CENSUS OF INDIA 1981

REGIONAL DIVISIONS OF INDIA -A CARTOGRAPHIC ANALYSIS

OCCASIONAL PAPERS

SERIES--I

VOLUME--XXXII

PONDICHERRY

Planning & Supervision
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Maps included in this volume are based upon Survey of India map with the permission of the Surveyor General of India.

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 (applicable to India map only).

The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line (applicable to India map only).

गृह मंत्री
भारत
नई दिल्ली-११०००१
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Oct. 26, 1988

FOREWORD

Experience has taught us that planning has to be related to the situation in the field in order to better respond to local aspirations and for better utilization of local resources. A lot of planning has, of necessity, to be for larger areas, encompassing an agglomeration of administrative units. Even such macro planning has, in order to be realistic, to be cognisant of the realities at the micro level. Correspondingly, such plans for bigger areas and involving larger outlays have also to be administered from a suitably high threshold of administrative authority and by a wide network of administrative hierarchy.

Nevertheless, there is a whole corpus of activities which can be and are, in fact, better planned, conducted and financed at the lower or local levels. I think the essence of decentralized planning, which for operational convenience is, essentially, District level planning, i.e. planning for the District and its constituent smaller units at those levels, consists of just this : allowing what is best taken care of at the local level to be so taken care of.

But, all planning, from the national to the sub-micro level, does need, as already stated, a careful study of the situation in the field. And this study also calls for a knowledge of the natural regions, demarcated as per the various physiogeographic characteristics, for a proper appreciation of the planning and developmental matrix and for suggesting the appropriate spatial unit for local and higher area planning.

From this point of view, the present study, done by the Indian Census, is extremely useful as it provides a framework, a backdrop and also a ground-plan on which other studies and data-sets can be built. I congratulate Shri Vijay S. Verma, Registrar General & Census Commissioner, India, Dr. B.K. Roy, Deputy Registrar General (Map) and their colleagues for this fine and timely series.

(BUTA SINGH)

PREFACE

Regions can be carved out with varying criteria for varying purposes. Basically, however, we could, perhaps, distinguish between natural regions–areas which nature intended to be or marks out as separate, homogeneous units–and human intervention regions–areas which have to be or are treated together for different purposes, with varying degrees of consideration for the natural regions.

Thus, special purpose regions may or may not coincide with natural regions. Administrative units represent special purpose regions of a kind and their boundaries, too, may or may not be in conformity with those of natural regions.

But there are further elements making for complexity, even confusion : there are regions within regions–there may be fields with different types of soil calling for different types of treatment even within a village–and different natural yardsticks or criteria may not always converge and coalesce to yield natural regions valid from the point of view of each of the criteria considered or used. Thus, ground water availability and soil texture may not necessarily indicate the same delineation; in theory an area may be thickly wooded and, in reality, quite denuded.

And then comes the final heartbreak for the region-delineator : all the factors and manifestations of nature may point in one direction but the perceptions and the aspirations of the people inhabiting that region may desire something else: nature may cry out for afforestation, rather reafforestation; the people may want to have more and more area under a marginally remunerative agriculture.

The question then arises: why then try to carve out natural regions? How valid and how usable are they going to be?

As in most areas of human endeavour, no one can hope either for totally foolproof delineation or immediate and whole hog adoption thereof for purposes of administration and development planning. And yet, all such exercises, should, I think, be welcome as contributive to the filling out of the complex scenario which serves as the essential backdrop for the formidable task of development planning in India to which a new dimension and fresh urgency have been added by the current, renewed emphasis on local area planning.

This study of ours seeks to take the work of delineation to reaches lower than hitherto attempted, mutating Districts in terms of natural regions, with the village as the constituent unit of each region. One could, of course, go still lower, carving out regions within Blocks, Taluqs or Thanas, may be with hamlets as the constituent units, and by using the appropriate fine-edged criteria for such sub, sub-micro delineation. Obviously, however, such a study will call for a staggered approach and a much deeper acquaintance with the situation on the ground.

Pending this, the present study which covers the whole of India and posits a scheme comprising of four levels of delineation is, I think, not an inconsiderable step forward and we may not be wrong, I hope, in deriving some satisfaction from its accomplishment. The Census of India is so multi-faceted and so prolific in its output that some aspects of its corporate personality can go at times un or under recognized. One such aspect is cartography. Among other things, I hope, the present series will lead to a better appreciation of the scale and variety of our cartographic output.

The work has been done as a Plan scheme so graciously and thoughtfully sanctioned by the Planning Commission. The foundations of the work were laid under the able stewardship of my predecessor Shri P. Padmanabha. It has been my privilege to steer the work to completion through a time-bound programme. Dr. B.K. Roy, Deputy Registrar General (Map), is one of the stalwarts who have made the Indian Census what it is. This project owes a great deal to him and I have a feeling that he, too, is going to cherish this association. This is not to forget the contribution made by a whole band of able and dedicated officers and cartographers of various ranks at the headquarters and in our Directorates. This contribution is being acknowledged separately. Shri B.P. Jain, Deputy Director of Census Operations, has ensured speedy printing.

We have been extremely fortunate in as much as Hon'ble Shri Buta Singh, Home Minister of India, has always been able to spare time for Census-related matters even though the claimants for his attention have naturally been innumerable. By kindly consenting to contribute a perspicacious Foreword to this series he has deepened the debt of gratitude the organization owes to him. As indicated by him, a follow up project could, perhaps, take care of compiling and presenting data-sets, comprising of demographic and other parameters, in terms of the regions herein presented.

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New Delhi
2nd of January, 1989

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REGIONAL DIVISIONS - PONDICHERRY

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PART-I
GENERAL NOTE

REGIONAL DIVISIONS OF INDIA--A CARTOGRAPHIC ANALYSIS

GENERAL NOTE

The regional spatial patterns, variations of resources, heterogeneous physio-geographic factors and problems in development bring out the necessity for a regional approach to planning. Delineation of physio-geographic regions of a country of sub-continental size like India with an area of 3,287,263 Km^2, extending between latitudes $8^O4'28"$ and 37^O 17'53" North and longitudes 68^O 7'53" and 97^O 24'47" East and having a great range of geographic environment, is a gigantic task. During the past 30 years, the macro level planning at the national level and meso level planning at the state level have been duly emphasised. Micro level planning needs, perhaps, to be further emphasised. For this to happen, one requirement consists of homogeneous regions, with natural boundaries, forming viable units of planning.

Thus, there was a need to delineate micro regions to suit the requirements of micro level regional plans within the frame-work of the national plan. To achieve this end, we need micro regions which are valid on physio-geographic considerations and also definable in terms of administrative units and boundaries in order to facilitate plan formulation and plan execution. For carving out such natural regions, the following considerations *inter alia*, are to be kept in view:

(i) contiguous geographical area,
(ii) homogeneous administrative machinery capable of formulating and implementing integrated area plans,
(iii) reliable statistical data base,
(iv) existence of nodal regions, and
(v) amenability of the natural boundaries to marginal adjustments so that the former may, by and large, conform to administrative boundaries at given points of time.

In India, the district is the major universal administrative unit below the State level. The administrative boundaries of the districts usually, however, cut across those of the homogeneous natural regions though some district boundaries do coincide with the natural sub-regional boundaries and most of the districts have nodal regions. In cases of extreme heterogeneity, however, we may have to think of adjustments in such district boundaries to suit the sub-regional planning to the extent possible. This kind of adjustment was worked out methodologically by V.L.S.P. Rao and L.S. Bhat for the old Mysore State. Also, at the district level, we have an administrative set up which is competent to formulate and implement sub-regional plans. Moreover, a reliable statistical data base (both Census and non-Census) is available at the district level for the purposes of sub-regional planning.

The Earlier Efforts

In regional planning of one type or the other, the delineation of proper regional boundaries has always remained a rather difficult task. A number of schemes for delineating natural regions in India have been put forward by scholars from time to time during this century. The first attempt was made by T.H. Holdich in 1904. He made a very brief and sweeping generalisation and formed rather broad geographical zones of India on the basis of geological information only. Later, during the 1921-31 decade regional delineations were done mostly from the point of view of geological structure and stratigraphy. During 1922-24, L.D. Stamp produced a more substantive and well known work. Stamp

adopted physiography and structure at the primary level and climate for the second order regions. He divided the country into 3 primary or macro level regions and 22 sub-regions and designated them as 'natural regions'. Almost simultaneously, but independent of Stamp's work, J.N.L. Baker, following the work on natural regions initiated by Wood, proposed another scheme of natural regions. It was in close agreement with Stamp's regional scheme. Later on, M.B. Pithawala, Kazi S. Ahmad and O E. Baker also proposed their schemes of regional divisions. O.H.K. Spate gave a more comprehensive treatment to this scheme. He was in general agreement with the schemes proposed by Stamp and Baker. He divided the sub-continent into three paramount macro level regions on the basis of geological structure. The regional scheme proposed by Spate is empirically derived. He divided India into 35 regions of the first order (under the three macro regions excluding the islands), 74 of the second order with 225 sub-divisions.

The traditional divisions of the country into mountains, plateaus and plains and further regional division as envisaged by Stamp and later on improved by Spate provided a base for the study of regional physical conditions. During 1931--1941, the regional studies so developed could not be elucidated or enlarged mainly due to the politically unstable conditions of the sub-continent. M.W.M. Yeatts in the General Report of Census of India, 1941, proposed a broad division of the country into four regions demarcated according to economic and geographic principles. However, it was only after 1951 that with the help of more elaborate geological surveys and geographical mapping, by foreign as well as Indian geographers, the work on major natural regions could be reoriented. The 1951 Census of India report gave considerable impetus to the progress of studies of natural regionalisations as for the first time the Census data were interpreted in geographical context in some details. The map of major natural regions of India of 1951 census was rather sketchy in character. However, it served the purpose well and was laudable for its time considering the resources then available to the Census Organisation. Subsequently, at the time of the 1961 census, more maps and ideas from foreign as well as Indian geographers were obtained in carving out the natural regions of India for development purposes. S P. Chatterjee divided India on the basis of physiography and geological structure. A.Mitra, grouped various districts of India into four categories on the basis of their development levels. Late (Miss) P.Sengupta suggested a scheme of Geographical Economic Regions of India which was utilised in the Census of India monograph entitled "Economic Regionalisation of India, Problems and Approaches" and Census of India Atlas of 1961. The basis for this classification was mainly in the works of Spate and Chatterjee as well as in those of the previous scholars referred to above.

However, all these schemes proposed by the various scholars did not provide a base for mapping and for statistical analysis of the Census data at sub-micro level. They did not also provide precise boundaries or relate the regions to administrative boundaries. In case a scheme was based on the district as the basic unit, as was the case with that proposed by Mitra and Sengupta, it did not take into consideration the intra-district details. The subsequent availability of fairly intensive data, specially on the distribution of soils, forests, geological formations, climatic conditions and large number of maps produced by various national and international organisations, encouraged B.K. Roy to revise the then existing framework of natural regions. A map of India showing Physio-geographic Regions was included in the National Volume of Census Atlas, 1971 wherein three tiers of regional boundaries (Macro, Meso and Micro) have been precisely adjusted with the district boundaries. The important materials consulted for revising the scheme were the maps published by the Geological Survey of India, Chief Soil Survey Office of the Indian Agricultural Research Institute and the book, 'India -- A Regional Geography' edited by R.L. Singh.

The Present Study

The above work was welcomed by scholars, geographers and planners both in India and abroad. To

further refine such delineation and also to get it done on a comprehensive scale, the Government of India sanctioned a plan scheme to the Census Organisation on "Regional Divisions of India -A Cartographic Analysis". It aimed at working out a viable grouping of Census villages and towns on a large scale map keeping in view their physio-geographical characteristics in order to bring out viable homogeneous regions at the sub-micro level within the districts. Broadly, the physio-geographical factors which have been kept in view while undertaking this exercise are (i) Physiography, (ii) Geological structure; (iii) Forest coverage, (iv) Climatic conditions; and (v) Soils. These sub-micro regions have been further pulled up on uniform scale to provide a framework for mapping and cartographic evaluation of Census as well as non-Census data to enlarge the scope of the Census Atlases of the country and also to help in the interpretations of population data in terms of sub-micro regions which are physio-geographically homogeneous in character and have similar problems and prospects requiring uniform application of planning strategies for better utilisation of resources and for providing amenities to the inhabitants. Since each sub-micro region has been clearly defined in so far as its rural and urban constituents are concerned, the demographic characteristics and other statistics can be generated for the past Censuses also to the extent to which village-wise/town-wise data are available. The sub-micro regions have been delineated within the district. In case the boundaries of the district experience any change in future, due to administrative or any other reason, the required scores can be obtained by compilation of data as we know their consituent units. The sub-micro regions of the districts will play an important role in the implementation of the plan at the grass root level within the framework of the State plan which, in turn, is a part of the overall National plan. Agricultural development in India is dependent upon the regional approach because of wide areal spread and the resultant contrasts in cropping patterns arising mainly from the regional variations in physical conditions. Since the landuse pattern should be adopted as per physical conditions of the region, the demarcation of physio-geographic regions will help in the long-term planning for the country. It is hoped that this scheme, the first of its kind in the history of the Census in India, besides enlarging the scope of Census Atlases, would serve as a useful framework for administrators, planners, researchers and other data users.

The Procedure Followed

The procedure for delineation of the sub-micro regions encompassed the following steps and considerations:

Since the aim was to delineate sub-micro regions within the district, the number of sheets covering the areal spread on standard topographical sheets either on 1:50,000 or 1:250,000 scale, as available, were consulted. These sheets were mosaiced to ascertain the boundary of the district concerned. In case of change in the district boundaries between the 1971 and 1981 Censuses, the updated map of the district as per 1981 Census was consulted. Similarly, Tahsil/Taluk/P.S./C.D. Block/Circle boundaries were reoriented. As the second step, the villages alongwith their Census location code numbers were marked on the topographical sheets for evaluation of the environs of the group of villages with reference to the physical details. The delineation of sub-micro, i.e. the fourth order regions followed. In this exercise physio-geographical details of contours, drainage, spot heights, bench marks, watersheds as well as the distribution of high land and low land (land levels in broader perspective) were examined. This gave further suitable background for the delineation of a group of villages in one viable unit. Simultaneously, names were assigned to particular zones on the basis of major and minor rivers/rivulets, names of mountain ranges, forests or on the consideration of bigger census villages and popular geographic names of local importance which may be acceptable in view of the regional geographical pattern of the particular region. At times one could feel that the contours or drainage designs are so complex as to complicate geographical thinking for the regions. In such cases, drainage patterns were worked out separately to ascertain their alignment in the formation of

sub-micro regions. Similarly, due to the complexity of contour lines on topographical maps, profiles were drawn to arrive at a particular conclusion whether the physio-geographical landscape of the area was consistent with reference to valleys or rivulets of the regions at higher altitudes for zoning of the sub-micro regions. This method provided a decision making criterion to streamline the regions.

While operating on the above system, step 3 required the consulting of maps on geology to further streamline the region-forming factors in the delineation of sub-micro areas. Where the micro relief and the micro physiographic elements on such considerations corresponded fully, the viable region in the district gave a precise zoning. Further, the forest spread on the maps helped to reorient the sub-micro regional boundaries. In addition, rainfall (isohyetal) maps also helped in the delineation of these boundaries. Thus, all the factors as envisaged in the programme have been synthesised judiciously and to the extent possible to carve out the sub-micrc regions within the districts throughout the country.

Code Structure for the Regions and the Scheme of the Contents

The map 'Regional Divisions of India' included in this volume depicts 3 digit codes. The first digit stands for the macro regions, the second digit for the meso regions and the third for the micro regions. The four macro regions have been numbered as: the Northern Mountains (1), the Great Plains (2), the Deccan Plateau (3) and the Coastal Plains and Islands (4). In the 3 digit code 2.1.1 on the map, the first digit (2) stands for the macro region-the Great Plains, second digit (1) for the meso region-the Punjab Plain and the third digit (1) stands for the micro region-Ravi-Beas Inter-fluvial Plain. In this frame, 4 macro, 28 meso and 101 micro regions are outlined for the country and the same have been briefly described in the later part. Within this frame of micro regions, sub-micro regions have been delineated within the district under this scheme. These sub-micro regions are given 4th digit code and this 4th digit has beer repeated, district-wise, from 1 to the number of sub-micro regions in the district.

After finalization of the sub-micro regions and their code numbers, lists of villages and towns were prepared for each sub-micro region and basic data pertaining to area and population were generated. In addition, some physio-cultural characteristics are also highlighted. Part II of this volume incorporates brief description of physio-cultural aspects supplemented by maps and basic data at state level while Part III gives information for each sub-micro region within each district of the state.

It will be seen that the tables included in Parts II and III approach the configuration from the point of view of the administrative unit, i.e., State/District/Taluk/P S./C.D.Block, Village. In other words, these tables give the position of these units with reference to the natural regions in which they fall, as determined at these respective levels. It will be perceived, however, that the same region or a similar region under a different name may be transcending the administrative boundaries of states and districts and there may be a legitimate enquiry seeking the total geographical spread of the same region or similar regions across and beyond such administrative boundaries but in terms of such administrative units. For purposes of planning it is as necessary to know as to what natural regions comprise a state or a district as to know the position from the opposite point of view as to what state and district or segments thereof comprise one region or similar adjoining regions.

To serve this latter purpose, we have added to each state/union territory volume an appendix which presents administrative constituents of similar regions which extend beyond district and state boundaries. In the case of the adjoining states/union territories, this exercise is, naturally, restricted to the limits of region/regions transcending the boundaries of the concerned state/union territory to which a particular volume in this series is devoted. For getting fuller details with regard to these "extended areas" in terms of their constituents the reader is invited to refer to the volumes dealing with the concerned states/union territories.

BRIEF CHARACTERISTICS OF REGIONAL DIVISIONS

1.THE NORTHERN MOUNTAINS

The Northern Mountains corresponding with the Himalayan zone facing the northern frontier of the sub-continent comprise Jammu and Kashmir, Himachal Pradesh, Northern Uttar Pradesh, Sikkim, Northern West Bengal, Arunachal Pradesh, Nagaland, Manipur, Mizoram, Tripura, Meghalaya and part of Assam. The Northern Mountains have been divided primarily according to the geology and forest cover. The relief and drainage, however, have also played a dominant role in establishing various sub-divisions within the Himalayan zone. This macro region has been divided into 5 sub-regions(meso) and 24 divisions (micro) on the basis of above mentioned factors.

These sub-regions are:

1.1 *Jammu and Kashmir Himalaya*

This sub-region covers the entire Jammu and Kashmir and is furthur divided into following three divisions (micro regions):

1.1.1 Ladakh
1.1.2 Kashmir Valley
1.1.3 Jammu

In these divisions the relief presents remarkable variations. The grouping of the districts has been made in conformity with the geological structure, elevation and forest cover. Other factors do not play significant role in delineating these divisions. However, sub-montane soil (Podsolic) is dominant in the Kashmir Valley and brown hill soil is seen in the southern part of Jammu and Kashmir. Ladakh region is fully predominated by mountain meadow soils as well as glaciers and eternal snow. Forest is mostly alpine type in the northern regions and sub-alpine in the southern regions.

1.2 Himachal Pradesh Himalaya

Himachal Pradesh state entirely falls under this sub-region. It has been further divided into the following 4 divisions:

1.2.1 Northern Himachal Pradesh
1.2.2 Trans-Himalayan Zone
1.2.3 Central Himachal Pradesh
1.2.4 Southern Himachal Pradesh

Geologically, it is almost similar to that of Jammu and Kashmir Himalaya. However, this sub-region is characterised by marked variations in the relief features, mainly on the consideration of micro-relief and little variations in soils.

1.3 Uttar Pradesh Himalaya

This sub-region has been divided into three divisions,viz ,

1.3.1 Kumaon Himalaya--North
1.3.2 Western Kumaon Himalaya, Siwalik and Doons
1.3.3 Kumaon Himalaya--East

In these areas, the elevation has been taken as the main basis for classification, Geology and forest have also been taken into account. The soils are mostly of brown hill type in the sub-region with marked differences in the southern Siwalik zone, locally known as 'Tarai' and 'Bhur' soils. The Kumaon Himalaya--North has important peaks like Nanda Devi, Kamet and Badrinath. The Ganga and the Yamuna have their sources in this region. The Western Kumaon Himalaya, Siwalik and Doons cover Dehra Dun, Garhwal and Tehri Garhwal districts, and have an elevation of 900 to 1000 m. The Kumaon Himalaya - East which comprises Almora

and Nainital districts is marked with some narrow valleys on high altitudes.

1.4 North Eastern Himalaya

This region includes 4 sub-regions extending over Sikkim, Darjiling and 'Duars' area of West Bengal and Arunachal Pradesh. The Darjiling section of the Himalayan zone rises abruptly from 'Duars' plain of West Bengal. Three high peaks, namely, Siwalik Phu (3630m), Sabargam (3546m) and Phalut (3596m) are located in this section of Himalayan zone. Similarly, the lofty ranges of about 5000m with intermittent summits are the chief characteristics of Arunachal Pradesh. Weather is damp and cold and the forests are dense. Annual rainfall ranges between 250 and 350 cm. The drainage is in evolutionary stage and immature. This region has been divided into 4 divisions as below:--

1.4.1 Sikkim Himalaya
1.4.2 Darjiling Himalaya including 'Duars'
1.4.3 Western Arunachal Pradesh Himalaya
1.4.4 Eastern Arunachal Pradesh Himalaya

1.5 Eastern Hill Zone

This region represents the eastern section of Himalayan zone extending over Nagaland, Manipur, Mizoram, Tripura, part of Assam and Meghalaya. This region is interspersed with plains especially in Silchar, North Cachar Hills and adjoining areas. Topographically it is rugged. The slopes are quite steep. Over the Tripura region the topography has interspersed ranges and valleys. Consequently, communication is difficult.

The Khasi and Jaintia Hills in Meghalaya is like a table land. Geologically it is an eastward extension of the massive block of the Peninsular region broken by the alluvium of Bengal basin. In its long geological history this region is said to have submerged during Mesozoic and early Tertiary times due to marine transgression which was further uplifted at the time of Himalayan orogenesis.

The region has been divided into 10 divisions as below:

1.5.1 Nagaland Hills
1.5.2 Manipur Hills
1.5.3 Imphal Valley
1.5.4 Hill Zone
1.5.5 Tripura Plain
1.5.6 Tripura Hills
1.5.7 Cachar Plain
1.5.8 Karbi Anglong & North Cachar Hills
1.5.9 Eastern Meghalaya
1.5.10 Western Meghalaya

2. THE GREAT PLAINS

This is the most important zone in view of human concentration and it stretches from Rajasthan via Punjab, Haryana, Uttar Pradesh, Bihar, West Bengal to the eastern section of Brahmaputra valley. It is an enclosed vast basin of various small and large rivers separated by alluvial divides'.

The western section comprising of arid Rajasthan, Punjab, Haryana, Chandigarh, Delhi and Western Uttar Pradesh is slightly higher in elevation over 150m, than the eastern section of the plain. However, according to elevation, this plain shows three levels of relief configuration, between 0 to 75m in the eastern section, 75 to 150 m in the Central Uttar Pradesh and 150 to 300 m in western zone with the exception of a small zone in eastern Jaisalmer district where the elevation is below 75 m. Geologically, the whole region is made of alluvium brought by rivers from Himalayas and this is a gradational plain formed during Pleistocene and Recent geological times. On the basis of drainage, soils and rainfall, the region has been divided into 7 sub-regions and 24 divisions:-

2.1 Punjab Plain

In this plain 4 divisions as listed below have been delineated on the basis of soils and rainfall. Soils are alluvial with variations of *bangar* and *khadar* Agriculturally, this is the most important region.

