young men and women (of 15-34 age-group) form nearly one-third of the total population (33.75 per cent). Females are more in number than the males in the 15-34 age-group. Middle aged men and women (35-59 age-group) constitute around one-fourth of the population with 24.81 per cent. Old men and women of 60 years and over constitute 6.42 per cent of the total population in the state.

It is interesting to observe that children upto 14

years and old persons of sixty years and over, who are generally considered as 'dependents' account for 41.44 per cent of the total state's population. This clearly reveals a high dependency ratio of population under these age-groups on the working population belonging to other age-groups.

The percentage of infants of 0-4 age-group to population is the highest (12.82 per cent) in Dharmapuri district while the lowest ratio (8.88 per cent) is recorded in Periyar district. A higher ratio of infants of 0-4 is considered as an indicator of a comparatively higher birth rate. Children (5-14) are also comparatively higher in Dharmapuri district (26.47 per cent) and lower in Periyar district (21.09 per cent). Madras district has the highest percentage of middle aged men and women, viz., 38.36 per cent of its population in the age-group 15-34, while Dharmapuri district has recorded the lowest ratio of 31.44 per cent, among the districts. Population of this age-group form the highest ratio than all other age-groups under discussion in almost all the districts in the state. In view of a high level of migrants for higher education and employment, the city district of Madras has the highest ratio under this group, among the district. Periyar district (i.e. 28.52 per cent) leads with a high ratio of the population in the age-group 35-59 and Kanniyakumari district shows the lowest ratio (22.55 per cent) in this regard. The proportion of old men and women (60+) varies between a low 4.43 per cent in Nilgiri district to 7.73 per cent in Periyar district.

The percentages of males and females in the five broad age-groups 0-4, 5-14, 15-34, 35-59 and 60+ to total population are furnished for state and districts in next page.

State/District	Sex	Percentage of population in age-group				
		0-4	5-14	15-34	35-59	60+
1	2	3	4	5	6	7
TAMIL NADU		M 5.64	12.14	16.76	12.74	3.30
	F	5.50	11.74	16.99	12.07	3.12
1. Madras	M	5.02	11.62	19.70	12.55	2.82
	F	4.96	11.15	18.66	10.60	2.92
2. Chengalpattu	M	5.96	12.34	17.11	12.60	3.10
	F	5.93	11.95	16.66	11.43	2.92
3. North Arcot	M	6.36	12.51	15.80	12.54	3.32
	F	6.35	12.26	16.01	11.80	3.05
4. South Arcot	M	6.34	12.61	15.87	12.67	3.20
	F	6.17	12.23	16.38	11.91	2.62
5. Dharmapuri	M	6.56	13.38	15.88	11.97	3.26
	F	6.26	13.09	15.56	11.05	2.99
6. Salem	M	5.10	11.82	17.45	13.37	3.57
	F	4.59	11.05	17.13	12.58	3.34
7. Periyar	M	4.52	10.72	17.43	14.37	4.08
	F	4.36	10.37	17.35	13.15	3.65
8. Colmbatore	M	4.59	11.10	18.64	13.51	3.46
	F	4.45	10.90	17.95	12.10	3.30
9. Nilgiri	M	5.05	12.57	18.88	12.28	2.31
	F	4.99	12.31	19.15	10.34	2.12
10. Madurai	M	5.69	12.48	16.77	12.65	3.05
	F	5.51	11.94	16.82	12.18	2.91
11. Tiruchchirappalli	M	5.37	11.70	16.38	13.48	3.43
	F	5.21	11.26	16.94	12.99	3.24
12. Thanjavur	M	5.36	11.98	16.89	12.76	3.32
	F	5.29	11.70	17.25	12.44	3.01
13. Pudukkottai	M	6.11	12.82	15.33	12.46	3.10
	F	6.11	12.32	16.39	12.27	3.09
14. Ramanathapuram	M	6.16	12.27	15.51	12.29	3.19
	F	5.97	11.93	16.77	12.66	3.25
15. Tirunelveli	M	5.77	12.47	14.94	12.16	3.59
	F	5.61	12.07	16.95	12.67	3.77
16. Kanniyakumari	M	5.68	12.05	17.44	11.60	3.62
	F	5.66	11.66	18.00	10.95	3.34

M=Males, F=Females

MAP 23

MARITAL STATUS 1981

An idea on the extent of male and female population in the four marital status groups as at 1981 Census in the districts of Tamil Nadu can be had from this map. Four sets of overlapping bars drawn for each district represent the size of male and female population in the following four marital status categories: (1) Never married (2) Married (3) Widowed and (4) Others.

In the state as a whole, 55.71 per cent among males and 45.52 per cent among females are 'never married'. 'Never Married' denotes a person who has never entered 'married' status at any time before. Persons with 'currently married' status form 41.77 per cent among males and 43.80 per cent among females while those who are widowers/widows constitute 2.27 per cent and 10.01 per cent among males and females respectively.

Among the districts, Kanniyakumari has the highest proportion of 'never married' people both among males and females with 61.04 per cent and 53.21 per cent respectively. This district is well known for its high literacy rate and people here generally start their married life at comparatively later ages after their education and/or employment. The lowest ratio of 'never married' persons is found in Periyar district where only 50.91 per cent among males and 40.54 per cent among females are never married. Naturally this is reflected by a larger ratio of married persons in this district. About 46.07 per cent among males and 48.47 per cent among females in Periyar district are currently married. This is the highest proportion of married persons recorded for any district among both males and females. 'Currently married' persons constitute

the lowest percentage in Kanniyakumari among all districts. Only 37.02 per cent among males and 37.91 per cent among females are currently married in this district.

Tiruchchirappalli district has revealed the highest proportion of widowed population among both males and females with 2.71 per cent of widowers and 11.52 per cent of widows respectively. The lowest ratios of such persons are observed in Nilgiri district where 1.26 per cent among males and 7.63 per cent among females are 'widowed'. Comparatively much higher ratios of widows than widowers is seen in all the districts of the state. Widows form a little more than a tenth of the female population at state level and this average rate is exceeded in seven out of 16 districts of the state.

Persons whose marital status has been classified as 'Others', i.e. whose marital status is 'Divorced or separated' constitute 0.25 per cent among males and 0.67 per cent among females in the state as a whole. Among the districts, the highest ratio of such divorced or separated persons among males is found in Dharmapuri district (0.39 per cent) while the highest ratio among females is noticed in Periyar district (1.12 per cent). Madras City with 0.09 per cent and 0.34 per cent among males and females respectively has recorded the lowest ratio of persons under the category 'divorced or separated'.

The percentage distribution of males and female population according to their marital status of 'never married', 'married', 'widowed' and 'others' for state and districts are presented in a table given in next page.

State/District	Never married		Married		Widowed		Others	
	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9
TAMIL NADU	55.71	45.52	41.77	43.80	2.27	10.01	0.25	0.67
1. Madras	57.60	47.11	40.92	43.84	1.38	8.70	0.09	0.34
2. Chengalpattu	56.31	46.08	41.47	43.29	2.06	10.26	0.15	0.37
3. North Arcot	56.01	45.56	41.47	43.23	2.27	10.61	0.24	0.60
4. South Arcot	55.73	45.32	41.48	44.37	2.55	9.86	0.24	0.45
5. Dharmapuri	56.29	45.62	41.21	44.87	2.11	8.49	0.39	1.02
6. Salem	52.45	41.07	44.85	48.05	2.37	9.81	0.33	1.07
7. Periyar	50.91	40.54	46.07	48.47	2.68	9.87	0.34	1.12
8. Coimbatore	54.82	44.45	42.77	45.16	2.11	9.38	0.29	1.01
9. Nilgiri	57.58	49.84	40.89	41.51	1.26	7.63	0.25	1.02
10. Madurai	56.14	46.22	41.25	43.09	2.27	9.85	0.34	0.84
11. Tiruchchirappalli	54.59	43.69	42.40	44.10	2.71	11.52	0.30	0.69
12. Thanjavur	56.25	45.15	40.99	43.55	2.53	10.82	0.22	0.47
13. Pudukkottai	56.97	46.96	40.37	42.40	2.40	10.07	0.25	0.56
14. Ramanathapuram	56.03	46.66	41.33	42.52	2.41	10.13	0.22	0.68
15. Tirunelveli	56.27	47.53	41.22	41.31	2.32	10.55	0.19	0.61
16. Kanniyakumari	61.04	53.21	37.02	37.91	1.81	8.48	0.11	0.39

MAP 24

YOUTHFULNESS OF POPULATION 1981

This map shows the proportion of youth, i.e., the proportion of population in the age-group 5-14 to the total population, at district level. The districts have been grouped under six ranges by taking into account the percentage of their youthful population as shown in the legend of the map.

Youthfulness of population of a state or district could be taken as an indicator of expected additional manpower potential of that state or district that would be added to the work-force in the next decade. Such data helps the planners much in shaping their plans more rationally, say in the field of education, technical education, employment, etc., so as to cater to the increasing demand of the growing population. In Tamil Nadu, 23.87 per cent of the population belong to the young age-group of 5-14. Nine out of the 16 districts of the state have recorded higher proportions than the state average. Dharmapuri district tops the list with a proportion of 26.46 per cent of its population coming under the young ages of 5-14. Pudukkottai (25.14 per cent) is the only other district which has registered more than 25 per cent of youthful population in the state. Comparatively higher percentages of youth are also noticed in the districts of Nilgiri (24.88 per cent),

South Arcot (24.85 per cent) and North Arcot (24.77 per cent).

Seven districts have recorded proportion of youth below that of the state average. Of these seven, Kanniyakumari and Thanjavur districts are very close to the state's proportion with 23.72 per cent and 23.68 per cent respectively. Periyar district (21.08 per cent) has recorded the lowest percentage among the districts. The neighbouring Coimbatore district (from which Periyar district was formed in the last decade through bifurcation) has also a low proportion of 22.00 per cent.

The city district of Madras and the industrially important districts of Coimbatore and Salem as also the developing Tiruchchirappalli are among the districts which have recorded low proportion of youthfulness than the state as a whole.

The total population, population in age-group 5-14 and the percentage of youthful population to total population in the state and districts are given in the following statement.

State/District	Total Population	Population in age-group 5-14	Percentage of youthful population in 5-14 age-group
1	2	3	4
TAMIL NADU	48,408,077	11,555,559	23.87
1. Madras	3,276,622	745,796	22.76
2. Chengalpattu	3,616,508	878,474	24.29
3. North Arcot	4,414,324	1,093,304	24.77
4. South Arcot	4,201,869	1,043,980	24.85
5. Dharmapuri	1,997,060	528,376	26.46
6. Salem	3,441,717	786,846	22.86
7. Periyar	2,068,462	436,051	21.08
8. Coimbatore	3,060,184	673,304	22.00
9. Nilgiri	630,169	156,763	24.88
10. Madurai	4,535,897	1,108,049	24.43
11. Tiruchchirappalli	3,612,320	829,327	22.96
12. Thanjavur	4,063,545	962,420	23.68
13. Pudukkottai	1,156,813	290,826	25.14
14. Ramanathapuram	3,335,437	806,984	24.19
15. Tirunelveli	3,573,751	877,462	24.55
16. Kanniyakumari	1,423,399	337,599	23.72

MAP 25

CHANGE IN YOUTHFULNESS OF POPULATION 1971-81

The map clearly depicts the proportion of youth, i.e., the proportion of population in the younger age-group of 5-14, to the total population at district level during 1971 and 1981 Censuses. It is observed from the map that in most of the districts of the state, the proportion of youth has declined during the decade. South Arcot, Pudukkottai and Tirunelveli districts are the exceptions to this general trend.

At state level, the ratio of youthful population has slightly declined from 24.68 per cent in 1971 to 23.87 per cent in 1981. Such a decline in the ratio could be taken to indicate a small decrease in the birth rate as the population in the ages 5-14 of 1981 Census represents the survivors of 0-4 age-group population of 1971 Census along with the births that took place during 1971-76. It also indicates a decrease in the dependency ratio on our work force (i.e., population of 15-59 age-group).

Only three out of the sixteen districts, (South Arcot, Pudukkottai and Tirunelveli districts) have recorded higher proportion of youthfulness in 1981 than their corresponding ratio in 1971 the rest having registered decline. The largest decline in the ratio in 1981 as compared to 1971 is observed in Periyar district (2.80

points). A substantial decline in the ratio (over two points) is also observed in Nilgiri and Coimbatore districts. Dharmapuri, Salem, Thanjavur and Kanniyakumari are the other districts, which have registered a decrease in the ratio more than that of the state as a whole. The industrially backward Dharmapuri district has recorded the highest proportion of youth both during 1971 and 1981 Censuses, with 28.02 per cent and 26.46 per cent respectively. In 1971, Madras district (23.20 per cent) had the lowest percentage of youth among the districts, but in 1981, we see the lowest percentage in Periyar district (21.08 per cent).

Of the three districts which have registered an increase in the ratio in 1981, the increase in marginal in South Arcot and Tirunelveli districts, while it is somewhat higher in Pudukkottai district (from 23.98 per cent in 1971 to 25.14 per cent in 1981).

The population of the age-group 5-14 in the state has increased by 1.39 million in the last 10 years to 11.56 million in 1981. The population in the ages of 5-14 years for the state and districts and their percentages to total population during 1971 and 1981 Censuses are presented below.

State/District	Population of age-group 5-14 in		Percentage of population of age-group 5-14 to total population in	
	1981	1971	1981	1971
1	2	3	4	5
TAMIL NADU	11,555,559	10,169,894	23.87	24.68
1. Madras	745,796	598,429	22.76	23.20
2. Chengalpattu	878,474	697,878	24.29	24.94
3. North Arcot	1,093,304	960,439	24.77	25.57
4. South Arcot	1,043,980	896,440	24.85	24.78
5. Dharmapuri	528,376	470,103	26.46	28.02
6. Salem	786,846	738,428	22.86	24.68
7. Periyar	436,051	429,138	21.08	23.88

1		2	3	4	5
8.	Coimbatore	673,304	619,406	22.00	24.04
9.	Nilgiri	156,763	133,982	24.88	27.12
10.	Madurai	1,108,049	983,846	24.43	24.98
11.	Tiruchchirappalli	829,327	752,108	22.96	23.56
12.	Thanjavur	962,420	875,559	23.68	24.66
13.	Pudukkottai	290,826	227,187	25.14	23.98
14.	Ramanathapuram	806,984	707,615	24.19	24.74
15.	Tirunelveli	877,462	775,525	24.55	24.23
16.	Kanniyakumari	337,599	303,811	23.72	24.85

MAP 26

DEPENDENCY RATIO 1981

This map shows the ratio of dependents among the population to those in the working age-group, in the districts of Tamil Nadu, as revealed in the 1981 Census. The dependency ratio of a population fairly reflects the extent of work force and those depending on them. Generally, infants and young people under the age of 15 and persons in the old age of 60 years and above are considered as dependents on persons in the working age-group of 15-59. In reality, all those in the age-group of 0-14 and 60 and above may not be dependents and a few among them may even be working and earning. In the same manner, all the people in the working ages ranging from 15-59 years also do not work and many among them also depend on others. The dependency ratio is however conventionally defined as the ratio of persons under 15 years and 60 and above per 1000 persons in the 15-59 age-group.

The dependency ratio for the state stands at 707 as per the 1981 Census. Among the districts, this ratio varies widely from 605 in Periyar to 836 in Dharmapuri District. Based on the ratio recorded, the districts have been grouped under five broad ranges as shown in the legend of the map. Nine out of the 16 districts of the state have recorded higher dependency ratios than the state average ratio of 707. Dharmapuri district,

with a ratio of 836, has revealed the highest dependency ratio among the districts and it is the only district in the state, which has recorded a ratio of over 800. This district which has many hilly regions is not industrially well up and is, therefore, considered one of the backward districts of the state. North Arcot district with a ratio of 781 has registered the second highest dependency ratio among the districts. Five districts fall in the ratio range of 726 to 775.

Of the seven districts, which have recorded lower dependency ratios than the state (707), Periyar and Coimbatore have the lowest ratios of 605 and 608 respectively. The city district of Madras too has shown a low ratio of just 625. Many people of working age group migrate to Madras city in search of employment, education, etc. and hence dependents form a comparatively lower proportion here too. Besides, the above three districts with low dependency ratio, the mountainous Nilgiri district (648) also has registered a ratio of less than 650.

The number of dependents, i.e., persons in the ages of 0-14 plus 60 and above, those in the working age-group of 15-59 and the dependency ratio for the state and districts are presented in the following statement.

State/District	No. of persons in the age-group 0-14 & 60 +	No. of persons in the age-group 15-59	Dependency Ratio
1	2	3	4
TAMIL NADU	20,053,967	28,353,331	707
1. Madras	1,260,769	2,015,778	625
2. Chengalpattu	1,526,057	2,090,414	730
3. North Arcot	1,935,272	2,478,881	781
4. South Arcot	1,813,978	2,387,814	760
5. Dharmapuri	909,119	1,087,892	836
6. Salem	1,357,961	2,083,697	652
7. Periyar	779,773	1,288,678	605
8. Coimbatore	1,156,989	1,903,168	608
9. Nilgiri	247,880	382,274	648

	1	2	3	4
10. Madurai		1,886,347	2,649,495	712
11. Tiruchchirappalli		1,452,305	2,160,004	672
12. Thanjavur		1,652,172	2,411,343	685
13. Pudukkottai		503,853	652,958	772
14. Ramanathapuram		1,426,629	1,908,801	747
15. Tirunelveli		1,546,727	2,026,908	763
16. Kanniyakumari		598,136	825,224	725

MAP 27

CHANGE IN DEPENDENCY RATIO 1971-81

This map clearly depicts the decennial variation in the dependency ratios of districts of the state during 1981 as compared to 1971. As earlier defined in the note for the previous map, the dependency ratio represents the ratio of the population of 0-14 years and 60 years and over per 1000 persons in the 15-59 age-group. This ratio gives also a broad indication of age distribution of our population.

At state level, the dependency ratio has declined from 770 per 1000 in 1971 to 707 in 1981. This decline in the ratio is quite remarkable, and it is indicative of the decrease in the number of dependents in comparison to the working age population.

At the district level also, we find a similar decrease in the ratio of dependents in all districts with the lone exception of Pudukkottai district, where the ratio has gone up by 22 points, from 750 in 1971 to 772 in 1981. Dharmapuri district, which is considered as one of the economically backward districts of the state, has recorded the highest dependency ratio both during 1971 and 1981 Censuses. In 1971, this district had a very high ratio of 937 and in 1981 the ratio has remarkably come down by 101 points to 836. How-

ever, this district continues to have the distinction of having the highest dependency ratio among the districts of the state. It is noteworthy that four districts have registered a sharp decline in their dependency ratio, exceeding 100 and more points during 1971-81. These districts, viz., Dharmapuri, Periyar, Coimbatore and Nilgiri are all contiguous districts on the western region of the state. The adjoining Salem district too has recorded a decrease of 99 points in the ratio to 652 per 1000. The largest decline (146 points) in the dependency ratio is observed in the hilly Nilgiri district (from 794 in 1971 to 648 in 1981).

In 1971, the Metropolitan city of Madras (672) had the lowest ratio of dependents per 1000 people of the economically active ages of 15 to 59. It was the only district, which had a dependency ratio of less than 700 in 1971. During 1981, this city district has recorded a low ratio of 625. But, in 1981 the district with the lowest ratio is Periyar district (605) and it is followed by Coimbatore (608) district.

The dependency ratios in the state and districts during 1971 and 1981 Censuses are presented in the following statement.

State/District	Dependency ratio	
	1971	1981
1	2	3
TAMIL NADU	770	707
1. Madras	672	625
2. Chengalpattu	788	730
3. North Arcot	816	781
4. South Arcot	786	760
5. Dharmapuri	937	836
6. Salem	751	652
7. Periyar	716	605
8. Coimbatore	708	608
9. Nilgiri	794	648
10. Madurai	778	712

1	2	3
11. Tiruchchirappalli	733	672
12. Thanjavur	762	685
13. Pudukkottai	750	772
14. Ramanathapuram	808	747
15. Tirunelveli	795	763
16. Kanniyakumari	788	725

MAP 28
MALES IN WORKING AGE 15-59

1981

This map represents the percentage of males in the working age-group of 15-59 to the total male population in each district. The percentage of males belonging to the age-group 15-59 to total male population in each district has been calculated and based on the ratios, the districts have been grouped under six convenient ranges and are hatched from high to low as shown in the legend of the map. The male population of each district is represented by proportionate circles and the percentage of male population in the age-group 15-59 is shown by the shaded sector within the circle. While the total male population of the district is indicated at the top of each circle and the percentage of males in working age 15-59 is given inside the shaded sector.

Of the 24.5 million male population in the state, 14.3 million are in the working age-group of 15-59 and this constitutes 58.33 per cent. The highest percentage is observed in Coimbatore district (62.67 per cent) while the lowest is in Dharmapuri district (54.57 per cent). Seven districts in the state have returned higher percentages than the state average ratio (58.33 per cent) and the remaining nine districts reveal proportions below the state average.

The second highest percentage of males in the

working age-group next to Coimbatore is registered in Madras (62.38 per cent) while Periyar district follows as the third prominent district in this regard (62.21 per cent). These three districts fall in high percentage range of 61.51 and above. Coimbatore and Madras are the industrially developed districts in Tamil Nadu, which always provide attraction to the working age population, who migrate in sizable numbers to these industrial centres in search of job opportunities. We, therefore, find high percentages of males in the working age in these districts. Salem and Nilgiri districts fall in the percentage range of 60.01 - 61.50. The three districts of Chengalpattu, Madurai and Kanniyakumari fall under the percentage range (57.01-58.50) under which the state average ratio also lies. There are five other districts which show lower proportions than the state average and these are North Arcot, South Arcot, Pudukkottai, Ramanathapuram and Tirunelveli. It is interesting to observe that the coastal districts (except Madras and Thanjavur) which are all predominantly agriculture-oriented have comparatively lower ratios of males in the working age-group than the rest of the districts.

The total male population and males in working age-group 15-59, as per 1981, along with their percentages for the state and districts are given below:

State/District	Total male Population	Total male population in working age-group 15-59	Percentage of males (15-59) to total male population
1	2	3	4
TAMIL NADU	24,487,624	14,284,118	58.33
1. Madras	1,694,107	1,056,703	62.38
2. Chengalpattu	1,848,124	1,074,170	58.12
3. North Arcot	2,230,559	1,251,004	56.08
4. South Arcot	2,130,444	1,199,585	56.31
5. Dharmapuri	1,019,362	556,269	54.57
6. Salem	1,765,822	1,060,809	60.70
7. Periyar	1,057,599	657,946	62.21

	1	2	3	4
8.	Coimbatore	1,569,570	983,579	62.67
9.	Nilgiri	321,995	196,431	61.00
10.	Madurai	2,296,614	1,334,196	58.09
11.	Tiruchchirappalli	1,819,668	1,079,111	59.30
12.	Thanjavur	2,043,724	1,204,370	58.93
13.	Pudukkottai	576,335	321,366	55.76
14.	Ramanathapuram	1,648,422	927,321	56.26
15.	Tirunelveli	1,748,321	968,206	55.38
16.	Kanniyakumari	716,958	413,053	57.61

MAP 29

CHANGE IN MALES IN WORKING AGE 15-59 1971-81

This map depicts the variations in the proportion of males in the working age-group of 15-59 during 1971-81 for the districts. The 1971 male population of age group 15-59 for the new districts formed by bifurcation after 1971 Census have been adjusted so as to correspond to the jurisdiction of the districts as in 1981. The change in the proportion of the males in the working age group 15-59 to total male population during 1971-81 has been calculated by the following procedure:

$$C = \frac{B}{A} - \frac{B_1}{A_1} \times 100$$

A and A₁ here represent total male population of 1981 and 1971 respectively while B and B₁ stand for the male population in working age 15-59 in 1981 and 1971 respectively. The percentage figures in the districts have been grouped under six broad ranges, five under 'gain' and one under 'loss' shown in the legend of the map.

Though the actual male population in working age group in Tamil Nadu has increased by a little over 2.5 million during 1981, over the 1971 figure, the percentage variation works to 1.86 only. This increase represents a larger work force now than ten years ago. Almost all the districts too with the exception of Pudukkottai have revealed gain in the percentages during 1981 over 1971. The variations in the ratios ranges between a low gain of 0.46 per cent in South

Arcot district to a high of 4.46 per cent in Nilgiri district. The highest range of gain in ratio, viz., 4.01 and above consists of Nilgiri district (4.46 per cent) while the range of 3.26 and above consists of the two districts namely Periyar (3.78 per cent) and Coimbatore (3.49 per cent).

Of the 15 districts which show increase in percentage of males in working age, eight districts reveal a higher decadal variation than that of the state, while the other seven districts have recorded lower percentage increase. Dharmapuri, Salem and Thanjavur districts have all revealed gain in ratio and are covered under the range of 2.51-3.25 while Madurai, Tiruchchirappalli and Ramanathapuram come under the range 1.76-2.50. South Arcot and Tirunelveli districts are in the last range of gain in ratio, viz., 1.00 per cent and below.

Pudukkottai is the only district in the state which has registered a negative variation (1.04 per cent) in the ratio of males in working ages of 15-59. Such a negative figure signifies a decrease in the proportion of male working force, though the actual number of males in 15-59 in this district has gone up by about 54,000 in 1981 over that of 1971.

Data on the number of males in the working age-group of 15-59 in the state and districts as per 1971 and 1981 Censuses and the variation in their percentages to the total male population in 1981 over that of 1971 are given below.

State/District	Males in working age 15-59		Variation in their percentage to total males population in 1981 over that in 1971
	1981	1971	
1	2	3	4
TAMIL NADU	14,284,118	11,760,674	+ 1.86
1 Madras	1,056,703	830,511	+ 1.06
2. Chengalpattu	1,074,170	809,695	+ 1.73
3. North Arcot	1,251,004	1,049,333	+ 1.01

	1	2	3	4
4.	South Arcot	1,199,585	1,025,978	+ 0.46
5.	Dharmapuri	556,269	441,784	+ 2.73
6.	Salem	1,060,809	871,538	+ 2.89
7.	Periyar	657,946	534,282	+ 3.78
8.	Coimbatore	983,579	781,509	+ 3.49
9.	Nilgiri	196,431	143,672	+ 4.46
10.	Madurai	1,334,196	1,112,436	+ 1.99
11.	Tiruchchirappalli	1,079,111	924,404	+ 1.77
12.	Thanjavur	1,204,370	1,004,559	+ 2.52
13.	Pudukkottai	321,366	267,570	- 1.04
14.	Ramanathapuram	927,321	761,452	+ 1.90
15.	Tirunelveli	968,206	855,596	+ 0.80
16.	Kanniyakumari	413,053	346,355	+ 1.74

MAP 30
FEMALES IN WORKING AGE 15-59
1981

This map depicts the ratio of female population in the working age-group of 15-59 years to total female population in the districts. All the districts have been brought under six broad ranges, as shown in the legend of the map.

At state level, we notice that 58.82 per cent of the female population are in the working age-group of 15-59 years. The ratio of the female population in the working age-group varies from the high 62.40 per cent recorded in Periyar district to the lowest ratio of 54.37 per cent in Dharmapuri district. The second highest percentage (61.69) of female working-age population among the districts has been recorded by Coimbatore district. Coimbatore, Salem and Madras districts fall in the range of 60.51-62.00 per cent.

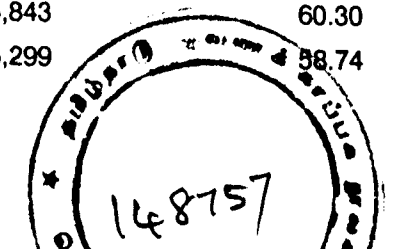
In seven of the 16 districts, the proportion of females in the working age is higher than the state average (58.82 per cent). Six among them (viz., Salem,

Periyar, Coimbatore, Nilgiri, Tiruchchirappalli and Thanjavur districts) form a contiguous belt from west to east in the Central region of the state. Nine districts reveal lower percentages of female working age population than the state level and of this, six districts are coastal districts with predominance of agricultural activities while the other three are interior ones with hilly regions.

Among the nine districts which have recorded lesser percentage than the state level percentage of female working-age population, the four districts of Madurai, Ramanathapuram, Tirunelveli and Kanniyakumari show percentages which are not far below the state average.

The statement below gives the female population and those among them who are in the working ages of 15-59 years along with their percentages for the state and districts for 1981.

State/District	Total Female population	Female Population in working age 15-59	Percentage of females in working age 15-59 to total female population
1	2	3	4
TAMIL NADU	23,920,453	14,069,213	58.82
1. Madras	1,582,515	959,075	60.60
2. Chengalpattu	1,768,384	1,016,244	57.47
3. North Arcot	2,183,765	1,227,877	56.23
4. South Arcot	2,071,425	1,188,229	57.36
5. Dharmapuri	977,698	531,623	54.37
6. Salem	1,675,895	1,022,888	61.04
7. Periyar	1,010,863	630,732	62.40
8. Coimbatore	1,490,614	919,589	61.69
9. Nilgiri	308,174	185,843	60.30
10. Madurai	2,239,283	1,315,299	58.74



1	2	3	4
11. Tiruchchirappalli	1,792,652	1,080,893	60.30
12. Thanjavur	2,019,821	1,206,973	59.76
13. Pudukkottai	580,478	331,592	57.12
14. Ramanathapuram	1,687,015	981,480	58.18
15. Tirunelveli	1,825,430	1,058,702	58.00
16. Kanniyakumari	706,441	412,171	58.34

MAP 31
CHANGE IN FEMALES IN WORKING AGE 15-59
1971 - 81

This map depicts the variation in the 1981 percentage of female population of age-group 15-59 to the total female population over that of 1971 at the district level. A positive figure represents an increase in the ratio in 1981 over 1971 and a negative figure represents 'loss'. An increase in 1981 would also signify a larger availability of work force among the female population. The variations in the percentages for the 16 districts are shown under seven ranges, six representing gain and one representing loss, as indicated in the legend of the map.

For the state as a whole, a percentage gain of 2.33 is observed and this could be taken to mean a sizable increase in the female work force, considering the increase in their population in 1981. The actual number of females in the state in the working age-group as at 1981 is 14.07 million, and this represents an increase of 2.56 million over the figure in 1971.

All the districts in the state except Pudukkottai have shown a percentage gain in 1981. In the case of Pudukkottai too, the loss in the ratio of working age

females is only marginal, viz., 0.33 per cent. The highest percentage gain (5.44) is observed in Nilgiri while the lowest is recorded in North Arcot district (1.18).

As may be seen, in the highest range of 5.26 and above, there is only one district, namely Nilgiri. In the range of 4.26 - 5.25 falls, the district of Periyar. Salem and Coimbatore districts come under the range of 3.26 - 4.25. Six districts have revealed a gain between 2.26 - 3.25 where the state average variation lies, while the range 1.26 - 2.25 absorbs the two districts of Chengalpattu and Ramanathapuram. Three others fall in the last range of 1.25 and below. It is interesting to observe that these eleven districts with a gain in the ratio (of below 3.25 per cent) run contiguously across the State from north east to south west leaving the four western districts as the higher gain ranges.

The statement below shows the number of females of 15-59 age-group in the state and districts in 1971 and 1981 and the percentage variation in the two decades.

State/District	Females in working age-group 15-59		Percentage variation in their ratio to female population 1971-81
	1981	1971	
1	2	3	4
TAMIL NADU	14,069,213	11,507,660	+ 2.33
1. Madras	959,075	711,676	+ 2.50
2. Chengalpattu	1,016,244	755,300	+ 2.01
3. North Arcot	1,227,877	1,018,590	+ 1.18
4. South Arcot	1,188,229	999,173	+ 1.25
5. Dharmapuri	531,623	424,423	+ 2.96
6. Salem	1,022,888	837,858	+ 3.98
7. Periyar	630,732	512,984	+ 4.28
8. Coimbatore	919,589	726,971	+ 3.79
9. Nilgiri	185,843	131,618	+ 5.44
10. Madurai	1,315,299	1,102,833	+ 2.34

	1	2	3	4
11.	Tiruchchirappalli	1,080,893	917,038	+ 2.46
12.	Thanjavur	1,206,973	1,010,440	+ 2.65
13.	Pudukkottai	331,592	273,606	- 0.33
14.	Ramanathapuram	981,480	820,466	+ 1.96
15.	Tirunelveli	1,058,702	927,193	+ 1.22
16.	Kanniyakumari	412,171	337,491	+ 2.34

MAP 32
URBAN MALES IN WORKING AGE 15-59
1981

This map shows the proportion of males of the age-group 15 - 59 to total male population in the urban areas (i.e., cities and towns) of districts, as per the 1981 Census. Based on the percentages, all the 16 districts have been grouped under six broad ranges and shaded differently, as shown in the legend of the map. The circles drawn for the districts represent total urban male population and the sectors within the circle indicate the ratio among them who are in the working age-group of 15 - 59. This map could be assumed to reveal broadly the extent of employable population among the urban males in the districts as also state.

Among the males living in urban areas, i.e., in cities and towns, spread over Tamil Nadu, those in the age-group 15 - 59 account for 60.40 per cent. Such a ratio is observed to range between the high 63.70 per cent recorded in Coimbatore district to a low 57.12 per cent in Tirunelveli district. We find that in six districts of the state, this proportion of urban males in the working age-group, exceeds the ratio for the state as a whole (i.e. 60.40 per cent). These are Madras, Salem, Periyar, Coimbatore, Nilgiri and Tiruchchirappalli districts. Barring Madras, the rest of these districts are all in a contiguous block in the west-

ern and central regions of the state. Coimbatore is the only district that falls under the highest percentage range (63.51 and above) in the map. Madras and Periyar districts fall in the range of 62.01- 63.50. One possible explanation for this could be that a number of factories, other industrial and commercial establishments located in these districts have provided the attraction to a large number males of this age-group to migrate to them from various other parts of the state.

Among the 10 districts which show lower ratios of urban males in the working ages than the state, six are coastal districts where agriculture is the predominant economic activity. North Arcot, Dharmapuri and Tirunelveli districts have revealed comparatively very low ratios and they all fall in the last range 57.50 and below. South Arcot, Pudukkottai and Ramanathapuram districts have also recorded lower ratios of urban males in the working age and fall in the low percentage range of 57.51 - 59.00.

Urban male population, those of 15-59 age-group among them and the percentage of the latter to the former for state and districts are presented below.

State/District		Urban male population	Urban males in age-group 15-59	Percentage
1		2	3	4
	TAMIL NADU	8,153,393	4,924,792	60.40
1.	Madras	1,694,107	1,056,703	62.38
2.	Chengalpattu	729,059	438,536	60.15
3.	North Arcot	513,495	293,793	57.21
4.	South Arcot	336,028	195,206	58.09
5.	Dharmapuri	96,167	55,035	57.23
6.	Salem	510,944	313,205	61.30
7.	Periyar	234,525	147,053	62.70
8.	Coimbatore	799,493	509,257	63.70
9.	Nilgiri	159,557	97,343	61.01

1	2	3	4
10.	Madurai	839,444	498,715
11.	Tiruchchirappalli	481,802	295,029
12.	Thanjavur	471,153	279,223
13.	Pudukkottai	77,654	44,700
14.	Ramanathapuram	472,956	277,365
15.	Tirunelveli	613,957	350,694
16.	Kanniyakumari	123,052	72,932

MAP 33

CHANGE IN URBAN MALES IN WORKING AGE 15-59 1971-81

This map portrays the variation in 1981 in the ratio of males in the working age-group of 15-59 to the total male population in the urban areas of the state as compared to 1971. It is interesting to note that all the districts of the state have recorded increase in the percentage of their male working force in 1981 over that of 1971. This can be considered to signify that a larger ratio of work force, i.e. those who are capable of economically productive activity, are available in 1981 than 10 years ago. Based on the decadal increase in the percentage, all the districts have been grouped under six broad ranges as shown in the map's legend.

In the urban areas of the state, there are 4.92 million males in the working age-group of 15 - 59 as per the 1981 Census as against 3.72 million males in 1971. In terms of percentage, 60.40 per cent of the urban males fall under this economically active age-group of 15-59 in 1981. Similar ratio in 1971 worked out to 58.25 per cent. There is thus an increase of 2.15 per cent in 1981.

At the district level, Salem district (4.14 per cent) has registered the highest decadal variation in the proportion of urban males in the age-group of 15 - 59 during 1971-81. Consequently, this district alone comes under the highest range of 3.76 and

above. In the range of 3.01 to 3.75, there are as many as five districts, viz., Coimbatore with 3.45% change in urban males followed by Thanjavur (3.32%) Ramanathapuram (3.31%) Periyar (3.12%) and Kanniyakumari (3.10%). Four districts fall under the range of 2.26 - 3.00. These are Nilgiri (2.95%), Dharmapuri (2.74%), Madurai (2.44%) and Tiruchchirappalli (2.42%).