2.1.1 Ravi - Beas Interfluvial Plain
2.1.2 Hoshiarpur-Chandigarh Sub-montane Plain
2.1.3 Beas--Satluj Doab
2.1.4 Punjab-Malwa Plain

2.2 Haryana Plain

In this region which also includes Delhi, three divisions have been delineated on the basis of topography and distribution of soils which are sandy and calcareous.

2.2.1 Eastern Haryana Plain
2.2.2 Western Haryana Plain
2.2.3 Southern Haryana Plain

2.3 Arid Rajasthan Plain

This meso region receives an average annual rainfall of less than 40 cm. It has been divided into four micro regions mainly on the basis of distribution of rainfall which are:-

2.3.1 Ghaggar Plain
2.3.2 Rajasthan *Bagar*
2.3.3 Extremely Arid Tract
2.3.4 Luni Valley

2.4 Upper Ganga Plain

This is the vast stretch of the Ganga Plain where the rivers are playing important role in carrying out definite influence area of their own. In general, the soil is alluvial but variations have developed on the upland and the low land areas. The Upper Ganga Plain has been divided into 2 divisions, viz.,

2.4.1 Northern Upper Ganga Plain
2.4.2 Southern Upper Ganga Plain

2.5 Middle Ganga Plain

This is the transitional zone between the Upper Ganga Plain and the Lower Ganga Plain and has been divided into two divisions, viz.,

2.5.1 Middle Ganga Plain - West
2.5.2 Middle Ganga Plain - East

2.6 Lower Ganga Plain

The characteristics of the landscape in the Ganga Plain change abruptly in Lower Ganga Plain extending over Bihar and West Bengal due to high rainfall. It has an elevation of below 75 m and has been further divided into following six micro regions:

2.6.1 North Bihar Plain
2.6.2 South Bihar Plain
2.6.3 Barind Tract
2.6.4 Moriband Delta
2.6.5 Proper Delta
2.6.6 Rarh Plain

2.7 Brahmaputra Valley

The Brahmaputra Valley presents typical geographical features. In general, the valley has an elevation of below 75 m. The eastern section is more undulating. Rainfall is very high and river pattern is braided in various sections of the Brahmaputra. The tributaries joining the main river Brahmaputra discharge large amount of water during the monsoon period and hence cause floods in the valley region. It is also covered with luxuriant vegetation throughout. Hence, on this basis this valley has been divided into three divisions with definite characteristics.

2.7.1 Western Brahmaputra Valley
2.7.2 Central Brahmaputra Valley
2.7.3 Eastern Brahmaputra Valley

3. THE DECCAN PLATEAU

The Deccan Plateau represents the whole of South Indian tableland. From the point of view of geology, the whole region is composed of metamorphic rocks of pre-Cambrian age. Considering drainage, elevation, forest cover, soils and rainfall, sub-divisions were delineated. In general, the elevation rises to over 1000 m in the south while it hardly

exceeds 500 m in the north. The rivers of this region have mostly reached their base level of erosion which have carved wide valleys in various regions of considerable importance. This region has been divided into 12 sub-regions and 33 divisions.

3.1 Semi-Arid Rajasthan

This portion of Rajasthan is marked with intervening valleys where the soils are red, yellow and mixed red-black in character. The regional characteristics of this region are different from those of the arid zone of Rajasthan (2.3). The annual rainfall here varies from 35 to 45 cm. Besides, the vegetation is partly developed over the hills and slopes which mostly belong to semi-arid type; while the arid plains are infested with thorny scrub and bushy vegetation. This region has further been divided into three divisions.

- 3.1.1 Aravalli Range and the Associated Uplands
- 3.1.2 Semi-Arid Uplands of Eastern Rajasthan
- 3.1.3 Banas - Chambal Basin

3.2 Uttar Pradesh Uplands

Uttar Pradesh Uplands represent well defined zone of Vindhyan System in the south. The average elevation is 500-600 m and slopes towards the plain in the north. The divisions made in this meso region are:

- 3.2.1 Jhansi Uplands
- 3.2.2 Mirzapur Uplands

Jhansi Uplands are comparatively dry while the Mirzapur Uplands are wet.

3.3 Bihar - West Bengal Uplands

Bihar - West Bengal Uplands region is one of the most interesting regions for the studies in geomorphology and cultural geography. The whole region belongs to the unclassified crystalline rocks. The elevation of the Bihar Highlands known as Chotanagpur Plateau is in the range of 300-900 m. which is often high above 900 m. at places in the form of rounded hills. Soils in this region are mainly red and yellow and red sandy. Red and black soils are predominant in Singhbhum region. The drainage is radial. Forests are dense in Palamu, Ranchi and Hazaribag areas, while it becomes sparse in Puruliya on account of degenerated soils on the uplands. On the basis of elevation and nature of topography the region has been divided into 4 divisions.

- 3.3.1 Ranchi Plateau
- 3.3.2 Hazaribag Plateau
- 3.3.3 Puruliya Uplands
- 3.3.4 Singhbhum Plateau

3.4 Northern Madhya Pradesh Uplands

The Northern Madhya Pradesh Uplands region has been sub-divided into three divisions. In general, the elevation is between 300-600 m with numerous hills which are thickly forested. The northern Madhya Pradesh is typically a ravine and derelict land zone on account of erosion by the tributaries of Chambal system.The Northern Madhya Pradesh Uplands - East region represents the Vindhyas with well developed scarps. Three divisions made in this meso region are:

- 3.4.1 Northern Madhya Pradesh Ravine Uplands--West
- 3.4.2 Northern Madhya Pradesh Uplands-- Central
- 3.4.3 Northern Madhya Pradesh Uplands --East

3.5 Central Madhya Pradesh Plateau

The Central Madhya Pradesh Plateau inherits a complex geology. In general, gneisses - Vindhyans and Gondwanas are fairly represented here. Forest is deciduous and present large varieties of sal. Soils are primarily medium black to deep black types. The region has been sub-divided into three divisions

- 3.5.1 Sagar Plateau

3.5.2 Bhopal Plateau
3.5.3 Ratlam Plateau

3.6 Southern Madhya Pradesh Uplands

The region in general represents black soil. Annual rainfall varies between 200-300 cm. The whole region is densely forested in general. According to the elevation, drainage and micro-orographic characteristics the region has been divided into three divisions.

3.6.1 Narmada Region including Flanks of Vindhya and Satpura
3.6.2 Mahanadi Basin
3.6.3 Madhya Pradesh Dandakaranya

3.7 Northern Maharashtra

The Northern Maharashtra represents the major soil regions developed over 'Deccan flows'. In this region average annual rainfall ranges between 40 and 80 cm. The altitudinal characteristics are quite pronounced and hence the delineation of above regions is based on the 'Valleys and Divides' concept of orography of the region. It has been further divided into following two divisions:

3.7.1 Tapti - Purna Valley
3.7.2 Wardha--Penganga -- Wainganga Plain

3.8 Maharashtra Plateau

This meso region, in general, has an altitude ranging between 300 and 900 m. and extends over basalts. Some high ranges like Ajanta range, Harischandra range, Mahadeo range and Balaghat range break the monotony and thus form a mosaic of plateau with protruded hills. Annual rainfall, in general, varies between 80 and 100 cm. except in the central region of Maharashtra Plateau which generally gets less than 80 cm. rainfall. Forest cover, in general, is sparse and at places dense which is of dry deciduous type. Consequently, two divisions have been made in this region, viz.,

3.8.1 Eastern Plateau
3.8.2 Western Plateau with Protruded Hills

3.9 Karnataka Plateau

The Karnataka Plateau is a well defined plateau region of the Deccan over the unclassified crystalline rocks. In general, the northern portion is having an elevation of about 300 m. with a westward slope, while the southern portion is high (over 900 m) and slopes towards the southeast. Tungabhadra river cuts it into two regions. Average annual rainfall is around 80 cm. in major part of this region. Soils in the northern Karnataka are black while in the south these are mostly laterite, red sandy and red loamy. Forests are dense only in Malnad bordering Sahyadri where the main elevation reaches 1000 m. with heavy rainfall of 150 cm. per annum. Three divisions made on the above considerations in this region are:

3.9.1 Northern Karnataka Plateau
3.9.2 Central Karnataka Plateau
3.9.3 Southern Karnataka Plateau

3.10 Tamil Nadu Uplands

This region is the southern extension of unclassified crystalline rocks of Cambrian period and is marked with fairly wide valley of Cauvery and its tributaries. In general, the elevation is over 900 m. in the west due to southern Sahyadri and Nilgiri Hills. The western and the eastern flanks get an annual rainfall of about 80 - 200 cm. but the central part of the uplands is almost dry. Due to comparatively high rainfall the hilly areas are forested. On the basis of elevation two divisions have been carved out which are:

3.10.1 Eastern Flanks of Sahyadri
3.10.2 Tamil Nadu Uplands

3.11 Andhra Plateau

Andhra Plateau is another well-defined plateau

region over the Archaean gneissic rock of Southern India which is drained mostly by Godavari, Krishna and Penner river systems. Over the western margins, the soils are mostly medium black with intrusion of deep black soils in Krishna valley. The rest of the region is characterised by red sandy soils. The average annual rainfall is below 80 cm. in this region. The region is covered with deciduous forests. On the basis of elevation and other considerations, the region has been divided into four divisions identified as:

3.11.1 Godavari Depression
3.11.2 Telangana Plateau
3.11.3 Krishna Piedmont Plain
3.11.4 Rayalaseema

3.12 Orissa Highlands

The Orissa Highlands region is comprised of the north-eastern extension of unclassified crystalline rocks of the Deccan Plateau. Here the topography is rugged and elevation is about 1200 m in Koraput plateau. The Mahanadi and Brahmani rivers have carved out well defined valleys. Soils of the region are mostly red and sandy interspersed with red and yellow soils in some areas. The western portion of the region consists of deep valleys with spurs. In general, the southern portion is much more dissected and higher than the northern one, where the range of elevation is between 300 and 900 m. Average annual rainfall of the region is between 200 and 300 cm. The region has been divided into two well marked divisions according to elevation, viz.,

3.12.1 Northern Orissa Highlands
3.12.2 Southern Orissa Highlands (Orissa Dandakaranya)

4. THE COASTAL PLAINS AND ISLANDS

Geologically, the Coastal Plain adjacent to the Peninsular region are mere 'Shore Facies' of the Deccan Trap. The region has attained a definite regional approach for classification on account of coastal alluvium characteristics hemmed in between the Sahyadri and Arabian Sea in the west and the Eastern Ghats and Bay of Bengal in the east. The rainfall varies in the sections which is high (above 300 cm.) in the Western Coastal Region and low (100 cm.) in the Eastern Coastal Region. The Coastal Plain has been sub-divided into 4 sub-regions and 20 divisions.

4.1 Gujarat Region

This region represents almost the whole of Gujarat state. This region is composed of 'Deccan Flows' and coastal Tertiary deposits. Gujarat Plain is drained by Sabarmati and Mahi rivers. Eastern Hilly Region is comprised of Panch Mahals and The Dangs districts, Kathiawar Peninsula is partly rocky having an elevation of above 75 m. Radial drainage is the chief characteristic feature of this zone.

Kachchh Peninsula solely corresponds with Kachchh district. The chief characteristic feature of the region is the sandy plain with isolated rocky hills. All these regions may typically be said as semi-arid while the Kachchh Peninsula is arid. The above mentioned four regions are as follows:

4.1.1 Gujarat Plain
4.1.2 Eastern Hilly Region
4.1.3 Kathiawar Peninsula
4.1.4 Kachchh Peninsula

4.2 Western Coastal Region

The Western Coastal Region lies just bordering the Sahydari (the Western Ghats). The width of the region is often very narrow in Karnataka Coastal Region which broadens further south in Kerala. Rainfall is quite heavy over 300 cm. per annum. Six divisions have been demarcated in this region which cover portions of Maharashtra, Karnataka, Kerala, Mahe district of Pondicherry and Goa district of Goa, Daman & Diu. The six divisions are:

4.2.1 Maharashtra Littoral
4.2.2 Goa Coast
4.2.3 Karnataka Coast
4.2.4 North Kerala Coast

4.2.5 Central Kerala Coast
4.2.6 South Kerala Coast

4.3 Eastern Coastal Region

The Eastern Coastal Region can be distinguished from the Western coast because the basic geographical factors of these two regions vary to great extent. The 100 cm. isohyetal line separates the eastern and western coastal areas at the district level at Kanniyakumari. The Eastern Coastal Region is wide and the soils differ appreciably within this region. The big rivers carve out broader valleys or deltas which give further help in establishing the divisions in the Eastern Coastal Region. The Eastern Ghats are broken as they do not run as continuous geographical barrier. The region has been divided into 8 divisions, viz.,

4.3.1 Kanniyakumari Coast
4.3.2 Sandy Littoral
4.3.3 Coromandel Coast
4.3.4 Southern Andhra Coastal Plain
4.3.5 Krishna Delta
4.3.6 Godavari Delta
4.3.7 Northern Andhra Coastal Plain
4.3.8 Mahanadi Delta

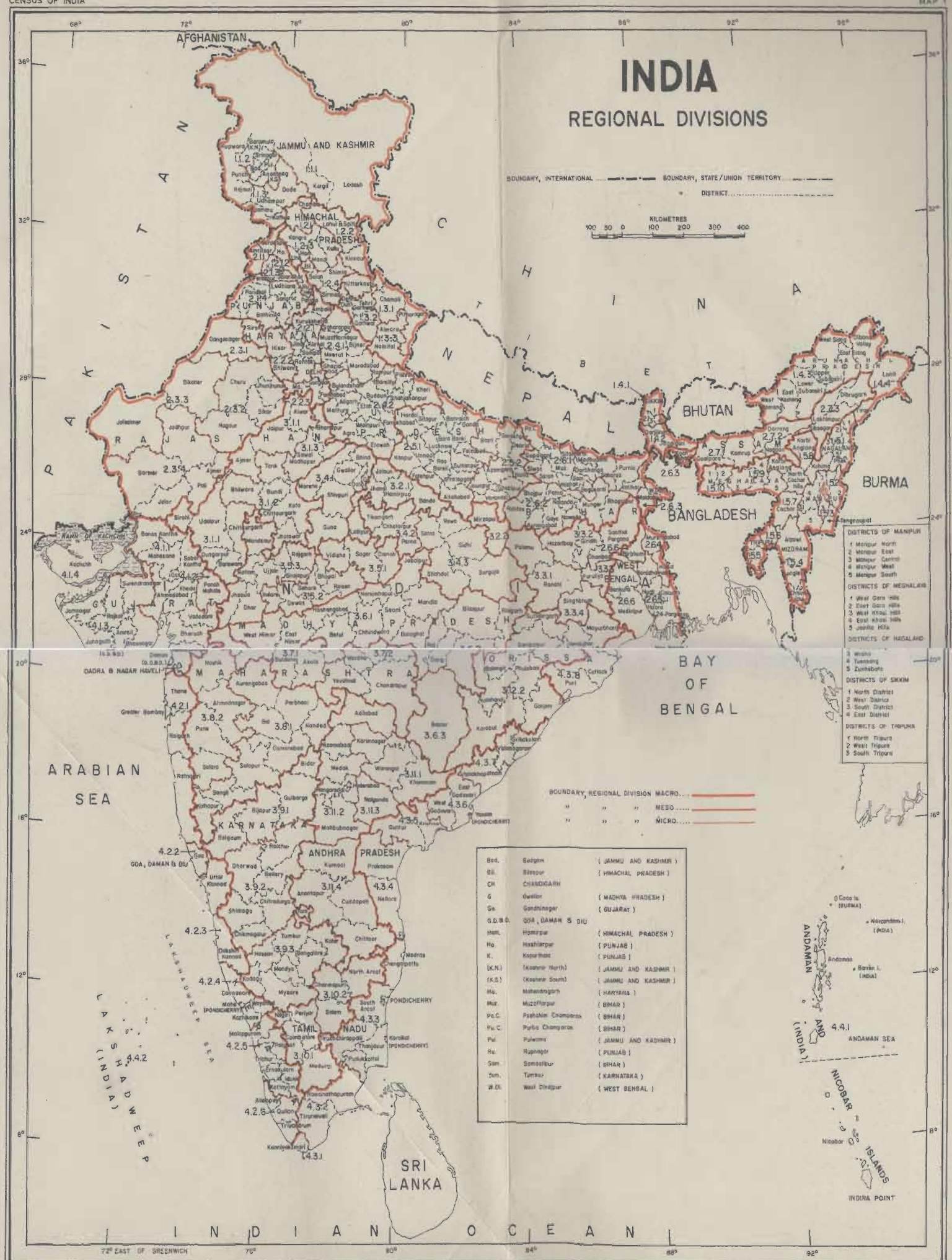
4.4 The Islands

The Andaman and Nicobar Islands in the Bay of Bengal and Lakshadweep in the Arabian Sea vary between themselves in the geographical location as well as in human geography and form two micro regions.

4.4.1 The Andaman and Nicobar Islands are composed of more than 300 named and unnamed Islands. Out of them 33 major islands are inhabited, while the remaining islands are uninhabited. Geologically, sandstone and shales of Eocene period predominate. Due to hot and humid climate, soils are lateritic and degenerated with luxuriant growth of vegetation cover. Coral formation is the chief characteristics of the islands and so the group of islands forms a definite entity of a region on these considerations.

4.4.2 The Lakshadweep--These islands have developed very near to the continental shelf of the Indian coast. The total number of islands is 27 out of which 10 are inhabited and the remaining 17 are uninhabited.

These two present a particular geographical environment, ecology and culture zone of India.



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 Area (Reorganisation) Act, 1971, but has yet to be verified.

PHYSIO-GEOGRAPHIC REGIONS OF INDIA (REGIONAL DIVISIONS)

Regions with code No. (MACRO)	Sub-regions with code No. (MESO)	Divisions with code No. (MICRO)	Districts	State/ Union Territory
1	2	3	4	5
1. The Northern Mountains	1.1 Jammu & Kashmir Himalaya	1.1.1 Ladakh	Ladakh and Kargil	Jammu & Kashmir.
		1.1.2 Kashmir Valley	Anantnag (KS), Baramula(KN), Pulwama, Badgam, Kupwara and Srinagar	Jammu & Kashmir
		1.1.3 Jammu	Doda, Jammu, Kathua, Rajauri, Punch and Udhampur	Jammu & Kashmir
	1.2 Himachal Pradesh Himalaya	1.2.1 Northern Himachal Pradesh	Chamba	Himachal Pradesh
		1.2.2 Trans-Himalayan Zone	Kinnaur and Lahul & Spiti	Himachal Pradesh
		1.2.3 Central Himachal Pradesh	Kangra, Kullu, Una, Hamirpur and Mandi	Himachal Pradesh
		1.2.4 Southern Himachal Pradesh	Bilaspur, Solan, Shimla and Sirmaur	Himachal Pradesh
	1.3 Uttar Pradesh Himalaya	1.3.1 Kumaon Himalaya North	Chamoli, Pithoragarh and Uttarkashi	Uttar Pradesh
		1.3.2. Western Kumaon Himalaya Siwalik & Doons	Dehra Dun, Garhwal, Tehri Garhwal	Uttar Pradesh
		1.3.3 Kumaon Himalaya East	Almora, Nainital	Uttar Pradesh
	1.4 North Eastern Himalaya	1.4.1 Sikkim Himalaya	North District West District, South District & East District	Sikkim

1	2	3	4	5
		1.4.2 Darjiling Himalaya including Duars	Darjiling & Jalpaiguri	West Bengal
		1.4.3 Western Arunachal Pradesh Himalaya	West Kameng, East Kameng, Lower Subansiri, Upper Subansiri, West Siang East Siang	Arunachal Pradesh
		1.4.4 Eastern Arunachal Pradesh Himalaya	Dibang Valley, Lohit & Tirap	Arunachal Pradesh
	1.5 Eastern Hill Zone	1.5.1 Nagaland Hills	Kohima, Mokokchung, Mon, Wokha, Zunheboto, Phek and Tuensang	Nagaland
		1.5.2 Manipur Hills	Manipur East, Manipur North, Manipur West, Pocket of Manipur Central & Manipur South	Manipur
		1.5.3 Imphal Valley	Manipur Central & Tengnoupal	Manipur
		1.5.4 Hill Zone	Aizawl, Lunglei & Chhimtuipui	Mizoram
		1.5.5 Tripura Plain	South Tripura & West Tripura	Tripura
		1.5.6 Tripura Hills	North Tripura	Tripura
		1.5.7 Cachar Plain	Cachar	Assam
		1.5.8 Karbi Anglong & North Cachar Hills	Karbi Anglong & North Cachar Hills	Assam
		1.5.9 Eastern Meghalaya	West Khasi Hills, East Khasi Hills & Jaintia Hills	Meghalaya
		1.5.10 Western Meghalaya	West Garo Hills & East Garo Hills	Meghalaya

1	2	3	4	5
2: The Great Plains	2.1 Punjab Plain	2.1.1 Ravi-Beas Inter-Fluvial Plain	Amritsar and Gurdaspur	Punjab
		2.1.2 Hoshiarpur-Chandigarh Sub-Montane Plain	Chandigarh, Hoshiarpur & Rupnagar	Chandigarh & Punjab
		2.1.3 Beas-Satluj Doab	Jalandhar& Kapurthala	Punjab
		2.1.4 Punjab-Malwa Plain	Bathinda, Firozpur, Ludhiana, Patiala, Sangrur & Faridkot'	Punjab
	2.2 Haryana Plain	2.2.1 Eastern Haryana Plain	Ambala, Kurukshetra, Jind, Karnal, Rohtak and Sonipat.	Haryana
		2.2.2 Western Haryana Plain	Hissar, Sirsa and Bhiwani	Haryana
		2.2.3 Southern Haryana Plain	Delhi, Gurgaon, Mahendragarh and Faridabad	Delhi & Haryana
	2.3 Arid Rajasthan Plain	2.3.1 Ghaggar Plain	Ganganagar	Rajasthan
		2.3.2 Rajasthan Bagar	Churu, Jhunjhunun, Nagaur & Sikar	Rajasthan
		2.3.3 Extremely Arid Tract	Bikaner and Jaisalmer	Rajasthan
		2.3.4 Luni Valley	Barmer, Jalor, Jodhpur & Pali	Rajasthan
	2.4. Upper Ganga Plain	2.4.1 Northern Upper Ganga Plain	Bijnor, Ghaziabad, Meerut, Moradabad, Muzaffarnagar, Rampur & Saharanpur	Uttar Pradesh

1	2	3	4	5
		2.4.2 Southern Upper Ganga Plain	Aligarh, Agra, Bareilly, Budaun, Bulandshahr, Etah, Etawah, Farrukhabad, Kheri, Mainpuri, Mathura, Pilibhit and Shahjahanpur	Uttar Pradesh
	2.5. Middle Ganga Plain	2.5.1 Middle Ganga Plain-West	Allahabad, Bahraich, Bara Banki, Faizabad, Fatehpur, Gonda, Hardoi, Kanpur, Lucknow, Pratapgarh, Rae Bareli, Sitapur, Sultanpur and Unnao	Uttar Pradesh
		2.5.2 Middle Ganga Plain - East	Azamgarh, Ballia, Basti, Deoria, Gorakhpur, Varanasi, Jaunpur & Ghazipur	Uttar Pradesh
	2.6. Lower Ganga Plain	2.6.1 North Bihar Plain	Pashchim Champaran, Purba Champaran, Darbhanga, Muzaffarpur, Purnia, Saharsa, Saran, Sitamarhi, Madhubani, Katihar, Samastipur, Begusarai, Vaishali, Siwan and Gopalganj	Bihar
		2.6.2 South Bihar Plain	Bhagalpur, Gaya, Munger, Patna, Bhojpur, Nalanda, Nawada, Rohtas and Aurangabad	Bihar
		2.6.3 Barind Tract	Koch Bihar, Maldah & West Dinajpur	West Bengal
		2.6.4 Moribund Delta	Murshidabad and Nadia	West Bengal
		2.6.5 Proper Delta	Barddhaman, Calcutta, Hugli, Haora and Twentyfour Parganas	West Bengal
		2.6.6 Rarh Plain	Bankura, Birbhum & Medinipur	West Bengal
	2.7 Brahmaputra Valley	2.7.1 Western Brahmaputra Valley	Goalpara and Kamrup	Assam
		2.7.2 Central Brahmaputra Valley	Darrang and Nagaon	Assam

1	2	3	4	5
		2.7.3 Eastern Brahmaputra Valley	Lakhimpur, Sibsagar & Dibrugarh	Assam
3. The Deccan Plateau	3.1 Semi Arid Rajasthan	3.1.1 Aravalli Range and the Associated Uplands	Ajmer, Alwar, Banswara, Chittaurgarh, Dungarpur, Jaipur, Sirohi & Udaipur	Rajasthan
		3.1.2 Semi-Arid Uplands of Eastern Rajasthan	Bhilwara, Bundi, Kota, Jhalawar & Tonk	Rajasthan
		3.1.3 Banas-Chambal Basin	Bharatpur & Sawai Madhopur	Rajasthan
	3.2 Uttar Pradesh Uplands	3.2.1 Jhansi Uplands	Banda, Hamirpur, Jalaun, Lalitpur and Jhansi	Uttar Pradesh
		3.2.2 Mirzapur Uplands	Mirzapur	Uttar Pradesh
	3.3 Bihar West Bengal Uplands	3.3.1 Ranchi Plateau	Palamu and Ranchi	Bihar
		3.3.2 Hazaribag Plateau	Dhanbad, Hazaribag, Giridih & Santhal Pargana	Bihar
		3.3.3 Puruliya Uplands	Puruliya	West Bengal
		3.3.4 Singhbhum Plateau	Singhbhum	Bihar
	3.4 Northern Madhya Pradesh Uplands	3.4.1 Northern Madhya Pradesh Ravine Uplands West	Bhind, Datia, Guna, Gwallor, Morena and Shivpuri	Madhya Pradesh
		3.4.2 Northern Madhya Pradesh Uplands Central	Chhatarpur, Panna and Tikamgarh	Madhya Pradesh
		3.4.3 Northern Madhya Pradesh Uplands East	Rewa, Satna, Shahdol, Sidhi and Surguja	Madhya Pradesh

1	2	3	4	5
	3.5 Central Madhya Pradesh plateau	3.5.1 Sagar Plateau	Damoh, Sagar and Vidisha	Madhya Pradesh
		3.5.2 Bhopal Plateau	Dewas, Indore, Raisen, Bhopal & Sehore,	Madhya Pradesh
		3.5.3 Ratlam Plateau	Dhar, Jhabua, Mandsaur, Ratlam, Rajgarh, Shajapur and Ujjain	Madhya Pradesh
	3.6 Southern Madhya Pradesh Uplands	3.6.1 Narmada Region including Flanks of Vindhya Satpura	Balaghat, Betul, Chhindwara, Hoshangabad, Jabalpur, West Nimar, East Nimar, Mandla, Narsimhapur, Seoni	Madhya Pradesh
		3.6.2 Mahanadi Basin	Bilaspur, Durg, Raigarh, Raj Nandgaon & Raipur	Madhya Pradesh
		3.6.3 Madhya Pradesh Dandakaranya	Bastar	Madhya Pradesh
	3.7 Northern Maharashtra	3.7.1 Tapti-Purna Valley	Amravati, Akola, Buldana, Dhule & Jalgaon	Maharashtra
		3.7.2 Wardha-Penganga Wainganga Plain	Bhandara, Chandrapur, Nagpur, Wardha & Yavatmal	Maharashtra
	3.8 Maharashtra Plateau	3.8.1 Eastern Plateau	Aurangabad, Bid, Kolhapur, Nanded, Osmanabad, Parbhani, Sangli & Solapur	Maharashtra
		3.8.2 Western Plateau with Protruded Hills	Ahmadnagar, Nashik, Pune and Satara	Maharashtra
	3.9 Karnataka Plateau	3.9.1 Northern Karnataka Plateau	Belgaum, Bidar, Bijapur & Gulbarga	Karnataka
		3.9.2 Central Karnataka Plateau	Bellary, Chikmagalur, Chitradurga, Dharwad, Shimoga, Raichur and Pocket of Tumkur	Karnataka
		3.9.3 Southern Karnataka Plateau	Bangalore, Kodagu, Hassan, Kolar, Mandya, Mysore and Tumkur	Karnataka
	3.10 Tamil Nadu Uplands	3.10.1 Eastern Flanks of Sahyadri	Coimbatore, Madurai, Nilgiri and Periyar	Tamil Nadu

1	2	3	4	5
		3.10.2 Tamil Nadu Uplands	Dharmapuri, North Arcot & Salem	Tamil Nadu
	3.11 Andhra Plateau	3.11.1 Godavari Depression	Karimnagar, Khammam & Warangal	Andhra Pradesh
		3.11.2 Telangana Plateau	Adilabad, Hyderabad, Mahbubnagar, Medak, Nizamabad and Rangareddi	Andhra Pradesh
		3.11.3 Krishna Piedmont Plain	Nalgonda	Andhra Pradesh
		3.11.4 Rayalaseema	Anantapur, Chittoor, Cuddapah & Kurnool	Andhra Pradesh
	3.12 Orissa High-lands	3.12.1 Northern Orissa Highlands	Dhenkanal, Kendujhar, Mayurbhanj, Sambalpur and Sundergarh	Orissa
		3.12.2 Southern Orissa Highlands (Orissa Dandakaranya)	Bolangir, Ganjam, Phulabani, Kalahandi and Koraput	Orissa
4. The Coastal Plains & Islands	4.1 Gujarat Region	4.1.1 Gujarat Plain	Ahmadabad, Bharuch, Banas Kantha, Gandhi-nagar, Kheda, Mahesana, Sabar Kantha, Surat, Vadodara, Valsad, Dadra & Nagar Haveli and Daman	Gujarat, Dadra & Nagar Haveli & Goa, Daman & Diu
		4.1.2 Eastern Hilly Region	Panch Mahals and The Dangs	Gujarat
		4.1.3 Kathiawar Peninsula	Amreli, Bhavnagar, Jamnagar, Junagadh, Rajkot, Surendranagar and Diu	Gujarat and Goa, Daman & Diu
		4.1.4 Kachchh Peninsula	Kachchh	Gujarat
	4.2 Western Coastal Region	4.2.1 Maharashtra Littoral	Greater Bombay, Raigarh, Ratnagiri and Thane	Maharashtra
		4.2.2 Goa Coast	Goa	Goa, Daman & Diu
		4.2.3 Karnataka Coast	Uttar Kannad & Dakshin Kannad	Karnataka

1	2		3		4	5
			4.2.4	North Kerala	Cannanore, Kozhikode, Wayanad and Mahe	Kerala & Pondicherry
			4.2.5	Central Kerala Coast	Eranakulam, Kottayam, Malappuram, Palghat, Trichur & Idukki	Kerala
			4.2.6	South Coast	Alleppey, Trivandrum & Quilon	Kerala
	4.3	Eastern Coastal Region	4.3.1	Kanniya kumari Coast	Kanniyakumari	Tamil Nadu
			4.3.2	Sandy Littoral	Ramanathapuram & Tirunelveli	Tamil Nadu
			4.3.3	Coromandel Coast	Chengalpattu, Madras, Thanjavur, Tiruchchirapalli South Arcot, Pudukkottai, Karaikal & Pondicherry	Pondicherry & Tamil Nadu
			4.3.4	Southern Andhra Coastal Plain	Nellore and Prakasam	Andhra Pradesh
			4.3.5	Krishna Delta	Guntur and Krishna	Andhra Pradesh
			4.3.6	Godavari Delta	East Godavari, West Godavari and Yanam	Andhra Pradesh & Pondicherry
			4.3.7	Northern Andhra Coastal Plain	Srikakulam, Vizianagaram and Vishakhapatnam	Andhra Pradesh
			4.3.8	Mahanadi Delta	Baleshwar, Cuttack & Puri	Orissa
	4.4	The Islands	4.4.1	Andaman & Nicobar Islands	Andaman, Nicobar	Andaman & Nicobar Islands
			4.4.2	Lakshadweep	Lakshadweep	Lakshadweep

PART II
REGIONAL DIVISIONS
OF
PONDICHERRY

REGIONAL DIVISIONS OF PONDICHERRY

Introduction

The union territory of Pondicherry consists of four isolated units, namely, Pondicherry, Karaikal, Mahe and Yanam. Pondicherry district lies approximately between $11^{O}45'$ N and $12^{O}0'$ N latitudes and $79^{O}37'$ E and $79^{O}50'$ E longitudes; Karaikal district between $10^{O}49'$ N and $11^{O}1'$ N latitudes and $79^{O}43'$ E and 79^{O} 51' E longitudes; Mahe district between $11^{O}41'$ N and $11^{O}46'$ N latitudes and $75^{O}31'$E and $79^{O}54'$ E longitudes and Yanam district between $16^{O}41'$ N and $16^{O}46'$ N latitudes and $82^{O}11'$E and $82^{O}19'$E longitudes. Pondicherry is the capital of the union territory. The area covered by the union territory is 492 Km^2 and its population is 604,471 as per the 1981 Census of which Pondicherry district has 73 per cent, Karaikal 20 per cent Mahe 5 per cent and Yanam 2 per cent of population. Pondicherry union territory covers 0.01 per cent of the total area of India and 0.09 per cent of its population. These units are enclaved within the territories of other states, viz., Pondicherry by South Arcot, Karaikal by Thanjavur district of Tamil Nadu, Mahe by Cannanore district of Kerala and Yanam by East Godavari district of Andhra Pradesh. After 280 years of foreign occupation these establishments were united with the Indian Union following the 'Treaty of Cession' signed by French and Indian Governments on May, 1956 at New Delhi. On 16th August, 1962 France and India exchanged the Instruments of Ratification under which France ceded to India full sovereignty over the territory.

Administrative Set-Up

The administrative set-up of Pondicherry union territory is different from that of other states/union territories. According to the 1981 Census, the union territory of Pondicherry consists of four districts and fourteen communes. The break-up of communes districtwise stands at six communes in Pondicherry with 179 villages, Karaikal has six communes with 110 villages and Mahe with one commune and three villages. Yanam is a single commune which is entirely urban.

Etymology

Pondicherry town known as Puduvai - a shortened form of 'Puducherry'- - means "new hamlet". The name "Pondicherry" is referred by Portugese as "Puducheiri", later by Danish as 'Polesere' and by Dutch as "Pollochiri". The French mixed-up the 'u' for 'n' and transferred 'Puducherry' into "Pondicherry".

Karaikal is the mixture of two words 'Karai' and 'Kal' which generally means a canal made of lime mixture. At present there is no evidence of such canal. The Imperial Gazetteer gives to the name of the town the meaning of a 'fish pass'. In Sanskrit the town is said to have been known as 'Karaigiri'.

Mahe is the corruption of 'Mayyazhi' which means black river mouth. The French Commodore De Paradaillan transferred the name from the Indian 'Mahihe' or 'Mahi' into the French 'Mahe' to acknowledge the skill and enterprise of his young naval Captain Mahe De La-Bourdannais.

Geological History

Pondicherry

The Archaean formation which is one of the oldest rocks of the world, is found in the northern portion of the district, viz., dunite bed. The other geological beds are ranging from Cretaceous to Recent period. During the begining of the Cretaceous system (around 60-135 million years) of Mesozoic or secondary era (around 200 million

years) for the first time in its geological history a major portion of Indian peninsula has been submerged under the sea because of a universal marine transgression called the 'Caenomanian Transgression'. Authorities believe that the sea transgressed above 60 miles in the interior along the coromandel coast. The stretch of land extending from Pondicherry on to the Cauvery valley had been submerged during this transgression. This transgression was responsible for the marine formations of Cretaceous period. The mineral salts present in the sea water at that time have been deposited. The Cretaceous beds in Pondicherry comprise land marine limestone, calcareous marls, sandy and calcareous shale, shell limestone, calcareous sandstones and granular yellow limestone.

The other belt is of Miocene-Pliocene age. During the easterly marine transgressions, the shallow depressions along the Cuddalore - Thanjavur belt would have been filled with water to form lagoons and backwaters. These depressions filled with water received sediments composed of sand, clay and forest vegetation from the adjoining areas. Subsequent earth movements of minor magnitude might have uplifted the sedimentary strata to form sandstones and clays with thick seams of lignites. The vegetation that had been deposited along with the sands and clays in these depressions must have evidently been converted later into thick seams of lignite. This is perhaps the origin of lignite at Bahour and in other places of Pondicherry. The Cuddalore sandstone constituted a great measure of grits and sandstones in which thin beds of clay are occassionally intercalated. It is characterised by its ferruginous nature and is tinted with all hues of yellow, red brown and purple. It is often capped with a layer of lateritic soil over which lies a covering of red earth. The sandstone appears in the red-hills just west of Pondicherry on a plateau about 4 miles in width and extending from the Oussoudou tank in a point on the coast about 10 miles north of Pondicherry. They lie in southern and south-eastern portions of regions concealed by Alluvium. The sandstone rocks may be studied under 3 units, viz., (1) Sandstones (2) Pebbles and (3) Shales. Sandstones are composed of greater parts of quartz. These rocks are generally soft friable with a light yellow colour. Pink to purple varieties are found in south-east of Suthukeni, north-west of Kaltaraimandapam, near Bahour and Nattamedu. The pebble variety constitutes mostly of quartz, occassionally granite pebbles are also observed. This rock is found along the north-west of Kadirkamam and around Kalapet. Shales occur as thin beds in the red hills and near Kalapet. The shales are generally white to light grey in colour. The rocks have been observed in wells near Nettapakkam, Panayadikuppam, Kuruvinatham, Kilen, Sadayandikuppam, Andiarpalayam, Pidarikuppam and Chinnakottakuppam. The shales near Pudukkadai are stated to be Carbonaceous while around Nonankuppam they have buff to light brown colour. They are generally elastic and carry fair amounts of clay particles.

The other bed of formation is of Recent and sub-recent ages, i.e., coastal sands, alluvium soil and lateritic coverup. Major portion of the terrain is covered by alluvium of varying thickness. The alluvium consists of a black compact clayey material generally soft. Light brownish medium-grained sand is observed along the coast between Pudukuppam and Pondicherry and east Kalapet. The laterites cap the Cuddalore sandstones. The grits and sandstones have been laterised. The red hills of Pondicherry are covered by this earthly materials especially in west Kalapet.

Karaikal

The geological beds of Karaikal are of Recent age and Mio-Pliocene age. During the easterly marine regression of middle Miocene-Pliocene periods, as already stated, the shallow depressions were filled with sediments which then formed as stratified rocks when the attempts of oil exploration are being made. Many geologists, have attempted on the geology of Karaikal and some geologists equated these Karaikal beds to the Gwadar stages of the Makran series of Baluchistan, Odeny stage of Java and Pegu series of Burma. It is found out that the layer consists of alternating horizons of sand and clay and their admixtures and has also a few pebble beds, conglomerates and fossil beds.

The entire region is completely under the cover of alluvium of variable thickness. Towards the western portion of Karaikal it is more clayey and in the rest it is more sandy. Clay in most of the places is black in colour. It is presumably a marine clay with peat which is a common occurrence along the coast.

Mahe

The geology of Mahe belongs to the Archeaen rocks in its northern portion and deposits of Recent period in its southern portion. To the north of Pallur, the rocks are of Amphibolites and oldest type of rock. The rock is well foliated and dark in colour. It is composed of coarse prisms of hornblende with a small amount of plagioclase and quartz. The southern portion of Mahe is laterite capping the crystalline rocks known as biotite gneiss. This rock is hard and compact over the coastal part, the geology is alluvium bed of Recent period along with coastal sands.

Yanam

Yanam district has alluvium of Recent age as its geology.

Soils

The soils of the union territory are grouped under five categories, viz., (1) alluvial soil, (2) black soil, (3) red ferruginous soil originating from sandstone, laterite etc. (4) the calcareous soil originating from the underlying strata of chalk or lime and (5) the arenaeceous soil consisting of sand. The soils are further classified as per their texture into clayey, loamy or sandy.

The classification of soils made in this volume is on the basis of classification of soils by the National Bureau of Soil Survey and Land Use Planning (Indian Council of Agricultural Research), Nagpur. They are Ustalfs-Tropepts, Psamments-Tropepts, Orthents-Psamments-Aquents and Usterts. The approximate traditional nomenclature is as follows:

USTALFS : High base status of red loamy, red sandy and alluvial soils.

PSAMMENTS : Sandy soils (recent).

TROPEPTS : Shallow black, brown and alluvial soils of southern region.

ORTHENTS : Recently formed soils.

AQUENTS : Recently formed hydromorphic soils, coastal alluvial soils.

USTERTS : Deep black soils.

Pondicherry

Coastal alluvium, red ferruginous soil and black clayey soils are the main soil types of this district. Coastal alluvium is found in the coastal tract and it is more sandy over its eastern part and more clayey over its western part. The red ferruginous soil occurs over the northern part of the district around the red plateau of Pondicherry. The black colour is due to the content of clayey particles. It is of two types, namely, marshy and the other with carbonate efforescence. The organic contents like nitrogen, phosphate and potash is low. The main sub-order associations of the soil present in the district is Psamments-Tropepts.

Karaikal

The soil of Karaikal is coastal alluvium. It is further divided into sandy, sandy loam and clayey loam. Towards the coast and its eastern section, the soil is sandy and towards the western section it is clayey loam and in between it has sandy loam. The nutrient contents of nitrogen and phosphate are low and those of potash are medium. The soil sub-order association, found in the district is Usterts, i.e., deep black soil.

Mahe

The district consists of laterite soil. The soil along the coast is sandy loam and in some places it is clayey loam. The nutrient contents of nitrogen and phosphate are low and those of potash are medium. The district has Orthents-Psamments-Aquents soil sub-order associations.

Yanam

The soil is alluvial sandy clay or sand and halomorphic soil in which salt concentration is much. The nutrient content of the soil of Yanam is poor, viz., nitrogen and phosphorus are low and potash is high. The soil sub-order associations of the district is Ustalfs-Tropepts.

Climate

The Pondicherry union territory experiences hot and tropical maritime type of climate. As it is located in the tropical maritime zone, summers are hot and winters are not very cold. The diurnal range of temperature is low. Pondicherry and Karaikal districts experience hot and tropical maritime climate whereas Mahe and Yanam experience humid and tropical climate due to high amount of rainfall. Rainfall is variable from year to year and sometimes leads to drought conditions, as it mainly depends upon monsoonal winds which often fail to occur.

There are four seasons, viz., south-west monsoon period (June to September), north-east monsoon period (October to December), winter period (January and February) and hot weather period (March to May). For Pondicherry district the normal annual rainfall is around 120 cm of which nearly 63 per cent is obtained during north-east monsoon season. During south-west monsoon, it receives 27 per cent of annual rainfall. For Karaikal the normal annual rainfall is 118 cm of which north-east monsoonal rainfall accounts for 70 per cent and south-west monsoonal rainfall accounts for 21 per cent. For Mahe, the major part of rainfall is received during south-west monsoon period. Out of the annual rainfall of 319 cm which is the maximum in the union territory, south-west monsoonal rainfall accounts for 246 cm, i.e., 77 per cent of the total annual rainfall. This is because of its location in the windward side of the Western Ghats. The north-east monsoon rainfall is 40 cm. The south-west monsoon normally sets in early June and ends in October. Yanam district has overall rainfall of only 91 cm annually in which 49 cm of rainfall is during south-west monsoon and 36 cm of rainfall is during north-east monsoon period.

Temperature

The temperature condition of Pondicherry, Karaikal and Mahe districts is more or less the same. The temperature starts increasing from end of February and it declines from mid-June. The average maximum temperature is about 37°C and the average minimum temperature is 27°C during the hot weather season. The maximum temperature may even rise upto 43°C. The diurnal range of temperature is low. The months of December and January form the coolest part of the year with the minimum average temperature at about 21°C. Sea-breeze and pre-monsoon thunder showers attempt to reduce the temperature.

For Mahe district it is comparatively cooler than the other districts of the union territory due to geographical location. During the south-west monsoon season from June to September the average maximum temperature is about 29°C and minimum is 24°C. April and May constitute the hottest period while the maximum temperature goes to 37°C. The temperature decreases from November onwards and during January it is the lowest around 16°C. The average minimum temperature is about 22°C. The relative humidity of the union territory is high throughout the year (about 70 per cent) especially during August to April in Pondicherry, Karaikal and Yanam districts and from April to November in Mahe.

Population Characteristics

Decadal Variation of Population

The concentration of population mainly depends upon the agricultural lands, industrialization and urbanization. The percentage decadal increase of population, between 1971-81, is 28.15 as compared with 27.81 in 1961-71. It is above the growth rate for India which is 25 per cent in 1981 Census. The growth rate is the highest in Yanam, viz., 40.28 per cent, while in Pondicherry it is 30.62 per cent during

1971-81. But during the decade 1961-71, Pondicherry recorded the highest growth rate of 31.59 per cent and Yanam recorded the lowest of 17.90 per cent. Among the communes, Ozhukarai of Pondicherry district registered the highest growth rate of 65.25 per cent and the Neravy commune of Karaikal district registered the lowest of 13.22 per cent

Density of Population

Regarding the density of population, Pondicherry union territory as a whole has a very high density of 1,228 persons per Km^2 as per 1981 Census as compared to 983 persons per Km^2 in 1971. It may be noted that the density of population in India is only 216 in 1981. Mahe district has the highest density of 3,157 followed by Pondicherry district with 1,517, Karaikal with 750 and Yanam with 388 persons per Km^2. As the population is influenced by various factors such as productivity of soils, climate, topography, industrial development, urbanization, irrigational facilities and other factors of economic development of the area, accordingly the density is strikingly uneven in the whole of union territory. Maps on rural density and urban density (by communes) reflect the agricultural and industrial development of the areas and their capacity to support the population. The lack of agricultural as well as industrial development in Karaikal and Yanam is reflected in the low density of population. Even though, Mahe has the highest density both in the urban and rural areas due to its location in Kerala where the characteristics are similar, it still lacks in industrial development inspite of utilisation of every bit of land. It is implied that these areas require extra planning emphasis.

Sex Ratio

The trend of sex ratio shows that increase of female population over male population prevailed during 1961 Census, i.e., 1,013 females per 1,000 males. The reason for this may perhaps be the slow progress of industrialization and the existence of less developed urban areas in the territory. Another striking feature is the higher concentration of women in urban areas. This was found in Pondicherry and Karaikal districts but it was less in Mahe. The sex ratio starts declining from 1971 onwards which follows the trend in most of the states and India as a whole and the overall sex ratio of Pondicherry union territory in 1971 was 989, but in Yanam district it was slightly increasing during 1971 also. As per the 1981 Census the sex ratio of Pondicherry union territory is 985 while for India it is 934. The female population is still higher than the male population in Mahe and Karaikal districts, i.e., 1,144 and 1,021 respectively in 1981 Census.