There are two districts in the range of 1.51-2.25 per cent. The City district of Madras has a relatively lower ratio (1.06) and comes under the range of 0.76 per cent to 1.50 per cent. Chengalpattu and Tirunelveli districts are also covered under this range. North Arcot district reveals the lowest percentage variation of just 0.47 per cent and is shown in the last range.

It is significant to note that North Arcot and Tirunelveli districts alone have recorded lower gain in the percentage of less than one per cent in the decade while higher variation is recorded in the remaining districts.

Data on the male urban population in the working age-group of 15-59 in 1971 and 1981 Censuses and the variation in their percentages to their respective urban male population of all ages are presented below for state and districts.

State/district	Urban males in working age 15 - 59		Decadal change in percentage of urban males of 15-59 age-group 1971-81
	1971	1981	
1	2	3	4
TAMIL NADU	3,723,854	4,924,792	+2.15
1. Madras	830,511	1,056,703	+1.06
2. Chengalpattu	278,230	438,536	+1.39
3. North Arcot	225,702	293,793	+0.47
4. South Arcot	147,592	195,206	+1.89
5. Dharmapuri	40,180	55,035	+2.74
6. Salem	232,716	313,205	+4.14

1	2	3	4
7. Periyar	100,265	147,053	+ 3.12
8. Coimbatore	385,341	509,257	+ 3.45
9. Nilgiri	73,275	97,343	+ 2.95
10. Madurai	384,132	498,715	+ 2.44
11. Tiruchchirappalli	227,678	295,029	+ 2.42
12. Thanjavur	216,535	279,223	+ 3.32
13. Pudukkottai	32,359	44,700	+ 1.71
14. Ramanathapuram	205,408	277,365	+ 3.31
15. Tirunelveli	286,237	350,694	+ 0.88
16. Kanniyakumari	57,693	72,932	+ 3.10

MAP 34

RURAL MALES IN WORKING AGE 15-59 1981

This map shows the proportion of males in the working age-group of 15-59 to total male population in the rural areas at district level. The percentage is shown in the pie diagram, which has been drawn for each district in proportion to the district's male population in the rural areas. Based on the percentage, all the districts, except Madras (which is a city district), have been grouped under six convenient ranges for presentation in this map.

In the state, there are 9.36 million males in the rural areas, coming under the working age-group of 15-59. They constitute 57.30 per cent of all rural males, numbering 16.33 million. Seven out of the 15 districts which have higher ratios than the state average are all lying contiguous to one another in the western and central regions of the state. The three western districts of Periyar, Coimbatore and Nilgiri under the highest range of 60.51 per cent and above have revealed very high ratios of over 60 per cent and among them, Periyar with 62.07 per cent stands foremost in the extent

of male work force in the rural areas.

In the range of 59.01 - 60.50, only one district i.e., Salem is observed while two districts viz., Tiruchchirappalli and Thanjavur are covered under the range of 57.51-59.00. The districts with lower proportion than the state are all lying in the northern and southern parts of the state. The southern most Kanniyakumari district has recorded a ratio of 57.27 per cent, which more or less corresponds to the state average (of 57.30 per cent). North Arcot, South Arcot, Pudukkottai and Ramanathapuram districts have also recorded comparatively low ratios of male work force in their rural areas. The two districts of Dharmapuri (54.29 per cent) and Tirunelveli (54.44 per cent) have registered the lowest percentage of rural males in the age-group of 15-59 and are grouped in the range of 54.50 and below.

Data on rural male population and males of 15 - 59 age-group and their percentage in the rural areas are shown districtwise in the statement below:

State/District	Rural male population in 1981		Percentage
	All ages	15-59 age-group	
TAMIL NADU	16,334,231	9,359,327	57.30
1. Madras		Entirely urban	
2. Chengalpattu	1,119,065	635,635	56.80
3. North Arcot	1,717,064	957,210	55.75
4. South Arcot	1,794,416	1,004,376	55.97
5. Dharmapuri	923,195	501,236	54.29
6. Salem	1,254,878	747,603	59.58
7. Periyar	823,074	510,892	62.07
8. Coimbatore	770,077	474,320	61.59
9. Nilgiri	162,438	99,088	61.00
10. Madurai	1,457,170	835,481	57.34
11. Tiruchchirappalli	1,337,866	784,080	58.61
12. Thanjavur	1,572,571	925,146	58.83
13. Pudukkottai	498,681	276,667	55.48
14. Ramanathapuram	1,175,466	649,957	55.29
15. Tirunelveli	1,134,364	617,512	54.44
16. Kanniyakumari	593,906	340,119	57.27

MAP 35

CHANGE IN RURAL MALES IN WORKING AGE 15-59 1971-81

This map represents the variation in the percentage of rural males in the age-group, 15-59 to total rural male population recorded in 1981 Census over that of the earlier 1971 Census at district level. The percentage variation relating to the 15 districts of the state, (excluding Madras district which is entirely urban) have been grouped under seven ranges - six under 'gain' and one under 'loss' as shown in the legend of the map.

While 14 districts reveal increase in the ratio of rural males in working age in 1981 over that of 1971, the remaining one, namely, Pudukkottai district has recorded decrease in the percentage. However, in terms of absolute numbers of the rural males of working age-group, there has been an increase in 1981 in Pudukkottai district also, as in the rest of the districts.

The proportion of males of 15-59 ages among the rural male population of the state has increased to 57.30 in 1981 from 55.67 in 1971. This increase in the percentage by 1.63 signifies the availability of comparatively more man power in working ages in the rural areas of the state in 1981, as compared to 1971.

It is observed that the highest percentage variation in the above ratio, viz., 5.96 is recorded in the small hilly district of Nilgiri. This large increase might be attributed to the greater in-Migration of male employable population to this district in the last decade

to work in tea and coffee plantations etc. in the rural areas. This high variation in Nilgiri is followed by the two neighbouring districts of Periyar (3.90 per cent) and Coimbatore (3.42 per cent) which also show substantial increase in the ratio of male working age population in the rural areas.

It is interesting to note that out of the 14 districts which show gain in proportion of males of working ages, exactly seven districts have recorded a higher decadal variation in the 1981 than the state average increase (1.63 per cent) while the remaining seven districts have increased by a lower ratio than this. In addition to the three districts mentioned above, the four districts of Dharmapuri, Salem, Thanjavur and Madurai also have registered high percentage gain than the state average.

In South Arcot district, which has registered the lowest gain in ratio among the districts falling under the last range of 0.75 and below the increase in the number of male working age population in rural areas in 1981 over 1971 exceeds 1.25 lakh; but, the increase in percentage is however quite low, viz., 0.18. The another district falling under this range with 0.65% increase is Tirunelveli

The statement below gives the percentage of rural males in working age to rural male population during 1971 and 1981 and their percentage variation.

	1	2	3	4
4.	South Arcot	55.97	55.79	+0.18
5.	Dharmapuri	54.29	51.58	+2.71
6.	Salem	59.58	57.18	+2.40
7.	Periyar	62.07	58.17	+3.90
8.	Coimbatore	61.59	58.17	+3.42
9.	Nilgiri	61.00	55.04	+5.96
10.	Madurai	57.34	55.65	+1.69
11.	Tiruchchirappalli	58.61	57.13	+1.48
12.	Thanjavur	58.83	56.54	+2.29
13.	Pudukkottai	55.48	56.93	- 1.45
14.	Ramanathapuram	55.29	54.01	+1.28
15.	Tirunelveli	54.44	53.79	+0.65
16.	Kanniyakumari	57.27	55.82	+1.45

State/District	Percentage of rural males in working age 15-59 to total rural population		Decadal variation in the ratio of rural males of 15-59 (gain or loss)
	1981	1971	
1	2	3	4
TAMIL NADU	57.30	55.67	+1.63
1. Madras		Entirely Urban	
2. Chengalpattu	56.80	55.23	+1.57
3. North Arcot	55.75	54.63	+1.12

MAP 36

URBAN FEMALES IN WORKING AGE 15-59 1981

The extent of female population in the working age-group (of 15-59 years) in the urban areas has been portrayed in this map at district level. A proportionate circle has been drawn for each district, representing its urban female population and the percentage of females of 15-59 years among them has been shown by the shaded sector. Based on the ratio, the districts have been brought under six broad ranges and different hatchings have been given as shown in the legend of the map.

In Tamil Nadu, there are 4.6 million urban females in the working age-group of 15-59, constituting 59.45 per cent of the total urban females in the state. Six out of the 16 districts have recorded higher ratios than the state average. The two western districts of Coimbatore and Periyar have registered the higher ratios with 61.71 and 61.47 per cent respectively. Madras, Salem and Tiruchchirappalli districts falling under the

range of 60.01- 61.25 per cent, have also revealed high ratio over 60 per cent of urban females in the working ages 15 to 59 years. Madurai district with a proportion of 59.30 per cent is very close to the state's ratio (59.45 per cent).

Of the 10 districts, which have registered lower percentages than the state average, five fall in the percentage range of 57.51 - 58.75. While Dharmapuri district with the lowest ratio of 55.44 per cent is in the last range of 56.25 per cent and below. Its neighbouring districts of North Arcot and South Arcot have also recorded a low proportion of 56.88 per cent each.

The urban female population, females aged 15-59 years and the percentage of the latter to the former are given for the state and districts in the following statement.

State/District	Urban female population in 1981		Percentage
	All ages	15-59 years	
TAMIL NADU	7,798,482	4,636,233	59.45
1. Madras	1,582,515	959,075	60.60
2. Chengalpattu	678,727	394,142	58.07
3. North Arcot	502,034	285,546	56.88
4. South Arcot	323,595	184,063	56.88
5. Dharmapuri	91,017	50,463	55.44
6. Salem	484,719	295,148	60.89
7. Periyar	220,678	135,650	61.47
8. Coimbatore	744,678	459,525	61.71
9. Nilgiri	148,291	86,928	58.62
10. Madurai	804,168	476,907	59.30
11. Tiruchchirappalli	461,922	281,634	60.97
12. Thanjavur	465,804	273,298	58.67
13. Pudukkottai	76,014	43,711	57.50
14. Ramanathapuram	467,998	273,946	58.54
15. Tirunelveli	623,842	362,863	58.17
16. Kanniyakumari	122,480	73,337	59.88

MAP 37

CHANGE IN URBAN FEMALES IN WORKING AGE 15-59 1971-81

This map depicts the changes in the proportion of females in the working age-group of 15-59 to urban female population in 1981 over that of 1971 at district level. Variation in the percentages relating to all the 16 districts have been brought under six broad ranges from high to low values and hatched accordingly as shown in the legend of the map.

It is interesting to observe that all the districts in the state have revealed gain in the ratio of females in the working age 15-59 during 1971 - 81. Of the 16 districts, nine have recorded ratio changes higher than that of the state average (2.59) and the remaining seven districts have ratios below this average rate.

The urban female population in the working age-group of 15-59 in the state has gone up sizably by 1.18 million during the decade 1971-81 and stands at 4.64 million in 1981. Their ratio to the total female population in 1981 is 59.45 per cent and there is a gain of 2.59% over the ratio of 1971 which was 56.86%. Similar decadal variation at state level was only marginal, viz., 0.05 per cent for the earlier decade of 1961-71. The highest gain in ratio among the districts

is noticed in the case of Salem which has recorded a gain of 4.58 and comes under the highest range of 4.01 and above. The other district coming under this range is Coimbatore (4.11%) which lies in the western part of the state. Periyar and Nilgiri districts, also of the western region and Kanniyakumari in the extreme south are the three districts that fall under the range of 3.26 - 4.00. The range of 2.51 - 3.25, which covers the state average ratio, consists of the three districts of Madurai, Tiruchchirappalli and Thanjavur, while there are four districts under the range of 1.76 - 2.50 and two districts in the range of 1.01-1.75.

Tirunelveli district has the lowest percentage gain of 0.86 and North Arcot too has a marginal gain of just 0.99 per cent and are covered under the range of 1.00 and below.

The urban female population in the working ages of 15-59 during 1971 and 1981 Censuses along with the percentage variation of their ratio to urban female population for state and districts are given in the statement below.

State/District	Urban females in working age-group 15-59		Percentage variation in the ratio of urban females of 15-59 to urban females 1971-81
	1981	1971	
1	2	3	4
TAMIL NADU	4,636,233	3,456,348	+2.59
1. Madras	959,075	711,676	+2.50
2. Chengalpattu	394,142	244,729	+1.64
3. North Arcot	285,546	215,385	+0.99
4. South Arcot	184,063	137,389	+2.01
5. Dharmapuri	50,463	37,404	+2.16
6. Salem	295,148	218,621	+4.58
7. Periyar	135,650	92,064	+3.52
8. Coimbatore	459,525	339,600	+4.11

1	2	3	4
12. Thanjavur	1,554,017	933,675	60.08
13. Pudukkottai	504,464	287,883	57.07
14. Ramanathapuram	1,219,017	707,534	58.04
15. Tirunelveli	1,201,588	695,840	57.91
16. Kanniyakumari	583,961	338,835	58.02

MAP 3
CHANGE IN RURAL FEMALES IN WORKING AGE 15-59
1971-81

This map shows the decennial variation in the percentage of rural females in the working ages of 15 - 59 years to total rural female population in 1981 over the corresponding ratio in 1971 for the districts of the state. Barring Madras (which is fully urban), all the other 15 districts have been brought under seven ranges (six ranges under 'gain' and one under 'loss') as shown in the legend of the map. The gain represents an increase in the percentage in 1981 over the 1971 ratio, while the loss denotes a decrease in this ratio.

At the state level, there were 8.1 million females in the working age-group of 15-59, living in the rural areas of the state in 1971 and constituted 56.33 per cent of the state's rural female population of all ages. In 1981, the number of rural females of 15-59 years has gone up to 9.4 million constituting 58.51 per cent. Thus, a gain of 2.18 points is noticed in the ratio of 1981 over that of 1971. Significantly, in all except Pudukkottai district, the ratio for 1981 has registered gain over that of 1971. Seven districts have revealed higher gain in ratio in 1981 than that of the state as a whole. The highest percentage gain among the districts is observed in the hilly Nilgiri district (7.20%)

Periyar (4.49), Salem (3.76), Coimbatore (3.51) and Dharmapuri (3.03) are the other districts, which have recorded high percentage increase in 1981 of over three per cent. The above mentioned five districts are all contiguous to one another and lie in the western and north-western parts of the state.

Four districts, viz., Chengalpattu, Madurai, Ramanathapuram and Kanniyakumari fall in the range of 1.41 - 2.10 points (under gain) and another three districts of North Arcot, South Arcot and Tirunelveli are in the lowest range of 1.40 and below. Of these, South Arcot district with a gain of just 1.14 points has recorded the lowest increase in ratio. Pudukkottai is the only district to record a small decline (of 0.60) in the ratio of rural females in working ages of 15-59 years in 1981 (57.07 per cent) over the corresponding ratio in 1971 (57.67 per cent).

Data on rural female population in the working ages of 15-59 years during 1971 and 1981 Censuses and the extent of decadal variation in their percentages to rural female population of all ages of the respective Censuses are given below.

State/District	Rural female population of 15-59 ages		Percentage variation in the ratio of rural females of 15-59 age-group during 1971-81
	1981	1971	
1	2	3	4
TAMIL NADU	9,432,979	8,051,312	+2.18
1. Madras		Entirely Urban	
2. Chengalpattu	622,102	510,571	+2.09
3. North Arcot	942,330	803,205	+1.21
4. South Arcot	1,004,167	861,784	+1.14
5. Dharmapuri	481,161	387,019	+3.03
6. Salem	727,739	619,237	+3.76
7. Periyar	495,082	420,920	+4.49

1	2	3	4
9.	Nilgiri	86,928	64,447
10.	Madurai	476,907	365,736
11.	Tiruchchirappalli	281,634	215,040
12.	Thanjavur	273,298	215,769
13.	Pudukkottai	43,711	31,817
14.	Ramanathapuram	273,946	211,002
15.	Tirunelveli	362,863	298,309
16.	Kanniyakumari	73,337	57,360

MAP 38

RURAL FEMALES IN WORKING AGE 15-59

1981

The map gives an idea of the distribution of rural females in age 15-59 as per the 1981 Census. Pie diagrams in each district show the total rural females and the proportions of rural females in working age 5 - 59 years barring Madras district which is entirely urban. In addition, each district is grouped in to six categories denoting the percentage of rural females in working age 15 - 59 as per the legend of the map.

There are 9.43 million females in the rural areas of Tamil Nadu who are in the age-group of 15 - 59 and they constitute 58.51 per cent of the rural female population of the state, numbering 16.12 million. Six out of the 15 districts (excluding the city district Madras) have recorded ratios above the state average.

It is noteworthy that all these six districts have registered uniformly high ratios exceeding 60 per cent and are also contiguous to one another all lying in a block in the middle region of the state running from west to east.

The percentages for the 15 districts vary between the highest (62.65) in Periyar and the lowest (54.27) in Dharmapuri. Nine districts in the state have regis-

tered lower percentages than the state ratio of 58.51 per cent. Among these, four districts, viz., Madurai, Ramanathapuram, Tirunelveli and Kanniyakumari which are all lying in the southern region of the state are found in the lower percentage range of 57.76 - 59.25.

Four northern districts of Dharmapuri, North Arcot, Chengalpattu and South Arcot, besides Pudukkottai district in the South, fall under the last two ranges, with comparatively low ratios. North Arcot district has recorded the ratio of 56.03% forming the range of 56.25 and below. The lowest ratio of 54.27 has been recorded by the Dharmapuri district. The only district to have more than a million of females in the working ages in rural areas is South Arcot district. The other big districts with sizable female working age population in the villages (with 8 to 10 lakh) are North Arcot, Madurai and Thanjavur.

Rural female population of all ages, rural females of 15-59 age-group and the percentage of the latter to the former for the state and the districts are given in the statement below.

State/District	Rural female population in 1981		Percentage of 15-59 ages to all ages
	All ages	15-59 age-group	
1	2	3	4
TAMIL NADU	16,121,971	9,432,979	58.51
1. Madras		Entirely Urban	
2. Chengalpattu	1,089,657	622,102	57.09
3. North Arcot	1,681,731	942,330	56.03
4. South Arcot	1,747,830	1,004,167	57.45
5. Dharmapuri	886,681	481,161	54.27
6. Salem	1,191,176	727,739	61.09
7. Periyar	790,185	495,082	62.65
8. Coimbatore	745,936	460,065	61.68
9. Nilgiri	159,883	98,915	61.87
10. Madurai	1,435,115	838,391	58.42
11. Tiruchchirappalli	1,330,730	799,260	60.06

	1	2	3	4
8.	Coimbatore	460,065	387,371	+3.51
9.	Nilgiri	98,915	67,171	+7.20
10.	Madurai	838,391	737,097	+1.95
11.	Tiruchchirappalli	799,260	701,998	+2.24
12.	Thanjavur	933,675	794,671	+2.69
13.	Pudukkottai	287,883	241,789	-0.60
14.	Ramanathapuram	707,534	609,464	+1.81
15.	Tirunelveli	695,840	628,884	+1.38
16.	Kanniyakumari	338,835	280,131	+2.10

MAP 40

URBAN POPULATION 1981

This map shows the percentage of urban population to total population at taluk level as per the 1981 Census. During 1981, 434 towns were declared as urban units in Tamil Nadu. In this map, the percentage of population living in urban areas to the total population in each of the 151 taluks of the state is depicted under six broad ranges as shown in the legend of the map.

Of the 151 taluks, seventeen are entirely rural and are depicted on the map as E.R. These taluks are, therefore, left blank in the map. Of the total state's population of 48,408,077 of which 15,951,875 persons are living in urban areas and this works to 32.95 per cent. Madras city (Madras district) is fully urban.

There are 12 taluks in the high range of over 50 per cent of urban population. This signifies that the majority of the population of these taluks are city/town dwellers. Madurai South taluk has the second biggest city in the state, viz., Madurai (pop. 820,891) has the highest urban population percentage of 90.86. Tuticorin taluk of Tirunelveli district has the second rank in urban population ratio of 84.93 per cent and it is followed by Saidapet taluk in Chengalpattu district with 84.50 per cent. There are a large number of satellite towns of Madras that fall in the Saidapet taluk, which encircles Madras city. Most of the taluks having high urban population ratios have in them either big cities or other big urban centres of commercial and industrial importance.

In the range of 40.01 - 50.00 per cent of urban population, there are 18 taluks. It is significant that three of the four taluks of the Nilgiri district fall in this range while the remaining taluk has over 50 per cent of urban population. While 12 taluks fall in the range of 30.01 - 40.00 per cent, 23 taluks are in the range of 20.01 - 30.00 per cent. The range in which largest number of taluks to fall is 10.01 - 20.00 where there are 41 taluks. Six taluks each of Chengalpattu and Thanjavur districts and five taluks of Madurai district fall under this range. The lowest range of 10 per cent and below has also a large number of taluks, viz., 28. The lowest urban population ratio of 2.80 per cent is recorded by Vedasandur taluk (of Madurai district), which has just a small town within its area.

Dharmapuri district has got the lowest ratio of urban population (9.37 per cent) among the districts. While two out of the eight taluks of this district are fully rural, three others have urban population below ten per cent and the rest, viz., three fall in the 10.01-20.00 range. The districts of Pudukkottai, (13.28 per cent), Kanniyakumari (17.25 per cent) and South Arcot (15.70 per cent) are the other districts with low urban population proportions. The districts with high urban population besides Madras (100 per cent) are Coimbatore (50.46 per cent), Nilgiri (48.85 per cent) and Chengalpattu (38.93 per cent).

The number of taluks in the different percentage ranges of urban population for the state and districts are given in next page.

State/District	No. of taluks with percentage of urban population in the range of						
	10.00 & below	10.01-20.00	20.01-30.00	30.01-40.00	40.01-50.00	50.01- & above	Entirely Rural
1	2	3	4	5	6	7	8
TAMIL NADU	28	41	23	12	18	12	17
1. Madras			Entirely Urban				
2. Chengalpattu	1	6	-	-	1	2	2
3. North Arcot	3	1	5	2	1	-	1
4. South Arcot	2	3	1	1	1	-	4
5. Dharmapuri	3	3	-	-	-	-	2
6. Salem	2	2	2	-	1	1	1
7. Periyar	1	3	1	-	1	-	-
8. Coimbatore	-	2	-	1	2	1	-
9. Nilgiri	-	-	-	-	3	1	-
10. Madurai	3	5	2	1	1	1	-
11. Tiruchchirappalli	3	4	1	-	-	1	1
12. Thanjavur	1	6	4	-	2	1	2
13. Pudukkottai	3	1	-	-	1	-	1
14. Ramanathapuram	2	3	4	4	2	2	1
15. Tirunelveli	2	2	3	3	1	2	1
16. Kanniyakumari	2	-	-	-	1	-	1

MAP 41

CHANGE IN URBAN POPULATION 1971-81

This map shows the variation in the urban population between 1971 and 1981 Censuses at taluk level.

The variation, either increase or decrease, has been worked out as percentage to the 1971 urban population for each taluk. The taluks have been grouped under six broad ranges, five for increase and one for decrease, as shown in the legend in the map. Out of the 151 taluks of the state, besides Madras City (which has been taken as a single unit for the purpose of this map), 17 taluks are completely rural in 1981 and one taluk (viz., Veda sandur of Madurai district) did not possess any urban population in 1971, though it has urban population in 1981.

The urban population of the state has increased to 15,951,875 in 1981 from 12,464,834 in 1971, registering a decadal growth rate of 27.98 per cent. During the same period, the number of towns has slightly gone down to 434 in 1981 from 439 in 1971. This decline in the number of towns is due to the merger of a number of small towns with the neighbouring bigger towns and cities and also the declassification of some towns which together have exceeded the few newly recognised towns. Fourteen taluks have registered an increase of over 50 per cent in their urban population during the last decade. Perundurai taluk has recorded the highest percentage increase, the increase being 176.91 per cent. The reason for this is quite understandable, since three new towns have been recognised for the first time in 1981 in this taluk. Kulattur (111.92 per cent) is the only other taluk which has shown an increase of over 100 per cent. Eight taluks fall in the range of 40.00 - 49.99 per cent

increase in their urban population, while another 13 taluks fall in the range of 30.00 - 39.99 per cent.

In the range of 20.00 - 29.99 per cent, in which the state's decadal increase in urban population (27.98 per cent) falls, there are as many as 46 taluks besides the city district of Madras (27.35 per cent). It is observed that the largest number of taluks, viz., 47 are in the last range of below 20 per cent increase in their urban population. It is significant to note that nearly half of these taluks are in the agriculture-oriented districts of Thanjavur, Ramanathapuram and Tirunelveli. Thirumayam taluk (1.39 per cent) in Pudukkottai district has registered the lowest increase in 1981 over the 1971 urban population. Mettuppalaiyam, Ilaiyankudi and Shencottah are the other taluks which have revealed a poor decadal increase of less than five per cent in their respective urban population.

There are five taluks in the state where we notice decrease in the urban population in 1981 as compared to 1971. While two of these are in Salem district, one each is in Periyar, Tiruchchirappalli and Tirunelveli districts. The rate of decrease is the highest in Manapparai taluk (-15.08 per cent) and it is the lowest in Sattankulam taluk (-0.19 per cent). The decrease in the urban population of these taluks is mainly due to declassification of 1971 Census towns as rural in 1981.

The statement showing the urban population as on 1971 and 1981 Censuses and their percentage increase for the state and districts is presented in next page.

State/District	Urban Population		Percentage increase of urban population during 1971-81
	1971	1981	
1	2	3	4
TAMIL NADU	12,464,834	15,951,875	27.98
1. Madras	2,572,967	3,276,622	27.35
2. Chengalpattu	907,172	1,407,786	55.18
3. North Arcot	783,095	1,015,529	29.68
4. South Arcot	512,997	659,623	28.58
5. Dharmapuri	143,941	187,184	30.04
6. Salem	795,382	995,663	25.18
7. Periyar	327,170	455,203	39.13
8. Coimbatore	1,229,072	1,544,171	25.64
9. Nilgiri	243,235	307,848	26.56
10. Madurai	1,324,194	1,643,612	24.12
11. Tiruchchirappalli	758,379	943,724	24.44
12. Thanjavur	771,688	936,957	21.42
13. Pudukkottai	114,979	153,668	33.65
14. Ramanathapuram	746,662	940,954	26.02
15. Tirunelveli	1,029,496	1,237,799	20.23
16. Kanniyakumari	204,405	245,532	20.12

MAP 42

GROWTH OF URBAN POPULATION BY SIZE CLASS OF URBAN AREAS 1901-81

The growth of urban population by size class of towns, in every Census year from 1901 onwards is portrayed in this map for the state and districts. The urban population as at the different Censuses is depicted by vertical bar diagrams. The urban population living in the cities/towns belonging to each of the six size classes (*viz.*, Classes I to VI) is represented by distinct shades in the bar diagrams, as shown in the legend of the map.

Of the 15.95 million urban inhabitants in the state as per the 1981 Census, 7.83 million, constituting 40.10 per cent live in class I cities (100,000 and above population). The metropolitan city of Madras with a population of 3.28 million in 1981 contributes the major share to the total urban dwellers of all class I cities (41.84 per cent). The other prominent districts which have sizable population under class I cities in 1981 are Coimbatore (9.85 lakh), Madurai (9.85 lakh) and Chengalpattu (5.06 lakh). Besides Madras, Madurai and Tiruchchirappalli are the other two districts which have had cities (*i.e.* class I towns) continuously in all the Censuses right from 1901. Ramanathapuram district came to have a class I town for the first time during the 1981 Census.

Population under class II towns (50,000 - 99,999 persons) is found in all the nine Censuses since 1901 in South Arcot and Thanjavur districts and since 1911 in Chengalpattu district. In all other districts, there were no class II towns in two or more Census years since 1901. Dharmapuri district came to have a class II town

only in 1981 Census. Of the total urban dwellers in the state in 1981, 17.22 per cent live in class II towns.

The inhabitants of class III towns (20,000 - 49,999 persons) form 17.29 per cent of the state's urban population. The districts of North Arcot, Madurai, Tiruchchirappalli, Thanjavur, Ramanathapuram and Tirunelveli have had class III towns in all the nine Censuses from 1901 onwards. Smaller towns with less than 20,000 persons have been found to exist in almost all districts in the state even since 1901 contributing to the urban population of the state. Together, the population of these three classes of towns constitute 16.39 per cent of the total urban dwellers of the state as per the 1981 Census.

The growth of urban population in the last few decades has been phenomenal in the districts of Chengalpattu, North Arcot, Coimbatore, Madurai and Tirunelveli, besides Madras city. As per the 1981 Census, each of these six districts has over one million urban inhabitants *i.e.*, population living in cities and towns. Salem, Tiruchchirappalli, Thanjavur and Ramanathapuram are the other prominent districts with sizable urban dwellers exceeding nine lakh but below one million as at 1981 Census.

The urban population in the state in every Census since 1901 along with its percentage distribution under the six size-classes of towns are presented in the table given in next page.

Census year	Urban population	Percentage distribution					
		Class I	Class II	Class III	Class IV	Class V	Class VI
1	2	3	4	5	6	7	8
1901	2,724,781	27.59	12.87	17.68	28.64	12.97	0.25
1911	3,149,137	25.83	11.26	20.36	26.28	15.35	0.92
1921	3,428,079	24.44	14.84	16.06	26.26	16.51	1.89
1931	4,230,382	26.96	13.60	19.18	22.19	16.87	1.20
1941	5,173,682	29.46	12.36	18.57	22.71	15.75	1.15
1951	7,333,525	35.66	10.97	23.37	18.45	10.18	1.37
1961	8,990,528	37.98	14.15	20.85	17.90	7.95	1.17
1971	12,464,834	44.63	13.78	20.61	13.29	5.45	2.24
1981	15,951,875	49.10	17.22	17.29	11.07	4.04	1.28

MAP 43

GROWTH OF URBAN CENTRES 1971-81

This map portrays the growth of population in the urban centres of the state during 1971-81. The urban agglomerations/towns have been represented by six different symbols according to their population size, class and based on their decadal growth rate, all the towns have been brought under four broad percentage ranges as shown in the legend of the map. Towns recognised for the first time in 1981 Census have been differentiated with solid black hatching within the symbol of the concerned urban centre. urban centres with negative growth during 1971-81 have been distinguished by giving broken outline but within the same range hatching as for positive growth.

In Tamil Nadu there are 245 urban agglomerations/cities/towns as at 1981 Census. Independent towns which are constituent units of urban agglomerations have not been considered individually as urban agglomerations have been treated as urban units. There are 34 urban agglomerations in the state which include 223 individual towns as their constituent units. There are 211 other towns which do not form part of any Urban Agglomeration. Ramanathapuram and Tirunelveli districts have the largest number of 30 urban centres each, followed by Thanjavur district with 29 towns.

There are 14 Urban Agglomerations and six cities which fall under Class I, i.e. with a population of one lakh and above. Among them, Madras Urban Agglomeration (4.29 million population) is the biggest with 43.22 per cent of the population of all Class I cities (9.93 million). Madras Urban Agglomeration has 48 constituent towns besides the core city of Madras. Coimbatore, Madurai Tiruchchirappalli and Salem are the other prominent cities with a population between 5-10 lakh each. Among the Class I cities, Erode Urban Agglomeration with 62.72 per cent has shown the highest growth rate during 1971-81.

Under Class II towns (50,000 - 99,999 population), there are 37 urban units, including 13 Urban Agglomerations. Among them, Neyveli, Arcot, Karur, Coonoor and Nagappattinam Urban Agglomerations are bigger with over 90,000 population each. The highest decadal growth among Class II towns is recorded by Neyveli Urban Agglomeration with 69.63 per cent, followed by Teni-Allinagaram (52.11 per cent) in Madurai district.

Under Class III (population size 20,000-49,999), there are 63 urban units, including three Urban Agglomerations. Madurai and Ramanathapuram districts have comparatively larger number of such Class III towns (eight each) than others. Eight of these 63 towns have a population of over 45,000 each and another eleven fall in the population range of 40-45 thousands. The highest population growth during 1971-81 among these towns is recorded by Rameswaram town (66.68 per cent), the famous pilgrim centre. Hosur in Dharmapuri district and Devarshola Urban Agglomeration and O'Valley in Nilgiri district also reveal high growth rates of over 50 per cent. The population of Chinnaipatti (Madurai district) has remained more or less stationary during 1971-81 with a decadal growth of just 0.02 per cent. A negative growth rate is observed in Manapparal municipality (-15.08 per cent) of Tiruchchirappalli district.

The largest number of urban centres, viz., 82 fall under class IV (population of 10,000-19,999). Thanjavur district has 15 towns under this class. At state level, the population of the towns of this class has declined during 1971-81 by 4.39 per cent. The number of towns in this class has declined from 86 in 1971 to 82 in 1981. Mandapam in Ramanathapuram district belonging to this class has revealed a remarkably high decadal growth (82.41 per cent). Of the 18 new units, recognised as 'urban' for the first time in 1981, six fall under class IV.

The number of towns in Classes V and VI also have declined in 1981 as compared to 1971. In 1971, there were 43 towns under Class V and 11 towns under Class VI, but in 1981, we find only 37 and 6 towns respectively under these two classes. A number of towns of these two classes have either been declassified as rural areas or got merged with the neighbouring cities/towns in 1981. At state level while the Class V towns have recorded a negative growth rate of 16.64 per cent, towns under Class VI have revealed a negative growth rate of 45.37 per cent. A very high growth rate of 224.53 per cent is observed in Pulicat in Chengalpattu district. Seven towns under the two Classes V and VI have registered negative growth rates during 1971-81. Of the total of 43 under Classes V and VI, 12 towns got urban recognition for the first time in 1981. Of the six

towns under Class VI, two each are in Pudukkottai and Ramanathapuram districts and one each in Periyar and Tirunelveli.

Of the total 245 Urban Agglomerations/cities/towns, two towns have registered a decadal growth rate of over 75 per cent and another eight towns between 50-75 per cent. While 59 towns fall under the percentage range of 25-50, the largest number of 150 towns fall in the range of 'less than 25 per cent'. Eight

towns have shown a decrease in their population during 1971-81. The remaining 18 towns were recognised as urban for the first time in 1981 Census.

The number of towns/urban agglomerations and population in Tamil Nadu in the six size classes during 1971 and 1981 along with the percentage variations in population during 1971-81 are presented in the following statement.

Size class of town	No. of towns/UAS		Population		percentage decade variation in population
	1981	1971	1981	1971	
1	2	3	4	5	6
All Classes	245	240	15,951,875	12,464,834	+ 27.98
Class I	20	16	9,925,152	7,197,540	+ 37.90
Class II	37	27	2,547,966	1,772,288	+ 43.77
Class III	63	57	1,995,779	1,882,968	+ 5.99
Class IV	82	86	1,178,354	1,232,432	- 4.39
Class V	37	43	282,143	338,451	- 16.64
Class VI	6	11	22,481	41,155	- 45.37

MAP 44

TOWNS THAT LOST URBAN STATUS DURING 1971-81

This map depicts the places which were treated as towns during 1971 Census but which lost their urban status during 1981 Census. In all, thirteen towns in the state were de-recognised during 1981 Census and all these belong to the three lower classes of towns, viz., classes IV, V and VI. These towns are shown in the map by proportionate circles according to the three size-classes of population to which they belonged during 1971 Census and included under the jurisdiction of the districts as at 1981.

There were 439 towns in Tamil Nadu as per 1971 Census. Among them, 13 towns lost their urban status in 1981 and were declassified as "rural". Five of these 13 towns fall in the population range of 10,000-19,999 (i.e. class IV), five others had population of 5,000-9,999 (i.e. Class V) and the remaining three towns had below 5,000 population (Class VI). The declassified towns are located in eight districts, viz., Salem (2), Periyar (3), Coimbatore (1), Nilgiri (2), Madurai (2), Tiruchchirappalli (1), Ramanathapuram (1) and Tirunelveli (1).

The town with the highest population in 1971

which lost its urban status was Velur (P) in Salem district (pop: 15,057) and the smallest de-recognised town was Morattupalayam in Periyar district (Pop: 3,208). Three of the four declassified towns which were in Coimbatore district in 1971 fall now in the Periyar district, which was newly formed in 1979 after bifurcation of Coimbatore district. A town each in the three classes of IV, V & VI has been declassified in Periyar district.

Two townships, namely Highways (6,416) in Madurai district and Manimuthar (11,181) in Tirunelveli district were declassified as rural in 1981 Census.

Besides the above, 27 other towns which existed in 1971 did not find place in the list of urban areas in 1981 Census. They were not declassified, but they lost their independent identity as separate towns because of their merger with the neighbouring municipality or corporation or township. The number of towns of each class which were de-recognised in 1981 Census along with their 1971 population are represented districtwise in the table given below:

State/District*	Number of towns which lost urban status and their 1971 Population			
	Total	Class IV	Class V	Class VI
1	2	3	4	5
TAMIL NADU	13 (110,565)	5 (65,238)	5 (33,519)	3 (11,808)
Salem	2 (29,127)	2 (29,127)	-	-
Periyar	3 (21,762)	1 (13,481)	1 (5,073)	1 (3,208)
Coimbatore	1 (11,449)	1 (11,449)	-	-
Nilgiri	2 (12,314)	-	1 (8,449)	1 (3,865)

1	2	3	4	5
Madurai	2 (11,151)	-	1 (6,416)	1 (4,735)
Tiruchchirappalli	1 (7,479)	-	1 (7,479)	-
Ramanathapuram	1 (6,102)	-	1 (6,102)	-
Tirunelveli	1 (11,181)	1 (11,181)	-	-

* Excludes eight districts which do not have any de-recognised town.

MAP 45

URBAN INDUSTRIAL STRUCTURE (CLASS-I) 1981

This map depicts the functional characteristics of Class I Cities/U.As. i.e., big urban centres with one lakh of population and above in the state. There are 20 Cities/U.As falling under Class I in Tamil Nadu. The main workers falling under nine broad industrial categories in these urban centres have been grouped and brought under six broad functional characteristics viz., 1. Primary, 2. Mining, 3. Industrial, 4. Commercial, 5. Transport and 6. Services. Based on the predominant functions, these cities are portrayed as mono-functional, bi-functional or multi-functional in this map.

For each City of U.A. of Class I, the percentage of workers under each of above six functional groups to total workers was first calculated and based on the percentages, the functional characteristic of the urban centres has been determined. If the percentage under any one of the six functional groups mentioned above is 40 per cent or more in any City/U.A. then, such an urban centre is regarded as "mono-functional" and is designated by that function, such as Primary, Industry etc. If the percentage figure is less than 40 per cent in any one activity, the next predominant activity is also taken into account so that their total comes to 60 per cent or more in which case the City/UA concerned is designated as "bi-functional urban centre" e.g. "Industry-cum-commercial" or "Industry-cum-service" etc. In cases where even the percentage of any two activities do not come to 60 per cent, the third predominant industrial category is also considered and such cities are designated as "multi-functional" urban centres. Circles in three sizes have been drawn in proportion to the population of Class I urban centres, as shown in the legend of the map. When the circles are fully shaded, it indicates the "mono-

functional" character. While two shades represent "bi-functional", three shades show the "multi-functional" characteristic of the urban centres.

There are 14 U.As. and six cities in the state under Class I as at 1981. Among these 20 urban centres, 10 are "mono-functional", six are "bi-functional" and four are "multi-functional", in character. Out of the 10 urban centres which are categorised as "mono-functional" "Industry" is the predominant function of the workers in nine urban centres, the only exception being Valparai City where "primary" activity dominates. This city is in a mountainous terrain and is known for its plantations. In five out of six bi-functional urban centres, "Industry-cum-commercial" is the predominant function of the workers. In the other centre viz., Madras Urban Agglomeration, the functional characteristic of "Industry-cum-service" is noticed. As Madras is the state capital and its administrative headquarters with several Government offices, banks and other establishments, there are innumerable workers under the various "service" here. Among the four multi-functional urban centres, the combination of "Industry-cum-commercial-cum-service" is seen in three urban agglomerations while one, (viz., Pollachi Urban Agglomeration in the Western Ghat) range has a combination of the functional characteristic of "Industry-cum-commercial-cum-primary".

Details of Class I Cities/Urban Agglomerations in Tamil Nadu along with their 1981 Census population, workers and percentage of workers in the chief functions portrayed in the map are given in next page.

Class I City/ Urban Agglomeration	Functional characteristic	Population 1981	Workers 1981	Percentage of workers in chief functions
1	2	3	4	5
1. Madras U.A.	Bi-functional	4,289,347	1,207,515	61.65
2. Coimbatore U.A.	Mono-functional	920,355	303,534	46.43
3. Madurai U.A.	Mono-functional	907,732	268,309	42.68
4. Tiruchchirappalli U.A.	Bi-functional	609,548	176,059	62.68
5. Salem U.A.	Mono-functional	518,615	181,525	52.34
6. Tirunelveli U.A.	Mono-functional	323,344	101,371	40.29
7. Erode U.A.	Mono-functional	275,991	110,775	47.38
8. Tuticorin U.A.	Multi-functional	250,677	78,075	73.87
9. Vellore U.A.	Bi-functional	247,041	74,465	63.94
10. Tiruppur U.A.	Mono-functional	215,859	90,470	62.19
11. Thanjavur City	Multi-functional	184,015	51,864	78.67
12. Nagercoil City	Bi-functional	171,648	50,922	62.78
13. Dindigul City	Bi-functional	164,103	46,191	69.54
14. Kanchipuram U.A.	Mono-functional	145,254	47,151	46.24
15. Kumbakonam U.A.	Mono-functional	141,794	42,434	41.36
16. Cuddalore City	Multi-functional	127,625	34,850	71.45
17. Valparai City	Mono-functional	115,452	55,511	76.82
18. Pollachi U.A.	Multi-functional	114,971	41,430	72.80
19. Rajapalayam City	Mono-functional	101,640	38,248	41.68
20. Karaikkudi U.A.	Bi-functional	100,141	28,075	60.19

MAP 46

IN-MIGRANTS 1981

This map shows the number of in-migrants and their percentages to total population at district level. All the districts have been brought under six broad ranges in accordance with the ratio of migrants to population. The proportions of the in-migrants in the rural and urban areas with male/female break up are also depicted through a pie diagram, drawn in proportion to the total in-migrants in each district as per the legend of the map.

At state level, 13.78 million people have been enumerated as in-migrated other than their place of birth. The share of these in-migrants is 28.47 per cent of the total population. Nilgiri district with 41.49 per cent has revealed the highest proportion of in-migrants among all the districts. Chengalpattu and Coimbatore districts have also recorded very high ratios of in-migrants with 35.49 per cent and 35.43 per cent, respectively. Significantly high ratios of in-migrants of 30.35 per cent have been registered by Madras, Periyar and Thanjavur district. Besides the above-mentioned five districts besides Tiruchchirappalli, have recorded ratios above the state's average ratio of in-migrants. The lowest proportion of in-migrants is observed in Kanniyakumari district (22.19 per cent). Comparatively low ratios (less than 25 per cent) are found in Dharmapuri, Madurai and Ramanathapuram districts.

The largest number of 1.30 million persons with place of birth outside the place of enumeration, have been enumerated in Thanjavur district. It is followed by Chengalpattu district with the second largest number of in-migrants (1.28 million). Over one million such persons exist in each of the six districts, viz., Madras, North Arcot, South Arcot, Coimbatore, Madurai and Tiruchchirappalli. Nilgiri district has the smallest number

of in-migrants (2.61 lakh).

It is interesting to observe that 65.25 per cent of the state's in-migrants are females. Of this ratio, 43.39 per cent represent those in the rural areas. Females in-migrants constitute the highest ratio (72.86 per cent) in South Arcot district closely followed by Pudukkottai (72.80) and North Arcot (72.29) districts. Dharmapuri district has also revealed a very high percentage of females among the in-migrants (70.61). In all the districts except Madras, females constitute above 50 per cent of the in-migrants. In Madras, 51.62 per cent of in-migrants are males. The reason for this may be attributed to the fact that more males move into Madras for education, employment etc., from far and near, leaving behind their families. The high ratio of female in-migrants found in other districts must be due to custom of females moving away to their husband's houses, leaving villages/towns of habitation on getting married.

Barring a few exceptions, larger ratios of in-migrants are recorded in rural areas than in urban areas in all districts. The highest ratio of 86.72 per cent of in-migrants in rural areas is in Dharmapuri district, followed by kanniyakumari district with 80.26 per cent. South Arcot and Pudukkottai districts too have very high ratios of over 75 per cent of in-migrants in the rural areas. There are fewer towns or urban areas in these districts as compared to others. Chengalpattu, Coimbatore and Nilgiri are the three districts which have recorded a higher ratios of in-migrants in the urban areas than in rural areas. These districts have a good ratio of urban population.

Data on population, number of in-migrants and their percentage for state and districts are presented in statement given in next page.

State/District	Total population	Total in-migrants	Percentage of in-migrants to total population
1	2	3	4
TAMIL NADU	48,408,077	13,781,996	28.47
1. Madras	3,276,622	1,005,474	30.69
2. Chengalpattu	3,616,508	1,283,412	35.49
3. North Arcot	4,414,324	1,115,597	25.27
4. South Arcot	4,201,869	1,181,774	28.12
5. Dharmapuri	1,997,060	483,673	24.22
6. Salem	3,441,717	897,963	26.09
7. Periyar	2,068,462	686,311	33.18
8. Coimbatore	3,060,184	1,084,285	35.43
9. Nilgiri	630,169	261,447	41.49
10. Madurai	4,535,897	1,127,504	24.86
11. Tiruchchirappalli	3,612,320	1,053,635	29.17
12. Thanjavur	4,063,545	1,300,905	32.01
13. Pudukkottai	1,156,813	310,827	26.87
14. Ramanathapuram	3,335,437	765,081	22.94
15. Tirunelveli	3,573,751	908,263	25.41
16. Kanniyakumari	1,423,399	315,847	22.19

MAP 47

RURAL IN-MIGRANTS TO TOTAL RURAL POPULATION 1981

This map shows the extent of in-migrants among the rural population of the districts as per the place of birth data collected in 1981 Census. Barring Madras which is entirely urban, all districts have been brought under six broad ranges in accordance with the ratio of in-migrants to population in the rural areas. Based on their place of birth, in-migrants among the rural population are further classified as in-migrants from rural areas and in-migrants from urban areas and from areas which are unclassified as rural or urban, and are represented in pie diagrams, proportionately drawn for each district according to its size of in-migrants living in rural areas.

Nearly, 8.13 million people (constituting 25.03 per cent) of the total of 32.46 million rural population in the state have been enumerated as in-migrants on the basis of their place of birth. This ratio is higher than the state average in seven districts. Nilgiri district with 40.22 per cent has recorded the highest proportion of in-migrants among its rural population. Its neighbouring Coimbatore district has followed it closely with a ratio of 30.75 per cent. Significantly high ratios of nearly 30 per cent of in-migrants have also been found in the rural areas of Periyar and Thanjavur districts. The southern districts of Madurai, Ramanathapuram, Tirunelveli and Kanniyakumari have registered comparatively lower ratios of in-migrants among population in their respective rural areas. The lowest ratio of 20.11 per cent is observed in Ramanathapuram district.

Of the 8.13 million in-migrants in the rural areas of the state, as many as 6.62 million (81.50 per cent) have had 'rural areas' as their place of birth. Only 16.68 per cent these in-migrants were born in urban centres and have migrated to the rural areas. Over three-fourth of the in-migrants living in the rural areas in almost all the districts have migrated from other rural areas only. Chengalpattu and Nilgiri districts are

the exceptions to this general trend. Kanniyakumari has recorded the highest ratio of 90.28 per cent of in-migrants who have moved from their native villages (i.e., rural) to other rural areas. The villages in this district are quite big in size and comparatively more facilities are available in them and many people obviously move from one village to other neighbouring districts. Dharmapuri and South Arcot are the two other districts with high proportion (85.88 per cent) of in-migrants their rural population who have migrated from other rural areas. The lowest ratio of 63.42 per cent of such rural to rural in-migrants is found in Nilgiri district. In Chengalpattu district too, 70.15 per cent of in-migrants in the rural areas have reported their birth place as 'rural'.

The ratio of in-migrants from 'urban to rural' areas is found highest in achengalpattu district (28.47 per cent). Many people are known to have moved out of Madras City and its neighbouring towns to the villages lying in the outskirts after building own houses or for considerations of lower rental. Coimbatore district with 20.37 per cent has also recorded very high ratio of migrants whose birth place is urban. The lowest proportion of such urban to rural in-migrants is observed in Kanniyakumari district (9.60 per cent).

In-migrants whose birth place is unclassifiable as also in-migrants from other countries who have moved to rural areas constitute very low ratios in almost all the district - less than even one per cent in seven districts, and 1.2 per cent in four other districts. A significantly higher ratio of such in-migrants is found in Nilgiri district (19.94 per cent) and Pudukkottai district has also a high ratio of 8.69 per cent in this regard.

Data on rural population, in-migrants among them and their percentage for state and districts are presented in next page.

State/District	Total rural population	Total in-migrants in rural areas	percentage of in-migrants among to rural population
1	2	3	4
TAMIL NADU	32,456,202	8,125,009	25.03
1. Madras	--	--	--
2. Chengalpattu	2,208,722	603,329	27.32
3. North Arcot	3,398,795	790,452	23.26
4. South Arcot	3,542,246	895,513	25.28
5. Dharmapuri	1,809,876	419,394	23.17
6. Salem	2,446,054	594,751	24.31
7. Periyar	1,613,259	482,334	29.90
8. Coimbatore	1,516,013	466,205	30.75
9. Nilgiri	322,321	129,632	40.22
10. Madurai	2,892,285	652,536	22.56
11. Tiruchchirappalli	2,668,596	675,361	25.31
12. Thanjavur	3,126,588	935,742	29.93
13. Pudukkottai	1,003,145	247,395	24.66
14. Ramanathapuram	2,394,483	481,536	20.11
15. Tirunelveli	2,335,952	497,328	21.29
16. Kanniyakumari	1,177,867	253,504	21.52

MAP 48

URBAN IN-MIGRANTS TO TOTAL URBAN POPULATION 1981

This map gives us an idea on the extent of in-migrants among the urban population district level. Based on the ratio of in-migrants (with reference to place of birth data) among the urban population, all the districts have been grouped under six broad ranges and shaded accordingly. The in-migrants in the urban areas, have been further classified as those (i) from rural areas (ii) urban areas and (iii) areas which are unclassifiable as rural or urban as also from other foreign countries, and these are depicted in pie diagrams, drawn for each district, in proportion to the size of in-migrants in its urban areas.

Of the 15.95 million urban population in the state, nearly 5.66 million constituting 35.46 per cent are in-migrants. Chengalpattu district, which has a number of suburban towns encircling Madras city, has recorded the highest ratio of 48.30 per cent of in-migrants among its urban population. A significantly high ratio of 44.81 per cent is noticed in Periyar district among the districts. Five other districts have also registered high ratios of 40-44 per cent of in-migrants. The lowest proportion of in-migrants among urban population is observed in Kanniyakumari district (25.38 per cent). Madurai district too has a low ratio (28.90 per cent). The city district of Madras, which is the largest urban centre in the state, has revealed a comparatively low ratio of 30.68 per cent of in-migrants among its population. However, out of the total urban in-migrants of the state, the largest number of just over a million is found Madras City.

Of the state's 5.66 million in-migrants living in the 434 urban units of the state, 2.78 million (49.14 per cent) have had rural areas as their birth place. A little

over 2.74 million persons (48.46 per cent) have migrated from cities/towns of their birth to other urban centers. Migrants whose birth places are unclassifiable areas, as also migrants from other countries constitute just 2.40 per cent of the total urban in-migrants. In ten of the 16 districts, over half of the in-migrants are from rural areas. The highest proportion of in-migrants who have moved from rural to urban areas is found in Kanniyakumari district (74.28 per cent). The lowest ratio of such in-migrants is recorded by Madras district (40.21 per cent). Chengalpattu district (40.26 per cent) which surrounds Madras has also registered more or less similar low ratio.

The extent of in-migrants in the urban areas who have moved from other urban centres is high in Madras, Chengalpattu, Dharmapuri and Thanjavur districts. Chengalpattu and Madras districts have very high proportions of such in-migrants with 57.83 and 56.38 per cent respectively. The urban centres of Kanniyakumari district have the lowest ratio of 25.20 per cent of in-migrants from other urban areas. Nilgiri district has the highest ratio of 20.55 per cent of in-migrants among urban population whose birth places are either not classifiable as rural or urban and also born in other countries. The ratio of similar category of in-migrants in Madras is 3.41 per cent. In all other district, the ratio of such in migrants is lower than this level.

Data on urban population, number of in-migrants among them along with their percentage are presented for the state and districts in next page.

State/District	Total urban population	Total urban in-migrants	Percentage of urban in-migrants to urban population
1	2	3	4
TAMIL NADU	15,951,875	5,656,431	35.46
1. Madras	3,276,622	1,005,414	30.68
2. Chengalpattu	1,407,786	679,973	48.30
3. North Arcot	1,015,529	325,100	32.31
4. South Arcot	659,623	286,247	43.40
5. Dharmapuri	187,184	64,193	34.29
6. Salem	995,663	303,207	30.45
7. Periyar	455,203	203,956	44.81
8. Coimbatore	1,544,171	618,050	40.02
9. Nilgiri	307,848	131,786	42.81
10. Madurai	1,643,612	474,941	28.90
11. Tiruchchirappalli	943,724	378,261	40.08
12. Thanjavur	936,957	365,141	38.97
13. Pudukkottai	153,668	63,423	41.27
14. Ramanathapuram	940,954	283,491	30.13
15. Tirunelveli	1,237,799	410,919	33.20
16. Kanniyakumari	245,532	62,323	25.38

MAP 49

MAIN WORKERS AND NON-WORKERS IN TOTAL POPULATION 1981

This map shows the male and female population classified into main workers and non-workers in different age-groups as at the 1981 Census for the state and districts. Pyramids proportionate to total population with male and female demarcation on either side for each age-group with distinguished shades for workers and non-workers are drawn for each district.

In Tamil Nadu, 55.85 per cent among males and 22.36 per cent among females have been recorded as main workers. Marginal workers among males constitute a poor 0.73 per cent, as against 4.16 per cent among females. While 43.42 per cent of males in the state are non-workers, about 73.48 per cent among females are non-workers.

In the younger age-group of 0-14 in which the children are either dependents or school students, main workers form about 5.74 per cent among males and 4.52 per cent among females. In the next higher age-group of 15-19, worker ratios are 54.71 per cent for males and 28.05 per cent for females. In this age-group too, particularly among males many pursue higher education. Significantly high ratios of main workers among males (exceeding 90 per cent) are observed in all the higher age-group from 25 to 59 years. The worker ratio among females in these age-groups is much less and ranges from 32 to 39 per cent.

The highest proportion of workers both among males and females is found in the age-group 35-39 viz., 97.56 per cent for males and 38.86 per cent for females. Among the aged people of 60 years and above, 60.97 per cent among males are workers while

only 16.47 per cent among females are working. Most of the female population of the working age-group are housewives and hence their worker percentages are much lower when compared to males in the different age-groups. The ratio of marginal workers among females is much higher in the different age-groups when compared with males.

The highest proportion of main workers among males is observed in Periyar district (66.05 per cent), while the lowest ratio is found in Kanniyakumari district (47.43 per cent). Salem (61.33 per cent) and Coimbatore (60.78 per cent) districts have also recorded high ratios of workers among their male population. The ratio of main workers among females ranges between a high of 32.55 per cent in Periyar district and a low of 6.47 per cent in Madras.

The ratio of marginal workers among females is higher than males in all districts except Madras. Pudukkottai district with 8.50 per cent has the highest female ratio of marginal workers, followed by Ramanathapuram district with 6.38 per cent.

Non-workers among both males and females constitute high proportions in Madras and Kanniyakumari districts. Of all the districts, Periyar district has the lowest ratio of non-workers both among males and females.

The statement given in next page shows the percentage distribution of males and females into main workers, marginal workers and non-workers for state and districts.

State/District	Main workers		Marginal workers		Non-workers	
	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7
TAMIL NADU	58.35	27.85	0.89	5.70	40.76	66.45
1. Madras	Entirely Urban					
2. Chengalpattu	55.63	21.82	1.49	5.93	42.88	72.25
3. North Arcot	57.28	25.36	1.04	6.89	41.68	67.75
4. South Arcot	56.90	23.58	1.08	6.67	42.02	69.75
5. Dharmapuri	59.30	25.63	0.61	5.57	40.09	68.80
6. Salem	62.57	34.44	0.53	5.80	36.90	59.76
7. Periyar	67.75	37.13	0.36	4.71	31.89	58.16
8. Coimbatore	65.83	37.91	0.35	3.03	33.82	59.06
9. Nilgiri	49.95	31.52	0.54	0.81	49.51	67.67
10. Madurai	59.50	37.04	0.60	0.04	39.90	58.92
11. Tiruchchirapalli	60.20	29.63	0.75	6.43	39.05	63.94
12. Thanjavur	57.16	20.13	1.11	5.24	41.73	74.63
13. Pudukkottai	55.87	19.71	1.31	9.70	42.82	70.59
14. Ramanathapuram	56.41	30.08	1.09	8.23	42.50	61.69
15. Tirunelveli	55.69	33.68	0.88	4.68	43.43	61.64
16. Kanniyakumari	47.38	6.99	1.16	2.00	51.46	91.01

MAP 51

URBAN MAIN WORKERS AND NON-WORKERS 1981

The extent of main workers and non-workers among male and female population in broad age-groups in the urban areas of the districts is portrayed in this map. The cartographic technique adopted is the same as for the previous two maps. Marginal workers are not shown in this map too, as in the earlier two maps, because of their insignificant proportions in the various age-groups.

In the state as a whole, 50.84 per cent among the males in the urban areas are recorded as 'main workers'. Similar ratio for females is just 11.01 per cent. The proportion of marginal workers is insignificant both among males (0.41 per cent) and among females (0.96 per cent). While 48.75 per cent among males in the urban areas are non-workers, about 88.03 per cent among females are non-workers.

Even though children in the younger age-group of 0-14 are generally expected to be dependents or school students, 3.36 per cent among males and 1.94 per cent among females of this age-group in the urban areas of the state are found as main workers. About 36.07 per cent among males and 11.65 per cent among females in the next higher age-group of 15-19 are also recorded as main workers. A sizable ratio of the population of this age-group, particularly in cities and towns pursue higher education. In the higher age-groups from 25-29 to 50-59, main workers among males form significantly high ratios, exceeding 85 per cent, the highest ratio (96.62 per cent) being in 35-39 age-group. The comparative ratios among females are much less and range between 15.88 per cent in 50-59 age-group and 21.50 per cent in 35-39 age-group. The low main worker ratio among females in the different age-groups could be attributed to the fact that most of them, particularly from 15-19 or 20-24 onwards perform 'household duties' only and function as housewives and thus fall under non-workers. About 44.47 per cent among urban males and 7.09 per cent among urban females who are in the old age-group of 60 years and over are engaged as main workers.

As in the rural areas, Periyar district with 60.06 per cent has revealed the highest ratio of main workers among males in the urban areas among all the districts. Salem (58.26 per cent) and Coimbatore (55.92 per cent) districts have also recorded sizable ratios of main workers among their urban males. Pudukkottai district (46.87 per cent) reveals the lowest ratio of male main workers in the urban areas. Nilgiri district (20.03 per cent) has recorded the highest ratio of main workers among females in the urban areas. In this district, many women are engaged in tea/coffee plantations, orchards, vegetable growing, etc. Madras city has 6.47 per cent of main workers among its female population and incidentally, this is the lowest ratio recorded for any district. Salem, Periyar, Ramanathapuram and Tirunelveli are the other prominent districts where we find comparatively higher proportions of main workers among their urban females (15.20 per cent).

The ratio of marginal workers among females is found higher when compared with males in the urban areas of all except Madras district. Tirunelveli district with 2.37 per cent has revealed the highest ratio of female marginal workers. Six other districts have also recorded over one per cent of marginal workers among their female population in urban areas. The male marginal workers constitute below one per cent in the urban areas of all the districts.

While Pudukkottai district with 52.69 per cent has recorded the highest ratio of non-workers among males in the urban areas, Madras district with 93.20 per cent has revealed the highest non-worker ratio among females. Periyar district with 39.73 per cent reveals the lowest ratio of non-workers among males, while Nilgiri with 79.15 per cent has recorded similar ratio of females.

The percentage distribution of male and female population in the urban areas into main workers, marginal workers and non-workers is given for state and districts in next page.

State/District	Main workers		Marginal workers		Non-workers	
	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7
TAMIL NADU	55.85	22.36	0.73	4.16	43.42	73.48
1. Madras	47.92	6.47	0.50	0.33	51.58	93.20
2. Chengalpattu	53.11	16.70	1.10	3.98	45.79	79.32
3. North Arcot	55.64	21.59	0.89	5.63	43.47	72.78
4. South Arcot	55.44	20.98	0.96	5.77	43.60	73.25
5. Dharmapuri	58.60	24.11	0.57	5.09	40.83	70.80
6. Salem	61.33	28.89	0.44	4.45	38.23	66.66
7. Periyar	66.05	32.55	0.33	3.96	33.62	63.49
8. Coimbatore	60.78	26.35	0.33	1.84	38.89	71.81
9. Nilgiri	49.76	26.00	0.62	0.81	49.62	73.19
10. Madurai	56.12	27.94	0.48	2.84	43.40	69.22
11. Tiruchchirappalli	57.65	24.47	0.65	4.94	41.70	70.59
12. Thanjavur	55.29	17.27	1.00	4.36	43.71	78.37
13. Pudukkottai	54.66	17.99	1.19	8.50	44.15	73.51
14. Ramanthapuram	55.00	26.42	0.89	6.38	44.11	67.20
15. Tirunelveli	53.69	27.80	0.77	3.89	45.54	68.31
16. Kanniyakumari	47.43	7.50	1.01	1.84	51.56	90.66

MAP 50

RURAL MAIN WORKERS AND NON-WORKERS 1981

This map depicts the extent of main workers and non-workers among male and female population in broad age-groups in the rural areas of all the districts. The cartographic technique adopted is the same as for the previous map. Marginal workers are not presented in this map also as their proportion in the different age-groups are insignificant.

At state level, 58.35 per cent among the males and 27.85 per cent among the females in the rural areas constitute 'main workers'. While marginal workers account for a smaller ratio of 0.89 per cent and 5.70 per cent among males and females respectively, non-workers form 40.76 per cent among males and 66.45 per cent among the females.

In the younger age-group of 0-14 in which most of the children are expected to be either dependents or full-time students, about 6.87 per cent among males and 5.76 per cent among females are observed to be main workers. This is a clear case of engagement of child labour. In the next higher age-group of 15-19 during which pursuit of higher education is generally resorted to, the worker ratios are found to be quite high in the rural areas, viz., 64.64 per cent among males and 36.96 per cent for females. Main workers among males form consistently high ratio (exceeding 85 per cent) in all the higher age-groups from 20-24 to 50-59, the highest (98.04 per cent) being in 35-39 age-group. Among females of such age-groups, workers form lower ratios extending from 39 to 47 per cent only. We know that most of the females in the working age-group are housewives and so the worker ratios among females are much lower when compared with males in the different age-groups. Among the aged males of over 60 years, 67.56 per cent are workers.

Similar ratio for females is only 20.70 per cent.

Periyar district with 67.75 per cent has recorded the highest ratio of main workers among males in the rural areas. Among females, Coimbatore district with 37.91 per cent has the maximum proportion of main workers. Among the districts, Kanniyakumari has revealed the lowest ratio of workers in the rural areas both among males and females, viz., 47.38 per cent and 6.99 per cent respectively. Coimbatore (65.83 per cent), Salem (62.57 per cent) and Tiruchchirappalli (60.20 per cent) are the other district, besides Periyar, which reveal high ratios of workers among males in rural areas. Among females, Periyar (37.13 per cent) and Madurai (37.04 per cent) districts have sizable proportions of main workers, besides Coimbatore (37.91 per cent).

The ratio of marginal workers among females is much higher when compared with males in the rural area of all the districts. The highest ratio of female marginal workers is observed in Pudukkottai district (9.70 per cent). It is followed by Ramanathapuram district with 8.23 per cent.

Kanniyakumari district has recorded the highest proportion of non-workers in the rural areas among both males and females with 51.46 per cent and 91.01 per cent respectively, while the lowest ratios for both males and females are found in Periyar district, viz., 31.89 per cent for males and 58.16 per cent for females.

The percentage distribution of male and female population into main workers, marginal workers and non-workers is presented for state and district in a table given at next page.

State/District	Main workers		Marginal workers		Non-workers	
	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7
TAMIL NADU	50.84	11.01	0.41	0.96	48.75	88.03
1. Madras	47.92	6.47	0.50	0.33	51.58	93.20
2. Chengalpattu	49.22	8.48	0.52	0.86	50.26	90.66
3. North Arcot	50.16	8.94	0.40	1.40	49.44	89.66
4. South Arcot	47.61	6.99	0.35	0.88	52.04	92.13
5. Dharmapuri	51.87	9.24	0.16	0.41	47.97	90.35
6. Salem	58.26	15.25	0.21	1.14	41.53	83.61
7. Periyar	60.06	16.19	0.21	1.27	39.73	82.54
8. Coimbatore	55.92	14.77	0.31	0.66	43.77	84.57
9. Nilgiri	49.57	20.03	0.70	0.82	49.73	79.15
10. Madurai	50.27	11.71	0.26	0.70	49.47	87.59
11. Tiruchchirappalli	50.59	9.63	0.34	0.64	49.07	89.73
12. Thanjavur	49.06	7.71	0.64	1.44	50.30	90.85
13. Pudukkottai	46.87	6.54	0.44	0.56	52.69	92.90
14. Ramanathapuram	51.51	16.86	0.39	1.56	48.10	81.58
15. Tirunelveli	49.99	16.50	0.56	2.37	49.45	81.13
16. Kanniyakumari	47.71	9.97	0.30	1.07	51.99	88.96

MAP 52

MAIN WORKERS 1981

This map depicts the proportion of main workers to total population in the age-group of 15-59 as also the extent of main workers in this age-group in the rural and urban areas of each district. Total main workers in the working age-group of 15-59 are shown by proportionate circles and these are divided to represent the main workers in the rural and urban areas. The percentage of main workers to total population in the employable 15-59 age-group in the different districts is shown under six broad ranges. There are 16.9 million main workers out of a population of 28.4 million in the working age-group of 15-59 in the state. Of these main workers, 12.3 million (i.e. 72.70 per cent) are in the rural areas and the rest, viz., 4.6 million (27.30 per cent) are in the urban areas.

At the state level, the percentage of main workers to the total population in 15-59 age-group is 59.72 per cent. There are three districts where such workers form a very high proportion, falling under the range of '65.00 per cent and above'. These are Dharmapuri (65.80 per cent), Salem (65.66 per cent) and Periyar (69.40 per cent) districts. Coimbatore, Madurai, Ramanathapuram and Tirunelveli districts have also higher percentages of main workers and fall in the range '62.01 - 65.00' per cent. Four districts fall under the range of '59.01 - 62.00' per cent in which also the state average lies. Madras (43.16) and Kanniyakumari (43.09) districts are at the bottom with very low percentages of main workers to the total population.

Considering the rural areas of the districts, we

find that the highest percentage of workers in rural areas is in Dharmapuri district (92.61 per cent). North Arcot, South Arcot, Periyar, Thanjavur, Pudukkottai and Kanniyakumari districts have between 80 and 90 per cent of their main workers in their respective rural areas. Five other districts have between 70 and 80 per cent of their main workers in the villages (or rural areas). Nilgiri district has registered the lowest percentage (54.41 per cent) of main workers in rural areas. Main workers in the rural areas are mostly engaged in agricultural work and a small extent are engaged in household industry.

Among the total main workers of 15-59 age-group, only 27.30 per cent are in the urban areas of the state. Madras district is entirely urban. Of the other 15 districts, only five have registered higher percentages of main workers than the state average and the rest have lower percentages. The highest percentage of main workers in urban areas is seen in Nilgiri district (45.59). It is followed by the industrial district of Coimbatore which has high percentage (43.27) of workers in cities and towns. Three other districts which have higher percentages of main workers in the urban areas are Chengalpattu, Tirunelveli and Madurai.

Total population in the age-group of 15-59, the percentage of main workers among them besides the percentage distribution of main workers in the rural and urban areas are presented for the state and districts in next page.

State/District	Total population in age 15-59	Percentage of main workers in age 15-59	Percentage of main workers in 15-59 age-group in the	
			Rural areas	Urban areas
1	2	3	4	5
TAMIL NADU	28,353,331	59.72	72.70	27.30
1. Madras	2,015,778	43.16	—	100.00
2. Chengalpattu	2,090,414	55.22	66.02	33.98
3. North Arcot	2,478,881	60.91	81.71	18.29
4. South Arcot	2,387,814	60.61	88.26	11.74
5. Dharmapuri	1,087,892	65.80	92.61	7.39
6. Salem	2,083,697	65.66	75.70	24.30
7. Periyar	1,288,678	69.40	82.05	17.95
8. Coimbatore	1,903,168	63.06	56.73	43.27
9. Nilgiri	382,274	59.78	54.41	45.59
10. Madurai	2,649,495	64.24	72.05	27.95
11. Tiruchchirappalli	2,160,004	61.45	79.85	20.15
12. Thanjavur	2,411,343	55.25	81.79	18.21
13. Pudukkottai	652,958	57.18	89.89	10.11
14. Ramanathapuram	1,908,801	62.23	75.76	24.24
15. Tirunelveli	2,026,908	62.47	70.91	29.09
16. Kanniyakumari	825,224	43.09	81.67	18.33

MAP 53

MALE MAIN WORKERS 1981

This map represents the proportion of main workers among the male population of the age-group 15-59 in the districts of Tamil Nadu as also their rural and urban break-up. Based on the percentages of male main workers, the districts have been classified under six convenient ranges as shown in the legend of the map. The circle in each district has been drawn in proportion to its male main workers and their rural-urban break-up is also depicted by hatching. This map is similar to the earlier map on "Main workers, 1981"

In the state as a whole, 12.21 million male main workers exist out of the 14.28 million male population in the age-group 15-59, constituting 85.48 per cent. The extent of main workers among males is thus very high, considering male population in the working ages, 15-59. It is significant to note that almost all the districts (Barring three) have revealed high ratios exceeding 80 per cent of main workers among the male population of 15-59 ages. The three contiguous districts of Dharmapuri, Salem and Periyar have recorded the higher ratios (between 89 and 93 per cent) and are in the highest range of 89.01 & above. The districts of North Arcot, South Arcot, Coimbatore and Pudukkottai fall under the percentage range, of 87.01 - 89.00. Six districts have recorded lower ratios of main workers among the males of 15-59 as compared to the state average ratio (85.48 per cent). Three districts viz., Madras, Nilgiri and Kanniyakumari are seen to be in the lowest percentage range of 81.00 and below.

In the districts where the educational facilities are more and where there is a larger enrolment in the higher levels of education among the males in the age-groups of 15-24, the ratio of workers in 15-59 must obviously be lower.

In Tamil Nadu, 68.47 per cent of the male main workers of 15-59 exist in the rural areas and only the balance of 31.53 per cent are found in cities and towns. The highest percentage of male main workers in the rural areas (91.16 per cent) is observed in Dharmapuri district and the lowest (50.26 per cent) is in Nilgiri district.

Barring Madras, which is fully urban, we find that the ratio of main workers among males in the other 15 districts varies from the highest 49.74 per cent in Nilgiri district to the lowest 8.84 per cent in Dharmapuri district. There are fewer urban areas in the industrially backward district of Dharmapuri. Apart from Madras, five other districts have a higher proportion of male workers in the urban areas than the state average (31.53 per cent). They are Chengalpattu, Coimbatore, Nilgiri, Madurai and Tirunelveli.

The statement showing data on male population of 15-59, percentage of main workers among them as also the percentage distribution of male workers in the rural and urban areas for the state and districts is given in next page.

State/District	Male population in age-group 15-59	Percentage of main workers among males of age-group 15-59	Percentage distribution of male main workers in ages 15-59 in	
			Rural areas	Urban areas
1	2	3	4	5
TAMIL NADU	14,284,118	85.48	68.47	31.53
1. Madras	1,056,703	73.15	-	100.00
2. Chengalpattu	1,074,170	82.72	61.88	38.12
3. North Arcot	1,251,004	87.33	78.43	21.57
4. South Arcot	1,199,585	87.71	85.85	14.15
5. Dharmapuri	556,269	92.54	91.16	8.84
6. Salem	1,060,809	89.61	71.68	28.32
7. Periyar	657,946	92.70	78.84	21.16
8. Coimbatore	983,579	87.11	51.15	48.85
9. Nilgiri	196,431	77.42	50.26	49.74
10. Madurai	1,334,196	86.30	66.08	33.92
11. Tiruchchirappalli	1,079,111	86.76	75.77	24.23
12. Thanjavur	1,204,370	84.17	79.22	20.78
13. Pudukkottai	321,366	87.32	88.13	11.87
14. Ramanathapuram	927,321	86.52	72.51	27.49
15. Tirunelveli	968,206	85.45	66.22	33.78
16. Kanniyakumari	413,053	74.46	82.46	17.54

MAP 54

FEMALE MAIN WORKERS 1981

This map depicts the proportion of female main workers among the female population in the working age-group of 15-59, also indicating the extent of such main workers in the rural and urban areas of the districts. This map is similar in presentation to the previous two maps and the cartographic technique adopted for them has been used in this map also.