Urban Population

The percentage of urban population to the total population in Pondicherry union territory is very high, viz., 52.28 per cent in 1981 Census whereas it is only 23.13 per cent for the whole country. Yanam district is treated wholly as urban. In Pondicherry it is 56.57 per cent, in Karaikal 36.17 per cent and Mahe has the lowest percentage of urban population, viz., 33.75 per cent. There are 6 towns in total, one falling under each class of towns I to VI as per the general classification of towns. The overall percentage of urban population to the total population was 24.11 in 1961, 42.04 in 1971 and 52.28 in 1981 Census.

Literacy

In literacy also Pondicherry union territory ranks high, having 55.85 per cent as per the 1981 Census (46.02 per cent in 1971 Census). The literacy rate for India is 36.23 per cent. Mahe district tops with 74.11 per cent (67.39 per cent in 1971) and Yanam has recorded the lowest percentage of literacy, i.e., 49.57 per cent (43.92 per cent in 1971). The literacy rate in Karaikal is 56.43 per cent (45.05 per cent in 1971), and in Pondicherry it is 54.69 per cent (44.90 per cent in 1971). The male literacy rate is 65.84 per cent and the female literacy rate is 45.71 per cent as per the 1981 Census.

Scheduled Castes and Scheduled Tribes

The percentage of scheduled caste population to total population is 15.99 per cent. The highest

percentage is 21.86 in Yanam district and the lowest is 0.27 in Mahe district. The scheduled caste population in Pondicherry district is 74,029 (16.66 per cent). The literacy rate among scheduled castes is 32.36. No scheduled tribe has been notified for union territory.

Workers and Non-Workers

As per the classification of workers in 1981 Census, the "Main Workers" constitute 28.66 per cent "Marginal Workers" 1.75 per cent and "Non-Workers" 69.59 per cent to the total population of Pondicherry union territory. Among the main workers, "Other Workers" constitute 57.07 per cent (the highest being in Mahe with 86.23 per cent). Agricultural Labourers are 31.47 per cent (the highest being in Karaikal with 40.54 per cent), Cultivators 9.14 per cent (the highest being in Yanam with 10.66 per cent) and workers in Household Industry are 2.32 per cent (the highest being in Mahe with 3.46 per cent).

Agriculture

Agriculture is the most important activity in the territory. In 1981, around 40 per cent of main workers were engaged in agricultural activities. The total cropped area in 1979-80 was 51,268 hectares in which Pondicherry district shares 29,803 hectares and Karaikal accounts for 19,496 hectares. The land under canal irrigation is more in Karaikal and land under tube-well and tank-irrigation is more in Pondicherry. Paddy is the main crop cultivated in the territory. The other crops in the order of importance are sugarcane, black-gram, green-gram, ragi, cumbu, groundnut, coconut, cotton, tapioca, gingili etc. The net sown area per capita amounted only to 0.09 hectare and the net sown area per agricultural worker amounted only to 0.53 hectares. In the agricultural sector, the main limiting factors are lack of land reforms, small size of holdings as well as lack of infrastructure.

Fisheries

The overall coastline of Pondicherry union territory is about 45 Kms. Fishing is the major occupation in Yanam and Mahe while it is widely done in Pondicherry and Karaikal. The important varieties are tuna, sardines, ribbon fish, silver belly, perches, sharks, prawns, ancholuiella etc.

The marine fishing production amounted to 138,910 quintals and the inland fishing production to 14,225 quintals in 1981. Pondicherry and Karaikal account for the major catches in marine fishing while in inland fishing Yanam accounts for 65 to 70 per cent of the total catches.

Mineral Resources

Limestone, lignite, varieties of clays like ceramic clay, tile clay, brick clay, etc. are the chief mineral resources of Pondicherry district. The limestone is available in Mettuvelli, Tuttippattu, Karasur, Sedarappattu areas. Lignite in Bahour area are the important pockets of mineral wealth in Pondicherry district.Black clay, Ilmenite and garnet sands are the mineral wealth of Karaikal district. Recently, oil exploration is attempted in this district. There are no remarkable mineral resources in Mahe and Yanam districts.

Industries

The overall industrial development of Pondicherry union territory is satisfactory. There are 9 large-scale industries, 9 medium-scale industries and 2,043 small-scale industries in this union territory in the year 1981. There are 13 cotton mills including spinning mills, 16 printing press and paper industries, 14 chemical products industries, 5 sugar and beverages industries, 8 basic metal and alloy industries and 8 transport equipments industries located in the union territory. Most of these industries are located in Pondicherry district only. There are small scale industrial estates located in Mannapattu, Mettupalayam, Thattanchavadi in Pondicherry district and at Kottucherry in Karaikal district. Manufacture of steel furniture, wooden furniture, baby cycles, dry cells, cosmetics, powerlooms, stainless steel utensils, french polish, polythene products, cement product, steel rolling and boat building are some of the prominent small industries.

Public Amenities

Regarding educational institutions, there are 12 General and Professional Colleges including one Medical College, one Engineering College and one Law College. The well-known Jipmer hospital is located in Pondicherry town which has highly advanced equipments and specialised medical personnel. There are 8 hospitals of which 5 are located in Pondicherry district and 11 primary health centres in the union territory. Regarding transportation and communications Pondicherry union territory has 386.26 Km of surfaced roads of which 266.31 Km are in Pondicherry district only. The total length of unsurfaced roads is 12.98 Kms. which lies in Yanam district. There are 25,252 vehicles registered in 1981 in which 624 are trucks, 4,687 are cars and station wagons, 17,670 two-wheelers, 439 three-wheelers, 607 tractors and 481 trailers. There are 11 telephone exchanges of which 6 are located in Pondicherry district and 67 rural post offices, 33 urban post office and 29 telegraphic office in 1981. Pondicherry is also connected by rail with Villupuram Junction of Tamil Nadu which is about 40 Km from Pondicherry. There is a well developed port handling cargo in Pondicherry.

The foregoing paragraphs explain the physical, cultural and economic characteristics of Pondicherry union territory. Physiographically, Pondicherry union territory lies in the macro region, namely, Coastal Plains and Islands of Indian Union. On the considerations of diverse regional physiographic characteristics the union territory has been divided into following three micro regions—

4.2.4 North Kerala Coast: covering Mahe district of Pondicherry union territory and the districts of Cannanore, Kozhikode and Wayanad of Kerala state.

4.3.3 Coromandel Coast: covering the districts of Pondicherry and Karaikal of Pondicherry union territory and the districts of Chengalpattu, Madras, Thanjavur, Tiruchchirapalli, South Arcot and Pudukottai of Tamil Nadu.

4.3.6 Godavari Delta: covering Yanam district of Pondicherry union territory and the districts of East Godavari and West Godavari of Andhra Pradesh.

In the above mentioned classification of physiogeographic regions, the first digit (4) stands for the macro region, namely, the Coastal Plains and Islands, the second digit 4.2 stands for meso region, namely, Western Coastal Region and 4.3 Eastern Coastal Region. The third digit stands for micro region, namely, 4.2.4 North Kerala Coast, 4.3.3 Coromandel Coast and 4.3.6 Godavari Delta.

Mahe is a part of North Kerala Coast micro region which is a mountainous tract formed by the Western Ghats. As 'Mahe' is located in the coastal part of this region and also is on the fringe of the mountainous tract, it has an undulating or rolling plain. The coastal part has remnants of sand dunes and laterite cliff. The geological beds of the district are alluvium of Recent age and cordierite gneiss, hornblende biotite gneiss and other unclassified crystallines including younger segments of Archaean age. The soil types are alluvium and laterite. Mahe district has semi-evergreen forest.

Pondicherry and Karaikal districts are the part of the Coromandel Coast micro region which is a vast plain with a number of rivers and a few hills. The geological beds of Pondicherry district are alluvium of Recent age, dunite of pre-Cambrian age and Cuddalore sand stone of Miocene-Pliocene age. The geological bed of Karaikal district is alluvium of Recent age. Alluvial soil is found in large quantity in Pondicherry and Karaikal districts. Red ferruginous soil is found in the northern portion of Pondicherry district. Deep black soil is found in Karaikal district.

Limestone and lignite are the mineral resources found in Pondicherry district. Quartz, ilmenite, magnetite and garnet are found in the coastal sands of Karaikal district. Various attempts on oil explorations are done in and around Karaikal district.

Paddy is the chief crop cultivated in this region. The other crops raised here are sugarcane, pulses, cumbu, ragi, betelnut, ground nut, casuarina, tapioca, coconut, palmyra etc. Jackals and foxes are seen in this area. Fishing is done all along the coast, estuaries, rivers and tanks.

The types of trees of this region are karuvelum (acacia arabica), agathi (agathi grandiflora), coconut, palmyra, iluppai (bassia longi folia), banyan, arasamaram (ficus religiosa), tamarind, jack fruit and mango.

The Godavari Delta which is one of the vast deltaic regions in our country is formed by mighty Gautami Godavari river. Yanam is situated on the mouth of this river. The Coringa river, a tributary of Godavari bisects Yanam. It has rich deposits of alluvial sediments and paddy is cultivated extensively.

During strong tidal waves and at the time of cyclones (more often during September to November) sea-water rises along the river course invading the low lands of Yanam, particularly the Iskitippa islands and Adivipolam plains.

Paddy, coconut, groundnut, chillies, coriander are the crops cultivated here. The spontaneous plants growing along with the cultivated ones are nearly all species commonly seen on the bunds of paddy fields. They are garudamukku (martynia annua), gajapippala (phyla nodiflora), kurudinne (cayratia car nose), elika-jemudu (merrenia emarginata), noogudosa (melothria maderaspatana) etc.

Over the eastern portion of this region, mangrove trees are grown over the swampy lands, such as phizophora, ceriops, senneratia etc.

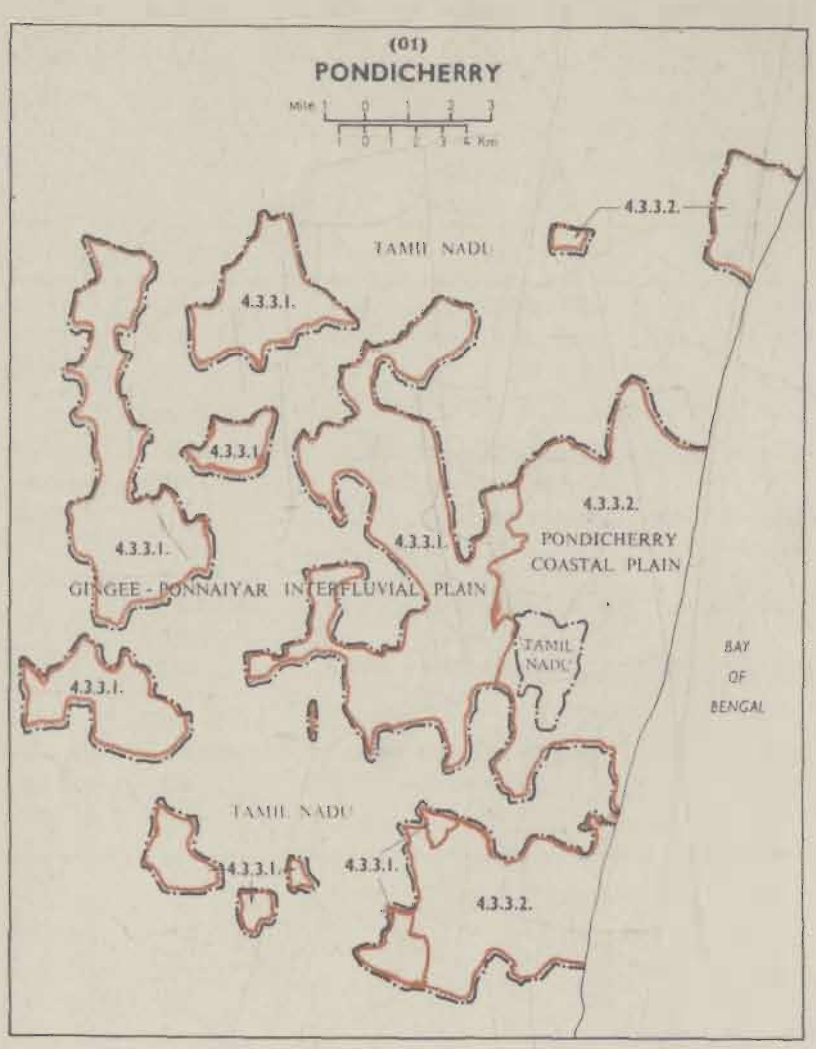
Yanam has alluvial soil, halomorphic soils in which salt concentration is so much that they cannot be utilised for agricultural operations.

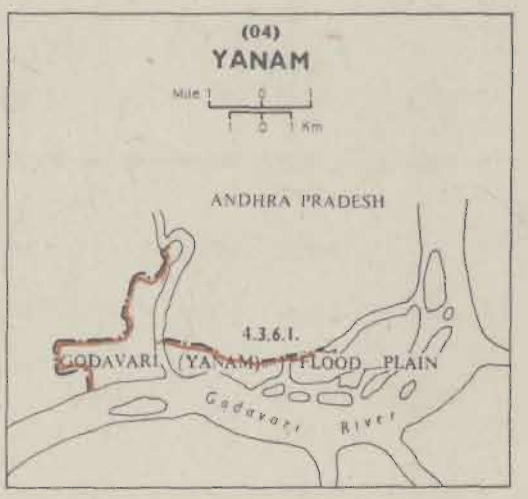
Within the above broad frame of the analysis of physical and cultural aspects of the specific sub-micro regions and the union territory as a whole, there is need for a well balanced economic development. Considering the physical resources, specially soils on the one hand and cultural aspects with reference to population distribution and economic activities, it may be essential to work out a detailed land use plan of the sub-micro regions for gearing the status of the physical landscape for an integrated development. However, the objective of this aspect of planning may demand netting in of all the variables of resources both at the inter and intra-regional set up as delineated in this exercise for an overall growth of union territory.

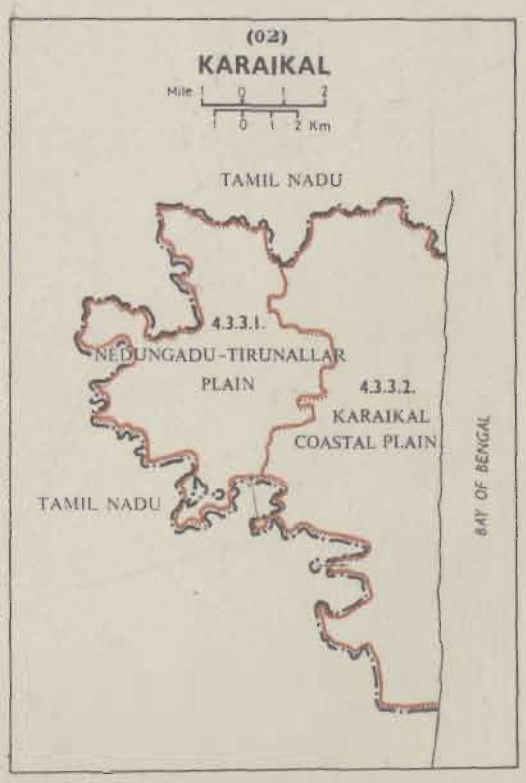
PONDICHERRY UNION TERRITORY

CENSUS CODE 32

REGIONAL DIVISIONS 1981





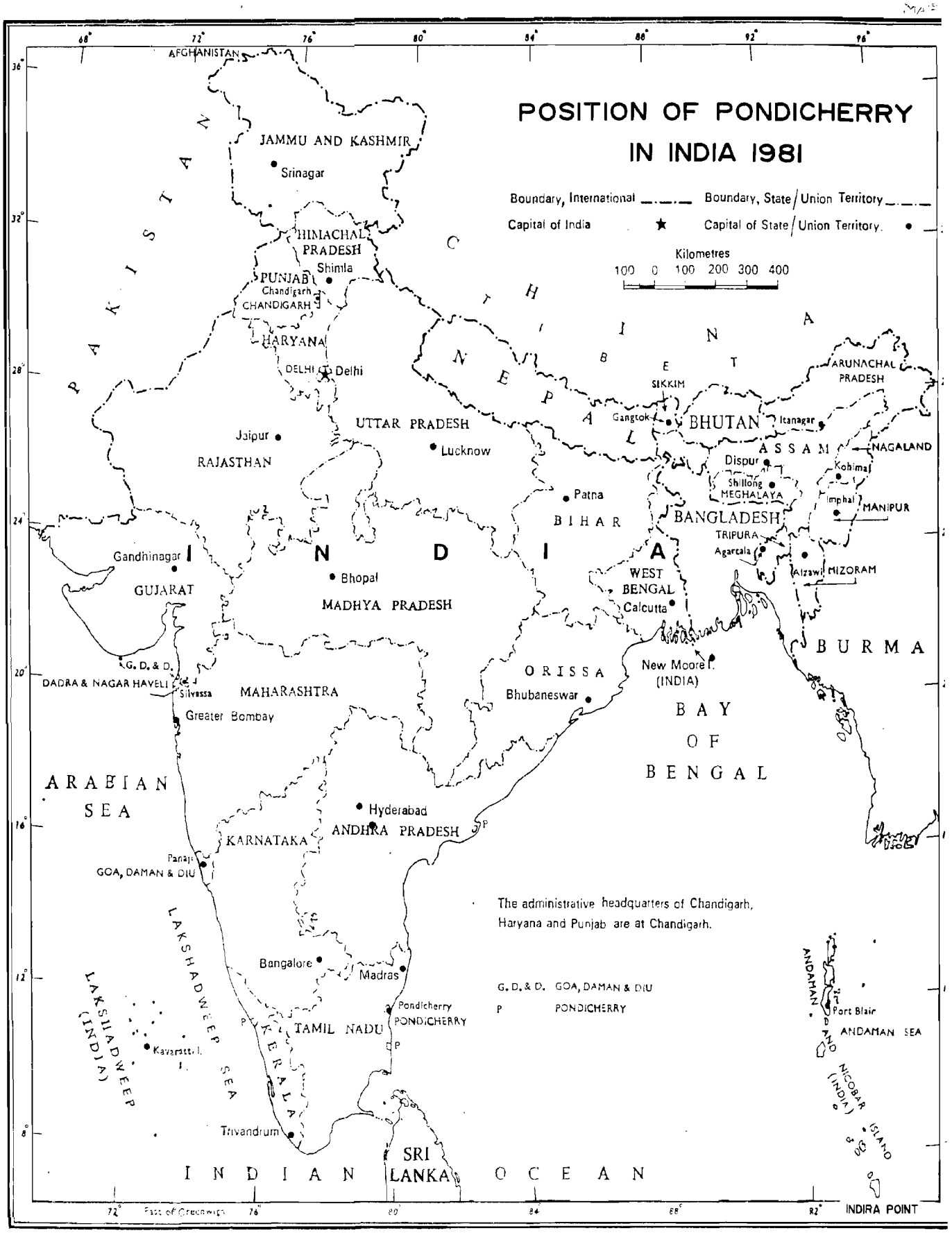


BOUNDARY, STATE / U. T. ... ... —·—·—
" MACRO REGION ... ▬▬▬
" MESO ... ... ▬▬▬
" MICRO ... ... ▬▬▬
" SUB-MICRO ... ... ▬▬▬
DISTRICT CODE 1981 ... ... (01)
REGIONAL DIVISIONS ... ... 4 . 3 . 3 . 2
MACRO 4
MESO 3
MICRO 3
SUB-MICRO 2

Macro region with code number: **4. The Coastal Plains and Islands**
Meso region with code number: **4.2 Western Coastal Region**
4.3 Eastern Coastal Region

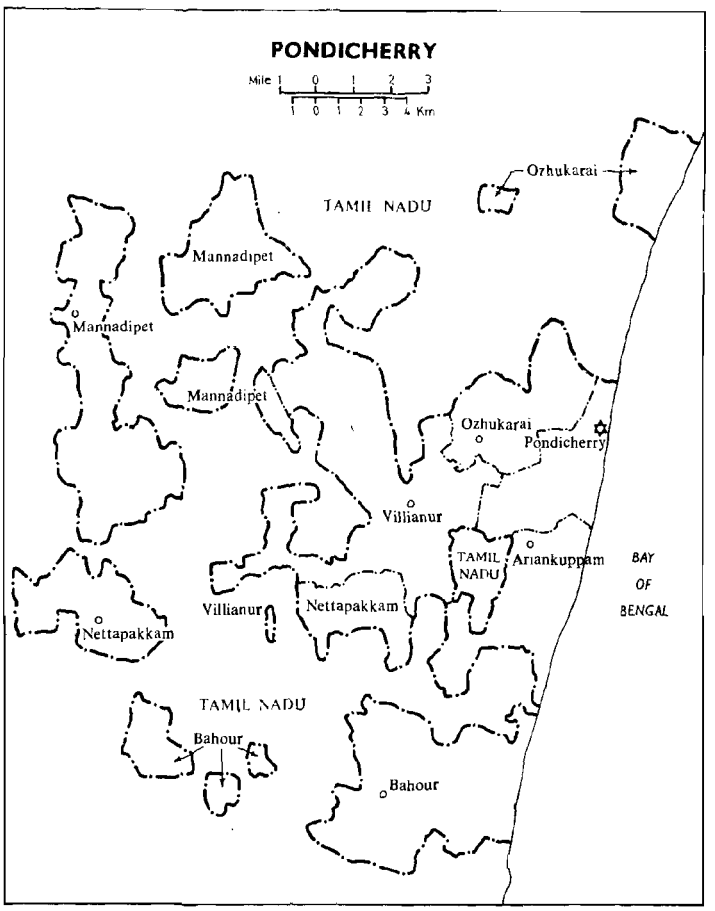
Micro region with code no.	District with code no.	Sub-micro region with code no. (Fourth tier regions)		Constituents			Area in Km^2		Population (1981 census)		
				No. of vil-lag-es	No. of to-wns	Total	Rural	Urban	Total	Rural	Urban
1	2	3		4	5	6	7	8	9	10	11
4.2.4 North Kerala Coast	Mahe 03	4.2.4.1	Mahe Coastal Plain	—	1	1.53	—	1.53	9,588	—	9,588
		4.2.4.2	Mahe Rolling Plain	3	—	7.22	7.22	—	18.825	18,825	—
4.3.3 Coromandel Coast	Pondicherry 01	4.3.3.1	Gingee-Ponnaiyar Interfluvial Plain	113	1	171.48	169.24	2.24	122,190	120,397	1,793
		4.3.3.2	Pondicherry Coastal Plain	66	2	124.44	77.14	47.30	322,227	72,600	249,627
	Karaikal 02	4.3.3.1	Nedungadu-Tirunallar Plain	62	—	65.79	65.79	—	34,699	34,699	—
		4.3.2.2	Karaikal Coastal Plain	48	1	93.56	74.56	19.00	85,311	41,903	43,408
4.3.6 Godavari Delta	Yanam 04	4.3.6.1	Godavari (Yanam) Flood Plain	—	1	30.00	—	30.00	11,631	—	11,631