The total number of female main workers in the age-group 15-59 in Tamil Nadu is 4.72 million and they form 33.57 per cent of the total female population in the ages 15-59 (14.07 million). The largest proportion of main workers among female working age population is noticed in Periyar (45.10 per cent), the only district that falls under the percentage range of 42.01 and above. Five other districts (viz. Salem, Nilgiri, Madurai, Ramanathapuram and Tirunelveli) have also recorded comparatively good proportions of female workers and they all lie in the percentage range of 38.01 - 42.00. As many women in the working age-group are generally found engaged in household duties (which is classified as a 'non-worker' category in Census), the ratio of female workers in the 15-59 ages is much less than similar ratio among the males in all the districts. In the two districts of North Arcot and South Arcot, nearly one third of the female population in the working ages of 15-59 are main workers. The districts of Madras and Kanniyakumari have revealed the lowest proportion of female workers,

i.e. 10.12 per cent and 11.65 per cent respectively.

A large majority of the female workers in 15-59 ages are found in the rural areas of the state (83.63 per cent). It is obvious that female workers in the urban areas (cities and towns) are much less when compared to the rural areas. On a review of the rural urban distribution of female main workers in the different districts, it is noticed that over 90 per cent of such workers are seen in the villages in the four districts of North Arcot, South Arcot, Dharmapuri and Pudukkottai. Dharmapuri district has recorded the highest ratio (96.31 per cent) of female workers in the rural areas. Six other districts have 80-90 per cent of their female main workers in the rural areas. Among Madras which is fully urban, Nilgiri (37.32 per cent) and Coimbatore (29.33 per cent) are the only districts with over one-fourth of their female workers in the urban areas. Four districts, viz., North Arcot, South Arcot, Dharmapuri and Pudukkottai have recorded low distribution of their female workers in the urban areas, accounting for less than 10 per cent of the districts' female workers in the working ages.

Data on the female population in 15-59 age-group, ratio of workers among them and the percentage distribution of the female workers between the rural and urban areas are given for the state and districts in next page.

MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

State/District	Female population in ages 15-59	Percentage of workers among female population in ages 15-59	Percentage distribution of female main workers in ages 15-59 in	
			Rural areas	Urban areas
1	2	3	4	5
TAMIL NADU	14,069,213	33.57	83.63	16.37
1. Madras	959,075	10.12	-	100.00
2. Chengalpattu	1,016,244	26.16	79.86	20.14
3. North Arcot	1,227,877	33.99	90.28	9.72
4. South Arcot	1,188,229	33.25	94.66	5.34
5. Dharmapuri	531,623	37.83	96.31	3.69
6. Salem	1,022,888	40.81	84.84	15.16
7. Periyar	630,732	45.10	88.94	11.06
8. Coimbatore	919,589	37.34	70.67	29.33
9. Nilgiri	185,843	41.13	62.68	37.32
10. Madurai	1,315,299	41.86	84.54	15.46
11. Tiruchchirappalli	1,080,893	36.18	89.62	10.38
12. Thanjavur	1,206,973	26.38	89.98	10.02
13. Pudukkottai	331,592	27.98	95.21	4.79
14. Ramanathapuram	981,480	39.27	82.52	17.48
15. Tirunelveli	1,058,702	41.46	79.75	20.25
16. Kanniyakumari	412,171	11.65	76.60	23.40

This map portays the industrial structure of male and female main workers at district level as per the 1981 Census. The proportion of male and female workers in each of the nine industrial categories to total main workers is shown by horizontal bars drawn on either side for each district, in a pyramid form. The three sectors, viz., primary (categories I to VI), secondary (categories V and VI) and tertiary (categories VII to IX), are depicted by distinct hatchings as shown in the legend of the map.

At state level, 63.89 per cent of the total main workers are engaged in primary activities, which include cultivators, agricultural labourers, workers in livestock, forestry, fishing, hunting, plantations, orchards and other allied activities and mining and quarrying. About 58.06 per cent among the male workers and 78.76 per cent among female workers are engaged in primary sector. While 17 per cent of the total workers are engaged in secondary sector of activities, 19.11 per cent are in the tertiary sector. The secondary sector consists of workers in manufacturing, processing, servicing and repairing activities, besides construction workers. The tertiary sector, covers workers who are engaged in trade and commerce transport, storage, communications and other services.

Dharmapuri district has revealed 83.31 per cent of workers in primary activities. This is the highest percentage recorded for any district under primary sector. South Arcot district with 80.06 per cent ranks second in the list of workers under this sector. The districts of Pudukkottai, Thanjavur and Tiruchchirappalli have also revealed high ratios of workers in primary activities (70 to 78 per cent). All the above mentioned districts are predominantly agriculture based and cultivation is indeed the mainstay of the workers in these districts. Madras district which is entirely urban has quite naturally recorded the minimum ratio of 1.33 per cent of workers under primary sector. The hilly Nilgiri district has 67.96 per cent of workers in this sector, most of whom are engaged in industrial category III representing workers in forestry, hunting,

plantations, orchards and other allied activities (58.48 per cent). Kanniyakumari district (9.24 per cent) too has a good ratio of workers in this category, most of whom are engaged in fishing. The ratio of mining and quarrying workers is found very low in all the districts. A respectable proportion of about one per cent of such workers is noticed in South Arcot district where Asia's biggest opencast lignite mine exists.

The ratio of workers in the secondary sector ranges between a high 35.66 per cent in Madras district and a low 6.08 per cent in Dharmapuri district. The industrial district of Coimbatore has recorded the ratio of 26.78 per cent of workers under this sector and ranks second. Chengalpattu, Salem and Tirunelveli are the other important districts which have 20.25 per cent of workers in this sector. South Arcot, Dharmapuri, Thanjavur and Pudukkottai districts have registered very low ratios (below 10 per cent each) of workers in secondary sector. A sizable proportion of workers in household industry category V (a) is observed in Tirunelveli (10.98 per cent) and Salem (8.20 per cent) districts alone. Female workers in household industry form a good ratio in Tirunelveli district (8.06 per cent). Workers engaged in manufacturing, processing, servicing and repairs in non-household industries form a remarkably high percentage in Madras district (28.24). Coimbatore district where a number of cotton mills and other industries exist, has also recorded a sizable ratio of 19.58 per cent of workers in category V (b) (non-household industry). The ratio of persons engaged in construction work is insignificant in almost all districts. A good percentage of such workers is found in Madras (5.66) and Kanniyakumari (3.86) districts.

Madras city has the highest proportion of workers under the tertiary activities (63.01 per cent). Being the state's headquarters, Madras has a number of State and Central Govt. departments. It is the premier commercial city of the southern region with a very large number of business houses and commercial establishments. It is well connected by roads and rail as also by air transport, with other parts of the country.

Chengalpattu, Coimbatore, Nilgiri and Kanniyakumari districts have also recorded fairly good ratios of workers in tertiary sector. Dharmapuri with 10.11 per cent has the lowest ratio of workers in this sector. A significantly high ratio of workers in trade and commerce is found in Madras (25.73 per cent). It is followed by Coimbatore district with 10.16 per cent. Workers engaged in transport, storage and communications form a good percentage only in Madras city (11.58). Female worker ratio is generally found to be low in these categories (categories VII and VIII). A high ratio of 6.20 per cent of female workers is observed in Madras in 'other services', which is an important

category (category IX) under tertiary sector. Next to Madras, Kanniyakumari is the other important district, which has over 10 per cent of other service workers (11.48%), female workers constituting 3.30 per cent there of. About 10 per cent of workers in 'other services' is also seen in Nilgiri and Chengalpattu districts.

The districtwise data on total main workers and their percentage distribution among the primary, secondary and tertiary sectors are presented in the table given below.

State/District		Total main workers	Main workers in		
			Primary Sector	Secondary Sector	Tertiary Sector
1		2	3	4	5
TAMIL NADU		19,026,393	63.89	17.00	19.11
1.	Madras	914,114	1.33	35.66	63.01
2.	Chengalpattu	1,276,717	57.53	20.95	21.52
3.	North Arcot	1,712,621	69.30	15.22	15.48
4.	South Arcot	1,615,757	80.06	7.42	12.52
5.	Dharmapuri	833,019	83.81	6.08	10.11
6.	Salem	1,567,039	62.69	23.22	14.09
7.	Periyar	1,027,620	67.00	18.13	14.87
8.	Coimbatore	1,346,795	51.54	26.78	21.68
9.	Nilgiri	240,350	67.96	11.90	20.14
10.	Madurai	1,914,732	67.67	13.03	19.30
11.	Tiruchchirappalli	1,487,792	70.80	13.32	15.88
12.	Thanjavur	1,478,849	72.89	9.31	17.80
13.	Pudukkottai	419,437	77.54	8.29	14.17
14.	Ramanathapuram	1,352,284	65.66	18.41	15.93
15.	Tirunelveli	1,446,191	57.57	23.12	19.31
16.	Kanniyakumari	393,076	58.04	17.31	24.65

MAP 56

URBAN MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

This map shows the districtwise male and female main workers in the urban areas classified by industrial categories. The cartographic technique used in drawing the map is the same as for the previous map.

As one would expect, the highest proportion (47.36 per cent) of workers in the cities and towns of the state is observed in the 'tertiary' sector. This sector of activity consists of trade, commerce, transport, storage, communications and other services. The secondary sector, which includes workers engaged in manufacturing, processing, servicing and repairs, besides construction workers, covers 37.35 per cent of all urban workers. The primary sector which relates mainly to agricultural activities, etc. naturally accounts for just 15.29 per cent of all workers in the urban areas.

A little over half of the workers in the towns of Nilgiri district are engaged in primary activities (50.61 per cent) and this is the highest under this sector among all districts. South Arcot district with 26.81 per cent has the second highest ratio of workers in this sector. Between 20-25 per cent of workers in primary sector are also found in the urban areas of Madurai, Thanjavur and Tirunelveli districts. Madras, the city district, where there is practically no cultivable land, has revealed a meagre 1.33 per cent of workers in primary sector (categories I-IV). Dharmapuri district has recorded the highest ratio of Cultivators (9.06 per cent) among its urban workers of which 1.12 per cent represent females and the rest (7.94 per cent) males. Agricultural labourers constitute 10-15 per cent of the urban workers in Madurai, Thanjavur, South Arcot, Tirunelveli and Periyar districts. Female agricultural labourers form a good ratio of 5-6 per cent of total workers in Madurai, Periyar and Tirunelveli districts. Growing vegetables and fruits as also work in plantations, (Industrial category III) are the main economic activities of majority of workers in Nilgiri district. This industrial category accounts for 42.27 per cent (males 24.15 and females 18.12) of all workers in the urban areas of this district. Coimbatore district has recorded 8.30 per cent of urban workers in category III, with a high participation of female workers (4.20). Kanniyakumari district also has high percentage (5.81) of

male workers in this category (III) South Arcot district where the Neyveli lignite mine exists, is the only district to have a sizable proportion of urban workers in mining and quarrying, viz., 5.97 per cent.

The highest proportion of urban workers under secondary sector which includes both household and non-household industries along with construction workers is observed in Salem district (54.25 per cent). High rates of 40-45 per cent of such workers in this sector are also found in Chengalpattu, North Arcot, Coimbatore and Ramanathapuram districts. Nilgiri district has registered the minimum ratio of 18.39 per cent of workers in secondary sector in urban areas. Salem district, well known for its handloom goods, has the highest ratio of 17.27 per cent of workers in household industry. Tirunelveli (13.26 per cent), North Arcot (12.85 per cent) and Ramanathapuram (12.57 per cent) districts have also revealed high percentages of urban workers in household industries. Female workers in household industries are sizable in Tirunelveli (9.13 per cent), Ramanathapuram (6.96 per cent) and Salem (5.09 per cent) districts. Workers who are engaged in manufacturing, processing etc. activities under 'factory' sector alone constitute about one-third of the total urban workers in the districts of Coimbatore and Salem. A number of textile mills and other engineering industries, which employ large number of people, exist in these districts. Madras, Chengalpattu, Periyar and Ramanathapuram are the other districts which have high ratios of 25-30 per cent of 'factory' workers. The highest ratio of construction workers is noticed in Kanniyakumari district (6.98 per cent), followed by Madras with 5.66 per cent.

Being a metropolitan city and the state's headquarters, Madras district has the highest ratio of 63.01 per cent of workers under tertiary sector. It is followed by Pudukkottai district with 58.81 per cent. Trade and Commerce workers form a high percentage in Dharmapuri (27.98) and Pudukkottai districts (27.36). Madras and Thanjavur districts have also recorded a little over 25 per cent of workers in trade and commerce. Under transport, storage and communications, Madras City has the highest percentage of workers (11.58 per

State/District	Rural main workers	Rural main workers in		
		Primary Sector	Secondary Sector	Tertiary Sector
1	2	3	4	5
TAMIL NADU	14,022,275	81.22	9.75	9.03
1. Madras		Entirely urban		
2. Chengalpattu	860,361	77.74	11.34	10.92
3. North Arcot	1,410,155	81.83	9.90	8.27
4. South Arcot	1,433,143	86.85	5.41	7.74
5. Dharmapuri	774,725	88.84	4.41	6.75
6. Salem	1,195,401	78.51	13.57	7.92
7. Periyar	851,030	77.52	14.23	8.25
8. Coimbatore	789,700	74.70	15.82	9.48
9. Nilgiri	131,538	82.31	6.52	11.17
10. Madurai	1,398,544	85.19	5.91	8.90
11. Tiruchchirappalli	1,199,587	83.91	8.46	7.63
12. Thanjavur	1,211,752	83.97	5.76	10.27
13. Pudukkottai	378,067	84.76	5.95	9.29
14. Ramanathapuram	1,029,741	81.12	10.28	8.60
15. Tirunelveli	1,036,369	72.26	16.79	10.95
16. Kanniyakumari	322,162	67.25	13.91	18.84

MAP 58

MAIN WORKERS WITH EDUCATIONAL LEVELS 1981

This map shows the extent of main workers under different educational levels in the rural and urban areas of the districts as per the 1981 Census. Two half adjusted circles, drawn in proportion to the rural and urban main workers have been presented for each district and five educational levels as below are indicated in them by different hatchings Primary and Middle (ii) Matriculation/Secondary, Higher Secondary, Intermediate/Pre-University, non-technical/technical diploma or certificate not equal to degree (iii) Graduate and above (iv) literates (without educational level) and (v) illiterates.

At state level, 58.03 per cent of the rural main workers and 24.69 per cent of the urban main workers are illiterate. Main workers who are literate but have not gained any level of qualification constitute 11.82 per cent and 9.31 per cent in the rural and urban areas respectively. Among the rural main workers, 23.61 per cent have studied upto primary and middle level and another 5.95 per cent upto matric/secondary, higher secondary etc. level of education. The corresponding proportions among the urban workers are 35.52 per cent and 24.28 per cent respectively. While 6.20 per cent of the main workers in the urban areas are graduates or post-graduates.

Naturally in the city district of Madras is found the highest proportion (12.26 per cent) of main workers with qualifications of graduate level and above. Kanniyakumari district (7.43 per cent) ranks second having ratio of main workers with such qualification in its towns. The ratio of main workers with such a high level of education is very poor in the rural areas of all other districts.

Considering the urban areas, illiterates among the main workers form the highest ratio in Salem district (36.75 per cent) and lowest in Kanniyakumari district (14.70 per cent). Even in Madras city, 15.30 per cent of main workers are illiterate. Among the rural main workers, the maximum ratio of illiterates is in Dharmapuri district (71.32 per cent) while South Arcot, Salem and Periyar districts too have very high percentages of illiterates (exceeding 60 per cent). Kanniyakumari (30.14 per cent) has the lowest ratio of illiterates among its rural main workers when compared to rest of the districts.

Data on the ratio of main workers under different educational levels in the rural and urban areas are presented below for the state and districts.

State/District	Rural Urban	Educational Level				
		Primary and Middle	Matric/Secondary, Higher Secondary Inter/PUC/Non-technical and technical diploma or certificate not equal to degree	Graduate and post-graduate degree other than technical and technical degree or diploma equal to degree or post-graduate degree	Literates (without educational levels)	Illiterates
1	2	3	4	5	6	7
TAMIL NADU	R	23.61	5.95	0.59	11.82	58.03
	U	35.52	24.28	6.20	9.31	24.69
1. Madras	R			Entirely Urban		
	U	33.15	33.37	12.26	5.92	15.30

cent). The ratio of workers in 'other services' is also the highest in Madras district (25.70 per cent) and it is closely followed by Pudukkottai (24.17 per cent) and Kanniyakumari (20.44 per cent) districts. Female workers in 'other services' are in fairly good percentages in Madras (6.20 per cent) and Kanniyakumari (6.13 per

cent) districts.

Districtwise data on main workers in the urban areas and the percentage distribution of workers into primary, secondary and tertiary sectors are presented below.

State/District	Urban main workers	Urban main workers in		
		Primary Sector	Secondary Sector	Tertiary Sector
1	2	3	4	5
TAMIL NADU	5,004,118	15.29	37.35	47.36
1. Madras	914,114	1.33	35.66	63.01
2. Chengalpattu	416,356	15.73	40.85	43.42
3. North Arcot	302,466	10.85	40.04	49.11
4. South Arcot	182,614	26.81	23.10	50.09
5. Dharmapuri	58,294	16.87	28.23	54.90
6. Salem	371,638	11.75	54.25	34.00
7. Periyar	176,590	16.33	36.93	46.74
8. Coimbatore	557,095	18.72	42.31	38.97
9. Nilgiri	108,812	50.61	18.39	31.00
10. Madurai	516,188	20.21	32.30	47.49
11. Tiruchchirappalli	288,205	16.18	33.56	50.26
12. Thanjavur	267,097	22.52	25.48	52.00
13. Pudukkottai	41,370	11.42	29.77	58.81
14. Ramanathapuram	322,543	16.30	44.35	39.35
15. Tirunelveli	409,822	20.42	39.17	40.41
16. Kanniyakumari	70,914	16.12	32.72	51.16

MAP 57

RURAL MALE AND FEMALE MAIN WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

The districtwise male and female workers classified by industrial categories in the rural areas as in 1981 Census is portrayed in this map. The cartographic technique is the same as for the previous two maps.

As one can easily expect, workers engaged in primary sector are predominant in rural areas. At state level 81.22 per cent of the workers in rural areas are engaged in primary activities, while workers in secondary and tertiary sectors constitute about 9.75 per cent and 9.03 per cent respectively. Dharmapuri district with 88.84 per cent has recorded the highest ratio of rural workers in primary sector. It is followed by South Arcot district with 86.85 per cent and Madurai with 85.19 per cent. Kanniyakumari district with 67.25 per cent has the lowest ratio of rural workers in primary activities. Female workers in primary activities form a poor ratio among total workers of Kanniyakumari district (4.92 per cent). In all other districts, the ratio ranges between 24.04 per cent in Thanjavur district and 35.87 per cent in Nilgiri district. Pudukkottai district with 61.06 per cent has the highest proportion of cultivators among the districts. Dharmapuri district has also recorded a high ratio in this respect (58.55 per cent). Agricultural labourers form the maximum ratio among the rural workers of Thanjavur district (53.59 per cent) with Madurai and Coimbatore districts following it with 48.52 and 48.45 per cent respectively. As plantations, growing of vegetables and fruits are the prominent economic activities in Nilgiri district, about 71.87 per cent of the total workers in the rural areas are found engaged in this category. About ten per cent of the total rural workers in Kanniyakumari district are also found in this industrial category, which includes fishing too. The rest of the districts have lower proportions of workers in this category (category III). Workers in mining and

quarrying activities (category IV) are fewer in all districts.

In the secondary sector, (covering household and non-household industries besides construction), Tirunelveli district has the highest proportion of 16.79 per cent of workers in the rural areas, closely followed by Coimbatore district (15.82 per cent). The lowest percentage under this sector is recorded by Dharmapuri district (4.41 per cent). Under household industry, Tirunelveli district has the highest proportion of 10.08 per cent of workers (of which 7.64 per cent represent female workers). Under factory sector of manufacturing industries, Coimbatore district with 9.87 per cent has revealed the maximum ratio. Workers engaged in construction work are generally found in low ratios.

Kanniyakumari district has the highest ratio of workers in the three industrial categories of trade and commerce (category VII), transport, storage and communication (category VIII) and other services (category IX) which form the tertiary sector of activities (18.84 per cent). Nilgiri (11.17 per cent), Tirunelveli (10.95 per cent), Chengalpattu (10.92 per cent) and Thanjavur (10.27 per cent) are the other districts which have over 10.00 per cent of workers in tertiary sector. Of the 9.51 per cent of rural workers who are engaged in 'other services' in Kanniyakumari district, a comparatively high 2.68 per cent represent female workers. Tirunelveli (1.22 per cent) and Madurai (1.10 per cent) are the two other districts, which have over one per cent of females in 'other services' among their rural workers.

The districtwise data on main workers in the rural areas and the percentage distribution of such workers into primary, secondary and tertiary sectors are given in next page.

State/District	Rural main workers	Rural main workers in		
		Primary Sector	Secondary Sector	Tertiary Sector
1	2	3	4	5
TAMIL NADU	14,022,275	81.22	9.75	9.03
1. Madras		Entirely urban		
2. Chengalpattu	860,361	77.74	11.34	10.92
3. North Arcot	1,410,155	81.83	9.90	8.27
4. South Arcot	1,433,143	86.85	5.41	7.74
5. Dharmapuri	774,725	88.84	4.41	6.75
6. Salem	1,195,401	78.51	13.57	7.92
7. Periyar	851,030	77.52	14.23	8.25
8. Coimbatore	789,700	74.70	15.82	9.48
9. Nilgiri	131,538	82.31	6.52	11.17
10. Madurai	1,398,544	85.19	5.91	8.90
11. Tiruchchirappalli	1,199,587	83.91	8.46	7.63
12. Thanjavur	1,211,752	83.97	5.76	10.27
13. Pudukkottai	378,067	84.76	5.95	9.29
14. Ramanathapuram	1,029,741	81.12	10.28	8.60
15. Tirunelveli	1,036,369	72.26	16.79	10.95
16. Kanniyakumari	322,162	67.25	13.91	18.84

MAP 58

MAIN WORKERS WITH EDUCATIONAL LEVELS 1981

This map shows the extent of main workers under different educational levels in the rural and urban areas of the districts as per the 1981 Census. Two half adjusted circles, drawn in proportion to the rural and urban main workers have been presented for each district and five educational levels as below are indicated in them by different hatchings Primary and Middle (ii) Matriculation/Secondary, Higher Secondary, Intermediate/Pre-University, non-technical/technical diploma or certificate not equal to degree (iii) Graduate and above (iv) literates (without educational level) and (v) illiterates.

At state level, 58.03 per cent of the rural main workers and 24.69 per cent of the urban main workers are illiterate. Main workers who are literate but have not gained any level of qualification constitute 11.82 per cent and 9.31 per cent in the rural and urban areas respectively. Among the rural main workers, 23.61 per cent have studied upto primary and middle level and another 5.95 per cent upto matric/secondary, higher secondary etc. level of education. The corresponding proportions among the urban workers are 35.52 per cent and 24.28 per cent respectively. While 6.20 per cent of the main workers in the urban areas are graduates or post-graduates.

Naturally in the city district of Madras is found the highest proportion (12.26 per cent) of main workers with qualifications of graduate level and above. Kanniyakumari district (7.43 per cent) ranks second having ratio of main workers with such qualification in its towns. The ratio of main workers with such a high level of education is very poor in the rural areas of all other districts.

Considering the urban areas, illiterates among the main workers form the highest ratio in Salem district (36.75 per cent) and lowest in Kanniyakumari district (14.70 per cent). Even in Madras city, 15.30 per cent of main workers are illiterate. Among the rural main workers, the maximum ratio of illiterates is in Dharmapuri district (71.32 per cent) while South Arcot, Salem and Periyar districts too have very high percentages of illiterates (exceeding 60 per cent). Kanniyakumari (30.14 per cent) has the lowest ratio of illiterates among its rural main workers when compared to rest of the districts.

Data on the ratio of main workers under different educational levels in the rural and urban areas are presented below for the state and districts.

State/District	Rural Urban	Educational Level				
		Primary and Middle	Matric/Secondary, Higher Secondary Inter/PUC/Non-technical and technical diploma or certificate not equal to degree	Graduate and post-graduate degree other than technical and technical degree or diploma equal to degree or post-graduate degree	Literates (without educational levels)	Illiterates
1	2	3	4	5	6	7
TAMIL NADU	R	23.61	5.95	0.59	11.82	58.03
	U	35.52	24.28	6.20	9.31	24.69
1. Madras	R			Entirely Urban		
	U	33.15	33.37	12.26	5.92	15.30

	1	2	3	4	5	6	7
2.	Chengalpattu	R	23.46	7.47	0.78	10.69	57.60
		U	32.74	30.87	5.85	7.68	22.86
3.	North Arcot	R	24.20	6.16	0.51	10.08	59.05
		U	35.29	21.95	4.55	8.29	29.92
4.	South Arcot	R	21.66	5.52	0.47	10.17	62.18
		U	34.79	26.66	5.78	7.76	25.01
5.	Dharmapuri	R	14.69	4.45	0.42	9.12	71.32
		U	31.00	25.05	5.02	8.71	30.22
6.	Salem	R	17.83	5.48	0.69	8.72	67.28
		U	31.77	16.97	3.55	10.96	36.75
7.	Periyar	R	19.30	4.62	0.45	11.72	63.91
		U	33.91	20.24	4.04	10.42	31.39
8.	Coimbatore	R	22.77	6.10	0.63	13.46	57.04
		U	35.99	21.77	4.83	11.27	26.14
9.	Nilgiri	R	25.80	11.43	1.31	13.06	48.40
		U	35.70	17.56	4.11	13.07	29.56
10.	Madurai	R	24.34	4.66	0.52	11.40	59.08
		U	39.35	21.56	5.29	9.28	24.52
11.	Tiruchchirappalli	R	23.24	6.41	0.49	11.73	58.13
		U	37.17	27.09	5.62	8.72	21.40
12.	Thanjavur	R	29.06	7.61	0.61	13.71	49.01
		U	37.85	23.12	5.56	10.41	23.06
13.	Pudukkottai	R	23.32	4.93	0.45	15.10	56.20
		U	36.61	28.41	6.35	10.03	18.60
14.	Ramanathapuram	R	26.92	4.75	0.54	13.08	54.71
		U	37.89	18.21	4.02	12.40	27.48
15.	Tirunelveli	R	29.82	4.97	0.46	15.27	49.48
		U	38.22	18.21	3.85	10.41	29.31
16.	Kanniyakumari	R	32.88	14.92	2.50	19.56	30.14
		U	38.48	23.15	7.43	16.24	14.70

MAP 59

CULTIVATORS 1981

The proportion of cultivators in the age-group of 15-59 to the total workers under the same age-group is depicted in this map at the district level as per the 1981 Census. Based on the ratios, all the districts have been brought under five broad ranges as indicated in the legend of the map.

Nearly 30 per cent of the workers in the working age-group of 15-59 are cultivators in the state. The highest ratio of 55.32 per cent of workers under cultivation is recorded in Pudukkottai district and it is followed by Dharmapuri district with 55.16 per cent. These two districts have revealed very high ratios of cultivators among the districts. The wide difference between these ratios and the district with the third rank, viz., Ramanathapuram (38.07 per cent) is noteworthy. The four contiguous districts of Tiruchchirappalli, North Arcot, South Arcot and Salem fall under the percentage range of 28.01 - 38.00 in which the state average ratio (28.50 per cent) also lies.

It is significant to note that the well known

granary of Tamil Nadu, viz., Thanjavur district has recorded quite a low percentage of cultivators (23.80 per cent) which is below the state average. Nine out of the 16 districts which have lower ratios of cultivators than the state average ratio fall under the last two ranges below 28 per cent.

The lowest percentage (0.13 per cent) has been recorded by the city district of Madras. The hilly Nilgiri district too has revealed a low rate of 2.92 per cent. Plantation, forestry and Orchards and allied activities, (which are not considered part of cultivation in Census) are the prominent economic activities of this district. As a large number of workers are engaged in fishing and other allied services in Kanniyakumari district, the proportion of cultivators here too is low (10.40 per cent).

Data on main workers and cultivators in 15-59 age-group and the percentage of the latter to the former are presented in the following statement.

State/District	Total workers in 15-59 age-group	Cultivators in 15-59 age-group	Percentage
1	2	3	4
TAMIL NADU	16,932,980	4,825,872	28.50
1. Madras	869,966	1,103	0.13
2. Chengalpattu	1,154,413	248,031	21.49
3. North Arcot	1,509,942	525,987	34.83
4. South Arcot	1,447,194	547,623	37.84
5. Dharmapuri	715,843	394,866	55.16
6. Salem	1,368,107	420,470	30.73
7. Periyar	894,329	247,298	27.65
8. Coimbatore	1,200,183	180,109	15.01
9. Nilgiri	228,523	6,677	2.92
10. Madurai	1,701,972	435,251	25.57
11. Tiruchchirappalli	1,327,348	504,455	38.00

1	2	3	4
12. Thanjavur	1,332,171	317,052	23.80
13. Pudukkottai	373,366	206,537	55.32
14. Ramanathapuram	1,187,768	452,170	38.07
15. Tirunelveli	1,266,280	301,249	23.79
16. Kanniyakumari	355,572	36,990	10.40

This map shows the extent of cultivators among the rural population of 15-59 age-group in the districts as per the 1981 Census. Barring Madras which is entirely urban, all other districts have been brought under six broad ranges, in accordance with their ratio of cultivators and are shaded accordingly in green colour.

In the rural areas of the state, there are 4.66 million cultivators in the age-group 15-59, constituting 24.82 per cent of the 18.79 million rural population of the same age-group. Of the seven districts which have revealed higher ratios of cultivators than the state average, Dharmapuri has recorded the highest proportion of 39.73 per cent followed by Pudukkottai (36.19) and are covered under the range of 35.01 & above. Ramanathapuram and Tiruchchirappalli districts have also registered fairly good ratios, exceeding 30 per cent each. The rural population of these districts obviously depend more on cultivation for their livelihood. The three contiguous districts of North Arcot, South Arcot and Salem have also a good proportion of cultivators and are covered in the range of 25.01 - 30.00 per cent.

Among the eight districts with lower percentage of rural cultivators than the state average ratio three each are in the ranges of 20.01 - 25.00 and 15.01 -

MAP 60

CULTIVATORS IN RURAL POPULATION 1981

20.00 per cent. Nilgiri (2.06 per cent) and Kanniyakumari (5.18 per cent) districts have very low percentage of cultivators among their rural population. In Nilgiri, the hilly district, most of the people in the rural areas are engaged in plantations and vegetable and fruit growing activities, which do not come under cultivation. In Kanniyakumari district, a large number of people engaged in agricultural work are labourers and only a few among them are cultivators. Moreover, fishing is also a prominent economic activity of a larger number of people in the rural areas of this coastal district.

Among the districts, North Arcot and South Arcot have a large number of cultivators, exceeding five lakh, who are in the age-group 15-59 and are in the rural areas. Sizable number of 4-5 lakh of cultivators of such age-group exist in the rural areas of four other districts, viz., Salem, Madurai, Tiruchchirappalli and Ramanathapuram. Nilgiri district has revealed the lowest number of rural cultivators (4,072). Kanniyakumari (35,181) is the only other district with a low number of rural cultivators in 15-59 age-group.

Data on rural population in the age-group of 15-59 and the number of cultivators among them along with their percentages are given below for state and districts.

State/District	Rural population in 15-59 age-group	Cultivators in rural areas in 15-59 age-group	Percentage of cultivators to population in rural areas in 15-59 age-group
1	2	3	4
TAMIL NADU	18,792,306	4,664,887	24.82
1. Madras		Entirely Urban	
2. Chengalpattu	1,257,737	233,317	18.55
3. North Arcot	1,899,540	516,134	27.14
4. South Arcot	2,088,543	537,440	26.76
5. Dharmapuri	982,397	390,331	39.73

1	2	3	4	5
6.	Salem	302,600	31.83	117,870
7.	Periyar	182,589	29.94	64,709
8.	Coimbatore	130,537	15.24	49,572
9.	Nilgiri	5,694	3.74	983
10.	Madurai	310,032	26.93	125,219
11.	Tiruchchirappalli	382,620	40.87	121,835
12.	Thanjavur	279,050	27.53	38,002
13.	Pudukkottai	161,711	57.63	44,826
14.	Ramanathapuram	323,662	40.34	128,508
15.	Tirunelveli	220,839	26.69	80,410
16.	Kanniyakumari	35,849	11.66	1,141

MAP 62

AGRICULTURAL LABOURERS IN TOTAL AGRICULTURAL WORKERS 1981

This map gives an idea on the extent of agricultural labourers among the total agricultural workers (agricultural labourers + cultivators) engaged in agricultural activities in age-group 15-59 in the districts. The total agricultural labourers are shown by bars while the districts are graded in suitable ranges of percentages of agricultural labourers to total agricultural workers in age-group 15-59.

There are 10.12 million agricultural workers in the state in the age bracket 15 to 59 and of these, 5.29 million, constituting 52.29 per cent, are agricultural labourers. The southern-most Kanniyakumari district with a ratio of 77.86 per cent has the highest proportion of agricultural labourers when compared to the rest of the districts. Seven other districts have also revealed higher ratios than the State average ratio. Five districts, viz., Chengalpattu, Coimbatore, Nilgiri,

Madurai and Thanjavur fall in the range of 60.01-70.00 per cent of agricultural labourers among all agricultural workers. In South Arcot, Periyar and Tirunelveli districts also, over half of the agricultural workers are only wage earners working in lands owned by others.

In seven districts, the majority of workers under agricultural activities are cultivators and the labourers here constitute less than 50 per cent. Pudukkottai district has the lowest ratio (27.21 per cent) of agricultural labourers. Dharmapuri and Ramanathapuram districts have also very low proportions of agricultural labourers (below 40 per cent each).

Data on agricultural workers in age-group 15-59, those who are working as labourers among them and the ratio of the latter to the former for each district are presented below.

State/District	Agricultural workers in age-group 15-59	Agricultural labourers in age-group 15-59	Percentage of agricultural labourers to agricultural
1	2	3	4
TAMIL NADU	10,115,766	5,289,894	52.29
1. Madras	2,155	1,052	48.82
2. Chengalpattu	621,088	373,057	60.07
3. North Arcot	1,013,278	487,291	48.09
4. South Arcot	1,114,157	566,534	50.85
5. Dharmapuri	586,858	191,992	32.72
6. Salem	822,636	402,166	48.89
7. Periyar	577,930	330,632	57.21
8. Coimbatore	541,268	361,159	66.72
9. Nilgiri	20,246	13,569	67.02
10. Madurai	1,089,725	654,474	60.06
11. Tiruchchirappalli	914,366	409,911	44.83

1	2	3	4
6. Salem	1,475,342	406,412	27.55
7. Periyar	1,005,974	241,278	23.98
8. Coimbatore	934,385	168,869	18.07
9. Nilgiri	198,003	4,072	2.06
10. Madurai	1,673,872	414,406	24.76
11. Tiruchchirappalli	1,583,340	490,054	30.95
12. Thanjavur	1,858,821	302,076	16.25
13. Pudukkottai	564,550	204,286	36.19
14. Ramanathapuram	1,357,491	439,931	32.41
15. Tirunelveli	1,313,352	281,099	21.40
16. Kanniyakumari	678,954	35,181	5.18

MAP 61

MALE AND FEMALE CULTIVATORS 1981

This map shows the extent of cultivators among the main workers in the working age-group of 15-59, separately for males and females at district level. Based on the percentages, the districts have been grouped into five broad ranges under each sex. Different hatchings and colour shades are given to distinguish the sexes under each range. The two vertical bar diagrams represent the number of male and female cultivators in the age-group of 15-59 in each district.

In the state, there are 30.66 per cent of cultivators among male workers in the age-group of 15-59. Among females, the corresponding ratio is just 22.92 per cent. Dharmapuri and Pudukkottai districts with a ratio of 60.20 per cent and 57.63 per cent respectively have recorded the highest percentages of male cultivators among the districts. These two districts alone have recorded more than half of their male workers (in the age-group of 15-59) as engaged in cultivation. In the case of female cultivators too, we find the highest percentages in these two districts - Pudukkottai with 48.32 per cent and Dharmapuri with 42.27 per cent. While among males, South Arcot, Tiruchchirappalli, Ramanathapuram, North Arcot and Salem districts have also registered comparatively

higher ratios of cultivators than the state average, among females, the four districts of Ramanathapuram, Tiruchchirappalli, Salem and South Arcot have higher ratios than the state, besides the two districts mentioned earlier.

The city district of Madras has, naturally a negligible proportion of cultivators both among males and females. Nilgiri, Kanniyakumari and Coimbatore districts have also very low ratios of male cultivators of less than 20 per cent. The ratio of female cultivators is also very low (of below 15 per cent) in the above three districts as also in Thanjavur. The low ratio of cultivators in Nilgiri district is because of the predominance of workers in forestry, plantations, orchards and allied activities, which do not constitute cultivation. Industries as also trade and commerce constitute the major economic activity of the people in Coimbatore district, and not cultivation. In Kanniyakumari district, fishing and 'other Services' are prominent.

Data on male and female cultivators in the age-group 15-59 and their percentages to the respective main workers of the same age-group for state and districts are presented in the following statement.

State/District	Male Cultivators in the age-group 15-59	Percentage to total male main workers in the age-group 15-59	Female Cultivators in the age-group 15-59	Percentage to total female main workers in the age-group 15-59
1	2	3	4	5
TAMIL NADU	3,743,110	30.66	1,082,762	22.92
1. Madras	956	0.12	147	0.15
2. Chengalpattu	207,978	23.41	40,053	15.07
3. North Arcot	433,168	39.65	92,819	22.24
4. South Arcot	455,967	43.34	91,656	23.20
5. Dharmapuri	309,856	60.20	85,010	42.27

	1	2	3	4
12.	Thanjavur	940,263	623,211	66.28
13.	Pudukkottai	283,729	77,192	27.21
14.	Ramanathapuram	745,392	293,222	39.34
15.	Tirunelveli	675,602	374,353	55.41
16.	Kanniyakumari	167,071	130,081	77.86

MAP 63
NON-AGRICULTURAL WORKERS IN PRIMARY SECTOR 1981

The proportion of non-agricultural workers in the primary sector and also the distribution of non-agricultural workers by different types of activities are represented in this map at the district level. Primary sector includes the four industrial categories, viz., I. cultivators, II. agricultural labourers, III. livestock, forestry, fishing, hunting and plantations, orchards and allied activities and IV. mining and quarrying. The non-agricultural activities refer to those under the industrial categories III and IV. The total workers under categories III and IV are represented by proportionate circles which are divided into five sectors in proportion to the total number of workers under the following five activities: (i) livestock and hunting, (ii) fishing, (iii) forestry, (iv) plantations, orchards and allied activities and (v) mining and quarrying.

The percentage of non-agricultural workers in primary sector is represented under six broad ranges for the different districts with different flat colours from high to low order of values.

The proportion of non-agricultural workers to total workers in the primary sector works to just 4.59 per cent at the state level. Very high percentages of non-agricultural workers in the primary sector have been recorded in two of the 16 districts. While in the hilly Nilgiri (86.61 per cent) district, plantations and orchards are prominent non-agricultural activities; in the city district of Madras (79.78 per cent) fishing is the chief non-agricultural activity. Kanniyakumari (16.53 per cent), Coimbatore (7.99 per cent) and Tirunelveli (5.84 per cent) are the other districts with comparatively higher non-agricultural workers in the primary sector. Four districts fall under the range of 6.01 per cent and above. Out of the 16 districts, 11 districts

have recorded lower ratios than the state average of 4.59 per cent. The lowest percentage (0.88 per cent) of such workers is observed in Dharmapuri district.

Livestock and hunting (covering livestock production including rearing/breeding of domesticated animals, birds etc.) in the most important non-agricultural activity in North Arcot with 66.84 per cent of such workers. In Dharmapuri and Tiruchchirappalli districts too, such workers form over one-third of their respective non-agricultural workers. Fishing is an important non-agricultural activity in Madras (76.17 per cent), Kanniyakumari (70.75 per cent) and Thanjavur (69.03 per cent) districts among the primary sector workers. Forestry has a significantly higher proportion of non-agricultural workers in the three districts of Periyar (16.78 per cent), Dharmapuri (16.59 per cent) and North Arcot (12.20 per cent,). In South Arcot district where the lignite mining of Neyveli is absorbing a large number of workers, 35.58 per cent of the non-agricultural workers fall under 'mining and quarrying'. A comparatively higher proportion of workers under 'mining and quarrying' is also observed in the districts of Salem, Dharmapuri and Pudukkottai. The highest proportion of workers under plantations, orchards and allied activities among the districts is observed in Nilgiri (97.78 per cent). In the districts of Coimbatore (83.93 per cent) and Madurai (65.51 per cent) also, the ratio of non-agricultural workers in plantations, orchards etc. is very high.

The percentage distribution of non-agricultural workers in the five categories depicted in the map and the percentage of non-agricultural workers to total workers in the primary sector are given for state and districts in next page.

1	2	3	4
7. Periyar	1,027,620	164,934	16.05
8. Coimbatore	1,346,795	321,990	23.91
9. Nilgiri	240,350	21,598	8.99
10. Madurai	1,914,732	221,884	11.59
11. Tiruchchirappalli	1,487,792	177,033	11.90
12. Thanjavur	1,478,849	119,303	8.07
13. Pudukkottai	419,437	29,535	7.04
14. Ramanathapuram	1,352,284	232,622	17.20
15. Tirunelveli	1,446,191	315,806	21.84
16. Kanniyakumari	393,076	52,872	13.45

MAP 65

MAIN WORKERS IN CONSTRUCTIONS, TRANSPORT, STORAGE AND COMMUNICATIONS 1981

This map shows the percentage of main workers engaged in constructions, transport, storage and communications to total main workers as per the 1981 Census at district level. The percentages have been grouped under six convenient ranges and hatched from dark to light according to the values as shown in the legend of the map.

The total number of main workers who are engaged in constructions, transport, storage and communications in Tamil Nadu is 893,112 and they form 4.69 per cent of the total main workers (19,026,393). The largest proportion of workers in constructions, transport, storage and communications is noticed in the city district of Madras (17.23 per cent). In this biggest Metropolis of the south, large scale construction activities - both residential and non-residential buildings like industries, business houses, educational, medical institutions etc. are carried on. A very large number of commercial units dealing with transport, storage and communications and allied activities also exist here. Next to Madras, we find that in Kanniyakumari district the percentage of such workers is high, viz., 7.41 per cent. The high ratio of workers of these categories in this district could also be attributed to the fact that the township of Kanniyakumari (the land's southern tip) and a few other pilgrim centres nearby have transformed the district as a great tourist attraction.

constructions, transport etc. activities is exhibited by the hilly and backward district of Dharmapuri. Only five of the 16 districts have recorded percentages above that of the state average, viz., 4.69 per cent while the remaining 11 districts, have registered percentages below this average. Four districts each fall in the percentage ranges of 3.01-4.00 and 4.01-5.00.

It is interesting to observe that the predominantly agricultural and less industrialised districts of South Arcot, Thanjavur, Pudukkottai, Ramanathapuram and Tirunelveli show a poorer percentage of less than four per cent of workers in constructions, transport, storage and communications. Tirunelveli district has comparatively higher ratio of 3.82 per cent in this group which reveals its increasing industrial and commercial importance in recent years. The districts of Coimbatore and Nilgiri in the western region show respectively higher ratios of 6.31 and 6.37 per cent of such workers. While Coimbatore is industrially important, Nilgiri district has a number of tourist attractions including Ootacamund, considered as the queen of hill stations.

The statement below gives the number of total main workers as also the main workers engaged in constructions, transport, storage and communications along with the percentages of the latter for state and districts.

The lowest ratio of 2.12 per cent of workers in

State/District	Total Main workers	Main workers Constructions, Transport, Storage Communications	Percentage
1	2	3	4
TAMIL NADU	19,026,393	893,112	4.69
1. Madras	914,114	157,538	17.23
2. Chengalpattu	1,276,717	74,855	5.86
3. North Arcot	1,712,621	68,455	4.00
4. South Arcot	1,615,757	39,170	2.42
5. Dharmapuri	833,019	17,655	2.12
6. Salem	1,567,039	66,484	4.24
7. Periyar	1,027,620	43,803	4.26
8. Coimbatore	1,346,795	85,030	6.31
9. Nilgiri	240,350	15,313	6.37

State/District	Percentage of non agricultural workers to those in primary sector (Cat. III & IV)	Percentage of Non-agricultural workers engaged in				
		Livestock and hunting	fishing	Forestry	Plantations, orchards and allied activities	Mining and quarrying
1	2	3	4	5	6	7
TAMIL NADU	4.59	17.68	20.17	3.07	49.77	9.31
1. Madras	79.78	14.99	76.17	1.21	6.25	1.38
2. Chengalpattu	4.02	24.64	49.62	2.66	7.58	15.50
3. North Arcot	2.12	66.84	1.73	12.20	9.36	9.87
4. South Arcot	3.33	30.29	21.13	2.16	10.84	35.58
5. Dharmapuri	0.88	43.27	0.75	16.59	17.88	21.51
6. Salem	2.36	14.57	3.16	4.76	47.19	30.32
7. Periyar	1.52	30.39	16.29	16.78	36.17	0.37
8. Coimbatore	7.99	8.84	0.93	1.93	83.93	4.37
9. Nilgiri	86.61	0.88	0.01	0.67	97.78	0.66
10. Madurai	3.48	18.40	0.50	2.88	65.51	12.71
11. Tiruchchirappalli	1.05	45.61	2.00	6.39	27.22	18.78
12. Thanjavur	2.60	9.60	69.03	1.44	19.45	0.48
13. Pudukkottai	1.24	25.88	8.09	8.17	15.56	42.30
14. Ramanthapuram	4.34	30.40	47.75	2.27	14.65	4.93
15. Tirunelveli	5.84	31.74	25.97	4.89	27.87	9.53
16. Kanniyakumari	16.53	0.97	70.75	0.87	23.68	3.73

MAP 64

MAIN WORKERS IN MANUFACTURING, PROCESSING, SERVICING AND REPAIRS 1981

This map shows the extent of main workers engaged in production processes, viz., manufacturing, processing, servicing and repairs (including household industry workers) among the total main workers in the districts, as per the 1981 Census. Based on the percentages, all the districts have been brought under six broad ranges as depicted in the legend of the map. The yellow coloured circle drawn for each district represents the size of the workers engaged in 'manufacturing, processing, servicing and repairs'.

There are about 2.90 million workers in Tamil Nadu who are engaged in the aforesaid activities and they constitute 15.22 per cent of all main workers. Seven out of the 16 districts have higher percentages than the state's ratio. Madras district, which is the capital city of the state, stands foremost among all the districts with a very high ratio of 30 per cent of the total main workers working in manufacturing, etc. activities. A number of factories and industrial establishments exist in and around Madras city employing a large number of workers. Madras city region indeed constitutes the premier industrial complex of the state. Salem, Coimbatore and Tirunelveli are the other three industrially important districts with over 20 per cent of workers engaged in this category. Chengalpattu, Periyar and Ramanathapuram districts have also recorded comparatively higher ratios (in the range of 16.01-20.00 per cent) than the state average (15.22 per cent).

Of the nine districts, which have registered lower percentages than the state level, the minimum ratio of just 5.15 per cent is observed in the backward Dharmapuri district. Very low ratios of less than ten per cent of such workers are also noticed in South Arcot, Nilgiri, Thanjavur and Pudukkottai districts. These districts are generally considered as industrially backward as compared to the other districts of the state. Agriculture is the major source of livelihood for the people of these districts. In Nilgiri however, forestry, plantations, orchards and allied activities are prominent.

The districts with more than ten per cent of workers in manufacturing, processing, servicing and repairs under factory sector alone (barring household industry workers) have been depicted in red colour. It may be observed from the map that the seven districts (falling in the first three ranges) have over ten per cent of workers in the factory sector. This denotes the existence of comparatively larger number of factories as also factory labourers in them than in the other districts.

Districtwise data on total main workers, workers in manufacturing, processing, servicing and repairs (including household industry workers) and the percentage of the latter to the former are presented in the following statement.

State/District	Total Main Workers	Main Workers in manufacturing, processing servicing and repairs (Industry category V)	Percentage
1	2	3	4
TAMIL NADU	19,026,393	2,896,469	15.22
1. Madras	914,114	274,215	30.00
2. Chengalpattu	1,276,717	242,778	19.02
3. North Arcot	1,712,621	236,921	13.83
4. South Arcot	1,615,757	105,743	6.54
5. Dharmapuri	833,019	42,876	5.15
6. Salem	1,567,039	336,359	21.46

	1	2	3	4
10.	Madurai	1,914,732	77,149	4.03
11.	Tiruchchirappalli	1,487,792	60,839	4.09
12.	Thanjavur	1,478,849	50,362	3.41
13.	Pudukkottai	419,437	10,487	2.50
14.	Ramanathapuram	1,352,284	41,585	3.08
15.	Tirunelveli	1,446,191	55,275	3.82
16.	Kanniyakumari	393,076	29,108	7.41

MAP 66

MAIN WORKERS IN TRADE AND COMMERCE 1981

This map shows the proportion of main workers engaged in trade and commerce to total main workers in the districts of the state as per the 1981 Census. The solid coloured circles within each district represent the main workers engaged in trade and commerce. The districts have been brought under five broad ranges, based on their percentage of main workers in trade and commerce and are shaded differently as shown in the legend.

In the state, there are 1.61 million persons whose main work has been reported as 'trade and commerce' in 1981 and they constitute 8.45 per cent of all main workers. Among the districts, Madras - the metropolitan city district, has revealed a very high proportion of 25.73 per cent of main workers under this category. Being the premier commercial centre of south India, there is no wonder that Madras commands such a high ratio of workers in this category. The city has a major harbour, railway terminals and good highways running in all directions which help in hectic trade and commercial activity. Coimbatore district follows Madras with a ratio of 10.16 per cent among the districts. This district, particularly the city of Coimbatore and its environs are well known centres of industrial and

commercial activity. Madras and Coimbatore districts put together account for 23.14 per cent of all workers in trade and commerce in Tamil Nadu and they alone fall in the highest range of '10.01 per cent and above'. Four districts, viz., Madurai Thanjavur, Tirunelveli and Kanniyakumari have recorded good proportions of workers in trade and commerce and are covered in the range of 8.51 to 10.00 per cent.

Ten districts of the state have revealed lower percentages as compared to the state average (8.45 per cent) and of these, five fall in the percentage range of 5.51-7.00. Dharmapuri district (4.77 per cent), which has large undeveloped and forest areas (and also fewer urban centres) has recorded the lowest percentage among the districts. Incidentally, it is the only district which has registered a percentage of less than five in this category of workers. A poor ratio of below six is also observed in South Arcot district (5.44 per cent).

Data on total main workers, main workers engaged in trade and commerce and the percentage of the latter to the former for the state and districts are presented below.

State/District	Total Main Workers	Main workers in Trade and Commerce	Percentage of main workers in trade and commerce to total main workers
1	2	3	4
TAMIL NADU	19,026,393	1,607,969	8.45
1. Madras	914,114	235,217	25.73
2. Chengalpattu	1,276,717	100,774	7.89
3. North Arcot	1,712,621	113,424	6.62
4. South Arcot	1,615,757	87,888	5.44
5. Dharmapuri	833,019	39,770	4.77
6. Salem	1,567,039	98,889	6.31
7. Periyar	1,027,620	70,667	6.88
8. Coimbatore	1,346,795	136,788	10.16
9. Nilgiri	240,350	16,124	6.71
10. Madurai	1,914,732	175,577	9.17
11. Tiruchchirappalli	1,487,792	107,675	7.24

	1	2	3	4
12. Thanjavur		1,478,849	126,419	8.55
13. Pudukkottai		419,437	28,079	6.69
14. Ramanathapuram		1,352,284	102,436	7.58
15. Tirunelveli		1,446,191	130,395	9.02
16. Kanniyakumari		393,076	37,848	9.63

MAP 67

MAIN WORKERS IN SERVICES 1981

This map shows the percentage of main workers engaged in "other services" among total main workers in each district of the state as per the 1981 Census. Based on this ratio, all the districts have been brought under six broad ranges as shown in the legend of the map. The ratio of workers engaged in the four major groups, viz., (i) Public services, (ii) educational and scientific services, (iii) medical and health services and (iv) personal and other miscellaneous services, all falling under 'Other services' of workers are shown by different hatching as indicated in the pie diagrams, drawn in proportion to the district's size of such workers.

At state level, 7.75 per cent of main workers fall under the category of 'other services'. Of the six districts, which have recorded higher ratios than the state average, Madras has revealed the highest proportion of 25.70 per cent. As Madras is the administrative headquarters of the state and is a premier city of the region, we find a large number of workers under public and other important services. Kanniyakumari district has also registered the high ratio of 11.48 per cent. The remaining 14 districts have each below 10 per cent of their main workers in 'other services'. Nilgiri and Chengalpattu districts have revealed fairly good proportions of 9.97 per cent and 9.71 per cent respectively. The lowest percentage of main workers in other services is recorded by Dharmapuri district (4.15 per cent). Low ratios are also observed in South Arcot (5.53 per cent), Salem (5.30), Periyar (5.81) and Tiruchchirappalli (5.98) districts which are located contiguously in the central region of the state. Agriculture is the prominent economic activity of the people of these districts. Not much scope for 'service' workers are apparently available in these districts.

At state level, 31.45 per cent of workers in 'other services' are engaged in public services, which include central and state government services, local bodies and other administration departments. Being the state's capital, Madras city has a number of state and central government departments. As a result, this city district has the maximum proportion (46.75 per cent) of workers engaged in public services. Chengalpattu district, which encircles Madras, has also recorded very high ratio of 42.71 per cent of workers in public services among its total workers in 'other services'. Periyar district has registered the minimum ratio (21.40 per cent) under this major group. In Kanniyakumari district, where we observe a very high literacy level, as much as 42.76 per cent of the workers in other services are found working in the educational and scientific services, and incidentally, this is the highest ratio recorded for any district under this 'service'. The proportion of persons engaged in medical and health services is comparatively very low in almost all districts. North Arcot district has the highest ratio of 14.32 per cent of workers under this group among the districts. A very high ratio (41.84 per cent) of workers in personal and other miscellaneous services to total workers in other services is observed in Periyar district. Very low proportion (below 15 per cent) under this service group are observed in Nilgiri and Kanniyakumari districts.

The percentage of workers engaged in other services to total main workers and the ratio of workers in the four 'major groups' of services discussed above to total workers in other services are given for the state and districts in next page.

State District	Percentage of workers in 'Other services' to total main workers	Percentage of workers in other services engaged in			
		Public services	Educational and scientific services	Medical and Health Services	Personal and other miscellaneous services
1	2	3	4	5	6
TAMIL NADU	7.75	31.45	33.22	10.11	25.22
1. Madras	25.70	46.75	22.73	10.46	20.06
2. Chengalpattu	9.71	42.71	29.73	9.46	18.10
3. North Arcot	6.25	25.71	35.46	14.32	24.51
4. South Arcot	5.53	24.20	38.04	8.15	29.61
5. Dharmapuri	4.15	26.55	40.68	9.18	23.59
6. Salem	5.30	26.07	38.22	11.04	24.67
7. Periyar	5.81	21.40	26.85	9.91	41.84
8. Coimbatore	8.07	29.16	31.76	10.20	28.88
9. Nilgiri	9.97	39.40	37.28	9.38	13.94
10. Madurai	7.54	27.91	32.11	9.86	30.12
11. Tiruchchirappalli	5.98	25.88	38.81	8.89	26.42
12. Thanjavur	7.11	31.69	35.96	11.65	20.70
13. Pudukkottai	6.23	29.81	33.44	9.02	27.73
14. Ramanathapuram	6.49	27.70	37.42	8.59	26.29
15. Tirunelveli	7.76	23.79	36.64	8.12	31.45
16. Kanniyakumari	11.48	31.43	42.76	11.44	14.37

MAP 68

MAIN WORKERS IN VARIOUS SERVICES 1981

A set of four maps here portrays the extent of main workers engaged in certain important services among those workers falling under the category of "other Services", at district level. The four services presented in these maps relate to those engaged in (i) public services, (ii) educational and scientific services (iii) medical and health services and (iv) personal and other miscellaneous services. Based on the proportions of workers in the four major services, all the districts have been brought under five convenient ranges of varying values for each of the four maps and shaded accordingly as shown in the legend of the map.

Of the 14.75 lakh main workers engaged in "other services" in the state, about 24.68 per cent are working in public services. While another 26.07 per cent of them are engaged in educational and scientific services, just 7.94 per cent are found in medical and health services. The 'personal and other miscellaneous services' have in its fold 19.79 per cent of the total workers in 'other services' in the state. Thus, the above four major important services cover together 78.48 per cent of all 'other service' workers in the state.

Madras City, which is the administrative headquarters of the state has naturally recorded the highest proportion of 34.94 per cent of its service workers in 'public services' which include services in Central and State Government Departments, Local Bodies, Quasi-Governmental bodies and the like. Chengalpattu district, which has a number of suburban towns of Madras City, has also recorded the higher ratio among the districts with 32.78 per cent of workers in public services. Nilgiri district (30.74 per cent) has also registered a significantly high ratio of workers in public services. The lowest percentage of workers under this service is observed in Periyar district (16.33). South Arcot, Salem and Tirunelveli districts also reveal less

than 20 per cent of workers in public services.

Under educational and scientific services, Kanniyakumari district with 35.04 per cent of workers reveal the maximum ratio. Obviously, teachers and other workers in the field of education are larger in ratio in this highly literate district of the state. Dharmapuri district has also a high 33.31 per cent of workers in educational and scientific services closely followed by Tiruchchirappalli (31.01 per cent) and Ramanathapuram (31.10 per cent) districts. We find strangely enough a poor ratio of such workers in Madras district (16.99 per cent), which incidentally, is the lowest ratio of workers recorded for any district under this service groups.

North Arcot district with 11.77 per cent possesses the highest ratio of workers engaged in medical and health services. Sizable proportions of such workers are also found in Kanniyakumari (9.37 per cent) and Thanjavur (9.21 per cent) districts. Ramanathapuram (6.91 per cent), South Arcot (6.39 per cent) and Tirunelveli (6.37 per cent) are the districts with very low percentages of workers in these services.

Periyar district with 31.93 per cent tops the list of districts in the ratio of workers engaged in personal and other miscellaneous services. Nearly one-fourth of the total workers in 'other services' in Tirunelveli and Madurai districts are doing personal and other miscellaneous services. Such service workers form low percentages in the districts of Kanniyakumari (11.77), Nilgiri (10.88) and Chengalpattu (13.89 per cent).

The percentages of workers in the four major services (discussed above) to total workers in 'other services' in the state and districts are presented in a table given in next page.

MAP 70

SCHEDULED CASTES 1981

State/District	Percentage of marginal workers to total population	Percentage distribution of marginal workers		
		Primary	Secondary	Tertiary
1	2	3	4	5
TAMIL NADU	2.42	85.54	9.91	4.55
1. Madras	0.42	2.80	55.03	42.17
2. Chengalpattu	2.51	86.07	9.46	4.47
3. North Arcot	3.23	88.78	8.83	2.39
4. South Arcot	3.33	93.46	2.98	3.56
5. Dharmapuri	2.78	94.56	2.84	2.60
6. Salem	2.39	85.64	10.44	3.92
7. Periyar	2.10	83.50	12.71	3.79
8. Coimbatore	1.07	73.03	17.86	9.11
9. Nilgiri	0.71	73.19	12.88	13.93
10. Madurai	1.64	89.26	5.24	5.50
11. Tiruchchirappalli	2.77	92.45	4.56	2.99
12. Thanjavur	2.67	88.76	5.87	5.37
13. Pudukkottai	4.86	94.59	2.64	2.77
14. Ramanathapuram	3.67	86.62	10.69	2.69
15. Tirunelveli	2.36	63.06	30.03	6.91
16. Kanniyakumari	1.42	60.33	31.61	8.06

This map shows the percentage of Scheduled Caste population to total population at taluk level as per the 1981 Census. All the 151 taluks, besides Madras City, have been grouped into six broad ranges for depiction. Solid red circles of five sizes drawn within the taluks in the map represent broadly the proportionate size of the Scheduled Caste population.

In Tamil Nadu, 8,881,295 population have been numbered as Scheduled Castes as per the 1981 Census and they account for 18.35 per cent of the total population. The proportion of Scheduled Castes population is highest in Madurantakam taluk (38.46 per cent) of Chengalpattu district. The second highest ratio of Scheduled Caste population is observed in Tittakudi taluk of South Arcot district (36.31 per cent). Besides these two taluks, eight other taluks have recorded over 30 per cent of Scheduled Caste population. They are Ponneri and Tiruvallur taluks of Chengalpattu district, Kattumannarkoil of South Arcot district, Sirkazhi, Nannilam, Thiruvarur and Tirutturaippundi in Thanjavur district and Ottappidaram of Tirunelveli district. The proportion of Scheduled Castes to taluk population ranges between 20 and 30 per cent in 51 taluks spread

over 12 districts. Of these 51 taluks, a good many are observed in the districts of Chengalpattu (7 taluks), South Arcot (8 taluks), Thanjavur (7 taluks), North Arcot (6 taluks) and Tiruchchirappalli (5 taluks).

The largest number of taluks (55 taluks) lie in the range of 15.01-20.00 per cent and these taluks are seen in almost all the districts except Madras and Kanniyakumari. Ten out of 18 taluks in Ramanathapuram district, five out of the total of six taluks each in Periyar and Pudukkottai districts are under this range. In the last two lower ranges, viz., '10.01-15.00 per cent' and '10.00 per cent and below' there are 36 taluks and these are seen in many of the districts. It is noteworthy that all the four taluks of Kanniyakumari district fall under the last range of 10.00 and below. Vilavankod taluk of Kanniyakumari district has registered the lowest percentage of Scheduled Caste population (viz., 2.81) among the taluks of the state.

Data on Scheduled Caste population and their percentage to total population for state and districts along with the number of taluks in each district with percentages above and below the state average ratio of Scheduled Castes are presented below:

State/District	Scheduled Caste population 1981	Percentage of Scheduled Caste to total population	Number of taluks with percentage of Scheduled Caste population	
			Above the State average (18.35%)	Below the State average
1	2	3	4	5
TAMIL NADU	8,881,295	18.35	-	-
1. Madras	437,916	13.36	-	1
2. Chengalpattu	947,789	26.21	11	1
3. North Arcot	877,804	19.89	8	5
4. South Arcot	1,091,353	25.97	12	-
5. Dharmapuri	276,714	13.86	1	7
6. Salem	560,267	16.28	3	6
7. Periyar	338,477	16.36	1	5
8. Coimbatore	496,855	16.24	3	3
9. Nilgiri	145,174	23.04	4	-
10. Madurai	695,242	15.33	4	9

State/District	Percentage of workers in 'Other Services' engaged in			
	Public Services	Educational and Scientific services	Medical and Health Services	Personal and other Miscellaneous services
1	2	3	4	5
TAMIL NADU	24.68	26.07	7.94	19.79
1. Madras	34.94	16.99	7.82	14.99
2. Chengalpattu	32.78	22.82	7.26	13.89
3. North Arcot	21.14	29.16	11.77	20.15
4. South Arcot	18.96	29.81	6.39	23.21
5. Dharmapuri	21.74	33.31	7.52	19.32
6. Salem	19.67	28.84	8.33	18.61
7. Periyar	16.33	20.49	7.56	31.93
8. Coimbatore	23.22	25.29	8.12	23.00
9. Nilgiri	30.74	29.08	7.31	10.88
10. Madurai	22.46	25.84	7.93	24.24
11. Tiruchchirappalli	20.69	31.01	7.10	21.11
12. Thanjavur	25.04	28.42	9.21	16.36
13. Pudukkottai	24.00	26.93	7.26	22.33
14. Ramanathapuram	22.29	30.10	6.91	21.15
15. Tirunelveli	18.65	28.71	6.37	24.64
16. Kanniyakumari	25.76	35.04	9.37	11.77

MAP 69

MALE AND FEMALE MARGINAL WORKERS CLASSIFIED BY INDUSTRIAL CATEGORIES 1981

This map shows the extent of marginal workers among the population in the districts as at the 1981 Census. The marginal workers have been classified under primary, secondary and tertiary sectors, with male-female break-up on the basis of the industrial category to which the work relates and are represented by pie diagrams drawn in proportion to the number of marginal workers in each district. Based on the percentage of marginal workers to total population, all the districts have been brought under six convenient ranges and are shaded differently as shown in the legend of the map.

The total number of marginal workers in Tamil Nadu as per the 1981 Census is 1.17 million and they constitute 2.42 per cent of the state's population. Among the districts, Pudukkottai with 4.86 per cent has recorded the highest proportion of marginal workers among its population and is followed by Ramanathapuram (3.67 per cent), South Arcot (3.33 per cent) and North Arcot (3.23 per cent) districts. Low ratios of marginal workers are observed in Madras (0.42 per cent) and Nilgiri (0.71 per cent) districts.

A large majority of marginal workers (85.54 per cent) in the state are engaged in primary activities and of this ratio, female workers represent 74.35 per cent. Primary activities include cultivation, agricultural labour, work in livestock, forestry, fishing, hunting, plantations, orchards and allied activities along with mining and quarrying. Barring the city district of Madras, the proportion of marginal workers in primary sector in the different districts ranges between 60.33 per cent (in Kanniyakumari) and 94.59 per cent (in Pudukkottai). Besides Pudukkottai, the agriculturally prominent districts of South Arcot, Dharmapuri and Tiruchchirappalli have revealed very high proportions of over 90 per cent of marginal workers in primary activities. The ratio of female marginal workers engaged in primary sector is found to be much higher when compared

to males in all districts except Madras. Comparatively higher ratios of male marginal workers in primary activities to total population are observed in Kanniyakumari (26.04 per cent) and Nilgiri (25.39 per cent) districts. Dharmapuri district (with 85.13 per cent) reveals the highest proportion of females among the marginal workers in this sector.

Nearly 10 per cent of the marginal workers in the state are engaged in secondary sector, which has in its fold workers in manufacturing, processing, servicing and repairs (both household and non-household industries) along with construction workers. Madras city with 55.03 per cent reveals the highest proportion of marginal workers in secondary sector, among all districts. Comparatively higher ratios of marginal workers in this sector are observed in Kanniyakumari (31.61 per cent) and Tirunelveli (30.03 per cent) districts, of which 26.36 per cent and 26.73 per cent represent female marginal workers. Madras district (20.97 per cent) too has recorded a higher composition of females among its marginal workers engaged in secondary activities.

In the tertiary sector, which consists of workers in trade and commerce, transport, storage and communications and 'other services', only 4.55 per cent of the state's marginal workers are engaged. Madras city has naturally revealed the highest ratio of 42.17 per cent of marginal workers in this sector, of which females constitute 17.11 per cent. Nilgiri with 13.93 per cent has recorded the second highest ratio of marginal workers in tertiary activities to its total population.

The percentage of marginal workers to total population and the percentage distribution of such marginal workers under primary, secondary and tertiary sectors are presented for state and districts in a table given in next page.

1	2	3	4	5
11. Tiruchchirappalli	672,697	18.62	7	3
12. Thanjavur	943,343	23.21	11	5
13. Pudukkottai	191,732	16.57	1	5
14. Ramanathapuram	556,291	16.68	7	11
15. Tirunelveli	589,468	16.49	5	9
16. Kanniyakumari	60,173	4.23	-	4

MAP 71

SCHEDULED TRIBES 1981

The proportion of Scheduled Tribes to total population for each taluk of the state as at 1981 Census is depicted in this map. With reference to this ratio, all the 151 taluk as also Madras City have been classified under six broad ranges and are shaded by choropleth method as shown in the legend of the map. Red circles in five sizes have also been drawn to signify broadly the extent of Scheduled Tribe population in each taluk.

There are 520,226 Scheduled Tribes in Tamil Nadu and they constitute a small ratio of just 1.07 per cent of the total population of 48.41 million, as per the 1981 Census. There is no Scheduled Tribe population at all in Devakottai and Tiruchchuli taluks of Ramanathapuram district. This is subject to area restrictions adopted for such tribes in Census. The highest ratio (58.82 per cent) of Scheduled Tribes to its total population is found in the hilly taluk of Yercaud of Salem district. This is the only taluk in which such a high extent of Scheduled Tribes exceeding half of the taluk's population is observed. All the other taluks as also Madras City have a low percentage of Scheduled Tribe population of less than 10 per cent. Of the nine taluks falling in the high ratio range of 5-10 per cent Scheduled Tribes, we find two taluks (viz. Polur and Chengam) in North Arcot district, one taluk (Kallakurichchi) in South Arcot district, one taluk (Harur) in Dharmapuri district, two taluks (Attur and Rasipuram) in Salem district, two taluks (Gudalur and Kotagiri) in Nilgiri district and one taluk (Turalyur) in Tiruchchirappalli district. Twenty-five taluks spread over ten districts fall in the highest range of '1.81 per cent and above' of Scheduled Tribe population. All

these taluks form a more or less contiguous belt in the north, central and western regions of the state.

There are 10 taluks which have recorded between 1.41 and 1.80 per cent of Scheduled Tribe population. These taluks are spread out in six districts of which two, viz., Chengalpattu and North Arcot have three such taluks each. Thirteen taluks are observed to be in the range of 1.01-1.40 per cent and 17 taluks in the range of 0.61-1.00 per cent. A very large number of taluks fall in the last two lower percentage ranges. There are 36 taluks under the ratio range of 0.21-0.60 per cent. These taluks are seen in every district except Madras and Nilgiri. Nearly one-third of the taluks of the state (49) have an insignificant ratio of Scheduled Tribes, viz., '0.20 per cent and below'. The taluk with the largest number of Scheduled Tribes in the state is Attur (35,745) in Salem district and Kallakurichchi taluk in South Arcot district has the second largest number, viz., 28,496. There are three other taluks, viz., Harur (Dharmapuri district), Namakkal (Salem district) and Turalyur (Tiruchchirappalli district) which have each a considerable Scheduled Tribe population of 20,000 to 25,000. There are seven more taluks which have returned sizable Scheduled Tribe population of 20,000 to 25,000. There are seven more taluks which have returned sizable Scheduled Tribes of 10,000 to 20,000.

The number of Scheduled Tribes along with their percentage to total population for the districts along with the number of taluks having a percentage above and below the average Scheduled Tribe ratio of the state (viz., 1.07 per cent) are given in next page.

State/District	Scheduled Tribe popu- lation, 1981	Percentage of Scheduled Tribe popula- tion to total population	Number of taluks with per- centage of Scheduled tribe population		No. of taluks with no Scheduled tribe popu- lation
			Above the state average (1.07)	Below the state average	
1	2	3	4	5	6
TAMIL NADU	520,226	1.07	-	-	-
1. Madras	5,373	0.16	-	1	-
2. Chengalpattu	46,050	1.27	9	3	-
3. North Arcot	93,690	2.12	9	4	-
4. South Arcot	53,775	1.28	3	9	-
5. Dharmapuri	46,074	2.31	4	4	-
6. Salem	122,444	3.56	7	2	-
7. Periyar	15,191	0.73	2	4	-
8. Coimbatore	22,358	0.73	2	4	-
9. Nilgiri	20,874	3.31	3	1	-
10. Madurai	13,646	0.30	1	12	-
11. Tiruchchirappalli	48,294	1.34	4	6	-
12. Thanjavur	6,012	0.15	-	16	-
13. Pudukkottai	1,516	0.13	-	6	-
14. Ramanathapuram	6,617	0.20	1	15	2
15. Tirunelveli	11,954	0.33	1	13	-
16. Kanniyakumari	6,358	0.45	-	4	-

MAP 72

MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS IN SCHEDULED CASTES 1981

This map depicts the extent of main workers, marginal workers and non-workers among the Scheduled Castes at district level. Circles in proportion to the strength of Scheduled Castes have been drawn for each district and these are divided into three sectors to represent the main workers, marginal workers and non-workers. The sectors representing main workers and non-workers have been sub-divided into males and females. While main workers and non-workers are shaded in colour, females among them are distinctly shown by additional black dots. Marginal workers are denoted by blank sections without any male-female distinction as their ratio is very low.

In Tamil Nadu, there are 4,073,288 main workers among the 8,881,295 Scheduled Castes as per the 1981 Census and they constitute 45.86 per cent. Among them 28.76 per cent represents males and 17.10 per cent females. The highest ratio of workers among Scheduled Castes is recorded in Periyar district (56.60 per cent). Of this ratio 33.98 represents male workers and 22.62 represents female workers. The second highest percentage of workers among districts is seen in Coimbatore district (51.67 per cent), of which 30.96 per cent are males and 20.71 per cent are females. Besides these two districts, Thanjavur district also reveals a high percentage of workers among Scheduled Castes, viz., 50.24 in which 31.03 per cent represent males and 19.21 per cent females. Nine of sixteen districts have revealed a higher percentage of workers above the state average (45.86 per cent) while the remaining seven districts have percentages below the state average. The proportion of male main workers is higher than that of the female main workers in all the districts.