GENERAL MAPS

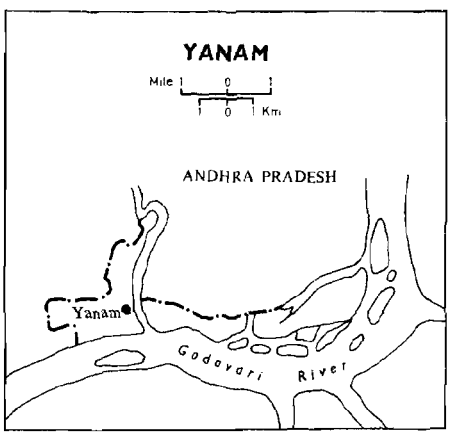

POSITION OF PONDICHERRY IN INDIA 1981
Boundary, International
Boundary, State / Union Territory
Capital of India
Capital of State / Union Territory
Kilometres
100 0 100 200 300 400
AFGHANISTAN
PAKISTAN
JAMMU AND KASHMIR
Srinagar
HIMACHAL PRADESH
Shimla
PUNJAB
Chandigarh
CHANDIGARH
HARYANA
DELHI
Delhi
CHINA
NEPAL
TIBET
SIKKIM
Gangtok
BHUTAN
Itanagar
ARUNACHAL PRADESH
ASSAM
NAGALAND
Kohima
Dispur
Shillong
MEGHALAYA
Imphal
MANIPUR
TRIPURA
Agartala
Aizawl
MIZORAM
UTTAR PRADESH
Lucknow
Jaipur
RAJASTHAN
Patna
BIHAR
BANGLADESH
INDIA
Gandhinagar
GUJARAT
Bhopal
MADHYA PRADESH
WEST BENGAL
Calcutta
BURMA
G. D. & D.
DADRA & NAGAR HAVELI
Silvassa
MAHARASHTRA
Greater Bombay
ORISSA
Bhubaneswar
New Moore I. (INDIA)
BAY OF BENGAL
ARABIAN SEA
Hyderabad
KARNATAKA
ANDHRA PRADESH
Panaji
GOA, DAMAN & DIU
LAKSHADWEEP SEA
LAKSHADWEEP (INDIA)
Kavaratti I.
Bangalore
Madras
Pondicherry
PONDICHERRY
TAMIL NADU
KERALA
Trivandrum
SRI LANKA
INDIAN OCEAN
ANDAMAN
NICOBAR (INDIA)
Port Blair
ANDAMAN SEA
INDIRA POINT
The administrative headquarters of Chandigarh, Haryana and Punjab are at Chandigarh.
G. D. & D. GOA, DAMAN & DIU
P PONDICHERRY

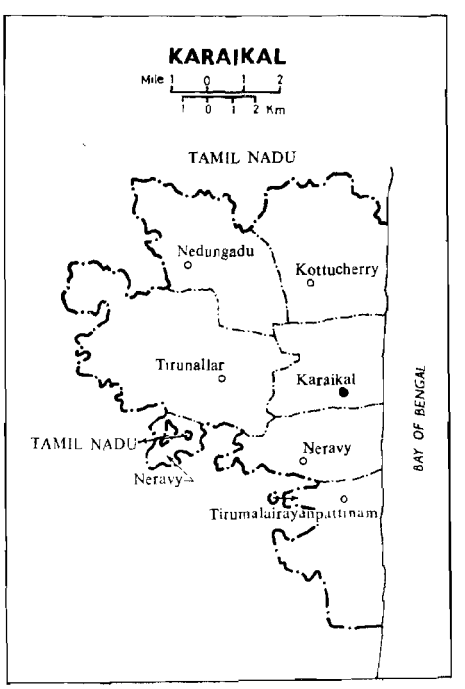
PONDICHERRY UNION TERRITORY

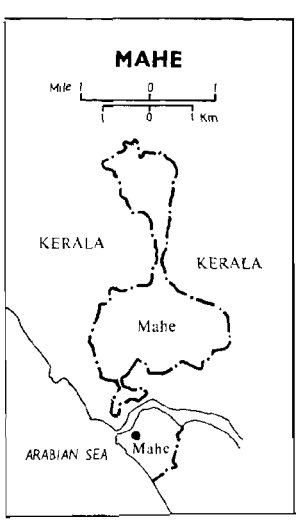
ADMINISTRATIVE DIVISIONS 1981



BOUNDARIES :-
STATE / UNION TERRITORY ... ...
COMMUNE ... ...



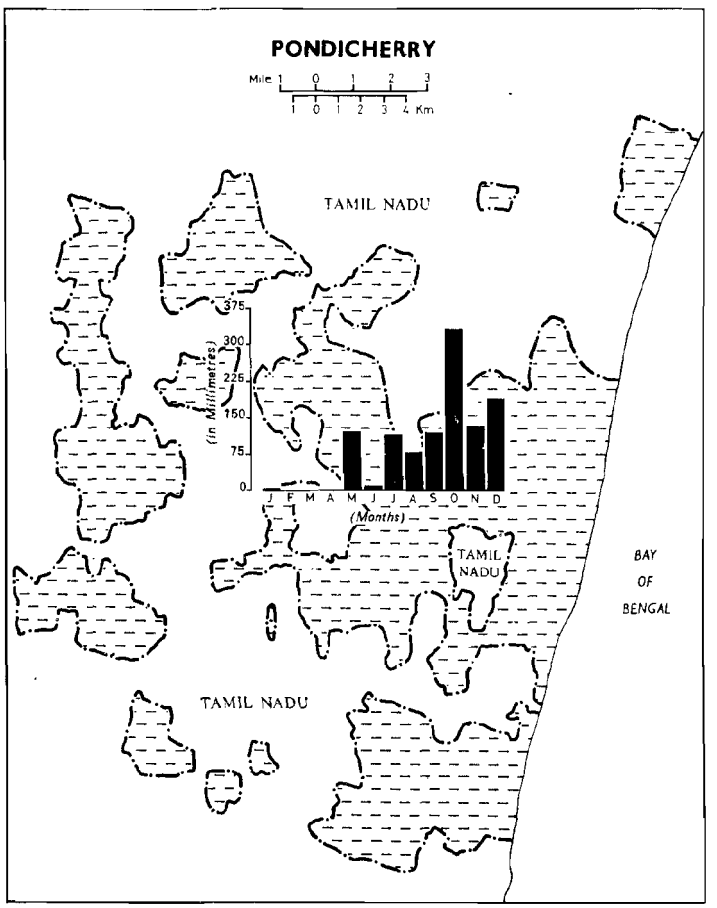




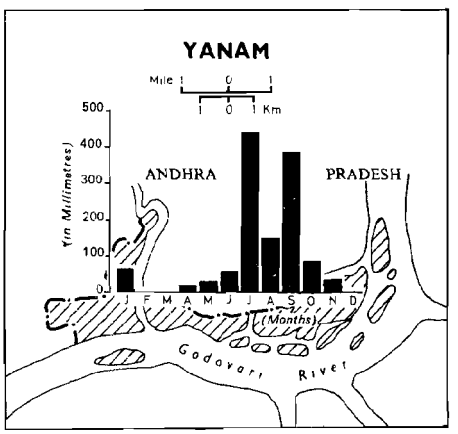
U. T. Headquarters ... ... ✡
District Headquarters.. ... ... ●
Commune Headquarters ... ... ○

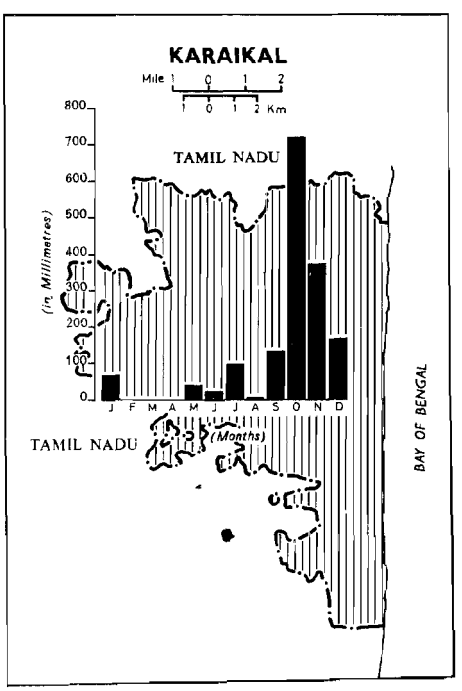
PONDICHERRY UNION TERRITORY

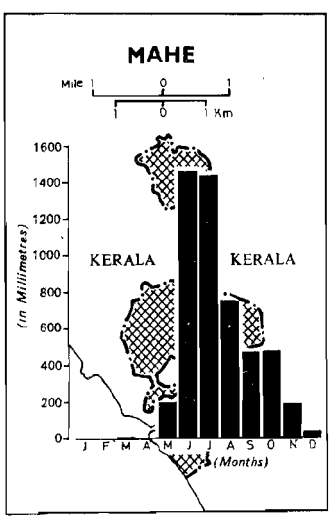
NORMAL MONTHLY AND ANNUAL RAINFALL



BOUNDARY :-
STATE / UNION TERRITORY ... —·—·—





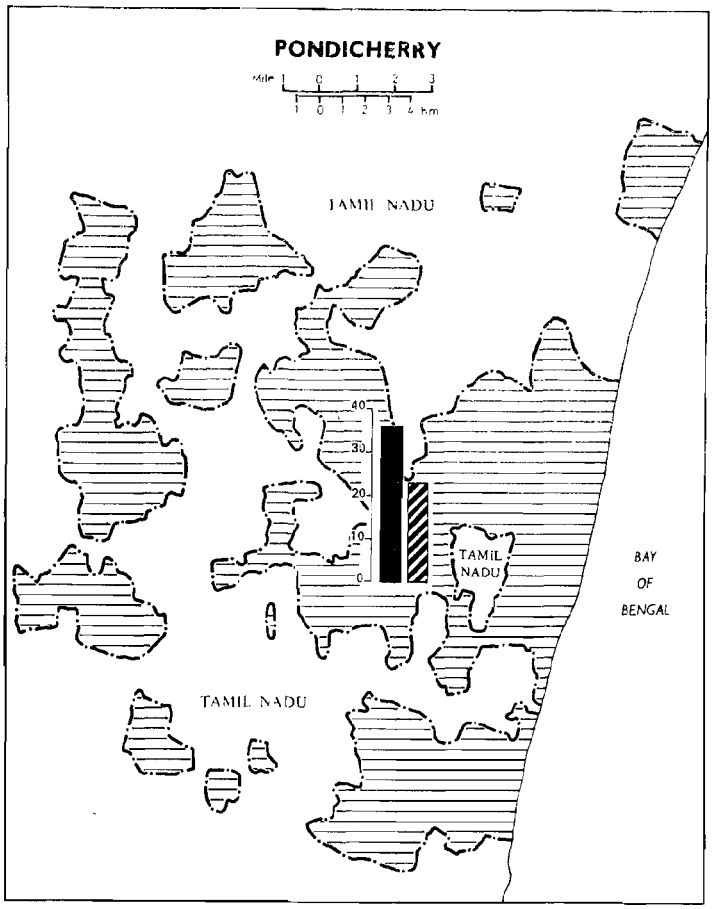


ANNUAL RAINFALL IN MILLIMETRES

- 2 101 & above
- 1 601 – 2 100
- 1 101 – 1 600
- 1 100 & below

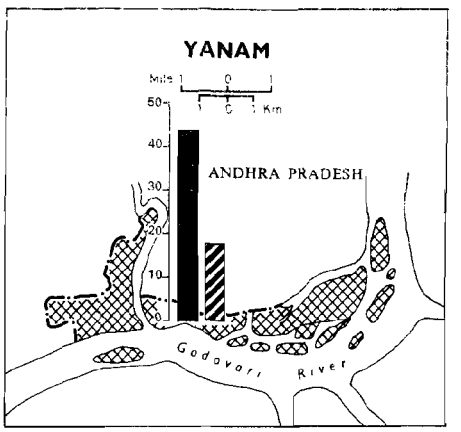
PONDICHERRY UNION TERRITORY

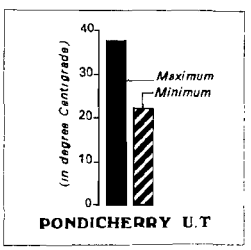
NORMAL ANNUAL TEMPERATURE

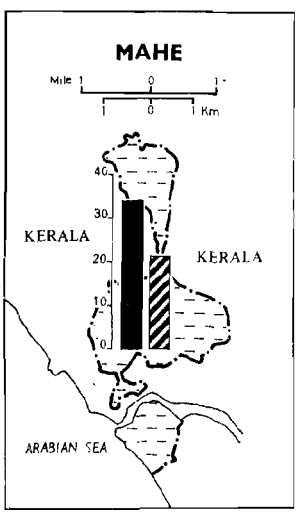


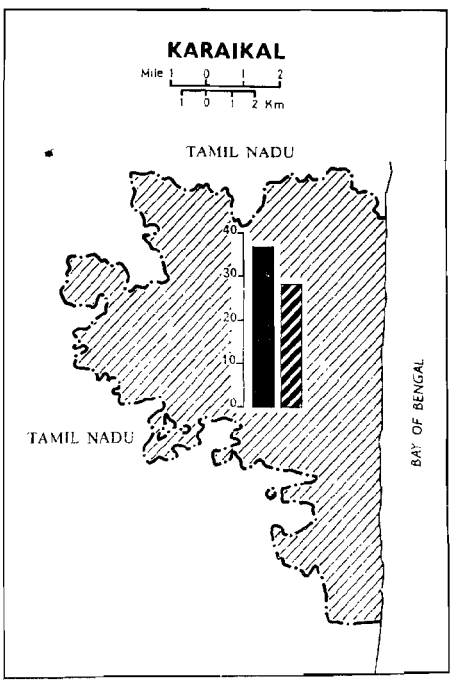
BOUNDARY :-

STATE / UNION TERRITORY ... —·—·—







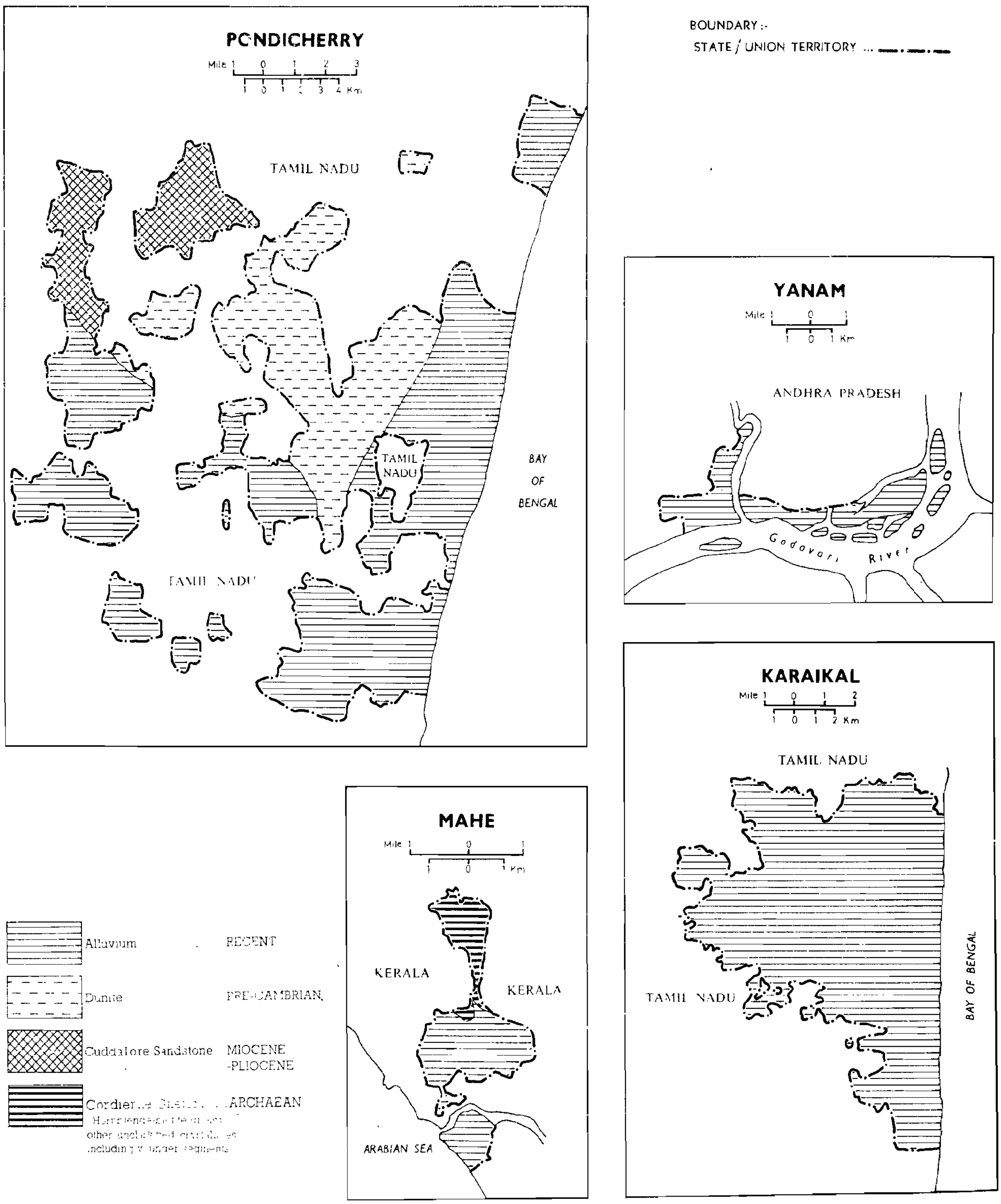


TEMPERATURE IN DEGREE CENTIGRADE

- 35.01 & above
- 32.01 – 35.00
- 29.01 – 32.00
- 29.00 & below

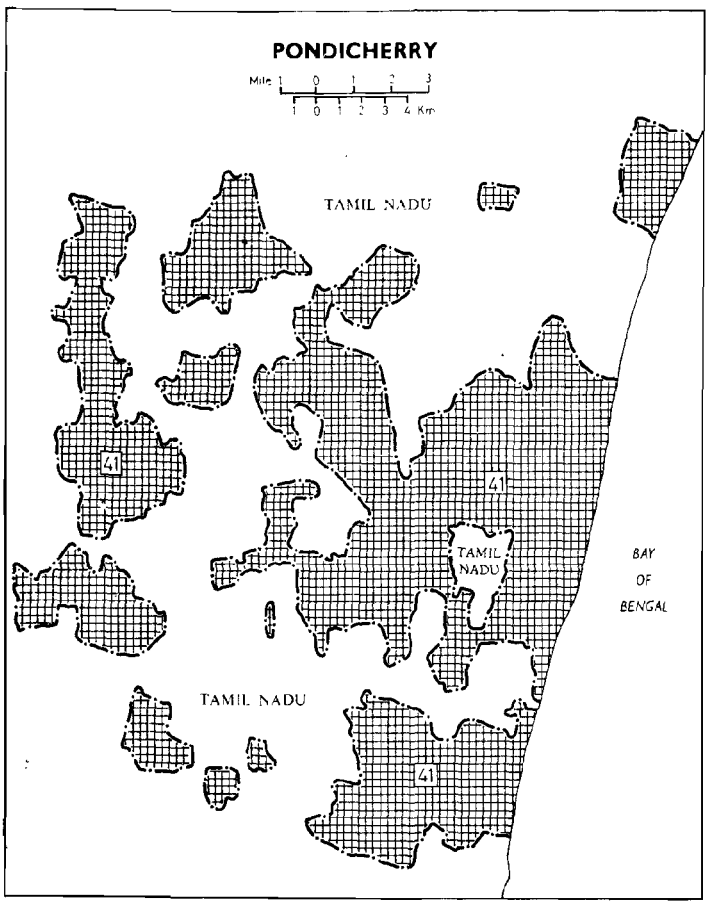
PONDICHERRY UNION TERRITORY

GEOLOGY

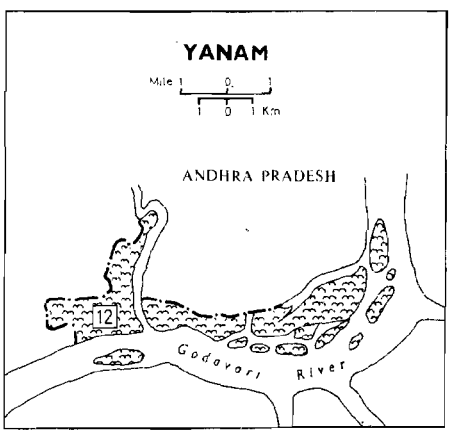


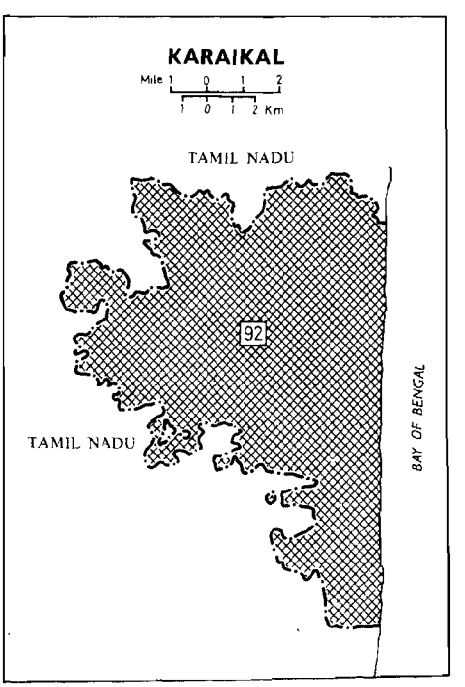
PONDICHERRY UNION TERRITORY

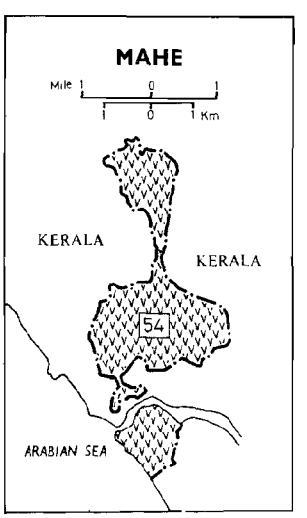
SOILS



No.	SUB-ORDER ASSOCIATIONS
12	USTALFS-TROPEPTS
41	PSAMMENTS-TROPEPTS
54	ORTHENTS-PSAMMENTS-AQUENTS
92	USTERTS







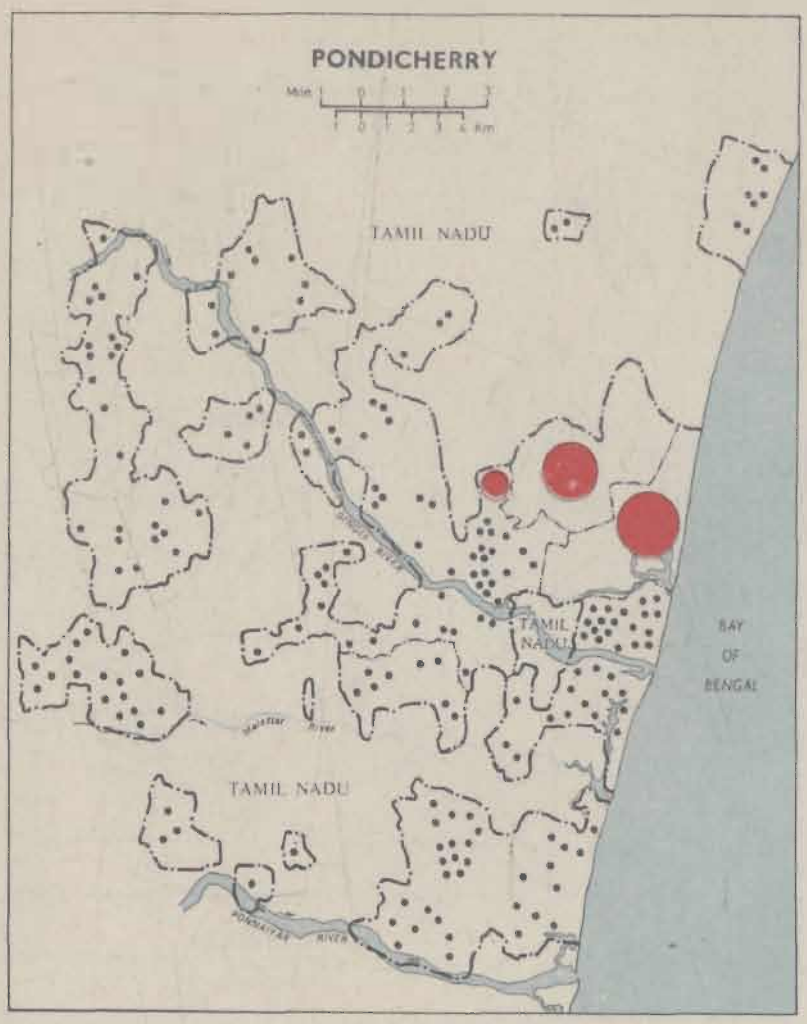
BOUNDARY :-

STATE / UNION TERRITORY ... —·—·—

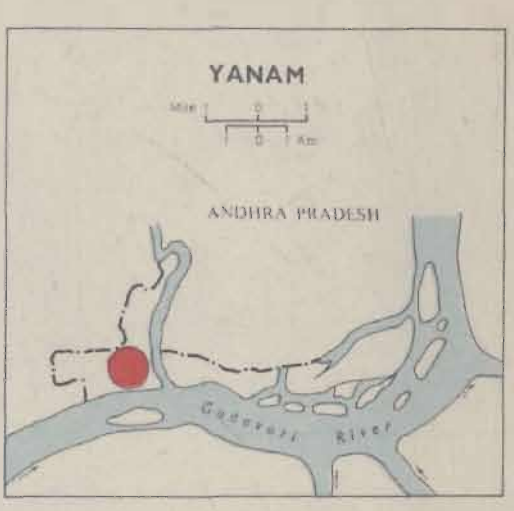
APPROXIMATE TRADITIONAL NOMENCLATURE	
USTALFS	– High base status red loamy, red sandy and alluvial Soils.
PSAMMENTS	– Sandy Soils (Recent).
TROPEPTS	– Shallow black, brown and alluvial Soils of Southern Region.
ORTHENTS	– Recently formed Soils.
AQUENTS	– Recently formed Hydromorphic Soils, Coastal alluvial Soils
USTERTS	– Deep black Soils