Marginal workers among the Scheduled Castes constitute a poor ratio of 3.23 per cent in the state and of this, males constitute a very low percentage,

(0.49) while females constitute 2.74 per cent. The highest ratio of 5.86 per cent of marginal workers among Scheduled Caste is found in Pudukkottai district. Male marginal workers form 0.69 per cent among the total Scheduled Caste population of this district while female marginal workers form 5.17 per cent. A remarkable percentage of marginal workers of 4.77 per cent is noticed in Thanjavur district (males 0.53 per cent, females 4.24 per cent). Madras has the lowest ratio of 0.62 per cent of marginal workers among the Scheduled Caste population. It is significant to note that among the marginal workers, female ratio is higher than the male ratio in almost all the district, the two exceptions being Madras and Nilgiri districts.

Non-workers constitute 50.91 per cent of the total Scheduled Caste population. While the male non-workers constitute 21.26 per cent of all Scheduled Castes, females form a higher ratio of 29.65 per cent. The highest ratio of 74.73 per cent of non-workers is recorded by Madras district. Among them, females represent a higher ratio (45.69 per cent) than the males (29.04 per cent). Seven districts have a higher ratio of non-workers than the state average (50.91 per cent) while the other nine districts have a lower percentage of non-workers. The lowest percentage of non-workers among the Scheduled Caste population is seen in Periyar district (41.16 per cent).

The proportion of female non-workers to Scheduled Caste population is seen to be higher than that of males in all the districts.

The total Scheduled Caste population and percentage of main workers, marginal workers and non-workers among them for state and districts are given in next page.

State/District	Total Scheduled Caste population 1981	Percentage of		
		Main workers	Marginal workers	Non-workers
1	2	3	4	5
TAMIL NADU	8,881,295	45.86	3.23	50.91
1. Madras	437,916	24.65	0.62	74.73
2. Chengalpattu	947,789	40.72	3.57	55.71
3. North Arcot	877,804	42.60	3.32	54.08
4. South Arcot	1,091,353	46.48	4.14	49.38
5. Dharmapuri	276,714	44.29	3.07	52.64
6. Salem	560,267	49.80	2.58	47.62
7. Periyar	338,477	56.60	2.24	41.16
8. Coimbatore	496,855	51.67	1.20	47.13
9. Nilgiri	145,174	42.61	0.93	56.46
10. Madurai	695,242	49.84	2.07	48.09
11. Tiruchchirappalli	672,697	47.54	3.26	49.20
12. Thanjavur	943,343	50.24	4.77	44.99
13. Pudukkottai	191,732	40.71	5.86	53.43
14. Ramanathapuram	556,291	45.89	4.71	49.40
15. Tirunelveli	589,468	49.60	2.96	47.44
16. Kanniyakumari	60,173	34.19	2.28	63.53

MAP 73

MAIN WORKERS, MARGINAL WORKERS AND NON-WORKERS IN SCHEDULED TRIBES 1981

This map portrays the extent of main workers, marginal workers and non-workers among the Scheduled Tribes at district level. The same cartographic technique as in the previous map has been used in this map also.

Among the Scheduled Tribes Population of the state, (520,226), there are 250,771 main workers and they constitute 48.20 per cent. Of this ratio, 31.12 per cent represents males and 17.08 per cent females. Of the 16 districts, South Arcot, Salem, Coimbatore and Nilgiri have a high proportion of main workers (50 per cent and above) among their respective Scheduled Tribe population. Salem district has recorded the highest ratio of 55.18 per cent of main workers, of which males alone constitute 33.16 per cent and the rest, viz., 22.02 per cent represents female main workers. There are eight districts with a ratio of 40 to 50 per cent, one district under 30-40 per cent and three districts in the range of 20-30 per cent of main workers among their respective Scheduled Tribe population. Kanniyakumari district has recorded the lowest percentage of main workers (27.92 per cent). The extent of female main workers among the Scheduled Tribes is much less than the corresponding male workers in all the districts.

Marginal workers form a low proportion of just 3.11 per cent among Scheduled Tribes of the state. Female marginal workers constitute a higher ratio than males in the state and the districts. The highest percentage of marginal workers (6.73 per cent) is noticed in Pudukkottai district, of which males repre-

sent 1.19 per cent and females 5.54 per cent, followed by North Arcot district with 4.59 per cent of marginal workers. Besides these two districts, four other districts (viz., Chengalpattu, Dharmapuri, Salem and Tiruchchirappalli) have recorded equal or higher ratios of marginal workers than the state average (3.11 per cent). The rest of the districts (10) have registered lower percentages of marginal workers than the state average. The lowest ratio of less than one per cent of marginal workers is recorded by Madurai district (0.64 per cent).

Non-workers form 48.69 per cent among the Scheduled Tribe population of the state. Of the 48.69 per cent of non-workers in the state, only 19.32 per cent represents males and 29.37 per cent are females. The highest percentage of non-workers among Scheduled Tribes (70.74 per cent) is recorded in Kanniyakumari district, followed by the city district of Madras (70.07 per cent). There are four districts (viz., South Arcot, Salem, Coimbatore and Nilgiri) with lower percentage of non-workers among the Scheduled Tribes than the State level (48.69 per cent). The lowest ratio of non-workers among the Scheduled Tribes is observed in Salem district (41.59 per cent). The proportion of female non-workers is uniformly higher than that of males in all the districts.

Data on Scheduled Tribe population along with percentages of main workers, marginal workers and non-workers among them for state and districts are given in next page.

tional changes in regard to rural (3 villages) areas transferred from Chengalpattu district to Madras Municipal Corporation have also not been considered here.

State/District	Percentage to total population 1981			Percentage growth during 1971-81		
	Hindus	Muslims	Christians	Hindus	Muslims	Christians
1	2	3	4	5	6	7
TAMIL NADU	88.86	5.21	5.78	17.29	19.78	18.17
1. Madras	84.36	8.11	6.72	27.29	24.25	31.13
2. Chengalpattu	92.17	3.09	4.54	27.92	41.13	43.35
3. North Arcot	90.19	6.90	2.63	17.03	24.70	17.17
4. South Arcot	92.30	3.84	3.63	15.90	21.68	15.80
5. Dharmapuri	94.28	3.87	1.82	19.03	0.18	103.60
6. Salem	96.37	2.22	1.36	14.71	24.34	19.65
7. Periyar	95.54	2.43	2.02	15.22	18.10	7.34
8. Coimbatore	91.58	4.62	3.73	18.22	29.10	20.74
9. Nilgiri	78.27	9.31	12.17	30.60	22.92	13.92
10. Madurai	90.93	4.57	4.48	15.25	15.80	12.97
11. Tiruchchirappalli	89.26	4.72	5.96	Not available		
12. Thanjavur	88.71	6.98	4.16	Not available		
13. Pudukkottai	88.58	6.59	4.76	Not available		
14. Ramanathapuram	87.26	6.84	5.89	16.49	14.16	21.51
15. Tirunelveli	80.81	6.90	12.27	12.14	9.84	9.54
16. Kanniyakumari	56.99	4.23	38.77	16.80	14.89	16.04

MAP 75

DISTRIBUTION OF POPULATION BY LANGUAGE MAINLY SPOKEN IN THE HOUSEHOLDS 1981

This map shows the distribution of population by the chief languages of the region based on the languages returned as mainly spoken in the household in each district as per the 1981 Census. Data on 'language mainly spoken in the household' were gathered through the 'Household Schedule' from all except institutional households and population covered by institutional households are hence not included for this map. The five major languages, viz., Tamil, Telugu, Kannada, Malayalam and Urdu which cover almost the entire population of the state (a little over 99 per cent) are shown separately and all the other languages have been grouped under "Others". Based on the proportion of persons speaking the major languages, all the districts have been brought under two distinct groups of percentage ranges and given colour shades/hatches, as shown in the legend of the map. For convenience, languages with less than one per cent of speakers in the districts are not shown in the map.

The chief language of the state, viz., Tamil is spoken by 85.35 per cent of the state's population in their households. While Telugu speakers constitute 8.30 per cent, speakers of Kannada, Urdu and Malayalam languages form respectively 2.39, 1.80 and 1.20 per cent of the population. Persons speaking other languages constitute just 0.96 per cent of the state's population.

The ratio of Tamil speakers is the highest, viz., 98.13 per cent in Pudukkottai district, closely followed by Thanjavur district with 97.42 per cent. All the coastal districts (except Madras and Chengalpattu) and the interior district of Tiruchchirappalli have very high ratios of Tamil speaking people than the rest of the districts of the state. The lowest percentage of Tamil speakers is recorded by Nilgiri district (45.13 per cent). Coimbatore (63.70 per cent), Dharmapuri (70.60

per cent) and Madras (74.98 per cent) are the other districts with less than 75 per cent of their respective population, having Tamil as the main spoken language in the household. Speakers of Telugu constitute the highest percentage in Coimbatore district (22.31 per cent). Dharmapuri (15.67 per cent), Periyar (13.16 per cent), Madras (12.06 per cent) and Chengalpattu (11.45 per cent) are the other districts where sizable proportions of Telugu speakers are observed.

Nilgiri district (28.41 per cent) has the maximum ratio of Kannada speakers. "Badaga" language speakers in this district have been grouped with Kannada language. Dharmapuri (8.99 per cent), Coimbatore (8.16 per cent) and Periyar (5.97 per cent) are the other districts with comparatively higher ratios of persons speaking Kannada.

Persons speaking Malayalam in their households form highest percentage in Nilgiri district (17.45 per cent). Kanniyakumari district which was a part of the former Travancore-Cochin State before the state's reorganisation has 9.81 per cent of the population who speak Malayalam. Coimbatore (3.88 per cent) and Madras (3.25 per cent) are the other two districts with considerable proportions of Malayalam speakers. Urdu speaking people are found in sizable proportions in North Arcot (5.99 per cent), Madras (5.02 per cent) and Dharmapuri (4.01 per cent) districts. As one would expect, it is in the metropolitan city of Madras, a high ratio of 4.03 per cent of the population speak various other languages (other than those discussed above). A fairly good proportion of 'other' language speakers is also observed in Madurai (2.22 per cent) and Nilgiri (1.83 per cent) districts.

The percentage distribution of population by languages mainly spoken in the household is presented for the state and districts in next page.

State/District	Total Scheudled Tribe population	Percentage of		
		Main Workers	Marginal Workers	Non- Workers
1	2	3	4	5
TAMIL NADU	520,226	48.20	3.11	48.69
1. Madras	5,373	28.77	1.16	70.07
2. Chengalpattu	46,050	44.51	3.53	51.96
3. North Arcot	93,690	45.87	4.59	49.54
4. South Arcot	53,775	52.24	2.42	45.54
5. Dharmapuri	46,074	47.37	3.51	49.12
6. Salem	122,444	55.18	3.23	41.59
7. Periyar	15,191	44.89	2.40	52.71
8. Coimbatore	22,358	51.43	1.97	46.60
9. Nilgiri	20,874	50.87	1.56	47.57
10. Madurai	13,646	43.96	0.64	55.40
11. Tiruchchirappalli	48,294	42.90	3.11	53.99
12. Thanjavur	6,012	37.07	1.30	61.63
13. Pudukkottai	1,516	29.62	6.73	63.65
14. Ramanathapuram	6,617	46.20	1.63	52.17
15. Tirunelveli	11,954	42.73	1.86	55.41
16. Kanniyakumari	6,358	27.92	1.34	70.74

MAP 74

RELIGIONS 1981

This map shows the population by major religions at the district level as at 1981 Census. Hindus, Muslims and Christians are the chief religious groups of the state and they together nearly add up to the population. These three religions have been shown separately and the population following the rest of the religions have grouped under a single category 'others'. Squares proportionate to total population have been drawn for each district and these are divided into 100 equal parts, each such division representing one per cent. Based on the proportion of population under major religions as also others, the squares have been given different colour shades, as shown in the legend of the map.

In Tamil Nadu, of the 48.41 million population, 43.02 million (88.86 per cent) are Hindus. Among the districts, the highest proportion of Hindus is recorded in Salem district (96.37 per cent), followed by Periyar district (95.54 per cent). Six other districts, viz., Chengalpattu, North Arcot, South Arcot, Dharmapuri, Coimbatore and Madurai have recorded over 90 per cent of population as Hindus. Kanniyakumari district with 56.99 per cent reveals the lowest ratio of Hindus. Madras district has 84.36 per cent of its population as Hindus. One can easily observe from this map that comparatively higher proportions of this population under 'Hinduism' is recorded in the northern districts than in the districts of the southern region.

At state level, Muslims form a ratio of 5.21 per cent among the population. Considering all the districts, we find that the proportion of Muslims ranges between a high 9.31 per cent in Nilgiri district and a low 2.22 per cent in Salem district. Madras city has 8.11 per cent of Muslims among its population. There are five other districts which have recorded a higher ratio of Muslims, viz., 6.50 to 7.00 per cent of population.

Christians form a ratio of 5.78 per cent at state level. Kanniyakumari district with 38.77 per cent has the highest proportion of Christians among the districts. Tirunelveli (12.27 per cent) and Nilgiri (12.17 per cent) are the two other districts which reveal a sizable ratio of Christians among their population. Very low proportions of Christians are found in Salem (1.36 per cent) and Dharmapuri (1.82 per cent) districts.

Persons professing other religions form insignificant proportions at state level. Nearly 50,000 Jains are found in the state. While nearly 23,000 Jains are concentrated in Madras city alone, 5,000-10,000 Jains each are recorded in Chengalpattu, North Arcot and South Arcot districts. Buddhism in the state has only 735 followers and 317 of them are recorded in Madras city. Madras and Chengalpattu districts together account for 61.50 per cent of the total Sikh population in the state (4,395). Thus, as seen from the map, the three major religions Hinduism, Islam and Christianity cover practically the entire population in the various districts.

The decadal increase in the population of Muslims during 1971-81 is observed to be a little higher than the other two, viz., that of Hindus and Christians. Muslims have increased by 19.78 per cent as against 17.29 per cent and 18.17 per cent among Hindus and Christians respectively. Among the districts, Nilgiri (30.60 per cent) has the highest growth rate among Hindus while the lowest growth rate is found in Tirunelveli (12.14 per cent).

The decadal growth rate among Muslims is found to be very high in Chengalpattu district (41.13 per cent), followed by Coimbatore district (29.10 per cent). Madras, North Arcot, South Arcot, Salem and Nilgiri districts have also registered higher growth rates among Muslims, ranging between 20 and 25 per cent during the decade 1971-81. The decadal increase in the Muslim population in Dharmapuri district is marginal (0.18 per cent).

Christians have more than doubled during 1971-81 in Dharmapuri district where a growth rate of 103.60 per cent is noticed. Chengalpattu and Madras districts have also recorded high growth rates with 43.35 per cent and 31.13 per cent respectively of Christians during the decade. The lowest growth rate among Christians is found in Periyar district (7.34 per cent).

The percentage of population under major religions to total population and their growth rate during 1971-81 are presented below for state and districts. The decadal growth rates for Tiruchchirappalli, Thanjavur and Pudukkottai districts are not given in the statement as comparable data for 1971 are not available for these districts due to jurisdictional changes. The Jurisdic-

State/District	Tamil	Telugu	Kannada	Malayalam	Urdu	Others
1	2	3	4	5	6	7
TAMIL NADU	85.35	8.30	2.39	1.20	1.80	0.96
1. Madras	74.98	12.06	0.66	3.25	5.02	4.03
2. Chengalpattu	84.43	11.45	0.32	1.17	1.65	0.98
3. North Arcot	83.48	9.14	0.66	0.12	5.99	0.61
4. South Arcot	94.10	3.57	0.19	0.17	1.78	0.19
5. Dharmapuri	70.60	15.67	8.99	0.13	4.01	0.60
6. Salem	84.22	9.97	3.21	0.30	1.53	0.77
7. Periyar	79.34	13.16	5.97	0.39	0.97	0.17
8. Coimbatore	63.70	22.31	8.16	3.88	1.21	0.74
9. Nilgiri	45.13	5.47	28.41	17.45	1.71	1.83
10. Madurai	83.26	9.60	3.99	0.21	0.72	2.22
11. Tiruchchirappalli	92.62	4.87	0.48	0.32	1.27	0.44
12. Thanjavur	97.42	1.20	0.09	0.08	0.33	0.88
13. Pudukkottai	98.13	0.93	0.28	0.07	0.21	0.38
14. Ramanathapuram	91.77	6.41	1.08	0.07	0.13	0.54
15. Tirunelveli	95.88	3.34	0.17	0.16	0.22	0.23
16. Kanniyakumari	89.84	0.15	0.01	9.81	0.03	0.16

MAP 76

LITERACY 1981

This map depicts the literacy rates in the districts of the state, as revealed in the 1981 Census. Children of four years and below have been excluded from the total population while working out the percentage of literates for the purpose of this map. Districtwise percentages of literates have been calculated and grouped into six broad ranges. Different shades of hatchings are given as per the legend of the map.

The ratio of literates to population in the state works to 52.63 per cent. Eight out of the 16 districts of the state have recorded higher literacy rate than the state average. The literacy rates vary considerably from a high 75.98 per cent in the city district of Madras to a low 33.26 per cent in Dharmapuri district. The high literacy rate in the capital city of Madras is quite understandable since it has got many industrial establishments, business houses, Government offices, etc., besides a large number of educational institutions which all provide an excellent attraction to educated people of other areas. The southern-most Kanniyakumari district (which was a part of the Travancore-Cochin state and now Kerala, before the reorganisation of the states) reveals characteristics similar to that of Kerala and has recorded the second highest literacy rate of

72.02 per cent. Nilgiri is the only other district, which has over 60 per cent of literates in the state. Tirunelveli (58.83 per cent), Coimbatore (58.38 per cent), Thanjavur (56.36 per cent), Chengalpattu (54.48 per cent) and Madurai (53.34 per cent) are the other districts which have registered high ratios over the state's average. Tiruchchirappalli and Ramanathapuram districts have also shown literacy rates of over 50 per cent. In all, it is noteworthy that 10 out of the 16 districts have returned over half of their population as literates.

The lowest literacy rate of just 33.27 per cent is observed in Dharmapuri, which is considered as a backward district of the state. During the last 1971 census also, this district was at the bottom among the districts in respect of literates. South Arcot district has also recorded a low literacy ratio of 42.03 per cent. Four other districts, besides the above have low ratios of less than 50 per cent literates.

The population excluding 0-4 age-group and the number of literates along with the percentage of the latter to the former for state and districts are presented below.

State/District	Total population (excluding Population of 0-4 ages)	Number of literates	Percentage
TAMIL NADU	43,014,323	22,637,659	52.63
1. Madras	2,949,543	2,241,149	75.98
2. Chengalpattu	3,186,541	1,735,904	54.48
3. North Arcot	3,853,528	1,805,086	46.84
4. South Arcot	3,676,232	1,545,288	42.03
5. Dharmapuri	1,741,074	579,163	33.26
6. Salem	3,108,094	1,352,381	43.51
7. Periyar	1,884,672	823,494	43.69
8. Coimbatore	2,783,424	1,625,083	58.38
9. Nilgiri	566,923	356,168	62.82
10. Madurai	4,027,916	2,148,345	53.34
11. Tiruchchirappalli	3,230,157	1,647,804	51.01
12. Thanjavur	3,630,772	2,046,358	56.36
13. Pudukkottai	1,015,476	447,619	44.08
14. Ramanathapuram	2,930,665	1,511,473	51.57
15. Tirunelveli	3,167,331	1,863,450	58.83
16. Kanniyakumari	1,261,976	908,894	72.02

1	2	3	4
7. Periyar	56.78	51.05	77.16
8. Coimbatore	70.34	59.37	81.01
9. Nilgiri	75.17	70.67	79.78
10. Madurai	67.00	58.56	81.50
11. Tiruchchirappalli	65.41	58.46	84.48
12. Thanjavur	70.10	66.35	82.49
13. Pudukkottai	61.14	57.66	83.20
14. Ramanathapuram	67.31	61.63	81.11
15. Tirunelveli	71.76	67.21	80.07
16. Kanniyakumari	77.26	75.23	86.98

MAP 79

CHANGE IN MALE LITERACY 1971-81

This map portrays the variation in the effective male literacy percentages in 1981 in the districts as compared to those in 1971. Due to vast improvement in educational facilities in the last few years an increase in the literacy rate among males is observed in all the districts in 1981 as compared to the rates in 1971. The districts have been brought under five broad ranges in accordance with the percentage gain in the literacy rates in 1981 and shaded from high to low values as shown in the legend of the map.

At state level, the male literacy rate has increased from 59.55 per cent in 1971 to 65.58 per cent in 1981, showing an increase of 6.03 per cent. The gain in the percentage of literates among males in the districts varies between 3.15% in Madurai district and 8.71% in Thanjavur district. Chengalpattu district with a gain in the male literacy rate to the tune of 8.50% and Pudukkottai district with a gain of 8.18% have also recorded remarkably high increase in their male literacy ratios besides Thanjavur. Six more districts have also improved their literacy percentages among males in 1981 over 1971 at a rate higher than the state's average percentage gain (6.03 per cent).

The lowest gain in the percentage of male literacy in the last decade is recorded by Madurai district (3.15 per cent). Madras, Ramanathapuram and Kanniyakumari districts have also registered a comparatively poorer gain of less than five per cent each in their male literacy in 1981 over the corresponding ratio in 1971. Madras and Kanniyakumari districts have already achieved very high literacy rates and they occupy the first two positions among districts in 1981 Census as also in the previous Censuses. One could, therefore, expect only a marginal increase in the literacy percentages in these districts, and this is particularly so in regard to male literacy rates, which are already at a high level.

The total male literates in the state have increased by 3.48 million during 1971-81. Madurai district with 1.37 million has the largest number of male literates, followed by Madras and Thanjavur districts with 1.28 million each.

Effective literacy rates among males in 1971 and 1981 Censuses and the gain in percentage during 1971-81 are given below for state and districts.

State/District	Percentage of male literates		Gain in the percentage of male literates in 1981 over 1971
	1981	1971	
1	2	3	4
TAMIL NADU	65.58	59.55	6.03
1. Madras	83.74	79.66	4.08
2. Chengalpattu	67.60	59.10	8.50
3. North Arcot	61.17	55.04	6.13
4. South Arcot	56.44	51.15	5.29
5. Dnarmapuri	44.72	36.92	7.80
6. Salem	55.46	48.55	6.91
7. Periyar	56.78	49.03	7.75
8. Coimbatore	70.34	63.89	6.45
9. Nilgiri	75.17	67.28	7.89
10. Madurai	67.00	63.85	3.15
11. Tiruchchirappalli	65.41	60.17	5.24
12. Thanjavur	70.10	61.39	8.71
13. Pudukkottai	61.14	52.96	8.18
14. Ramanathapuram	67.31	63.99	3.32
15. Tirunelveli	71.76	66.12	5.64
16. Kanniyakumari	77.26	73.74	3.52

MAP 77

CHANGE IN LITERACY 1971-81

This map depicts the percentage variation in the literacy rate in 1981 as compared to the corresponding rate in 1971 at the district level. Population under the age-group of 0-4 have been excluded while working out the literacy ratios. Based on the percentage gain, all the districts have been grouped under five broad ranges and are shaded accordingly.

The state has recorded a good increase of 7.23 points in its literacy rate during the last decade, (from 45.40 per cent in 1971 to 52.63 per cent in 1981). A fairly good increase in the ratio is observed in almost all the districts of the state in the literacy percentage in 1981 over the rate in 1971. Seven out of the 16 districts have revealed higher variation in their ratios than the state average. Thanjavur district with a gain of 10.19 per cent has registered the highest increase, followed by Chengalpattu district with 9.21 per cent and are covered under the range of 9.01 and above. The three western districts of Periyar, Coimbatore and Nilgiri have recorded an almost uniform increase of about 8.5 points each in their literacy ratios during the decade and are covered in the range of 8.01-9.00.

Of the nine districts, which have decadal per-

centage increase below the state average level, five are observed to be in the lowest range of six per cent and below. Among these, the southern most Kanniyakumari district has recorded the minimum gain (5.06 per cent). This district, which was a part of the erstwhile Travancore Cochin state, had a very high literacy rate (of 66.96 per cent). In 1971, in tune with the higher literacy rates in Kerala. In 1981, though the gain in the literacy ratio is the lowest, Kanniyakumari district continues to occupy the second highest rank in literacy (72.02 per cent) among the districts, next only to Madras (75.98 per cent). Madras district has continued to be the premier district in literacy in Tamil Nadu in 1981 Census also with an impressive 75.98 per cent, marking a gain of 5.78 per cent over its 1971 rate. It is significant to note that Dharmapuri district, which is considered as an under-developed district has revealed a good increase of 7.19 points in its percentage of literates, in 1981 over that in 1971, which is very close to the state's average (7.23 per cent).

The literacy percentages in 1971 and 1981 Censuses and the gain in the ratio during 1971-81 in the districts are given below.

State/District	Percentage of literates (excluding 0-4 ages)		Variation (gain) in literacy per cent 1971-81
	1981	1971	
1	2	3	4
TAMIL NADU	52.63	45.40	7.23
1. Madras	75.98	70.20	5.78
2. Chengalpattu	54.48	45.27	9.21
3. North Arcot	46.84	40.19	6.65
4. South Arcot	42.03	36.22	5.81
5. Dharmapuri	33.26	26.07	7.19
6. Salem	43.51	36.07	7.44
7. Periyar	43.69	35.18	8.51
8. Coimbatore	58.38	49.92	8.46
9. Nilgiri	62.82	54.33	8.49
10. Madurai	53.34	48.09	5.25
11. Tiruchchirappalli	51.01	44.56	6.45
12. Thanjavur	56.36	46.17	10.19
13. Pudukkottai	44.08	36.10	7.98
14. Ramanathapuram	51.57	46.26	5.31
15. Tirunelveli	58.83	51.66	7.17
16. Kanniyakumari	72.02	66.96	5.06

MAP 78

MALE LITERACY 1981

The effective literacy rate among males (i.e. excluding children of 0-4 age-group) in the districts along with indication of such rates separately for the rural and urban areas is depicted in this map. Based on the literacy rates among the males, all the districts have been grouped under six broad ranges and shaded by choropleth technique as per the legend of the map. The two side lapping bars represent the literacy rates of males in the 'rural' and 'urban' areas of each district.

The male literacy rate for the entire state stands at 65.58 per cent. Nine of the 16 districts have higher proportions than the state average. Madras district with 83.74 per cent has recorded the highest male literacy rate, followed by Kanniyakumari district with 77.26 per cent and are covered under the range 75.51 and above. These districts have always recorded higher literacy levels than the rest of the districts. Nilgiri district where the literacy rate is 75.17% and the district Tirunelveli with 71.76% literates form the range 70.51-75.50. Five districts namely Coimbatore (70.34%), Thanjavur (70.10%), Chengalpattu (67.60%), Ramanathapuram (67.60%) and Madurai (67.00%) are covered under the range of 65.51-70.50 per cent. The lowest male literacy rate is observed in Dharmapuri district (44.72 per cent). It is the only district where we can observe over half of the male population (of five years and over) as illiterate. South Arcot, Salem and Periyar are the other three districts that have registered low male literacy rates between 55 and 60 per cent.

The male literacy rate in the urban areas of the state stands at a high 80.91 per cent as against a low 57.83 per cent in the rural areas. The southern-most Kanniyakumari district is the most prominent among all the district in the case of both urban and rural male literacy rates with 86.98 per cent and 75.23 per cent respectively. All the southern districts along with Coimbatore, Tiruchchirappalli and Thanjavur districts in the central region and Madras and Chengalpattu districts in the north have recorded very high male literacy rates in urban areas, exceeding 80 per cent. The lowest male literacy rate in the urban areas for any district is revealed by Salem (72.45 per cent). Dharmapuri district has registered a literacy rate of 74.47 per cent among its urban male population.

In the rural sector, Nilgiri district (70.67 per cent) has recorded the second highest male literacy rate, next to Kanniyakumari district (75.23 per cent). Tirunelveli (67.21 per cent), Thanjavur (66.35 per cent) and Ramanathapuram (61.63 per cent) districts have also registered fairly good ratios of male literacy in their respective rural areas. Only Dharmapuri and Salem districts (with 41.61 per cent and 48.54 per cent respectively) have recorded low rural male literacy rates that are less than even 50 per cent.

The effective literacy rates for males in total, rural and urban areas are presented below for state and districts.

State/District	Percentage of male literates (excluding 0-4 age-group)		
	Total	Rural	Urban
1	2	3	4
TAMIL NADU	65.58	57.83	80.91
1. Madras	83.74	-	83.74
2. Chengalpattu	67.60	58.47	81.48
3. North Arcot	61.17	56.68	76.11
4. South Arcot	56.44	51.98	79.76
5. Dharmapuri	44.72	41.61	74.47
6. Salem	55.46	48.54	72.45

MAP 80

FEMALE LITERACY 1981

The proportion of literates among female population (excluding 0-4 age-group) is portrayed in this map at district level. All the districts have been brought under six broad ranges in accordance with their ratio of female literates. Two side-lapping bars drawn for each district represent the female literacy percentages in the rural and urban areas separately.

The female literacy rate in the state stands at 39.37 per cent. Seven of the 16 districts have revealed higher rates than the state average. Very high literacy rates of over 65 per cent among the females are observed in the districts of Madras (67.63 per cent) and Kanniyakumari (66.69 per cent). Incidentally, these two districts alone have recorded over 50 per cent of literacy among the females. Fairly good literacy ratios among the females, ranging between 40 to 50 per cent have also been registered in five districts, viz., Chengalpattu, Coimbatore, Nilgiri, Thanjavur and Tirunelveli.

Of the nine districts having lower rates of female literacy than the state average ratio, five districts fall in the ranges of 30.01-35.00 and 35.01-40.00 per cent. South Arcot, Dharmapuri, Periyar and Pudukkottai districts, generally categorised as backward districts, have recorded very poor rates of less than 30 per cent of literates among females. Among all the districts Dharmapuri has registered the lowest ratio of 21.33 per cent. It is the only district in Tamil Nadu, where over three-fourths of the female population are illiterate.

The female literacy rate in the urban areas of the state is far higher (60.45 per cent) when compared with a poor 29.10 per cent in the rural areas. Kanniyakumari district which was part of the former Travancore-Cochin state (before the state's reorganisation) is the only district with a very high female literacy rate both in rural (64.45 per cent) and urban (77.16 per cent) areas, which is similar to the high rates existing in the southern part of Kerala. It is indeed significant to note that in all the districts of the state, female literacy rates exceed 50 per cent in the urban areas. Considering the rural areas alone, we observe very poor female literacy rates in almost all the districts. Kanniyakumari is the only exception to this, where we see a higher female literacy rate of over 60 per cent in rural areas also. Nilgiri (42.36 per cent) and Tirunelveli (40.40 per cent) are the other districts where the rural female literacy rates are somewhat good. Literacy rates ranging between 30 and 40 per cent are recorded among the rural females of Thanjavur and Coimbatore districts. Chengalpattu district (29.19 per cent) has revealed a ratio which is just above the state's average (29.10 per cent). Five other districts have not registered even one-fourth of their rural females as literates. Dharmapuri district, with 18.13 per cent, stands at the bottom of all the districts in the case of rural female literacy rate also.

The effective literacy rates of females in all districts with rural and urban break-up are presented in the following statement.

	1	2	3	4
6. Salem		30.99	23.26	50.14
7. Periyar		29.99	23.48	53.73
8. Coimbatore		45.77	31.86	59.89
9. Nilgiri		49.88	42.36	58.10
10. Madurai		39.33	27.36	60.58
11. Tiruchchirappalli		36.43	26.71	64.18
12. Thanjavur		42.46	36.56	61.96
13. Pudukkottai		27.16	22.17	59.97
14. Ramanathapuram		36.31	28.15	57.31
15. Tirunelveli		46.57	40.40	58.41
16. Kanniyakumari		66.69	64.45	77.16

State/District	Percentage of female literates (excluding 0-4 age-group)		
	Total	Rural	Urban
1	2	3	4
TAMIL NADU	39.37	29.10	60.45
1. Madras	67.63	-	67.63
2. Chengalpattu	40.68	29.19	59.17
3. North Arcot	32.16	25.85	53.15
4. South Arcot	27.22	21.38	58.09
5. Dharmapuri	21.33	18.13	52.39

MAP 81

CHANGE IN FEMALE LITERACY 1971-81

The percentage variation in the effective literacy rate among females in 1981 as compared to the corresponding rate in 1971 is depicted at district level in this map. Quite an impressive increase in the female literacy ratio is observed in 1981 in almost all the districts of the state over similar ratio in 1971. Based on the percentage gain recorded in the decade, all the districts have been brought under five broad ranges and shaded accordingly.

The state has revealed a remarkable increase of 8.45 per cent in its female literacy ratio during 1971-81 (from 30.92 per cent in 1971 to 39.37 per cent in 1981). Six of the 16 districts have recorded a higher increase than the state average. It is significant to note that the predominantly agriculture-oriented district of Thanjavur has registered the highest gain of 11.58 per cent in its female literacy ratio. Coimbatore and Chengalpattu, the districts well up in industrial progress, are the other two districts which have gained over ten points each in the percentage of female literates in the last decade.

Of the ten districts, which have gained a ratio of less than 8.45 per cent (state average), South Arcot (6.47 per cent) and Dharmapuri (6.50 per cent) districts have recorded the minimum increase. Kanniyakumari and Ramanathapuram districts have also registered very low increase of less than seven per cent in their female literacy rates. The remaining six districts have improved their rates by 7 to 8 per cent.

In 1971, Kanniyakumari district, had the highest female literacy rate (59.99 per cent). It was then followed by Madras City district with 59.65 per cent. But in 1981, with a female literacy percentage exceeding that of Kanniyakumari district, Madras (with 67.63 per cent) occupies the prime position among the districts of the state.

The effective female literacy rates in 1971 and 1981 Censuses and the gain in the percentage during 1971-81 are presented below for state and districts

State/District	Female literacy per cent (excluding 0-4 ages)		Percentage gain during 1971-81
	1981	1971	
TAMIL NADU	39.37	30.92	8.45
1. Madras	67.63	59.65	7.98
2. Chengalpattu	40.68	30.59	10.09
3. North Arcot	32.16	24.84	7.32
4. South Arcot	27.22	20.75	6.47
5. Dharmapuri	21.33	14.83	6.50
6. Salem	30.99	20.82	9.17
7. Periyar	29.99	20.82	9.17
8. Coimbatore	45.77	35.18	10.59
9. Nilgiri	49.88	40.49	9.39
10. Madurai	39.33	32.14	7.19
11. Tiruchchirappalli	36.43	28.74	7.69
12. Thanjavur	42.46	30.88	11.58
13. Pudukkottai	27.16	19.43	7.73
14. Ramanathapuram	36.31	29.40	6.91
15. Tirunelveli	46.57	37.90	8.67
16. Kanniyakumari	66.69	59.99	6.70

MAP 82

EDUCATIONAL ATTAINMENT 1981

This map gives us an idea on the educational attainment of the people at district level. Persons with different educational levels have been grouped under five categories, viz., (i) Primary and middle, (ii) Matriculation/Secondary, Higher Secondary, Intermediate/Pre-University, Non-Technical or Technical Diploma/Certificate not equal to degree (iii) Graduate and above (iv) Literates without educational level and (v) Illiterates. For each district the above five categories are represented by columnar diagrams drawn by solid coloured vertical circles of equal size, each representing specified persons, as shown in the legend of the map.

Of the 48.41 million population of the state, 25.77 million constituting 53.24 per cent are illiterates. The literate and educated persons constitute 46.76 per cent of which 14.17 per cent represent literates without any level of education. The latter includes persons who have attained literacy through formal as well as non-formal education, but without attaining any educational level. While 22.97 per cent of the population have studied upto primary and middle level, 8.35 per cent have studied above this level but below graduate level (including persons holding technical or non-technical diplomas/certificates, not equal to degree). Persons who have attained graduate and above level of education constitute a mere 1.27 per cent of the total population at state level.

Madras district with 30.25 per cent has the highest ratio of persons with educational level upto primary and middle level and Kanniyakumari district stands second in this regard with 28.39 per cent. Coimbatore, Nilgiri, Thanjavur and Tirunelveli are the other important districts where over 25 per cent of population have studied upto this minimum level of education. Dharmapuri district with 13.32 per cent has recorded the lowest ratio under this educational level.