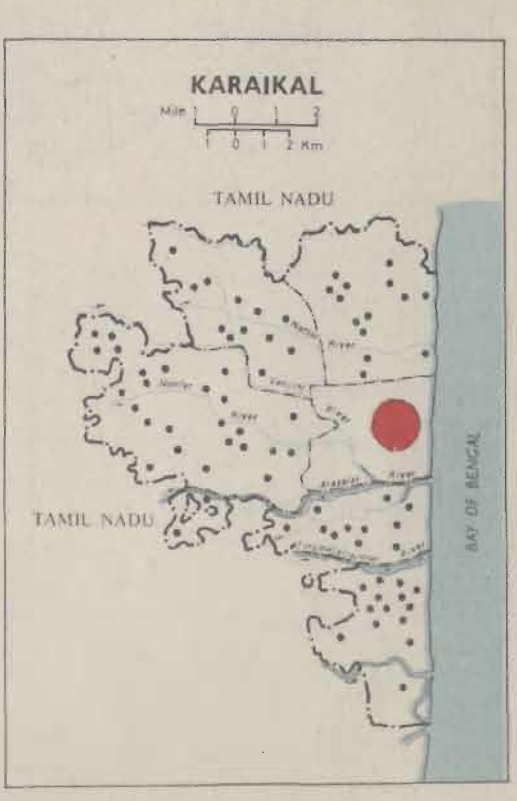
PONDICHERRY UNION TERRITORY

DISTRIBUTION OF POPULATION 1981



BOUNDARIES
STATE / UNION TERRITORY
COMMUNE
RIVER





SIZE/POPULATION OF TOWNS 1981

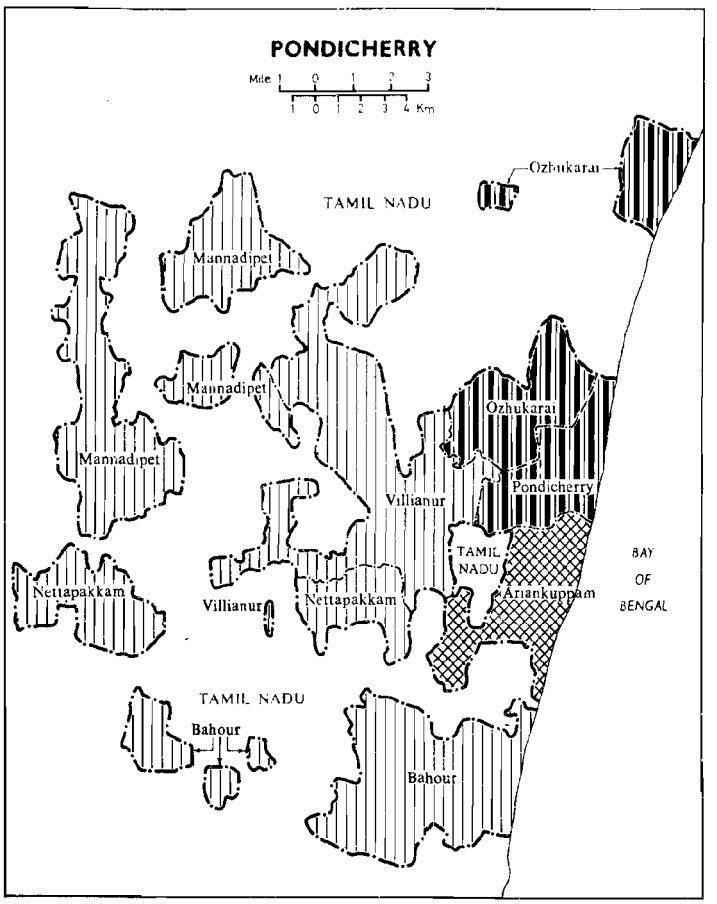
CLASS	I	100 000 & above
CLASS	II	50 000 – 99 999
CLASS	III	20 000 – 49 999
CLASS	IV	10 000 – 19 999
CLASS	V	5 000 – 9 999
CLASS	VI	Less than 5 000

• EACH DOT REPRESENTS 1000 RURAL POPULATION

PONDICHERRY UNION TERRITORY

DENSITY OF POPULATION 1981

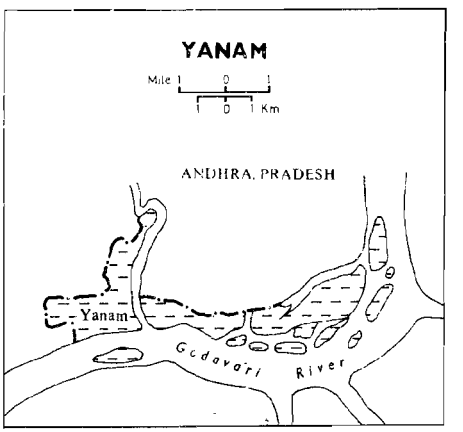
(BY COMMUNES)

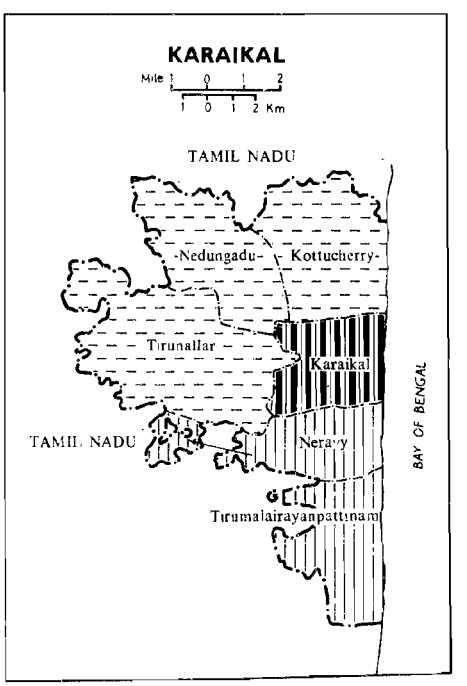


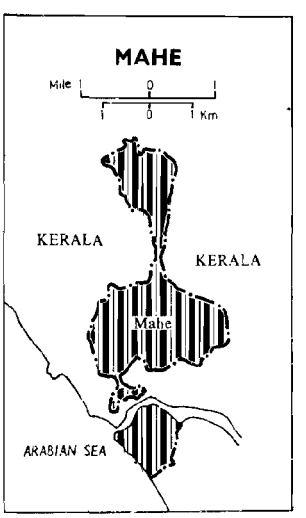
BOUNDARIES:-

STATE / UNION TERRITORY ... —·—·—

COMMUNE ... ... —··—··—







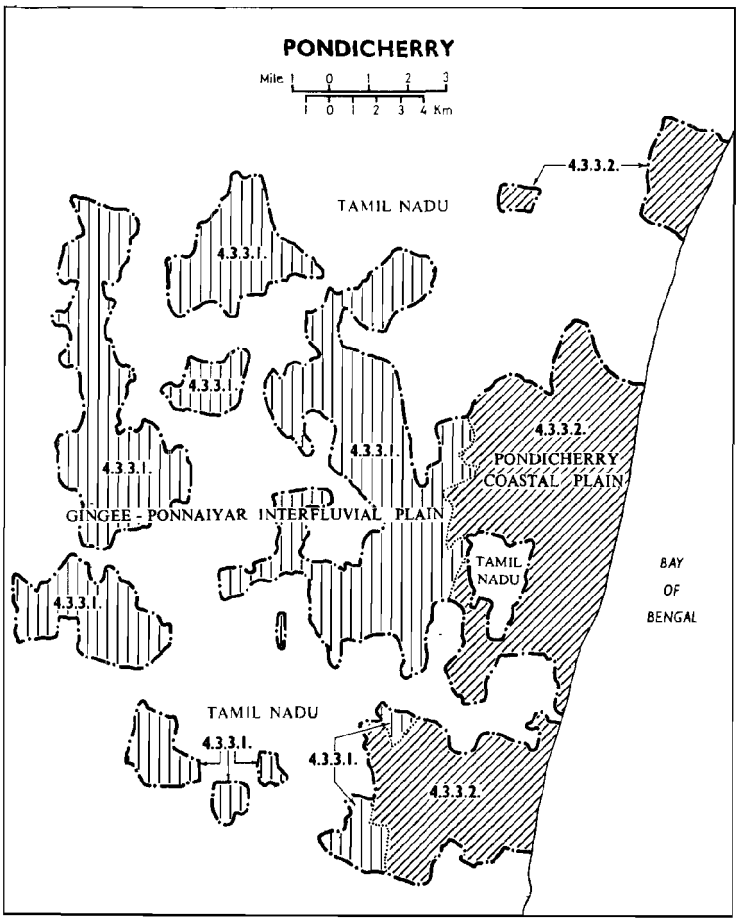
PERSONS PER Km.²

- 1401 & above
- 1001–1400 → U.T. Average 1229
- 601–1000
- 600 & below

PONDICHERRY UNION TERRITORY

DENSITY OF POPULATION 1981

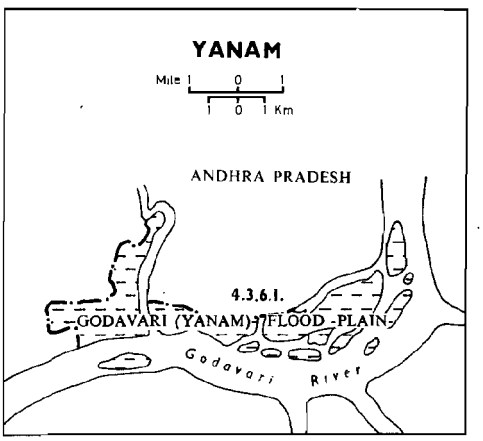
(BY SUB-MICRO REGIONS)

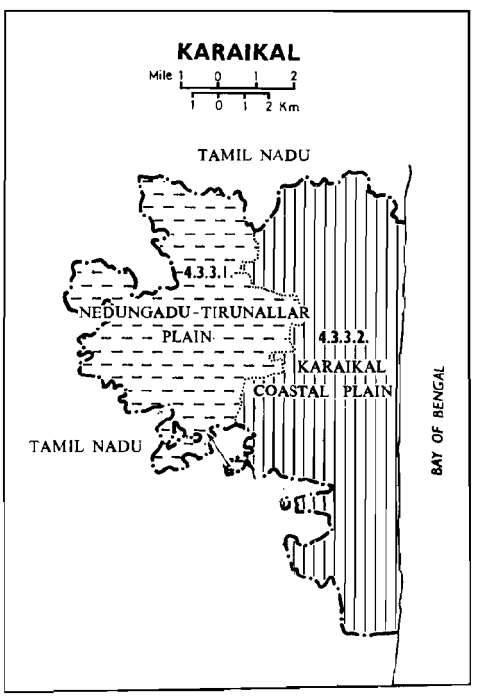


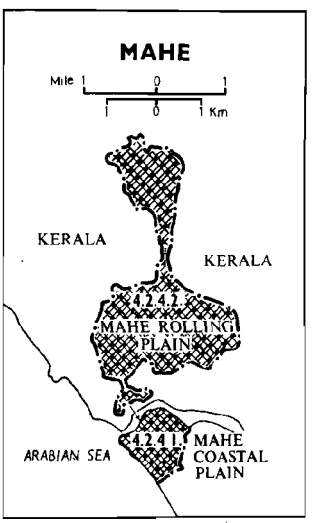
BOUNDARIES :-

STATE / UNION TERRITORY ... —·—·—

SUB - MICRO REGION ... .







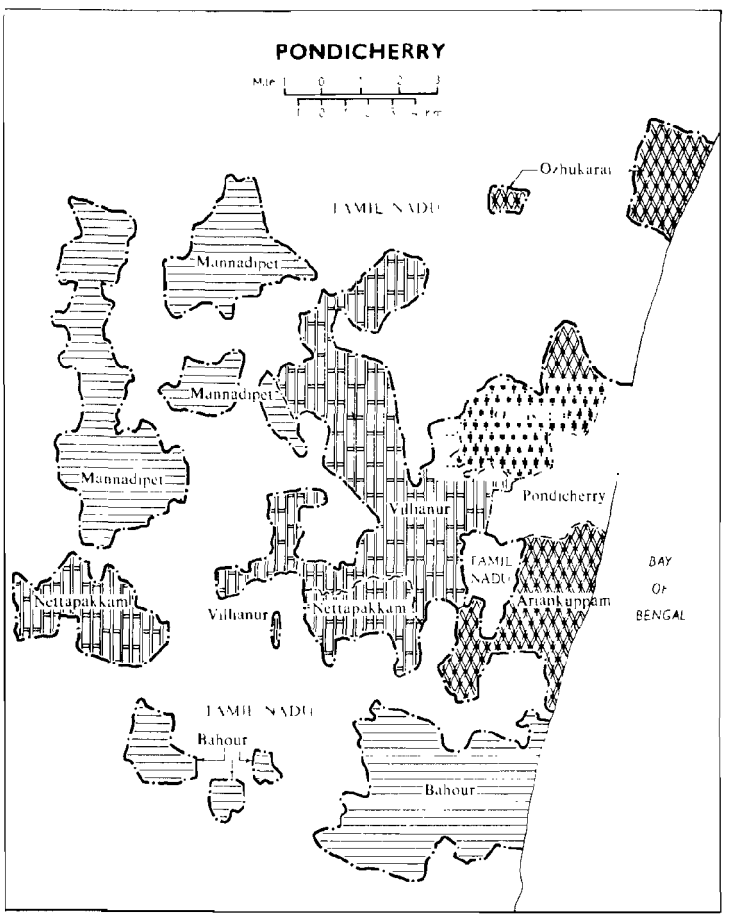
PERSONS PER Km.²

- 2 601 & above
- 1 601–2 600
- 601–1 600
- 600 & below

PONDICHERRY UNION TERRITORY

RURAL DENSITY OF POPULATION 1981

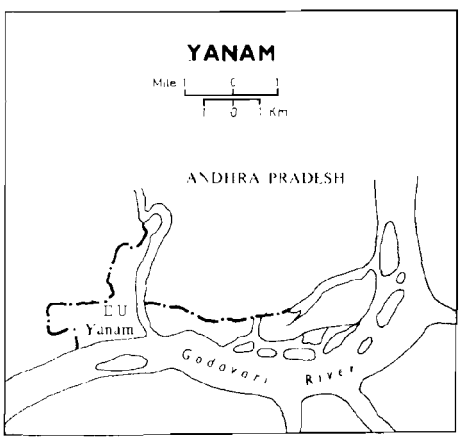
(BY COMMUNES)

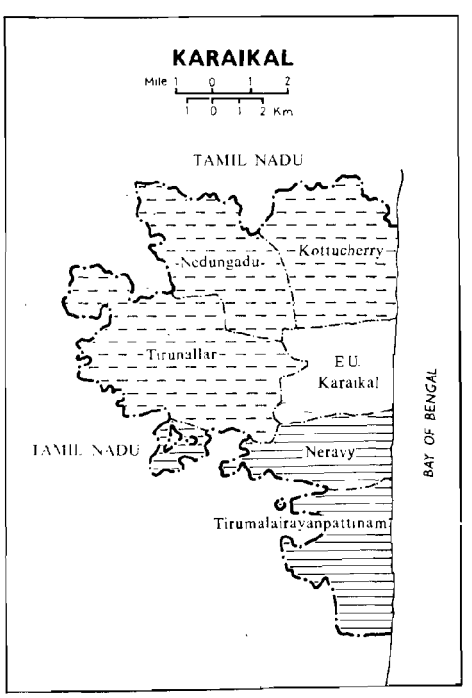


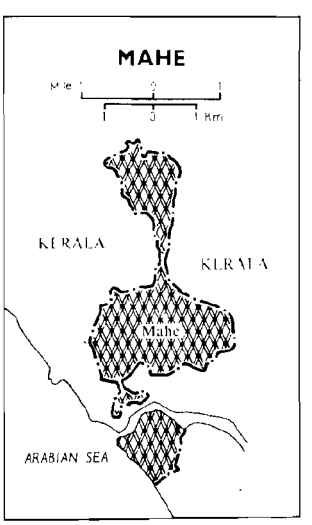
BOUNDARIES :-

STATE / UNION TERRITORY ... —·—·—

COMMUNE .. .. —·—·—







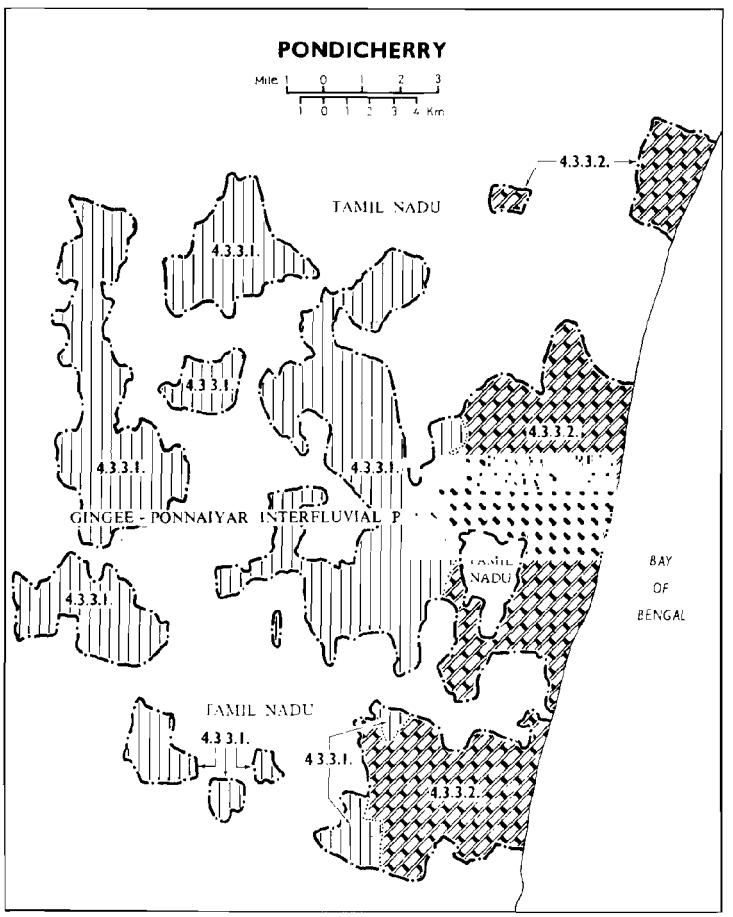
PERSONS PER Km²

- 901 & above
- 751–900
- 601–750 — — — U.T. Average 736
- 600 & below
- E.U. Entire Urban

PONDICHERRY UNION TERRITORY

RURAL DENSITY OF POPULATION 1981

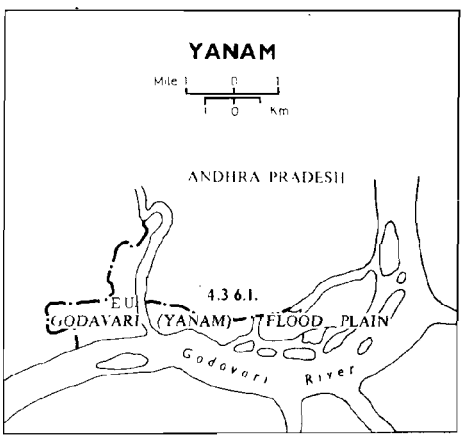
(BY SUB-MICRO REGIONS)

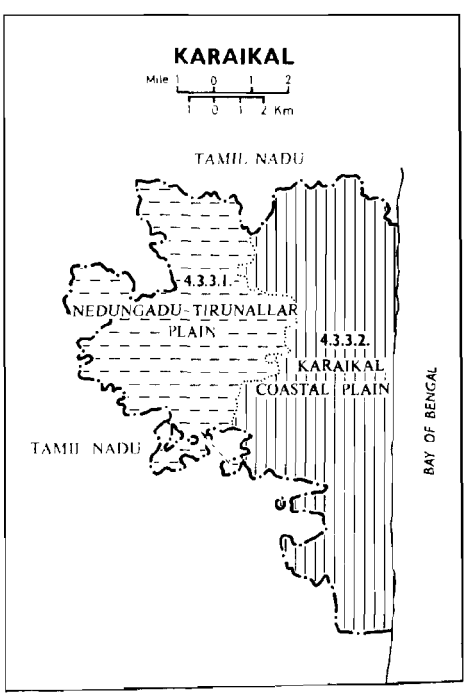


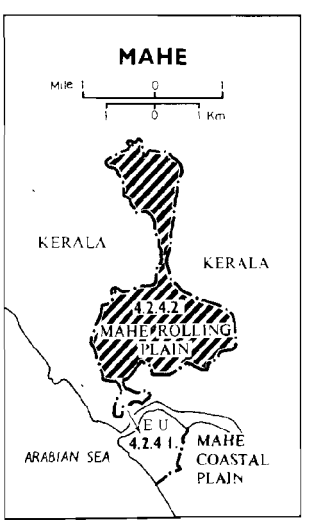
BOUNDARIES :-

STATE / U. T. ... ...

SUB-MICRO REGION ... ...