The ratio of population in the higher category viz., Matriculation and above but below graduate level is found highest in Madras (20.05 per cent) followed by Kanniyakumari district (12.52 per cent). Chengalpattu, Coimbatore and Nilgiri are the three other districts which have registered above the state's average ratio (8.35 per cent) in this level.

Of the total 6.13 lakh graduates in the state, the largest number of 1.70 lakh are found in Madras district. They constitute 5.18 per cent of the population of this city district. Chengalpattu, Coimbatore, Nilgiri, Madurai and Kanniyakumari are the other districts with over one per cent of their respective population with graduates and above level of qualification. The highest ratio of persons who are literates but have not attained any level of education is found in Kanniyakumari district (21.16 per cent). Comparatively high ratios of such persons (of 15-20 per cent) are also observed in Coimbatore, Nilgiri, Thanjavur and Tirunelveli districts. In all the above discussed categories of educational level, Dharmapuri district, which is generally considered as the most backward among all, has recorded the lowest percentage. About 71 per cent of the people in this district do not know how to read and write. South Arcot, Salem, Periyar and Pudukkottai are the other districts with comparatively poor literacy rates. Between 60 and 65 per cent of the population of these districts are illiterates. Madras with 31.60 per cent and Kanniyakumari district with 36.15 per cent have recorded the minimum ratios of illiterates. These two districts have always maintained comparatively high literacy rates among the districts of the state in the last many Censuses.

The percentage distribution of population among the five different educational groups discussed above is given in the statement for the state and districts in next page.

State/District	Percentage distribution of population with level of education					
	Population	I Primary and Middle	II Matriculation/ Secondary/ Higher Secondary/ Intermediate/ Pre-University etc.	III Graduate and above	IV Literates without educational level	V Illiterates
1	2	3	4	5	6	7
TAMIL NADU	100.00	22.97	8.35	1.27	14.17	53.24
1. Madras	100.00	30.25	20.05	5.18	12.92	31.60
2. Chengalpattu	100.00	22.79	10.07	1.28	13.86	52.00
3. North Arcot	100.00	21.02	6.37	0.68	12.82	59.11
4. South Arcot	100.00	18.58	5.66	0.66	11.88	63.22
5. Dharmapuri	100.00	13.32	4.10	0.42	11.16	71.00
6. Salem	100.00	19.48	6.91	0.94	11.96	60.71
7. Periyar	100.00	19.60	6.12	0.73	13.36	60.19
8. Coimbatore	100.00	25.31	10.51	1.60	15.68	46.90
9. Nilgiri	100.00	26.89	11.18	1.41	17.04	43.48
10. Madurai	100.00	24.20	7.79	1.24	14.13	52.64
11. Tiruchchirappalli	100.00	22.68	8.25	0.98	13.71	54.38
12. Thanjavur	100.00	25.59	7.78	0.93	16.06	49.64
13. Pudukkottai	100.00	18.73	4.83	0.60	14.54	61.30
14. Ramanathapuram	100.00	23.15	6.38	0.91	14.87	54.69
15. Tirunelveli	100.00	26.92	7.03	0.93	17.26	47.86
16. Kanniyakumari	100.00	28.39	12.52	1.78	21.16	36.15

MAP 83

URBAN LITERATES PER 1000 OF POPULATION IN AGE 5-14 OVER LITERATES PER 1000 OF POPULATION IN AGE 15-34 1981

This map shows the variation in the proportion of literates per 1000 persons in age-group 5-14 over similar ratio in age-group 15-34 in urban areas at district level. A deficit in the ratio of literates in the age-group 5-14 over 15-34 age-group is observed in all the districts. This slightly lower ratio in younger age-group of 5-14 may be ascribed to the fact that many children are enrolled in schools in later ages of 6 to 10 years and even beyond and they also attain literacy levels only after 3 or 4 years at school. Further, after primary or middle level, more educated youth of the higher age-groups, 15-34 move into urban areas for higher studies and also in search of employment opportunities. All the districts have been brought under six broad ranges of deficit in ratio, in accordance with their shortfall in the ratio of literates in the younger age-group of 5-14 over that in 15-34.

In the urban areas of Tamil Nadu, a shortfall of 80 literates per 1000 persons is noticed in the age-group of 5-14 as compared to the corresponding ratio in 15-34 age-group. A higher deficit than this in the ratio is observed in seven out of the 16 districts. Pudukkottai district has revealed the highest deficiency (124) in the proportion of literates in 5-14 ages over 15-34 age-group. Madras is the only other district,

which has shown a deficit of (-111) over 100 literates per 1,000 persons. Five districts, viz., Tiruchchirappalli (-79), Thanjavur (-83), South Arcot, Ramanathapuram and Tirunelveli (-81 each) which are all contiguous and extend from central region of the state towards the southern part, have recorded deficiency ranging between 76 and 85 literates per 1000 persons in the younger age-group.

Of the nine districts, which have revealed lesser deficit in the proportion of literates than the state average (-80), Salem (-33) has registered the minimum. Kanniyakumari district has recorded the highest ratio of literates per 1000 of population among the districts both in the age-groups 15-34 (901) as also 5-14 (849) and it reveals a variation of only 52 literates between these age-groups. With the exception of Kanniyakumari, all the other 7 districts which have recorded a shortfall of less than 75 literates per 1000 persons in the younger age-group of 5-14 over that in 15-34 ages are all located as a contiguous block in the northern and western parts of the state.

The proportion of literates per 1000 of population in the two age-groups of 5-14 and the shortfall in the younger age-group over that of the older one are presented below for the state and districts.

State/District	Urban literates per 1000 persons in age-group		Variation in the ratio of 5-14 over 15-34 age-group
	5-14	15-34	
TAMIL NADU	718	798	- 80
1. Madras	730	841	- 111
2. Chengalpattu	715	789	- 74
3. North Arcot	675	733	- 58
4. South Arcot	694	775	- 81
5. Dharmapuri	661	772	- 61
6. Salem	666	699	- 33
7. Periyar	692	749	- 57
8. Coimbatore	743	804	- 61
9. Nilgiri	708	778	- 70
10. Madurai	722	808	- 86
11. Tiruchchirappalli	759	838	- 79
12. Thanjavur	729	812	- 83
13. Pudukkottai	700	824	- 124
14. Ramanathapuram	715	796	- 81
15. Tirunelveli	706	787	- 81
16. Kanniyakumari	849	901	52

MAP 84

RURAL LITERATES PER 1000 OF POPULATION IN AGE 5-14 OVER LITERATES PER 1000 OF POPULATION IN AGE 15-34 1981

This map portrays the variation in the ratio of literates per 1000 of population in age-group 5-14 over similar proportion in age-group 15-34 in the rural areas of districts. Due to increase in educational opportunities in rural areas and introduction of free education upto secondary level, more and more children have started attending schools in the villages and are acquiring literacy and higher levels of education. This is reflected in the Census data also where we find a higher literacy ratio in the younger age-group of 5-14 than in the older age-group of 15-34. The migration of a large number of educated youths of 15-34 ages to big urban centres towards higher studies and employment also contributes towards a higher literacy ratio in the younger age-group of 5-14 in the rural areas. All except South Arcot and Nilgiri districts reveal an excess of literates per 1000 persons in the age-group 5-14 over similar ratio in the age-group 15-34. Barring Madras which is entirely urban, all the other 15 districts have been brought under six convenient ranges (five under excess and one under deficit) based on variation in the proportion of literates in the two age-groups.

At state level, we find an excess of 18 literates per 1000 persons in the rural areas in the age-group of 5-14 over the corresponding ratio in 15-34 age-group. Salem district with an excess of 60 in the ratio of literates in 5-14 age-group reveals the maximum variation among the districts, followed by Periyar

district with an excess of 53 points in the ratio. Dharmapuri (47) and Chengalpattu (35) districts too have recorded sizable gains in the proportion of literates in 5-14 age-group over 15-34 age-group. North Arcot and Tiruchchirappalli are the two other districts which have revealed an excess in the ratio higher than the state's average gain (18). Five districts which have recorded an increase in the ratio that is below the state average gain of 18 literates per 1000 population in the younger age-group over the older age-group in their respective rural areas fall in the same range of 12-19. Kanniyakumari district with a gain of six per 1000 literates in the 5-14 age-group has the minimum 'gain' in ratio among the districts. This district has recorded the highest proportion of literates per 1000 in both the age-groups 5-14 (803) and 15-34 (797). There is thus little scope for further big 'gain' in ratio in the younger age-group in this district.

The two districts which have revealed 'deficit' or 'loss' in the rural literacy ratio in the younger age-group of 5-14 over that of 15-34 are Nilgiri (5 per 1000 and South Arcot (2 per 1000) districts.

The proportion of literates per 1000 of population in the two age-groups, 5-14 and 15-34 and the variation in the younger age-group over that of the older one are given below for state and districts.

State/District	Rural literates per 1000 of population		Excess or deficit (+ or -) in ratio in 5-14 age-group over 15-34
	5-14 age-group in 1981	15-34 age-group in 1971	
1	2	3	4
TAMIL NADU	524	506	+18
1. Madras	-	-	-
2. Chengalpattu	540	505	+35
3. North Arcot	505	481	+24
4. South Arcot	420	422	-2
5. Dharmapuri	391	344	+47
6. Salem	492	432	+60
7. Periyar	498	445	+53

	1	2	3	4
8. Coimbatore		558	546	+12
9. Nilgiri		646	651	-5
10. Madurai		509	494	+15
11. Tiruchchirappalli		523	503	+20
12. Thanjavur		605	593	+12
13. Pudukkottai		467	456	+11
14. Ramanathapuram		525	513	+12
15. Tirunelveli		622	609	+13
16. Kanniyakumari		803	797	+6

PRIMARY SCHOOL ENROLMENT OF BOYS 1981

This map gives an idea on the extent of school enrolment of boys in the age-group 5-14 who are literates and who have studied upto the primary and middle school levels of education in the different districts of Tamil Nadu. Based on the ratio of school enrolment of boys, all the districts have been brought under six broad ranges and hatched as shown in the legend of the map.

At state level, 23.89 per cent of boys in the age-group 5-14 are observed to be attending schools. A higher enrolment ratio than this state average has been registered by seven out of the 16 districts of the state. The highest enrolment ratio is observed in Kanniyakumari district (30.94 per cent), which is closely followed by Madras city with 30.91 per cent. Nilgiri district with a ratio of 27.82 per cent occupies the third position among the districts. Thanjavur and

Tiruchchirappalli districts have also recorded fairly good ratios of over 25 per cent. Nearly one-fourth of the boys in the age-group 5-14 are attending schools in Chengalpattu and Coimbatore districts also.

Of the nine districts which have revealed lower enrolment ratios than the state average ratio (23.89 per cent), five districts have registered proportions exceeding 22 per cent and the three others have ratios between 20 to 22 per cent. Dharmapuri district has recorded the lowest ratio of 16.26 per cent and it is the only district in the state, where we find an enrolment proportion of less than 20 per cent.

Data on boys in the age-group 5-14 and the extent of their school attendance with educational level upto primary and middle schools along with their ratios are given below for state and districts.

State/District	Boys in 5-14 age-group	Literate boys 5-14 (Primary and middle level) attending schools	Percentage of enrolment in schools
TAMIL NADU	5,873,950	1,403,197	23.89
1. Madras	380,543	117,637	30.91
2. Chengalpattu	446,453	110,882	24.84
3. North Arcot	552,242	124,633	22.57
4. South Arcot	529,977	106,077	20.02
5. Dharmapuri	267,095	43,443	16.26
6. Salem	406,678	93,424	22.97
7. Periyar	221,597	47,348	21.37
8. Coimbatore	339,609	83,691	24.64
9. Nilgiri	79,195	22,035	27.82
10. Madurai	566,236	132,138	23.34
11. Tiruchchirappalli	422,575	107,389	25.41
12. Thanjavur	486,872	127,403	26.17
13. Pudukkottai	148,345	32,326	21.79
14. Ramanathapuram	409,179	96,258	23.52
15. Tirunelveli	445,834	105,438	23.65
16. Kanniyakumari	171,519	53,076	30.94

PRIMARY SCHOOL ENROLMENT OF GIRLS 1981

This map which is similar to the previous map for boys, shows the extent of school enrolment of girls in the age-group 5-14 who are literates and who have studied upto the primary and middle schools levels of education in the districts of the state. All the districts have been grouped into six broad ranges in accordance with the ratio of schools enrolment of girls.

In Tamil Nadu, only 16.09 per cent of girls in the age-group 5-14 with primary and middle school level of education are found to be attending schools. A higher proportion than this state average has been recorded by seven of the 16 districts. As in the case of boys, Madras, Nilgiri and Kanniyakumari districts along with coimbatore district fall under the highest range of 18.50 per cent and above. Among them, Madras and Kanniyakumari districts occupy the first and second places with 28.40 per cent and 28.00 per cent respectively. The levels of literacy and education have been always higher in these districts as compared to the rest of the state, due to the existence of comparatively larger number of educational insti-

tutions and facilities. Tiruchchirappalli, Thanjavur and Chengalpattu districts have also recorded fairly good ratios of over 16 per cent.

Of the nine districts, which have registered lower enrolment ratios of girls than the state average ratio (16.09 per cent), Salem, Madurai and Tirunelveli districts have revealed very close ratios with that of the state. The lowest ratio is observed in Dharmapuri district (8.73 per cent). Pudukkottai which has also poor ratio (9.69 per cent) is the only other district where the ratio stands below 10 per cent. In South Arcot district too, the ratio is low (11.15 per cent). Generally, we find that in all the districts, the ratio of enrolment of girls in 5-14 ages in schools is far below that among boys.

The following statement shows districtwise data on the number of girls in the age-group 5-14 and the number and percentage among them who are literate and attending schools with primary and middle school level of education.

State/District	Girls in 5-14 age-group	Literate girls (primary/middle level) attending schools	Percentage of enrolment in schools
TAMIL NADU	5,681,609	914,360	16.09
1. Madras	365,253	103,727	28.40
2. Chengalpattu	432,022	70,342	16.28
3. North Arcot	541,061	69,889	12.92
4. South Arcot	514,003	57,326	11.15
5. Dharmapuri	261,279	22,805	8.73
6. Salem	380,167	60,381	15.88
7. Periyar	214,454	29,616	13.81
8. Coimbatore	333,693	65,939	19.76
9. Nilgiri	77,566	17,424	22.46
10. Madurai	541,814	85,827	15.84
11. Tiruchchirappalli	406,753	67,528	16.60
12. Thanjavur	475,549	78,590	16.53
13. Pudukkottai	142,479	13,806	9.69
14. Ramanathapuram	397,805	56,472	14.20
15. Tirunelveli	431,628	68,183	15.80
16. Kanniyakumari	166,082	46,503	28.00

EDUCATIONAL ENROLMENT OF FEMALES AT MATRICULATION/SECONDARY, HIGHER SECONDARY AND HIGHER LEVELS 1981

The extent of educational enrolment of females in the age-group of 15-24, who have studied upto Matriculation/Secondary, Higher Secondary and higher levels of education is portrayed in this map at district level. Based on the ratio of enrolment, all the districts have been brought under six broad ranges and are shaded as indicated in the legend of the map.

In Tamil Nadu, there are 2.36 lakh of females in the age-group 15-24 who are qualified upto Matric/Secondary, Higher Secondary and higher levels of education and who attend schools/colleges. They constitute 5.09 per cent of the total female population in the age-group 15-24. Madras district with 12.59 per cent has the highest ratio of female enrolment in such educational institutions. It is closely followed by Kanniyakumari district with 11.82 per cent. Comparatively larger number of educational institutions exist in these districts, which also have the distinction of possessing very high literacy levels, when compared to other districts. The three contiguous western districts of Coimbatore (6.10 per cent) Madurai (5.98 per cent) and Nilgiri (5.69 per cent) have also recorded fairly good ratios of female enrolment in higher classes. All the above mentioned five districts have revealed higher ratios than the state average ratio

(5.09 per cent) of enrolment of females in 15-24 age-group.

Of the 11 districts which have registered lower proportions of female enrolment than the state's ratio, six districts have ratios between four to five per cent. The lowest percentage for any district is recorded by Dharmapuri (1.71 per cent). This district stands at the bottom of all districts in literacy rate also with very poor percentage. South Arcot (2.74 per cent), Periyar (2.79 per cent) and Pudukkottai (2.15 per cent) districts have also registered very low ratios of female enrolment. The districts with very low proportions of less than four per cent of educational enrolment of females in the age-group of 15-24 with such higher educational level are all seen to be in northern part of the state, the lone exception being Pudukkottai, which is in the south.

Data on female population in the age-group 15-24 and the number among them who are enrolled in educational institutions with qualification of matriculation/secondary, higher secondary and higher levels of education, along with their percentages are presented below for the state and districts.

State/District	Females (15-24 age group)	Females enrolled in Matric/Secondary, Higher Secondary and Higher levels	Percentage of enrolment
TAMIL NADU	4,632,935	235,954	5.09
1. Madras	347,957	43,792	12.59
2. Chengalpattu	338,311	15,551	4.60
3. North Arcot	394,549	13,820	3.50
4. South Arcot	377,955	10,370	2.74
5. Dharmapuri	172,001	2,944	1.71
6. Salem	325,314	13,253	4.07
7. Periyar	194,851	5,428	2.79
8. Coimbatore	309,140	18,872	6.10
9. Nilgiri	70,049	3,989	5.69
10. Madurai	435,631	26,054	5.98
11. Tiruchchirappalli	338,344	16,256	4.80
12. Thanjavur	398,457	16,421	4.12
13. Pudukkottai	103,861	2,233	2.15
14. Ramanathapuram	323,002	13,430	4.16
15. Tirunelveli	351,944	15,617	4.44
16. Kanniyakumari	151,570	17,922	11.82

TEACHERS PER 1000 OF STUDENTS AT PRIMARY, SECONDARY, UNIVERSITY LEVEL AND OF ALL GRADES PER 100 SCHOOLS 1981

Four small maps presented here depict the teacher-student ratio at the primary, secondary and university levels of education and also the ratio of teachers of all grades per 100 schools and other educational institutions at district level. 'Other educational institutions' referred here include special schools like those for physically handicapped, pre-primary schools, jail/reformatory schools, oriental and handicraft schools. In all the four maps, the ratios have been grouped under five broad ranges and are drawn by using choropleth method, as given in the legend of the maps.

The number of teachers per 1000 students at the primary level of education in the state (i.e. standards I-VIII) stands at 27. There are 8.19 million students and 221,675 teachers at primary level of education in the state. The highest ratio of teachers per 1000 students (31) is observed in Tirunelveli district. In North Arcot and Nilgiri districts too, this ratio is comparatively high (29). While four districts have the same ratio as for the state, viz., 27, seven others have recorded ratios below the state's average ratio of 27 at primary level of education.

The ratio of teachers per 1000 students at secondary level of education (i.e. standards IX to XII) is 50 for the state as a whole. Among the districts, the highest teacher-student ratio is observed in Kanniyakumari district (61) while the lowest is recorded in Thanjavur district (42). The second high teacher-student ratio in this level of education is seen in Nilgiri district (59). Five district, viz., North Arcot, Dharmapuri, Salem, Coimbatore and Ramanathapuram fall in the ratio range of 51-55. While the ratio range of 46-50 covers seven districts, the lowest range 45 and below

consists of the two districts of Chengalpattu (45) and Thanjavur (42).

In the field of higher education at university level, there are 163,271 students and 13,122 teachers in the state and this works to 80 teachers per 1000 college students. The highest ratio at university level among the districts is observed in Nilgiri (139) and it is followed by Ramanathapuram with a ratio of 93. There are eight districts with ratios falling between 80 and 90 teachers per 1000 students at university level of education. The lowest ratio is recorded in Chengalpattu district (70).

The total number of schools and other educational institutions in the state is 36,995 as in 1981. There are 269,926 teachers employed in these schools. The proportion of teachers per 100 schools and other educational institutions stands at 730 in the state. Madras city, has revealed a very high ratio of 2,062 teachers per 100 schools among the districts. The next highest ratio is deserved in Kanniyakumari district (1686). Besides the above two districts, Coimbatore (861) and Nilgiri (808) also have a comparatively higher ratio. Four districts, viz., Chengalpattu (722), Salem (796), Madurai (797) and Tirunelveli (732) fall in the ratio range 701-800. The lowest ratio is recorded by Dharmapuri district (452).

Data on the ratio of teachers to 1000 students each at primary, secondary and university level and the ratio of teachers per 100 schools are given below for the state and districts.

State/District	Teachers per 1,000 students at			Teachers of all grades per 100 schools
	Primary level	Secondary level	University level	
1	2	3	4	5
TAMIL NADU	27	50	80	730
1. Madras	25	50	75	2,062
2. Chengalpattu	26	45	70	722
3. North Arcot	29	52	78	658
4. South Arcot	25	50	73	610

MAP 87

**EDUCATIONAL ENROLMENT OF MALES AT MATRICULATION/SECONDARY,
HIGHER SECONDARY AND HIGHER LEVELS 1981**

This map depicts the extent of educational enrolment of males in the age-group of 15-24, who have studied upto Matriculation/Secondary, Higher Secondary and higher levels of education at district level. All the districts have been grouped into six broad ranges in accordance with the ratio of enrolment, as indicated in the legend of the map.

At state level, there are about five lakh males in the age-group of 15-24 who have qualified upto matric/secondary, higher secondary and higher levels of education and who were attending schools/colleges in 1981. They constitute just 10.86 per cent of the total male population in the age-group of 15-24 (4.6 million). Eight of the 16 districts have recorded higher ratios than the state average ratio of enrolment. Madras district with 18.33 per cent has revealed the highest ratio of enrolment of males of 15-24 ages in higher educational institutions. Kanniyakumari district has also registered a high ratio of 17.28 per cent. Comparatively wider educational opportunities for higher-level education exist in these districts and they also possess a very high literacy level and desire for pursuit of higher education. Six more districts, viz., Coimbatore, Nilgiri, Madurai, Tiruchchirappalli, Thanjavur and Ramanathapuram all in a contiguous belt extending from the western to the eastern and south-eastern regions of the state, have also registered fairly good

ratios of male enrolment in higher level classes. Each of these districts reveal a ratio of 11 to 12 per cent, which is higher than the state average ratio (10.86 per cent). The enrolment discussed here includes attendance of professional institutions like medical, engineering, etc. colleges.

Eight districts have revealed lower percentages than the state's ratio and of these, Dharmapuri (5.51 per cent) has registered the lowest ratio. Pudukkottai (6.67 per cent) and Periyar (7.10 per cent) districts have also very low percentages of male enrolment in higher levels of education. North Arcot, South Arcot and Salem are the other districts which have recorded low proportion of male enrolment (of less than ten per cent). Very low ratios are indicative of poorer enrolment in higher educational classes among males of 15-24 ages. All the districts with less than 10 per cent of enrolment are observed to be in the northern part of the state, the lone exception being Pudukkottai in the south.

Data on male population in the age-group 15-24 and the number among them who are enrolled in educational institutions with qualification upto matric/secondary, higher secondary and higher levels of education along with their percentages are given below for state and districts.

State/District	Population of males (15-24 age-group)	Males (15-24) with Matric/Secondary, Higher Secondary and Higher level qualification	Percentage of enrolment
1	2	3	4
TAMIL NADU	4,602,077	499,829	10.86
1. Madras	349,615	64,094	18.33
2. Chengalpattu	348,433	36,356	10.43
3. North Arcot	401,870	35,306	8.79
4. South Arcot	379,496	31,945	8.42
5. Dharmapuri	183,407	10,106	5.51
6. Salem	340,316	31,965	9.39
7. Periyar	196,636	13,956	7.10
8. Coimbatore	318,076	37,405	11.76

	1	2	3	4
9. Nilgiri		66,315	7,650	11.54
10. Madurai		434,253	48,230	11.11
11. Tiruchchirappalli		334,564	37,348	11.16
12. Thanjavur		400,759	47,243	11.79
13. Pudukkottai		100,103	6,675	6.67
14. Ramanathapuram		299,069	35,204	11.77
15. Tirunelveli		305,329	31,484	10.31
16. Kanniyakumari		143,833	24,858	17.28

1	2	3	4	5
5. Dharmapuri	25	54	83	452
6. Salem	27	54	86	796
7. Periyar	27	49	75	556
8. Coimbatore	26	51	80	861
9. Nilgiri	29	59	139	808
10. Madurai	27	46	82	797
11. Tiruchchirappalli	28	50	82	700
12. Thanjavur	26	42	75	700
13. Pudukkottai	24	48	89	489
14. Ramanathapuram	28	54	93	593
15. Tirunelveli	31	50	87	732
16. Kanniyakumari	27	61	82	1,686

MAP 90

LITERATES HOLDING NON-TECHNICAL AND TECHNICAL DIPLOMA OR CERTIFICATE NOT EQUAL TO DEGREE 1981

This map portrays the proportion of literates holding non-technical and technical diploma or certificate not equal to degree per 10,000 literate persons at district level. All the districts have been brought under six broad ranges in accordance with the proportion of persons holding diploma or certificate not equal to degree per 10,000 literates. Circles in proportion to the total number of such diploma or certificate holders have been drawn for each district with different hatchings to indicate the extent of non-technical and technical diploma/certificate holders among them.

In Tamil Nadu, there are on an average 55 persons holding technical or non-technical diplomas or certificates not equal to degree for every 10,000 literates. The proportion is higher than the state average in six of the 16 districts. The highest ratio of 105 is observed in Kanniyakumari district, followed by Madras with 101 such diploma or certificate holders for every 10,000 literates. Chengalpattu, Tiruchchirappalli, Coimbatore and Tirunelveli are the other four districts which have recorded higher ratios over the state's average.

Of the ten districts which have registered lower proportions than the state average, Pudukkottai district has revealed the minimum ratio of 21 diploma or certificate holders per 10,000 literates. Periyar district (with 28) has also recorded a very low ratio. Five

districts have ratios ranging between 31 and 40 persons with such qualifications among 10,000 literates. In the state, there are 1.24 lakh persons holding technical/non-technical diplomas/certificates which are not equal to degree. The largest number of nearly 23 thousands of such persons are found in Madras district, where comparatively more educational and employment opportunities exist. Very large numbers ranging between 10 and 20 thousands of diploma or certificate holders are found in each of the districts of Chengalpattu, Tiruchchirappalli and Tirunelveli.

Among the total diploma or certificate holders in the state, persons having technical diploma/certificate form a sizable proportion of 88.44 per cent. The highest ratio of 94.64 per cent of technically qualified persons among such diploma/certificate holders is recorded by Nilgiri district, closely followed by Tirunelveli district with 94.39 per cent. Literates with non-technical diploma/certificates form a comparatively highest ratio in Madurai district (19.34 per cent). Such persons constitute less than ten per cent in the districts of Madras, Chengalpattu, Nilgiri, Ramanathapuram and Tirunelveli.

The proportion of literates holding technical or non-technical diploma or certificate not equal to degree level per 10,000 literates and the percentage distribution of technical and non-technical among them for the state and districts are presented below.

State/District	Ratio of literates holding non-tech. or tech. diploma/cert. per 10,000 literates	Percentage distribution of diploma or certificate holders	
		Non-technical	Technical
1	2	3	4
TAMIL NADU	55	11.56	88.44
1. Madras	101	6.57	93.43
2. Chengalpattu	76	8.50	91.50
3. North Arcot	32	15.71	84.29
4. South Arcot	44	17.21	82.79
5. Dharmapuri	37	12.52	87.48

State/District	No. of persons holding degree/diploma, equal to graduate level and above	Ratio of persons with degree/diploma to 10,000 literate and educated persons	Percentage distribution of graduates in	
			Rural areas	Urban areas
TAMIL NADU	612,793	271	23.28	76.72
1. Madras	169,812	758	—	100.00
2. Chengalpattu	46,115	266	21.36	78.64
3. North Arcot	30,177	167	36.10	63.90
4. South Arcot	27,764	180	42.45	57.55
5. Dharmapuri	8,346	144	54.47	45.53
6. Salem	32,333	239	40.23	59.77
7. Periyar	15,015	182	38.44	61.56
8. Coimbatore	48,938	301	16.59	83.41
9. Nilgiri	8,910	250	31.94	68.06
10. Madurai	56,376	262	22.71	77.29
11. Tiruchchirappalli	35,347	215	28.55	71.45
12. Thanjavur	37,816	185	39.52	60.48
13. Pudukkottai	6,896	154	37.96	62.04
14. Ramanathapuram	30,232	200	32.68	67.32
15. Tirunelveli	33,416	179	27.68	72.32
16. Kanniyakumari	25,298	278	64.34	35.66

MAP 92

TEACHERS PER 1000 OF POPULATION 1981

This map gives us an idea on the number of teachers available for every 1,000 population in the districts as at 1981. Data on teachers include all teachers at university level, including teachers in training, physical and oriental colleges and in all school. Teachers in professional institutions like Medical and Engineering are however excluded. Based on the ratio of teachers to population, all the districts have been brought under five groups and depicted by choropleth method, as shown in the legend of the map.

On the whole, there are 2.83 lakh teachers, giving a state average of six teachers per 1,000 population. Among the 16 districts, Kanniyakumari district, which has a very high literacy level, has revealed the highest proportion of eight teachers per thousand of population. Nilgiri and Tirunelveli districts have also recorded comparatively higher ratios of seven teachers each. Eight districts have registered a proportion of six teachers per 1,000 of population, which is equal to the state's average ratio. Among these, three districts, viz., Madras, Chengalpattu and North Arcot

are lying contiguously in the northern part of the state and the remaining five districts lie in the central and southern regions, also contiguous to one another. South Arcot, Salem, Periyar and Pudukkottai districts have a ratio of five teachers each. The lowest ratio of four teachers per 1,000 population is recorded in Dharmapuri district, well known for its economic backwardness.

Madurai district (27,851) has the largest number of teachers among all the districts. Tirunelveli district has also a large number of teachers (25,963). Seven districts have between 20 to 25 thousand teachers each and another three districts have between 10 to 20 thousands. The remaining four districts have less number of teachers of below ten thousand each and of these, Nilgiri has the smallest number of teachers (4,417).

The 1981 population, the number of teachers and their ratio to 1,000 population for the state and districts are presented below.

State/District	Population 1981	No. of teachers	Ratio of teachers per 1,000 population
TAMIL NADU	48,408,077	283,048	6
1. Madras	3,276,622	20,902	6
2. Chengalpattu	3,616,508	20,176	6
3. North Arcot	4,414,324	24,564	6
4. South Arcot	4,201,869	20,597	5
5. Dharmapuri	1,997,060	8,814	4
6. Salem	3,441,717	17,909	5
7. Periyar	2,068,462	9,619	5
8. Coimbatore	3,060,184	16,982	6
9. Nilgiri	630,169	4,417	7
10. Madurai	4,535,897	27,851	6
11. Tiruchchirappalli	3,612,320	21,879	6
12. Thanjavur	4,063,545	24,136	6
13. Pudukkottai	1,156,813	5,966	5
14. Ramanathapuram	3,335,437	21,511	6
15. Tirunelveli	3,573,751	25,963	7
16. Kanniyakumari	1,423,399	11,762	8

1	2	3	4
6. Salem	43	15.53	84.47
7. Periyar	28	18.32	81.68
8. Coimbatore	61	10.62	89.38
9. Nilgiri	51	5.36	94.64
10. Madurai	39	19.34	80.66
11. Tiruchchirappalli	66	15.60	84.40
12. Thanjavur	32	14.85	85.15
13. Pudukkottai	21	18.91	81.09
14. Ramanathapuram	37	9.20	90.80
15. Tirunelveli	61	5.61	94.39
16. Kanniyakumari	105	13.22	86.78

MAP 91

LITERATES HOLDING UNIVERSITY DEGREE/DIPLOMA OF THE GRADUATE LEVEL AND ABOVE 1981

This map depicts the ratio of persons holding university degree/diploma of the graduate level and above per 10,000 literate population in all the districts of the state as per the 1981 Census. A pie diagram has been drawn for each district in proportion to the district's size of persons holding degrees/diplomas of graduate level and the diagrams has been divided into two sectors each showing percentage share of rural and urban literates in above levels of education. The rural sector has been shaded to differentiate from urban. Based on the ratio of persons with degrees/diplomas to 10,000 literate population, all the districts have been grouped into six broad ranges and shaded according to their value, as shown in the legend.

At state level, there are 271 graduate level degree/diploma holders per every 10,000 literate persons. Madras (758) has the highest ratio among the districts. Coimbatore (301) and Kanniyakumari (278) are the other two districts which have recorded higher ratios than the state's average. The remaining 13 districts have lesser ratios than this. The significantly high concentration of graduates and technically educated persons in Madras city is obviously due to the industrial and commercial character of this big metropolis which is also the state's headquarters. There are many other educational institutions and research centres here. Due to the existence of wider opportunities for employment of educated persons, there is a high concentration of individuals possessing qualifications upto graduate level and above. Chengalpattu (266), Madurai (262) and Nilgiri (250) districts have also registered fairly good ratios of graduates per

10,000 literates. Seven districts of the state have poor ratios of less than 200 and of these Dharmapuri has recorded the poorest ratio (144).

Madras city (169,812) has the largest number of persons holding university degrees/diplomas of the graduate level and above. This city district has about 28 per cent of the state's graduate population (612,793). Madurai district occupies the second position with 56,376 graduates. Chengalpattu and Coimbatore districts also have a substantial number of such qualified persons, ranging between 40 and 50 thousands each.

Barring Madras district which is entirely urban, Kanniyakumari (64.34 per cent) and Dharmapuri (54.47 per cent) districts have recorded over half of their graduates in their respective rural areas. In all the other districts, persons holding degrees or diplomas equal to degree are concentrated more in the urban than in the rural areas. South Arcot and Salem districts have, however, recorded over 40 per cent of their graduates in rural areas. The lowest percentage of graduates in rural areas is seen in Coimbatore district (16.59 per cent). In this industrialised district we find 83.41 per cent of the graduate level qualified persons in the cities and towns.

Data on the number of persons with university degree/diploma of the graduate level and above, their ratio to 10,000 literates level and above, their ratio to 10,000 literates of all levels and the percentage distribution of graduates in the rural and urban areas for state and districts are presented in the next page.

MAP 93

CENSUS HOUSES AND THEIR USES 1981

This map shows the distribution of occupied census houses into five groups according to their uses as per the 1981 Census at district level. Five bars are drawn as per the proportion of absolute number of census houses used under different categories. These bars are shaded with different hatching as shown in the legend of the map. Scale showing absolute figures of census houses is given in the left side of the bar diagrams. The five important uses of census houses are represented by five adjacent vertical bars, drawn for each district, as shown in the legend of the map.

Houses are predominantly used for residential purposes. This is reflected by a very high proportion of 87.8 per cent of houses falling under the category of 'residence', at the state level. Dharmapuri district with 92.5 per cent reveals the highest ratio of residential houses. Comparatively higher proportions of census houses under residence are also recorded in South Arcot and Nilgiri districts with 91.4 per cent each. The lowest ratio of houses used as 'residence' among the districts is observed in Tirunelveli district (80.7 per cent).

Houses used as shop-cum-residence and workshop-cum-residence (including household industry) form 4.8 per cent of all occupied census houses in the state. The highest percentage of such houses among the districts is observed in Tirunelveli (11.1 per cent). Periyar (6.8 per cent), Salem (6.5 per cent) and North Arcot (6.0 per cent) are the other districts which have recorded sizable ratios of houses under this category. Nilgiri district with 1.4 per cent has the

lowest ratio of houses under such combined use along with residence.

The highest proportion of houses under the use 'hotels, sarais, tourist homes, restaurants, etc.' is noticed in Pudukkottai district (3.3 per cent) with Kanniyakumari (3.1 per cent) having the second highest ratio among the districts. Strangely enough, the lowest ratio of houses under this group is observed in Madras City district (1.1 per cent) which, being the premier metropolitan centre attracts lots of visitors and tourists throughout the year. Generally, the southern districts have revealed higher percentages of houses under this group than the districts in the other parts of the state.

Madras district has the highest ratio of houses used as shops, business houses and offices (5.9 per cent). It is followed by Kanniyakumari district with 5.4 per cent. Houses which are used as factories, workshops and worksheds are found in comparatively higher proportions in Madras and Coimbatore districts (2.7 per cent each) than in other districts. It is well known that these two districts are more developed industrially when compared to the rest of the districts. South Arcot and Dharmapuri district reveal poorer ratios of houses with use as factories workshops and worksheds (1.1 per cent).

The percentage distribution of census houses used for the various purposes which are discussed above for the state and district is presented in the next page.