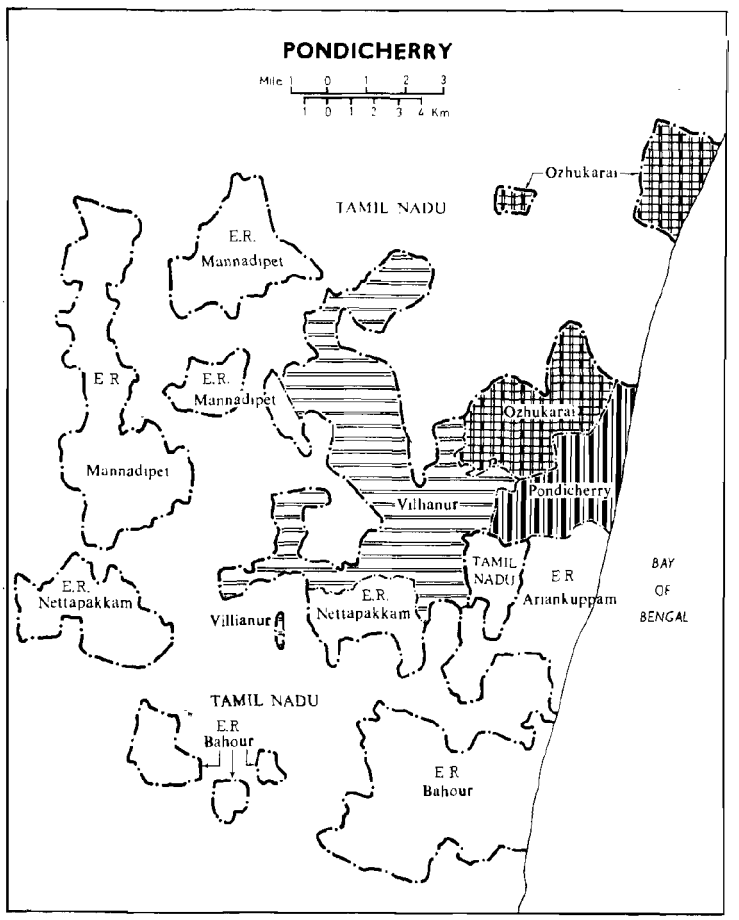
PERSONS PER Km²

- 951 & above
- 751 — 950
- 551 — 750
- 550 & below
- E.U Entirely Urban

PONDICHERRY UNION TERRITORY

URBAN DENSITY OF POPULATION 1981

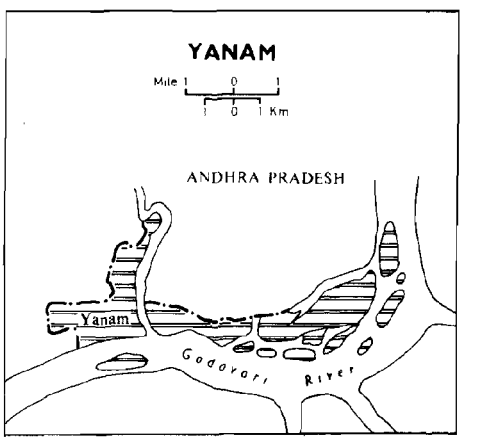
(BY COMMUNES)

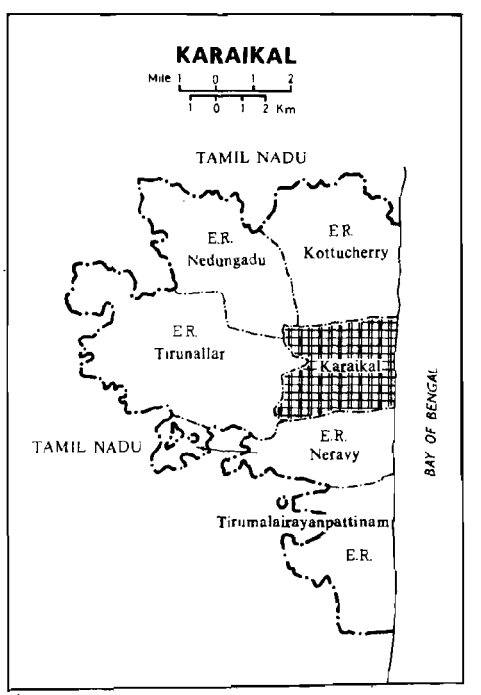


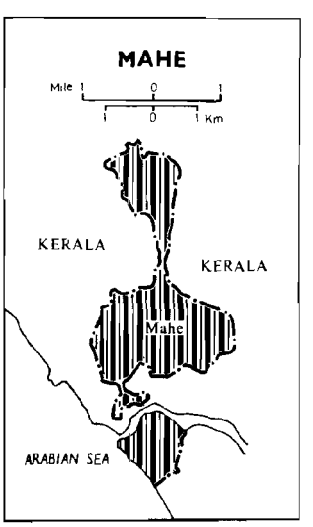
BOUNDARIES :-

STATE / UNION TERRITORY ... —·—·—

COMMUNE ... ... —··—··—







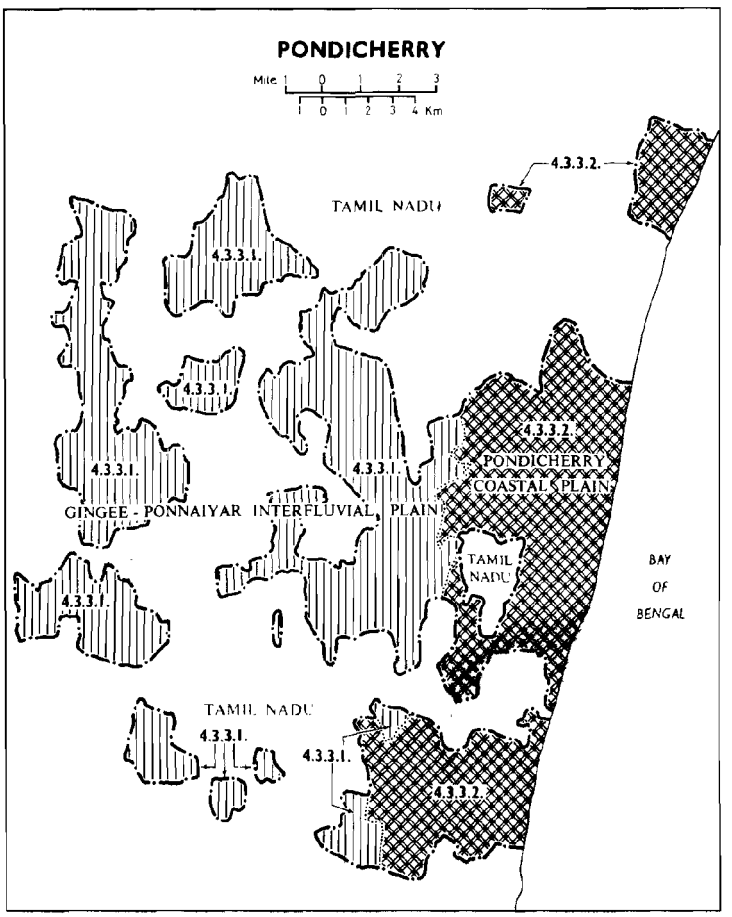
PERSONS PER Km.²

- 3 501 & above
- 1 001–3 500 → U.T Average 3 158
- 1 000 & below
- E.R. Entirely Rural

PONDICHERRY UNION TERRITORY

URBAN DENSITY OF POPULATION 1981

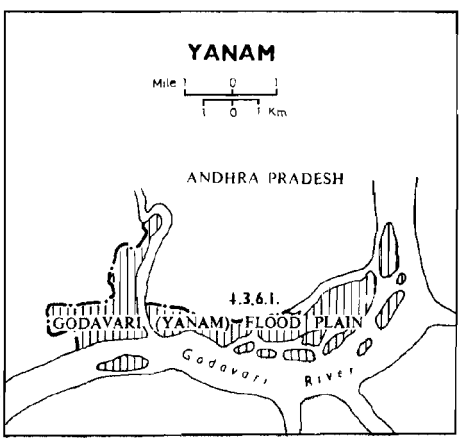
(BY SUB-MICRO REGIONS)

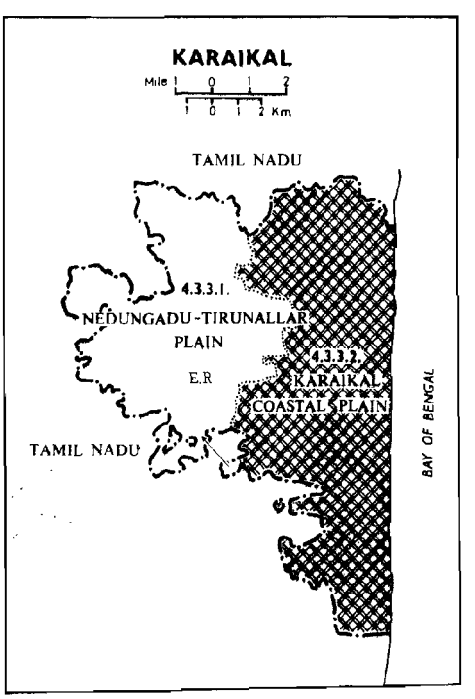


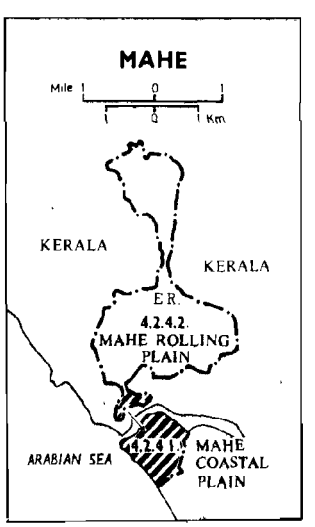
BOUNDARIES :-

STATE / U. T.... ... ...

SUB-MICRO REGION ... ...







PERSONS PER Km^2

- 6 001 & above
- 2 001 – 6 000
- 2 000 & below
- E.R Entirely Rural

PART III
REGIONAL DIVISIONS
OF
DISTRICTS

MAHE DISTRICT

REGIONAL DIVISIONS

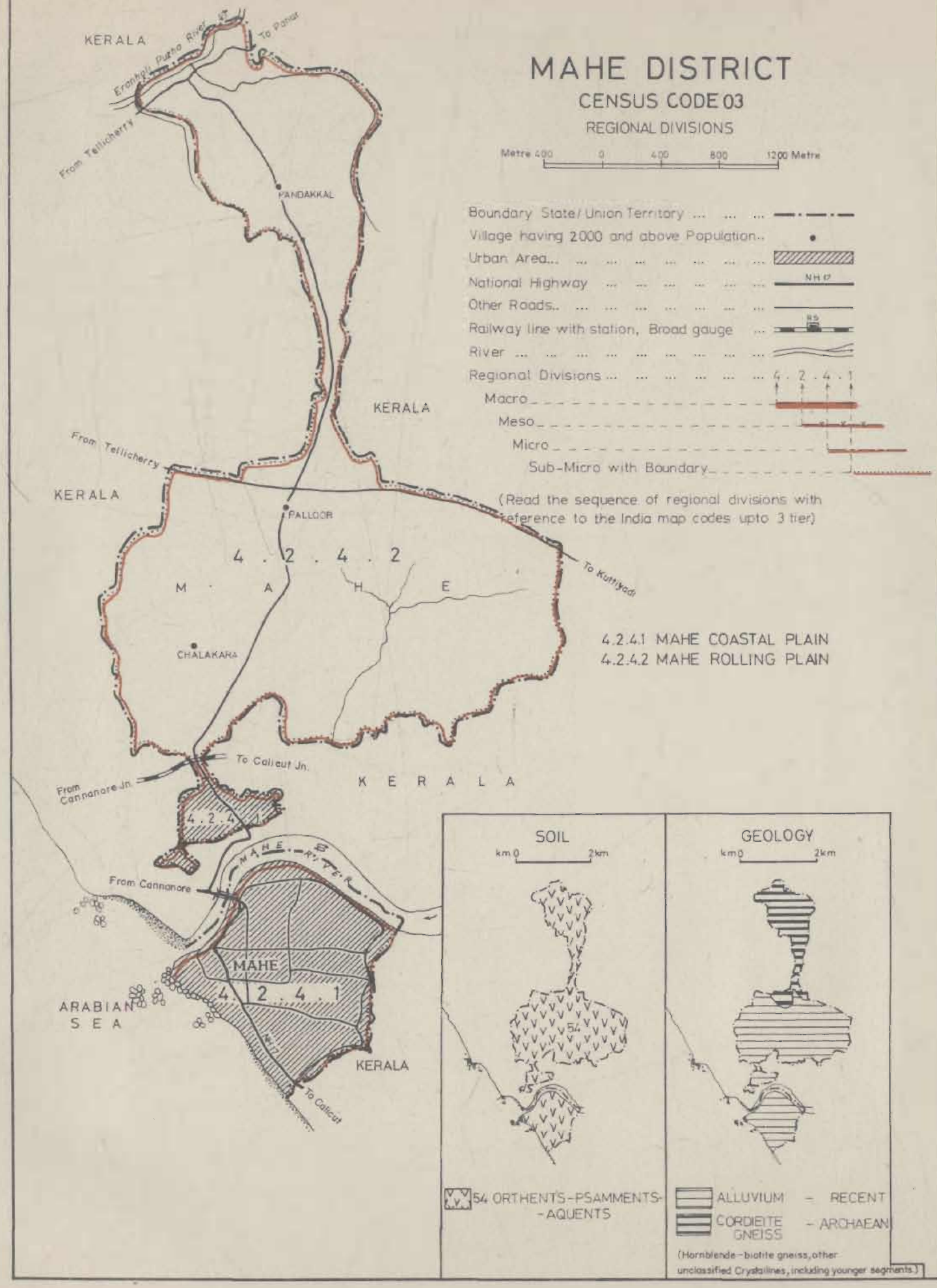
Mahe district is a part of North Kerala Coast (4.2.4) micro region. This is a very small district in the union territory having only 9 Km^2 as its area. It is divided into the following two sub-micro regions on the basis of topography, geology, soils, natural vegetation and climate.

4.2.4.1 Mahe Coastal Plain

The region lies in the coastal part of the district having an area of only 1.53 Km^2. The whole of the region is urban. It comprises of only one town. This region is a plain region sloping towards west. However, it has an residual hill. The geological bed is alluvium of Recent age. It has coastal alluvium and reddish brown lateritic soils. It has rocky cliff along its coast. This supports a population of 9,588 persons. It has the highest density of population in the union territory, i.e., 6,267 persons per Km^2.

4.2.4.2 Mahe Rolling Plain

The region has a major portion of the district. Its geological bed is alluvium of Recent age and its soil types are alluvial, reddish brown and lateritic. It is a rolling plain region. It slopes towards the west. It has isolated hills. This region has semi-evergreen forest. It has an area of 7.22 Km^2 which is inhabited by 18,825 persons. It has no urban population. The density of population is 2,607 persons per Km^2.


MAHE DISTRICT
CENSUS CODE 03
REGIONAL DIVISIONS
Metre 400 0 400 800 1200 Metre
Boundary State/ Union Territory
Village having 2000 and above Population
Urban Area
National Highway
Other Roads
Railway line with station, Broad gauge
River
Regional Divisions 4 . 2 . 4 . 1
Macro
Meso
Micro
Sub-Micro with Boundary
(Read the sequence of regional divisions with reference to the India map codes upto 3 tier)
KERALA
From Tellicherry
To Panur
Eranhipuzha River
PANDAKKAL
PALLOOR
To Kuttiyadi
4 . 2 . 4 . 2
M A H E
CHALAKARA
4.2.4.1 MAHE COASTAL PLAIN
4.2.4.2 MAHE ROLLING PLAIN
To Calicut Jn.
From Cannanore Jn.
4 . 2 . 4 . 1
MAHE RIVER
From Cannanore
MAHE
4 2 4 1
ARABIAN SEA
To Calicut
SOIL
km 0 2km
54
54 ORTHENTS-PSAMMENTS-AQUENTS
GEOLOGY
km 0 2km
ALLUVIUM - RECENT
CORDIERITE GNEISS - ARCHAEAN
(Hornblende-biotite gneiss, other unclassified Crystallines, including younger segments.)

DATA ON REGIONAL DIVISIONS

District Name : MAHE | Census Location Code No:03 | Union Territory: PONDICHERRY

District	Region number and name	No. of villages in each region as evolved	No. of towns in region	Area in Km^2			Population in region		
				Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10
Mahe	4.2.4.1 Mahe Coastal Plain	Nil	1 town (Mahe)	1.53	Nil	1.53	9,588	Nil	9,588
	4.2.4.2 Mahe Rolling Plain	3	Nil	7.22	7.22	Nil	18,825	18,825	Nil

Note: The area shown under col.5 is according to the Directorate of Survey and Land Records, Pondicherry.

REGION-WISE VILLAGE CODES, 1981

District : MAHE | Census Location Code No. 03 | Union Territory : PONDICHERRY

Sl. No.	Region number and name	Commune	Location code no. of census villages	Total no. of villages/towns		Area of regional division in Km^2	Remarks
				in commune	in division		
1	2	3	4	5	6	7	8
1.	4.2.4.1 Mahe Coastal Plain	Mahe	Nil	Nil	One town	1.53	Entirely urban area
2.	4.2.4.2 Mahe Rolling Plain	Mahe	1 to 3	3	3 villages	7.22	Entirely rural area

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name : MAHE | Census Location Code No.03 | Union Territory : PONDICHERRY

Sl. No.	Region number & name	Name of administrative division	Geology	Soils	Physio-cultural characteristics
1	2	3	4	5	6
1.	4.2.4.1 Mahe Coastal Plain	Mahe commune	Alluvium	Orthents-Psamments-Aquents	The region comprises a small area and lies as two bits—intersected by the Mahe river, namely Kallayi, and Mahe. Mahe and Kallayi constituted as one unit, namely, Mahe Municipal area. It is bounded by Mahe Rolling Plain in its east; Arabian Sea in its west and Kerala state in its north & south. It is a coastal region sloping towards the west. It is separated from Mahe Rolling Plain by the railway line. It has a residual hill of 46m height which is the highest point of this region. This region has rocky cliff along its coast. The study of geological formations reveals that uplift has taken place in post-Jurassic and in late Tertiary times where the subsidence of Arabian Sea has taken place to form the Western Ghats. The Kallayi enclave also has a mound having the height between 20 and 40m. This region has an undulating terrain of low heights. It has good amount of rainfall by monsoon as it is located in the windward side of the Western Ghats. Most of the rain occurs during south-west monsoon. It promotes thick vegetation cover. Cashewnut, Coconut, Arecanut, Tapioca, Palmyra are the varities of crops grown here. Geologically, it is made up of ancient rocks of Archaean age in its major part. But recent deposit of alluvium is also found in the extreme coastal part. This region is chiefly occupied by laterite over crystalline rocks known as biotite gneiss. There are intruded by basic dykes in some places. The soil is alkaline. However, reddish brown laterite soil is found at some places. This region is wholly urban. The main activities of the people are commercial and fishing. The National Highway 7 connects Mahe with Kozhikode and Tellicherry. A railway line (Broad-gauge) passes through this region and connects Kozhikode and Tellicherry. Sardines, prawns, mackerals are the chief varities of fish caught here.

1	2	3	4	5	6
2.	4.2.4.2 Mahe Rolling Plain	Mahe commune	Alluvium, cordierite gneiss, hornblende-biotite gneiss and other unclassified crystallines *including* younger segments.	Orthents-Psamments-Aquents	The region consists of a major portion of Mahe district. It is bounded by Mahe Coastal Plain (4.2.4.1) in its south and Kerala state in the remaining directions. Whole of this region is rural in character. This region is a rolling plain having undulating topography. It has no flat terrain but has mounds here and there. This region is in the fringe of Western Ghats and slopes towards the west. The region has an isolated hill or low height about 60 m which is the highest point of this region. It is situated in Palloor village (2). The 20 m contour line runs along the southern border of this region which indicates the minimum height of this region. In the central part of this region, a narrow tract of flat terrain from east to west is found which is a good cultivable area. This region is drained by the Mahe river and its streams. The northern border of this region is served by the Eranholipuzha river. This region has a very good amount of rainfall and has semi-evergreen vegetation. As the availability of flat terrain is limited, paddy is cultivated in patches. Cashewnut, pepper, arecanut, coconut, palmyra, tapioca are the chief crops grown here. Geologically, the region belongs to Archaean age. The northern portion of this region has cordierite gneiss, hornblende-biotite gneiss and other unclassified crystallines. The southern portion of this region has alluvium bed of Recent origin. The soil is saline, immature and has sand content. Laterite is also found in this region which is used for making bricks or building materials. As the topography of this region is undulating, the transportation network is restricted. However, there are metalled roads connecting this region with the neighbouring settlements. Pallur is the important settlement in this region which is a nodal point connecting Mahe town in south, Tellicherry in west, Payyanur in north and Chokli in east. In this region, the primary occupation of the people is agriculture and household industry.

PONDICHERRY DISTRICT

REGIONAL DIVISIONS

Pondicherry district is a part of Coromandel Coast (4.3.3.) and it is sub-divided into the following two sub-micro regions on the basis of topography, geology, soils, climate and natural vegetation.

4.3.3.1. Gingee - Ponnaiyar Interfluvial Plain

The region covers a major portion of the district. It lies in the western part of the district comprising the whole of Mannadipet and Nettapakkam communes and parts of Villianur and Bahour communes. This region is a plain terrain gently sloping towards the east. The north-western portion of this region is a continuation of 'red hills' of South Arcot district. The geological beds of this region are alluvium dunite and cuddalore sandstone. The soils are alluvial and red ferruginous. It has 113 villages and one town. Its area is 171.48 Km^2 which is inhabited by 122,190 persons of which 120,397 reside in rural and 1,793 reside in urban areas. Its density is 713 persons per Km^2.