State/District	Percentage distribution of census houses used as				
	Residence I	Shop-cum- residence, Workshop- cum-resi- dence in- cluding Household Industry II	Hotels, Sarais, Dharmashalas, Tourist homes and Inspection Houses, Restu- rents, Sweetmeat shops and Eat- ing places, Places of enter- tainment commu- nity gatherings and places of worship III	Shops ex- cluding eating houses, business houses and offices IV	Factories workshops and work- sheds V
	1	2	3	4	5
TAMIL NADU	87.8	4.8	2.2	3.3	1.9
1. Madras	88.3	2.0	1.1	5.9	2.7
2. Chengalpattu	88.4	4.6	2.2	3.1	1.7
3. North Arcot	87.0	6.0	2.0	3.1	1.9
4. South Arcot	91.4	3.4	1.8	2.3	1.1
5. Dharmapuri	92.5	2.3	2.1	2.0	1.1
6. Salem	87.0	6.5	2.0	2.2	2.3
7. Periyar	86.7	6.8	1.9	2.7	1.9
8. Coimbatore	87.0	5.4	1.7	3.2	2.7
9. Nilgiri	91.4	1.4	1.9	3.7	1.6
10. Madurai	89.2	3.4	2.1	3.6	1.7
11. Tiruchchirappalli	89.3	4.0	2.3	2.7	1.7
12. Thanjavur	88.8	3.1	2.7	3.6	1.8
13. Pudukkottai	89.6	2.1	3.3	3.1	1.9
14. Ramanathapuram	86.7	4.7	2.6	3.9	2.1
15. Tirunelveli	80.7	11.1	2.5	3.9	1.8
16. Kanniyakumari	84.8	4.7	3.1	5.4	2.0

MAP 94

AMENITIES IN URBAN HOUSEHOLDS 1981

This map gives us an idea on the availability of some of the basic amenities like electricity, toilet and drinking water in the urban households at district level as recorded during the 1981 Census. The total number of urban households in each district has been represented by a rhombus diagram, in which each small 'rhombus' represents 10,000 households. The number of urban households, in which the three amenities are available. Electricity is shown by dots and toilets by hatching while flat yellow colour is given for the households having drinking water facility and are superimposed on each other, as shown in the legend of the map.

At state level, nearly 1.99 million out of the 3.23 million urban households (constituting 61.59 per cent) i.e. households in the 434 cities and towns, enjoy the facility of electricity connection in their houses. While a little over 1.65 million urban households (51.27 per cent) have toilet facility, only 1.46 million households (45.29 per cent) have the source of drinking water within their premises. Among all districts, the city district of Madras, which is entirely urban, has the largest number of households which have the amenities of electricity, toilet as also drinking water. Around 68 per cent of the 6.28 lakh households in Madras city have power connection. While 76.14 per cent of households of Madras have toilets in their premises, 65.47 per cent households have drinking water source within their premises. Besides Madras, the other important districts with 65 to 68 per cent of urban households with power connection are Coimbatore, Tirunelveli and Kanniyakumari. In all districts except the hilly district of Nilgiri, more than 50 per cent of

urban households have electricity connections. In Nilgiri district, only 29,930 out of the 60,270 (49.66 per cent) households in the urban areas have electricity in their houses.

Toilet facility within the urban households is observed to be the highest, viz., 76.14 per cent in Madras. The ratio exceeds 50 per cent in the case of four other districts, viz., North Arcot, Dharmapuri, Coimbatore and Kanniyakumari. The ratio is the lowest in the towns of Ramanathapuram district (26.65 per cent) and second lowest in Pudukkottai district (39.46 per cent). The most important amenity, viz., drinking water is available not even in half of the urban households in the state (45.29 per cent). In Madras city, we observe the highest ratio of drinking water source within the premises of households (65.47 per cent). In no other district, drinking water facility exists in more than 50 per cent of urban households. In the towns of nine districts, 40-50 per cent of households enjoy this facility. Very low rates (25-30 per cent) are observed in Pudukkottai and Ramanathapuram districts. The amenities in the urban households in many of the districts of the State need to be improved further in the coming years in order to enable the inhabitants of these places to have these basic amenities and thus enjoy a better standard of living.

Data on number of urban households and the ratio among them possessing the amenities of electricity, toilet and drinking water within their premises are presented for state and districts in the following statement.

1		2	3	4	5
2.	Chengalpattu	284,700	58.09	47.46	47.70
3.	North Arcot	193,845	59.64	52.86	48.36
4.	South Arcot	129,040	55.30	45.76	49.99
5.	Dharmapuri	36,260	60.69	52.77	40.80
6.	Salem	214,345	58.96	41.31	32.43
7.	Periyar	102,445	60.68	43.73	46.82
8.	Coimbatore	324,970	67.49	51.21	40.95
9.	Nilgiri	60,270	49.66	47.74	32.32
10.	Madurai	327,635	61.25	47.96	41.82
11.	Tiruchchirappalli	198,120	57.30	46.67	40.91
12.	Thanjavur	185,600	54.21	46.20	44.27
13.	Pudukkottai	30,420	55.39	39.46	28.68
14.	Ramanathapuram	198,160	57.11	26.65	26.62
15.	Tirunelveli	264,890	65.46	40.52	35.14
16.	Kanniyakumari	46,775	65.01	51.16	34.64

State/District	No. of urban households	Percentage of households having the amenity		
		Electricity	Toilet	Drinking water source (within the premises)
1	2	3	4	5
TAMIL NADU	3,225,060	61.59	51.27	45.29
1. Madras	627,585	67.83	76.14	65.47

MAP 95

AMENITIES IN RURAL HOUSEHOLDS 1981

This map shows the extent of availability of the two important basic amenities of electricity and drinking water among the households in the rural areas of the districts. The total number of rural households in each district has been represented by a rhombus diagram in which each small rhombus represents 10000 households. The number of rural households in which the two amenities are available within the premises, is indicated separately. Households having electricity are shaded by black dots and the households having drinking water are represented by flat orange colours and are superimposed on each others.

At the state level, we find that only around one-fourth (26.03 per cent) of the total of 7.03 million rural households have electricity connections. The percentage of households in which the drinking water facility is available within the premises, is much less. Only 13.41 per cent of the rural households have this facility within their premises.

Nilgiri district with 45.52 per cent has the highest ratio of rural households which have power connection. Tirunelveli (39.18 per cent), Coimbatore (38.06 per cent) and Periyar (30.46 per cent) are the other three districts which have also recorded fairly good ratios of rural households enjoying the facility of electricity connection. North Arcot, Dharmapuri and

Kanniyakumari districts have also registered a higher ratio in this regard over the state average ratio (26.03 per cent). South Arcot (18.07 per cent) and Pudukkottai (18.09 per cent) districts have very poor ratios of rural households with power connection, thus indicating their backwardness in this sphere.

The drinking water source within the premises, which again is a basic amenity needed by every household, is available to 24.13 per cent of the rural households in Thanjavur district which is the highest ratio recorded among the districts. Besides Thanjavur, the other important districts with 15-20 per cent of households with the amenity of drinking water within their premises are Chengalpattu, Salem, Coimbatore, Nilgiri and Kanniyakumari. Ramanathapuram district (5.25 per cent), which is known to be one of the dry regions of the state, has revealed the lowest percentage of rural households with this amenity. Madurai (7.44 per cent), Tiruchchirappalli (9.26 per cent) and Tirunelveli (7.31 per cent) are the other districts which have registered very poor ratios of this basic amenity.

Data on the number of rural households and the percentages among them who enjoy the facility of electricity connection and drinking water source within the premises are presented below for the state and districts.

1	2	3	4
7. Periyar	397,270	30.46	14.92
8. Coimbatore	351,340	38.06	17.51
9. Nilgiri	66,290	45.52	18.78
10. Madurai	629,420	24.75	7.44
11. Tiruchchirappalli	604,060	23.36	9.26
12. Thanjavur	688,020	22.03	24.13
13. Pudukkottai	200,190	18.09	10.23
14. Ramanathapuram	519,220	23.40	5.25
15. Tirunelveli	527,695	39.18	7.31
16. Kanniyakumari	229,825	27.30	17.29

State/District	Rural Households	Percentage of Rural Households having the amenity of	
		Electricity	Drinking water source (within the premises)
1	2	3	4
TAMIL NADU	7,029,500	26.03	13.41
1. Madras		Entirely Urban	
2. Chengalpattu	459,075	24.69	15.14
3. North Arcot	692,915	26.19	13.96
4. South Arcot	723,750	18.07	14.43
5. Dharmapuri	349,250	28.33	13.73
6. Salem	585,180	24.52	16.32

MAP 97

URBAN HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1981

This map depicts the urban households by number of rooms occupied, as per data gathered during the 1981 Census, at the district level. The extent of households occupying one, two, three and more than three rooms is shown by shades in a rhombus shaped diagram (each pocket of which represents 4 per cent of the households), drawn in proportion to the district's size of urban households. Figures at the top of the diagram denotes total number of urban households in a district. Institutional households and houseless households are excluded from consideration for the purpose of this map. The ratios of households with no exclusive rooms and 'unspecified number of rooms' could not be shown in the map, as their proportions are negligible. The pockets of each rhombus have been shaded as per the percentage share of urban households occupying rooms as mentioned above which are shown as per the legend of the map.

Almost half of the urban households in the state have only one living room. While 27.64 per cent of the households live in two roomed houses, 12.53 per cent are living in the three roomed houses. Roughly, one out of every ten urban households possesses more than three rooms. In seven of the 16 districts over half of the urban households have only one living room. The highest ratio of one roomed households is observed in Thanjavur district (67.12 per cent). The lowest percentage of such households is noticed in Kanniyakumari district (21.82). Nilgiri district has also recorded a low ratio of 39.46 per cent of one-roomed

households.

The proportion of urban households having two rooms ranges between the high 30.58 per cent in Coimbatore district and the low 19.82 per cent in Thanjavur district. Over 30 per cent of urban households with two rooms are also found in Madras, Dharmapuri and Salem districts. The highest percentage of households among the different districts, with 'three rooms' and 'more than three rooms' (viz., 21.52 and 31.46 per cent respectively) are recorded by Kanniyakumari district. Tirunelveli (18.04 per cent) and Nilgiri (16.85 per cent) are the other districts which reveal fairly high ratios of households with three living rooms. The lowest percentage of three-roomed households is noticed in Thanjavur district (7.54). Very low percentages of such households (less than ten per cent) are also observed in North Arcot (9.56) and Ramanathapuram (9.42) districts. The lowest proportion of urban households having more than three rooms is also recorded by Thanjavur district (5.52 per cent). South Arcot district has also registered a very low ratio (5.77 per cent) of households having more than three living rooms. Nilgiri district (15.31 per cent) has the second highest proportion of urban households with more than three living rooms and it stands next only to Kanniyakumari district (31.46 per cent) in this regard.

The percentage distribution of urban households with different numbers of rooms are given below for the state and districts.

State/District		Percentage of urban households with					
		No exclusive room	One room	Two rooms	Three rooms	More than three rooms	Unspecified number of rooms
1		2	3	4	5	6	7
	TAMIL NADU	0.01	49.95	27.64	12.53	9.87	N
1.	Madras	-	45.14	30.05	13.04	11.77	N
2.	Chengalpattu	-	49.02	20.00	12.41	9.57	-

1		2	3	4	5	6	7
3.	North Arcot	-	54.83	25.96	9.56	9.65	-
4.	South Arcot	-	53.05	28.21	12.97	5.77	-
5.	Dharmapuri	-	44.44	30.53	13.74	11.29	-
6.	Salem	-	45.51	30.44	13.76	10.29	-
7.	Periyar	0.01	48.48	29.87	12.73	8.91	-
8.	Coimbatore	N	44.54	30.58	14.38	10.50	-
9.	Nilgiri	0.02	39.46	28.36	16.85	15.31	-
10.	Madurai	0.07	57.17	26.15	10.12	6.49	-
11.	Tiruchchirappalli	-	58.75	23.60	10.34	7.31	-
12.	Thanjavur	-	67.12	19.82	7.54	5.52	-
13.	Pudukkottai	-	57.17	23.88	10.88	8.07	-
14.	Ramanathapuram	0.01	59.11	25.20	9.42	6.26	-
15.	Tirunelveli	0.01	40.94	27.13	18.04	13.88	-
16.	Kanniyakumari	-	21.82	25.19	21.52	31.46	0.01

N = Negligable percentage

MAP 96

RURAL HOUSEHOLDS BY NUMBER OF ROOMS OCCUPIED 1981

This map shows the number of living rooms available in the households in the rural areas of the districts as per the 1981 Census. The extent of rural households having one, two, three and more than three rooms has been indicated by shades in a rhombus-shaped diagram (divided into 25 equal parts each representing 4 per cent), which has been drawn in proportion to the district's size of rural households. Barring institutional and houseless households, the rest of the households have been considered for the purpose of this map. As the proportions of households with 'no exclusive room' and 'unspecified number of rooms' are either nil or negligible, hence these could not be depicted in the map.

In Tamil Nadu, as much as 62.90 per cent of the rural households have only one living room. While 24.63 per cent of the households have two living rooms, 12.46 per cent have three or more rooms to live in. This gives us an idea on the poor living space now existing in the rural households of the state and the need for vast improvement of better housing facilities for the rural population. In 11 of the 15 districts (barring Madras, which is entirely urban), more than 60 per cent of the rural households have only one living room. The housing conditions could be deemed extremely poor in Thanjavur, Pudukkottai and Tiruchchirappalli districts where over 70 per cent of the rural households are living in single-roomed

tenements, many of which may probably be huts. It is observed that Kanniyakumari district has the best housing condition in the rural areas as compared with the rest of the districts. In this small district more or less equal proportions of the rural households are found living in one, two, three and more than three roomed houses, the largest ratio of 28.64 per cent of households enjoying two-roomed houses. Good housing facilities are also observed in the hilly Nilgiri district, where 20.15 per cent of the rural households are occupying houses with more than three rooms. While 15.55 per cent of households in Nilgiri district live in three roomed houses, 27.17 per cent have two-roomed houses. Only 37.12 per cent of the households are found living in single roomed houses in this district. Comparatively better facilities are also observed in Tirunelveli district where over half of its rural households, live in two or more roomed houses. In Coimbatore district, only 55.18 per cent of the households have reported to be having one living room. While 30.66 per cent of the households in this district have two rooms, 14.16 per cent have three or more rooms.

The percentage distribution of rural households into households having one, two, three and above three rooms as also those with 'no exclusive room' and 'unspecified number of rooms' are presented below for the state and districts.

State/District	Percentage of rural households with					
	No exclusive room	One room	Two rooms	Three rooms	More than three rooms	Unspecified number of rooms
1	2	3	4	5	6	7
TAMIL NADU	N	62.90	24.63	7.53	4.93	0.01
1. Madras	Entirely Urban					
2. Chengalpattu	N	60.61	27.18	7.08	5.13	-
3. North Arcot	-	64.71	24.07	6.14	5.08	-
4. South Arcot	-	67.44	24.86	5.08	2.62	N
5. Dharmapuri	0.01	66.04	23.66	6.14	4.15	-

	1	2	3	4	5	6	7
6. Salem		N	63.11	26.05	6.84	4.00	N
7. Periyar		-	62.99	26.37	7.00	3.64	-
8. Coimbatore		-	55.18	30.66	9.20	4.96	-
9. Nilgiri		0.01	37.12	27.17	15.55	20.15	-
10. Madurai		0.01	63.25	26.00	6.90	3.81	0.03
11. Tiruchchirappalli		N	73.64	18.71	4.75	2.90	-
12. Thanjavur		N	77.85	15.01	4.70	2.44	-
13. Pudukkottai		0.03	77.33	15.86	4.25	2.45	0.08
14. Ramanathapuram		-	61.70	27.13	7.94	3.23	-
15. Tirunelveli		-	43.15	33.10	15.00	8.75	-
16. Kanniyakumari		N	22.99	28.64	22.58	25.77	0.02

N=Negligible percentage

PERSONS BY RURAL HOUSEHOLDS 1981

This map shows the number of households in the rural areas according to the size of persons, viz., households with one, two, three, four, five and 'six or more' persons. The number of households in the rural areas of the districts falling under each of the above six sizes are represented by six bar diagrams drawn in proportion to their number.

In the rural areas of the state, there are 7.04 million households of the six sizes represented. It is observed that the households with the biggest size of 'six and more persons' constitute the highest percentage, viz., (30.90). It is obvious from this that a large majority of the households in the rural areas of the state are comparatively bigger in size. While four member households form 18.20 per cent, households with five persons constitute 17.02 per cent. Single member households form a low ratio of 6.73 per cent, while two and three member households exist to the extent of 12.09 per cent and 15.06 per cent respectively among the rural households of the state. It is seen from the above data that the percentages of households generally increase with the increase in the size of the households upto four members and the proportion decreases slightly in the case of five member households. A sharp increase is then observed in the percentage of households of 'six and more' persons. While this trend is observed in most of the districts, in the exceptional cases, viz., North Arcot, Dharmapuri, Pudukkottai and Kanniyakumari increased percentages of households have been registered along with the increase in household size

in respect of all the sizes indicated. The highest ratio of rural households in all the districts is found in the largest sized households of six or more persons, the lone exception to this trend being Periyar district. In Periyar district, the largest proportion of households in the rural areas (22.79 per cent) is seen to be the four-member households.

The lowest percentage of single member households in rural areas is recorded by the hilly Nilgiri district (4.23 per cent). Kanniyakumari district has also registered a very low ratio (4.28 per cent) of single-member households in its rural areas. The highest percentage of this type of households is found in Tirunelveli district (8.64 per cent). Periyar district has the distinction of having the highest percentage of households in three sizes, viz., two, three and four member households as compared to the rest of the districts. Big-sized households are common in the rural areas of Kanniyakumari district and this is seen from the fact that 40.10 per cent of the rural households of this district have six or more persons and this is the highest for any district in Tamil Nadu. Between 35 and 40 per cent of such big-sized households in rural areas are also recorded by the three agriculturally prominent districts of North Arcot, Dharmapuri and Pudukkottai.

The percentage distribution of the rural households classified under the six sizes, discussed above for the state and districts are presented in a statement given in next page.

State/District	Percentage distribution of rural households					
	One person	Two persons	Three persons	Four persons	Five persons	Six or more persons
1	2	3	4	5	6	7
TAMIL NADU	6.73	12.09	15.06	18.20	17.02	30.90
1. Madras	-	-	-	-	-	-
2. Chengalpattu	5.58	11.38	14.74	17.25	16.82	34.23
3. North Arcot	5.79	10.69	13.61	16.82	17.32	35.77
4. South Arcot	5.15	10.82	14.43	17.44	17.25	34.91
5. Dharmapuri	5.99	9.46	12.13	16.17	16.75	39.50
6. Salem	8.48	14.03	16.23	21.01	17.52	22.73
7. Periyar	7.48	14.42	18.20	22.79	17.43	19.68
8. Coimbatore	6.91	12.82	15.79	21.31	18.37	24.80
9. Nilgiri	4.23	10.23	13.98	18.84	18.68	34.04
10. Madurai	6.97	12.41	14.84	17.86	17.02	30.90
11. Tiruchchirappalli	8.00	12.75	15.97	18.54	17.10	27.64
12. Thanjavur	6.11	12.88	16.36	18.40	16.85	29.40
13. Pudukkottai	6.49	10.01	13.19	15.98	16.33	38.00
14. Ramanathapuram	7.68	12.28	14.80	17.02	16.19	32.03
15. Tirunelveli	8.64	13.81	15.56	17.04	15.54	29.41
16. Kanniyakumari	4.28	8.72	12.75	16.35	17.80	40.10

MAP 100

MEDICAL INSTITUTIONS PER 10 000 OF CENSUS HOUSES 1981

This map gives an idea on the number of medical institutions per 10,000 Census houses as at 1981 in each district. The medical institutions include hospitals attached with teaching institutions, district and taluk headquarters hospitals, Govt. dispensaries, hospitals and dispensaries run by Corporation, Municipalities and Panchayats, Primary Health Centres, ESI (Employees of the State Govt. Insurance) run hospitals/dispensaries and other types of medical institutions, but excluding private nursing homes. Based on the ratio of medical institutions to census houses, all the districts have been brought under six broad ranges, as shown in the legend of the map.

The proportion of medical institutions per 10,000 census houses for the state stands at 2.10. Eight of the 16 districts have higher ratios than this state average ratio. The small and mountainous Nilgiri district has shown the highest ratio of 3.39 medical institutions per 10,000 Census houses. Pudukkottai (2.96) and Thanjavur (2.79) districts have also revealed

fairly good ratios of over 2.75 medical institutions. The lowest ratio (1.34) is observed in Periyar district which alone is in the range 'Below 1.50'. While four districts are in the ratio range of 1.51-1.80, three others fall in the range of 1.81-2.10. Madras, Coimbatore and Tirunelveli districts are in the middle range of 2.11 to 2.40 medical institutions per 10 000 census houses.

In the state, there are 2096 medical institutions as at 1981. Thanjavur district (237) has got the largest number of such medical institutions among the districts, followed by North Arcot (198), Madurai (176), Ramanathapuram (172) and Tirunelveli (172). There are five districts, viz; Dharmapuri (77) Periyas and Pudukkottai (67 each) Nilgiri (43) and Kanniyakumari (42) which have less than 100 medical institutions.

The number of occupied residential houses, medical institutions and the ratio of such institutions per 10 000 census houses for state and districts are presented in the following statement.

State/District	No of occupied residential houses	No. of medical institutions	Ratio of medical institutions per 10 000 census houses
1	2	3	4
TAMIL NADU	9,982,996	2,096	2.10
1. Madras	620,241	147	2.37
2. Chengalpattu	722,977	131	1.81
3. North Arcot	779,543	198	2.54
4. South Arcot	830,129	138	1.66
5. Dharmapuri	374,342	77	2.06
6. Salem	797,523	131	1.64
7. Periyar	499,174	67	1.34
8. Coimbatore	669,971	160	2.39
9. Nilgiri	127,023	43	3.39
10. Madurai	947,758	176	1.86
11. Tiruchchirappalli	788,516	138	1.75

	1	2	3	4
12. Thanjavur		848,827	237	2.79
13. Pudukkottai		226,552	67	2.96
14. Ramanathapuram		709,788	172	2.42
15. Tirunelveli		783,332	172	2.20
16. Kanniyakumari		257,300	42	1.63

MAP 99

PERSONS BY URBAN HOUSEHOLDS 1981

This map gives an idea on the extent of urban households under different sizes of persons in the districts. The urban households (i.e. those in cities and towns) have been brought under six sizes of one, two, three, four, five and six or more membered households and are represented by six bar diagrams, proportionately drawn with reference to the number of households in each size, as in the previous map.

In Tamil Nadu, there are 3.24 million urban households as per the 1981 Census. The largest among them and forming about one-third of these households (34.74 per cent) are big-sized with six and more members in them. A low ratio of just 4.66 per cent are single member households. The percentage of households is found to increase alongwith the size of the households from single member households upto households with four persons. There is then a decline from 17.98 per cent (4 member households) to 17.08 per cent (5 member households). A similar trend in the percentage of households of different sizes as described for the state above, is observed in most of the districts also. The ratio of households with five persons is found to be higher than four-member households in the case of North Arcot, South Arcot, Dharmapuri and Pudukkottai districts, which are exceptions from the general trend described above. Madras district (3.09 per cent) has registered the lowest proportion of single member households among the districts. Nilgiri, Pudukkottai, Ramanathapuram

and Tirunelveli districts on the other hand have over six to seven per cent of such single-member households in urban areas. In Periyar, the ratio of households with two (13.72 per cent), three (17.37 per cent) and four members (20.72 per cent) is found to be the highest among the districts. The lowest ratio in the case of two member households is recorded by Kanniyakumari district (8.03 per cent). In this district, the ratio of urban households with six and more persons (40.40 per cent) is the highest when compared to the rest of the districts. The ratio of households with four and five persons is observed to be the same (17.47 per cent) in Kanniyakumari district.

We do not observe wide variations among the districts in the proportions of households with three, four and five persons. Apart from Kanniyakumari district which has 40.40 per cent of its urban households with six and more persons, very high ratios ranging between 35 and 40 per cent of such large-sized households are observed in nine other districts. The lowest proportion of urban households under this big size is recorded, by Periyar district (25.53 per cent).

The percentage distribution of urban households under the six different sizes discussed above, is presented for the state and districts in a table given in next page.

State/District	Percentage distribution of urban households					
	One person	Two persons	Three persons	Four persons	Five persons	Six or more persons
1	2	3	4	5	6	7
TAMIL NADU	4.66	10.89	14.65	17.98	17.08	34.74
1. Madras	3.09	8.89	13.52	17.98	17.65	38.87
2. Chengalpattu	4.38	10.76	14.91	17.93	16.91	35.11
3. North Arcot	4.45	9.92	13.52	16.21	16.42	39.48
4. South Arcot	4.45	10.01	13.52	16.97	17.08	37.97
5. Dharmapuri	5.44	10.62	13.70	16.27	16.46	37.51
6. Salem	4.87	12.00	15.79	19.65	17.99	29.70
7. Periyar	5.66	13.72	17.37	20.72	17.00	25.53
8. Coimbatore	4.79	11.11	15.58	19.86	17.91	30.75
9. Nilgiri	6.10	10.15	13.51	17.71	17.00	35.53
10. Madurai	3.89	10.58	14.06	17.79	17.52	36.16
11. Tiruchchirappalli	5.78	12.32	15.62	18.25	16.52	31.51
12. Thanjavur	5.05	10.83	14.50	16.84	16.80	35.98
13. Pudukkottai	6.32	10.71	13.35	16.07	16.09	37.46
14. Ramanathapuram	6.45	12.80	15.08	16.77	15.88	33.02
15. Tirunelveli	6.36	13.28	15.89	17.41	15.74	31.32
16. Kanniyakumari	3.36	8.03	13.27	17.47	17.47	40.40

MAP 101

HOSPITAL BEDS PER 100 000 OF POPULATION 1981

The number of hospital beds available per 100,000 of population in each district as at 1981 is depicted in this map. The beds available in hospitals attached to teaching institutions, district and taluk headquarters hospitals, hospitals and dispensaries run by Corporation, Municipalities and Panchayats, Primary Health Centres, Employees State Insurance hospitals/dispensaries and other type of medical institutions, excluding private nursing homes, have been taken into account for the purpose of this map. The ratio of hospital beds to population is an index of the medical facilities available. All the districts have been grouped into six broad ranges on the basis of their ratio of hospitals beds per 100,000 of population.

There are 46,734 hospital beds available in Tamil Nadu and this works out to 97 beds per 100,000 population. Among the 16 districts of the state, six districts have higher ratios than the state average. Madras city has the highest ratio of beds (352) per 100,000 of population. It is the only district which

has more than ten thousand hospital beds (viz. 11,533) per every lakh of the population. Nilgiri (138) Kanniyakumari (132), Madurai (114), Thanjavur (106) and Coimbatore (101) are the other districts with comparatively good bed-population ratios exceeding one hundred beds.

Of the ten districts which have registered lower ratios than the state level ratio, while two districts fall in the range of "76-200", five are under "51-75" range of hospital beds. The remaining three districts, viz., Dharmapuri, South Arcot and Salem have poorer ratios of 50 and below. Dharmapuri district has the lowest ratio of just 28. Nilgiri (867), Pudukkottai (678) and Dharmapuri (555) are the smaller districts of the state and they have less than 1000 hospital beds each.

The population as per the 1981 Census, number of hospital beds available and the ratio of beds to 100 000 population for state and districts are given below.

State/District	Population 1981	Number of hospital beds	Ratio of beds per 100,000 population
1	2	3	4
TAMIL NADU	48,408,077	46,734	97
1. Madras	3,276,622	11,533	352
2. Chengalpattu	3,616,508	2,416	67
3. North Arcot	4,414,324	4,071	92
4. South Arcot	4,201,869	1,929	46
5. Dharmapuri	1,997,060	555	28
6. Salem	3,441,717	1,608	47
7. Periyar	2,068,462	1,227	59
8. Coimbatore	3,060,184	3,085	101
9. Nilgiri	630,169	867	138
10. Madurai	4,535,897	5,164	114
11. Tiruchchirappalli	3,612,320	2,305	64
12. Thanjavur	4,063,545	4,313	106
13. Pudukkottai	1,156,813	678	59
14. Ramanathapuram	3,335,437	2,277	68
15. Tirunelveli	3,573,751	2,832	79
16. Kanniyakumari	1,423,399	1,874	132

MAP 102

INCREASE IN HOSPITAL BEDS PER 10 0000 OF POPULATION 1971-81

This map shows the variation in the number of hospital beds available per 100,000 population in 1981 in the districts when compared to the corresponding ratio in 1971. This gives us an idea on the improvement or otherwise of medical facilities to the people in the districts of the state. In 1971, number of beds available in all medical institutions, including private nursing homes, have been taken into consideration. But in 1981, data on number of beds in private nursing homes (of private practitioners) are not available and hence these could not be taken into account. Based on the variation in the ratio of hospital beds to population in 1981 over 1971, all the districts have been brought under six broad ranges, three under 'gain' and three under 'loss', as shown in the legend of the map.

At state level, we observe an increase of eight hospital beds per 100,000 population during 1971-81. Ten out of the 16 districts of the state have shown an increase in their ratio of beds to population in 1971-81 and of these, six districts have revealed higher increase than the state average. Coimbatore district with a gain of 30 hospital beds per lakh of population stands at the top showing the highest increase among the districts and is followed by Madurai (29) and Nilgiri (28) forming the highest range of 21 and above beds per 100,000 of population.

In the city district of Madras too where a number of big hospitals and other medical institutions exist,

we observe a good increase in the ratio (20). Tirunelveli and Dharmapuri districts have also increased their ratios substantially by 17 and 12 beds respectively during 1971-81 and are placed in the range of 11-20. Four districts are covered under the last range of gain i.e., 10 & below hospital beds per 100,000 of population. These are Tiruchchirappalli (7), Salem and Thanjavur (6 each) and Ramanathapuram (2).

Of the six districts which have shown a decline in their proportions of hospital beds to population, Chengalpattu district had the maximum decrease of 25 beds. This district had a sizable increase in population during the 1971-81 decade and apparently the increase in beds has not kept pace with the increase in population. Periyar and Pudukkottai districts have shown a decline in ratio of 12 and 11 beds respectively. While North Arcot, South Arcot and Kanniyakumari districts have recorded a decrease of 7, 8 and 2 beds respectively.

In 1971, there were 36 852 hospital beds in the State. This has increased to 46,734 during 1971-81. An increase of over one thousand beds is observed in each of the three districts of Madras (2961), Madurai (1823) and Coimbatore (1246).

Data on number of hospital beds per 100,000 population in 1971 and 1981 and the variation in 1981 over 1971 are presented for state and districts in the following statement.

State/District	Number of beds per 100,000 population		Variation in the ratio 1971-81
	1981	1971	
1	2	3	4
TAMIL NADU	97	89	+ 8
1. Madras	352	332	+ 20
2. Chengalpattu	67	92	- 25
3. North Arcot	92	99	- 7
4. South Arcot	46	54	- 8
5. Dharmapuri	28	16	+ 12
6. Salem	47	41	+ 6

1	2	3	4
7. Periyar	59	71	- 12
8. Coimbatore	101	71	+ 30
9. Nilgiri	138	110	+ 28
10. Madurai	114	85	+ 29
11. Tiruchchirappalli	64	57	+ 7
12. Thanjavur	106	100	+ 6
13. Pudukkottai	59	70	- 11
14. Ramanathapuram	68	66	+ 2
15. Tirunelveli	79	62	+ 17
16. Kanniyakumari	132	137	- 5

MAP 103

REGISTERED MEDICAL PRACTITIONERS PER 100 000 OF POPULATION 1981

The ratio of medical practitioners per 100,000 of population in the districts as at 1981 Census is depicted in this map. All the districts have been grouped under six broad ranges with reference to their ratio of medical practitioners and are shaded accordingly.

There are, on an average, 85 medical practitioners per 100,000 of population in Tamil Nadu. Six of the 16 districts have revealed a higher ratio than the state average. Among these, the city district of Madras has registered the highest ratio of 213 medical practitioners per lakh of population. A large number of hospitals and nursing homes with specialist doctors of every type and modern equipment for a variety of diagnosis treatment, besides good facilities for medical research exist here. There is also a large inflow of patients from the mofussil areas to Madras for availing better treatment facilities available here and these indeed must be the main reason for such a high ratio of medical practitioners in Madras city. Kanniyakumari and Coimbatore are the two other districts where the ratio exceeds 100. Kanniyakumari district, though smaller in size has a number of big-sized villages with

a high literacy rate and it is obviously well served by doctors and medical care institutions. However the number of doctors per 100,000 of population is also good in the districts of Thanjavur (98), North Arcot (89) and Madurai (88) in comparison to the remaining 10 districts. Coimbatore is the second most urbanised and industrialised district of the state (next to Madras district) and it is also well served by many nursing homes and doctors.

Of the ten districts where the ratio of medical practitioners is below the state average (85), South Arcot, Dharmapuri and Pudukkottai districts have recorded very low ratios of less than 50 medical practitioners per one lakh of population. These three districts have very low ratios of urban population. Five districts are found in the range between 66 and 80 medical practitioners per 100,000 of population.

Data on population, number of medical practitioners and the ratio of the latter to the former (per 100 000 population) are presented below for state and districts.

State/District	1981 population	No. of Registered medical practitioners	Ratio of medical practitioners per 100,000 of population
1	2	3	4
TAMIL NADU	48,408,077	41,077	85
1. Madras	3,287,622	6,986	213
2. Chengalpattu	3,616,508	2,424	67
3. North Arcot	4,414,324	3,928	89
4. South Arcot	4,201,869	1,903	45
5. Dharmapuri	1,997,060	984	49
6. Salem	3,441,717	2,451	71
7. Periyar	2,068,462	1,457	70
8. Coimbatore	3,060,184	3,153	103
9. Nilgiri	630,169	377	60
10. Madurai	4,535,897	4,006	88

1	2	3	4
11. Tiruchchirappalli	3,612,320	2,450	68
12. Thanjavur	4,063,545	3,978	98
13. Pudukkottai	1,156,813	539	47
14. Ramanathapuram	3,335,437	2,101	63
15. Tirunelveli	3,573,751	2,735	77
16. Kanniyakumari	1,423,399	1,605	113

MAP 104

PRIMARY HEALTH CENTRES PER 100 000 OF POPULATION 1981

The proportion of primary health centres per 100,000 of population is depicted in this map at district level. The primary health centres, which are run by the Panchayat Union councils, (i.e. Block Development Offices) are the basic health units started under the community development scheme in the rural centres, three decades ago. For the purpose of this map, the primary health centres only have been considered and the sub-centres functioning under them have not been taken into account. All the districts have been brought under five broad ranges, in accordance with their ratio of primary health centres per lakh of population.

At state level, we observe an average ratio of 0.79 primary health centres per 100,000 population. The city district of Madras, which commands the facility of a number of big Government hospitals and private nursing homes, has no primary health centre. Of the remaining 15 districts, 11 districts have revealed higher ratios than the state average ratio. Periyar district with a proportion of 1.16 primary health units has the highest ratio among the districts. Salem is the other district besides Periyar which has got a ratio of over one primary health unit per 100,000 population. Nilgiri

and Ramanathapuram districts have also registered fairly good ratios, (very nearly one). Seven other districts have recorded ratios between 0.80 and 0.90 health centres.

Of the four districts which have proportions below the state average, Kanniyakumari has the lowest ratio (0.63). Coimbatore district has also revealed low ratio (0.69) of primary health centres to population.

There are 383 primary health centres in the state. North Arcot district (38) has the largest number of such centres among the districts. In seven other districts, there are 30-35 primary centres each. The smallest number of centres (6) is found in the small and hilly district of Nilgiri. Kanniyakumari district has also a low number, viz., 9. The other two smaller districts, viz., Pudukkottai and Dharmapuri have 10 and 16 health centres respectively.

The 1981 population, number of primary health centres and the ratio of the latter per lakh of population are presented in the following statement for state and districts.

State/District	1981 population	No. of primary health centres	Ratio of primary health centres per 100,000 of population
1	2	3	4
TAMIL NADU	48,408,077	383	0.79
1. Madras	3,276,622	-	-
2. Chengalpattu	3,616,508	27	0.75
3. North Arcot	4,414,324	38	0.86
4. South Arcot	4,201,869	34	0.81
5. Dharmapuri	1,997,060	16	0.80
6. Salem	3,441,717	35	1.02
7. Periyar	2,068,462	24	1.16
8. Coimbatore	3,060,184	21	0.69
9. Nilgiri	630,169	6	0.95

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1	2	3	4	
10.	Madurai	4,535,897	35	0.77
11.	Tiruchchirappalli	3,612,320	31	0.86
12.	Thanjavur	4,063,545	34	0.84
13.	Pudukkottai	1,156,813	10	0.86
14.	Ramanathapuram	3,335,437	32	0.96
15.	Tirunelveli	3,573,751	31	0.87
16.	Kanniyakumari	1,423,399	9	0.63

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