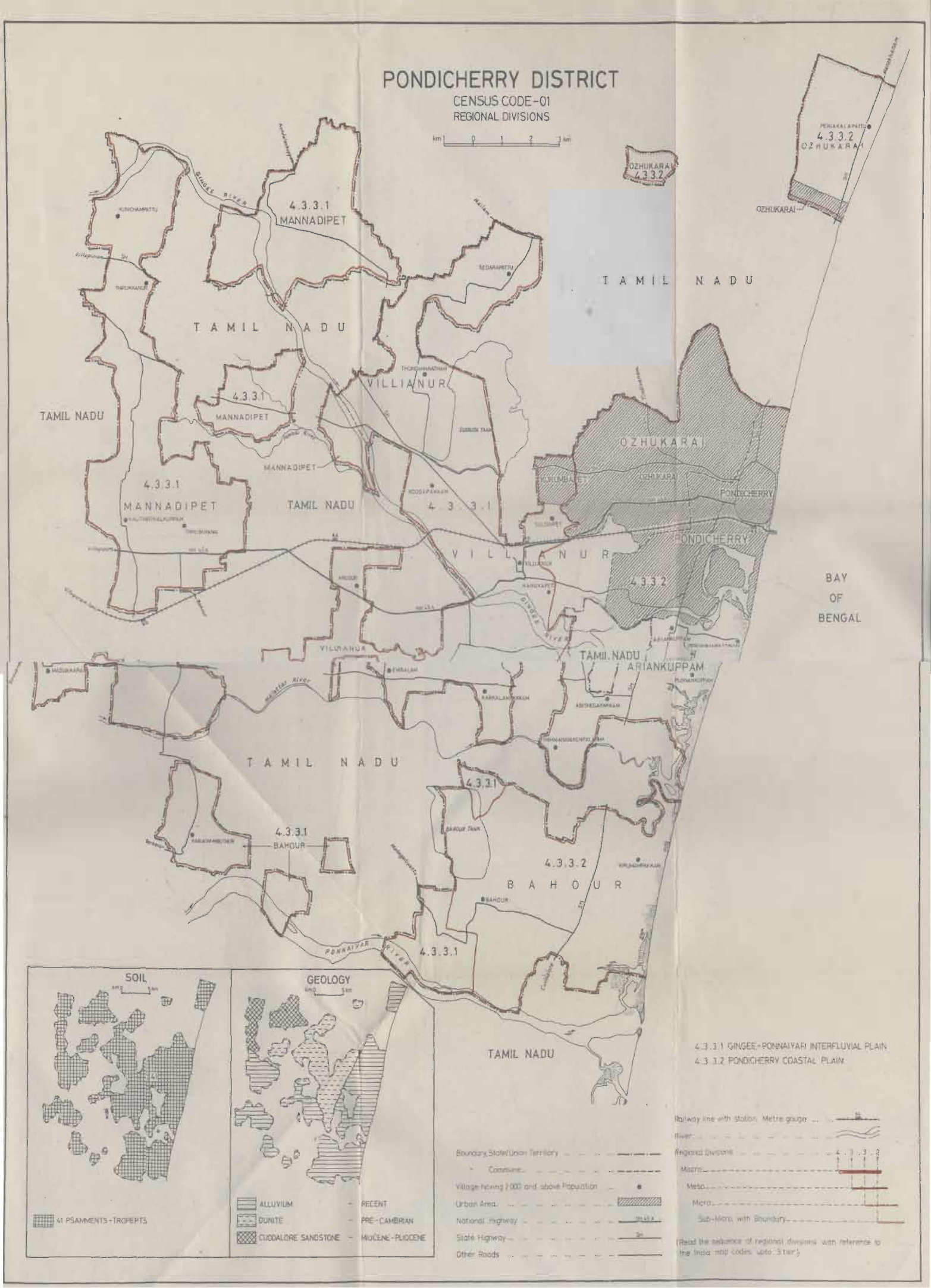
4.3.3.2 Pondicherry Coastal Plain

The region is a narrow tract which lies along the coast of the district. It occupies the whole of Ozhukarai, Pondicherry and Ariankuppam communes and parts of Villianur and Bahour communes. This region is a low lying tract and sand deposits are found all along the coast. The geological beds are alluvium and dunite. The soils are alluvial and red ferruginous varieties. It consists of 66 villages and 2 towns. Its area is 124.44 Km^2 which is inhabited by 322,227 persons of which 72,600 reside in rural and 249,627 reside in urban areas. This region is a developed one compared to the other regions in the union territory. Its density is high about 2,589 persons per Km^2.

PONDICHERRY DISTRICT

CENSUS CODE-01

REGIONAL DIVISIONS



DATA ON REGIONAL DIVISIONS

District Name: PONDICHERRY Census Location Code No. 01 Union Territory: PONDICHERRY

District	Region number & name	Number of villages in each region as evolved	No. of towns in region	Area in Km^2			Population in region		
				Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10
Pondicherry	4.3.3.1 Gingee-Ponnaiyar Inter-fluvial Plain	113 villages (40 villages in Mannadipet, 36 villages in Villianur, 10 villages in Bahour and 27 villages in Nettapakkam communes)	1 town Kurumbapet (in Villianur commune)	171.48	169.24	2.24	122,190	120,397	1,793
	4.3.3.2 Pondicherry Coastal Plain	66 villages (20 villages in Ariankuppam, 5 villages in Ozhukarai, 9 villages in Villianur and 32 villages in Bahour communes)	2 towns Pondicherry (in Pondicherry commune) Ozhukarai (in Ozhukarai commune)	124.44	77.14	47.30	322,227	72,600	249,627

N.B.: The area shown under col. 5 is according to the Directorate of Survey and Land Records, Pondicherry.

REGION-WISE VILLAGE CODES, 1981

District Name: PONDICHERRY | Census Location Code No. 01 | Union Territory: PONDICHERRY

Sl. No.	Region no. and name	Commune	Location code no. of census villages, 1981	Total no. of villages/towns in commune	Total no. of villages/towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	4.3.3.1 Gingee-Ponnaiyar Interfluvial Plain	Mannadipet	1 to 40	40			Whole of the commune
		Villianur	1 to 19, 21, 25, 27, 29, 30 and 45	36			Code nos. 20, 22 to 24, 26, 28 and 31 to 33 are in region 4.3.3.2.
		Bahour	2 to 4, 21, 22 and 38 to 42	10			Code nos. 1, 5 to 20 and 23 to 37 are in region 4.3.3.2.
		Nettapakkam	1 to 27	27	113 villages + 1 town	171.48	Whole of the commune.
2.	4.3.3.2 Pondicherry Coastal Plain	Ariankuppam	1 to 20	20			Whole of the commune.
		Ozhukarai	1 to 5	5			Whole of the commune.
		Villianur	20, 22 to 24, 26, 28 and 31 to 33	9			Code nos. 1 to 19, 21, 25, 27, 29, 30 and 34 to 45 are in region 4.3.3.1.
		Bahour	1, 5 to 20 and 23 to 37	32	66 villages + 2 towns	124.44	Code nos. 2 to 4, 21, 22 and 38 to 42 are in region 4.3.3.1.

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name: PONDICHERRY Census Location Code No. 01 Union Territory: PONDICHERRY

Sl. No.	Region no. and name	Name of administrative ddddivisions	Geology	Soils	Physio-cultural characteristics
1	2	3	4	5	6
1.	4.3.3.1 Gingee-Ponnaiyar Interfluvial Plain	Mannadipet, Nettapakkam, Villianur and Bahour communes	Alluvium, Dunite and Cuddalore Sandsssstone	Psamments-Tropepts	The region consists of a major portion of Pondicherry district. This is bounded by Pondicherry Coastal Plain (4.3.3.2) in its east and South Arcot district of Tamil Nadu state in its all other directions. This region is not lying as a continuous or contiguous stretch but lies as enclaves scattered here and there. This region is a plain tract and lies between two major rivers, viz., the Gingee river in its north and the Ponnaiyar river in its south. Pambiar, the tributary of the Gingee river and Malattar river, the distributary of Ponnaiyar river, besides a number of canals drain this region. This region slopes gently towards the east. The maximum height of this region is only 26 m in Mannadipet Village (6) of Mannadipet commune. The minimum height 6 m is in Korkadu Village (6) of Nettapakkam commune. In the north-western tip of this region there is a flat land of above 20 m height which is the continuation of 'red hills' of Thiruvakkarai of Tamil Nadu. The northern border of this region is comparatively dry and cultivation of crops is done by well-irrigation. Oussoudou tank is the biggest tank of Pondicherry district and it is the main source for agriculture for the northern portion of this region. The southern part of this region is served by Bahour tank for irrigation. To the north of Oussoudou tank, places like Sedarapet, Karasoor, Thuthipet, Thondamanatham, Kurumbapet etc. have broken ravine lands. These broken lands are formed by red ferruginous soil which promotes only raising of cashewnut, tapioca, casuarina and ground nut. The whole of this region, except its northern border, is of wet lands and drained by the rivers, canals and tanks helping cultivation of paddy as the main crop. The other important crops are sugarcane, betelnut, cumbu, ragi, black-gram, green-gram, cotton, gingilli, coconut, palmyra etc. Geologically, this region is alluvium of Recent age. Dunite of pre-Cambrian age and Cuddalore sandstone of Miocene-Pliocene age from rock structures. Alluvium is found over southern portion of this region, that is in

1	2	3	4	5	6
					Nettapakkam commune, southern part of Mannadipet commune and western part of Bahour commune, Dunites are found over Villianur commune and the Cuddalore sandstone occurs at the northern part of Mannadipet commune. Limestone (Shell limestone), lignite and varieties of clays like ceramic clays, brick clays, tile clays etc. are the mineral deposits of this region. Argillaceous limestone is found in Karasoor-Sedarapet and Thuthipet-Pillaiyarkuppam areas. Lignite is found in the southern part of this region, but of less quantity over Kaduvanur, Kuruvinatham area. Clay varieties are found in Thondamanatham, Villianur and Poraiyur areas. In general the region has alluvial soils. However, in the northern portion of this region (Karasoor and Sedapet area) we find some patches of red ferruginous soil. This region has a very good transportation net-work. National Highway 45A which runs between Villupuram and Pondicherry passes through this region. A number of metalled roads connect the important settlements of this region. A railway line (Metre-gauge) which connects Villupuram and Pondicherry passes through this region. Thuthipet, Karasoor and Sedarapet area has a number of industrial units like leather goods, electrodes manufacturing etc. Sugar mills are located in Lingareddipalayam of Mannadipet commune and in Arugur of Villianur commune. One cotton spinning mill is established in Thiruvandarkoil in Mannadipet commune. One co-operative dairy and a brewery are located in Guruvappa Nayakkan-palayam in Villianur commune. Generally, pottery, carpentry, blacksmithy, goldsmithy, coir-making, clay-toy-making, basket weaving, handloom weaving, limestone production, hand printing and dying of textiles, borewell pipe-making, bee-keeping, bronze image-casting are the cottage industries and handicrafts of this region. Kurumbapet (1,793 persons) which is the only urban centre of this region and Villianur (4,228 persons) which is a place of pilgrimage are the important settlements of this region.

1	2	3	4	5	6
2.	4.3.3.2 Pondicherry Coastal Plain	Ozhukarai, Pondicherry, Ariankuppam, Villanur and Bahour	Alluvium and Dunite	Psamments-Tropepts	The region lies as a narrow stretch along the coast of the district extending upto 6 Km approximately from the sea coast. It is bounded by Gingee-Ponnaiyar Interfluvial Plain (4.3.3.1) in its west, Bay of Bengal in its east and South Arcot district of Tamil Nadu state in its north and south. This region is a flat land having its height less than 6 m except in its northern border and in the Kalapet enclave where the 40 m contour denotes the maximum contiguation of the height of this region. A major portion of Kalapet except its coastal deposit has more than 20 m height above the mean sea level. The northern portion of the district and the Kalapet area have revine land which is formed over the red ferruginous soil. Sand deposits are formed all along the coast. Over the coast of Pondicherry town, the boulders are built up to control the sea wave erosion. The sand is in many places blown up by the wind to form coastal dunes. In the Ariankuppam and Bahour coastal part, even one can find the remnant of ancient sand-dunes. Marshy lands are found over Pondicherry coast near the island Thengai-thittu and also in Bahour area now reclaimed for settlements. This region is drained by the Ariankuppam, Chunnambar, Malattar, Ponnaiyar rivers and back-waters. The region has alluvium bed of Recent age except a small portion in its north-western part over Ozhukarai area of dunite of pre-Cambrian. This region has lignite, limestone and varieties of clays as its mineral wealth. The fossiliferous cretaceous limestones are exposed near the red hills in the northern portion of this region. Lignite in Bahour commune, Limestone in Turavai at the border of South Arcot district, ceramic clays in Kalapet area, brick clays in Odiampattu-Pappanchavadi area, tile clays in Reddiar-palayam area are the other mineral wealth of this region. It is a fertile tract and supports wet crop cultivation. Paddy, sugarcane, betelnut, plantain, groundnut, ragi, coconut and palmyra are the main crops of this region. Cashewnut, tapioca and casuarina are the other crops found in its northern portion and along the sea coast. This region is well developed in its transportation net-work. National Highway 45 which runs between Pondicherry and Villupuram passes through this region. State highways and other roads

1	2	3	4	5	6
					connect all the important settlements of this region. A railway line (Metre-gauge) which connects Pondicherry and Villupuram runs through this region. Industrial estates in Manapattu, Mettupalayam and Thattanchavadi areas are important for this region. The major industrial units are 3 cotton textile mills, viz., Swadeshi Cotton Mills, Sri Bharathi Mills and Anglo-French Textiles in Mudaliarpet area. One paper mill is located in Pilliarkuppam of Bahour commune. Casting works, cane works, footwear making, ready-made garments, hand-made paper, agarbathi making, hosiery, embroidery, saree-printing etc. are some of the cottage industries in urban areas. Pottery, carpentry, hand-loom weaving, brick-making, limestone production, hand printing and dying of textiles, bore-well pipe making, bronze image casting, clay-toy-making are the rural cottage industries of this region. Pondicherry which is the Union Territory's capital is a famous tourist centre and attract thousands of Indian and foreign tourists mainly to Shri Aurobindo Ashram. Pondicherry is well served in educational facilities by having, French Institute of Indology, Medical College, Engineering College, Law College besides many other Arts and Science Colleges and Polytechniques. It has a long but narrow beach bouldered to control sea erosion. This city has straight roads and streets cut across each other perpendicularly, conforming to the ancient town plans of radial or grid pattern in lay out. The well-known Jipmer Hospital is located in this city which has highly advanced and specialised equipments as well as Medical practitioners. Besides agriculture, fishing is the major occupation of the people. Out of 66 villages there are 16 villages where the people are mainly engaged in fishing activities. Sardines, silver beach, elasmobranches, perches, seerfish, tunnies, ribbon fish mackeral, prawns, ancholuiella are the main varieties of fish available in this coast. Ozhukarai (86,988 persons) is the other town in this region and Bahour (6,158 persons) is the commune headquarters and also is an important nodal point of this region.

Note: The census village location code number is given in bracket after village name.

KARAIKAL DISTRICT

REGIONAL DIVISIONS

Karaikal district is a part of Coromandel Coast (4.3.3) and it is sub-divided into two sub-micro' regions mainly on the basis of economic activities due to coastal influence, besides, topography, soils, climate and natural vegetations. This district lies in the Kollidam-Cauvery delta.

4.3.3.1 Nedungadu - Tirunallar Plain

The region is situated in the western part of the district comprising the parts of Nedungadu, Tirunallar and Neravy communes. Its geological bed is alluvium of Recent age. It has clayey and alluvial soils. There are 62 villages spread over an area of 65.79 Km^2 which is inhabited by 34,699 persons. There is no urban population in this region. Its density of population is 527 persons per Km^2.

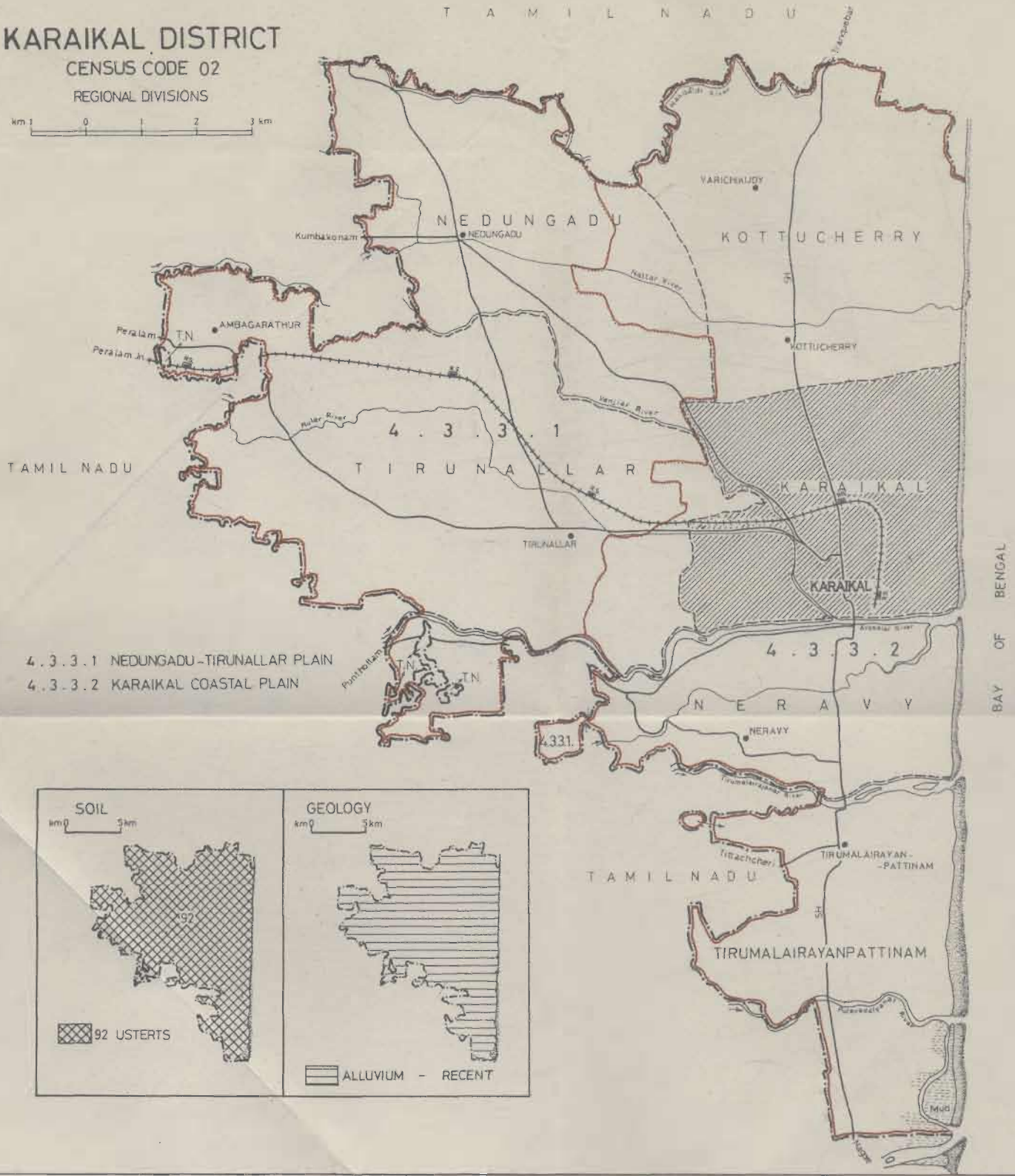
4.3.3.2 Karaikal Coastal Plain

The region lies along the coast of this district. It comprises the whole of Kottucherry, Tirumalairayan-pattinam and Karaikal communes and parts of Nedungadu, Tirunallar and Neravy communes. Its geological bed is alluvium of Recent age and has sandy alluvial soils. This region is situated in the flood plain area. This region has muddy and swampy lands. It has 48 villages and one town. Its area is 93.56 Km^2. It supports a population of 85,311 in which 41,903 persons reside in rural and 43,408 persons reside in urban area. The density of population of this region is 912 persons per Km^2.

KARAIKAL DISTRICT

CENSUS CODE 02

REGIONAL DIVISIONS



4.3.3.1 NEDUNGADU-TIRUNALLAR PLAIN

4.3.3.2 KARAIKAL COASTAL PLAIN

Boundary, State/Union Territory ... ...

" Commune... ... ...

Village having 2000 and above Population... ...

Urban Area... ... ...

State Highway ... ... SH

Other Roads ... ...

Railway line with station, Metre gauge ... ... RS

River ... ...

Regional Divisions ... ... 4 . 3 . 3 . 1

Macro

Meso

Micro

Sub-Micro with Boundary

(Read the sequence of regional divisions with reference to the India map codes upto 3 tier)

DATA ON REGIONAL DIVISIONS

District Name: KARAIKAL Census Location Code No. 02 Union Territory: PONDICHERRY

District	Region number & name	Number of villages in each region as evolved	No. of towns in region	Area in Km^2			Population in region		
				Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10
Karaikal	4.3.3.1 Nedungadu-Tirunallar Plain	62 villages (30 villages in Tirunallar, 4 villages in Neravy and 28 villages in Nedungadu communes)	Nil	65.79	65.79	Nil	34,699	34,699	Nil
	4.3.3.2 Karaikal Coastal Plain	48 villages (16 villages in Kottucherry, 10 villages in Tirumalairayanpattinam, 8 villages in Tirunallar, 9 villages in Neravy and 5 villages in Nedungadu communes)	1 town Karaikal (in Karaikal commune)	93.56	74.56	19.00	85,311	41,903	43,408

Note: The area shown under Col. 5 is according to the Directorate of Survey and Land Records, Pondicherry.

REGION-WISE VILLAGE CODES, 1981

District Name: KARAIKAL | Census Location Code No. 02 | Union Territory: PONDICHERRY

Sl. No.	Region no. and name	Commune	Location code no. of census villages, 1981	Total no. of villages/towns		Area of regional division in Km^2	Remarks
				in commune	in division		
1	2	3	4	5	6	7	8
1.	4.3.3.1 Nedungadu-Tirunallar Plain	Tirunallar	1 to 26, 30, 32, 34 and 35	30			Code numbers 27 to 29, 31, 33 and 36 to 38 are in region 4.3.3.2
		Neravy	5, 11 to 13	4			Code numbers 1 to 4 and 6 to 10 are in region 4.3.3.2
		Nedungadu	1 to 8, 10 to 27, 31 and 33	28	62 villages	65.79	Code nos. 9, 28 to 30 and 32 are in region 4.3.3.2
2.	4.3.3.2 Karaikal Coastal Plain	Tirunallar	27 to 29, 31, 33, 36 to 38	8			Code nos. 1 to 26, 30, 32, 34 and 35 are in region 4.3.3.1
		Neravy	1 to 4 and 6 to 10	9			Code nos. 5 and 11 to 13 are in region 4.3.3.1
		Nedungadu	9, 28 to 30 and 32	5			Code nos. 1 to 8, 10 to 27, 31 and 33 are in region 4.3.3.1
		Kottucherry	1 to 16	16			Whole of the commune
		Tirumalairayan-pattinam	1 to 10	10	48 villages + 1 town	93.56	Whole of the commune

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name: KARAIKAL Census Location No. 02 Union Territory: PONDICHERRY

Sl.	Region numbers & name	Name of administrative divisions	Geology	Soils	Physio-cultural characteristics
1	2	3	4	5	6
1.	4.3.3.1 Nedungadu-Tirunallar Plain	Nedungadu, Tirunallar and Neravy communes	Alluvium	Usterts	The region lies in the western part of the district. It is bounded by Karaikal Coastal Plain (4.3.3.2) in its east and Thanjavur district of Tamil Nadu state in its other directions. The region is a flat land and lies in Kollidam-Cauvery delta. It slopes very gentle towards the east. The highest point of this region is located in Ambagarathur village (1) of Tirunallar commune and its height is only 10 m. The lowest point with a height of 3 m is located at Melasuprayapuram village (32) of Tirunallar commune. This region is drained by the distributaries of Cauvery, viz., Arasalar, Noolar, Nattar and Nandalar rivers. The erosive action of these rivers is very slow as they run over a matured flood plain. This region has a very fertile land. Paddy is the chief crop cultivated in this region. The other important crops are coconut, green-gram, black-gram, tapioca, groundnut, black pepper etc. These crops are solely dependent upon canal irrigation. The geological formation of this region is alluvium of Recent origin. The geology of this region is characterised by coarse pebble sandstones associated with red clayey materials which were similar to the Cuddalore formation of Mio-Pliocene. Soils are clayey and black in colour. The fertile soils, flat terrain and adequate water supply promote paddy cultivation widely. Now a days various attempts on oil exploration are being made by the Oil & Natural Gas Commission in this region. The region has a good transportation network. There are good metalled roads which connect all the important settlements in and around this region. In Nedungadu there is one cotton spinning mill on small scale. Tirunallar is an important settlement which is a place of religious-cum-tourist interest as there is a temple for 'Lord Saniswaran'.

1	2	3	4	5	6
2.	4.3.3.2 Karaikal Coastal Plain	Kottucherry, Tirumalairayan-pattinam, Karaikal, Nadungadu, Tirunallar and Neravy communes	Alluvium	Usterts	The region lies all along the coast of Karaikal district. It is bounded by Nedungadu—Tirunallar Plain in its west, Thanjavur district of Tamil Nadu in its north and south and the Bay of Bengal in its east. The region is a fertile flat land and is located in the Kollidam-Cauvery delta. It is drained by a number of distributaries of Cauvery river, namely, Nandalar, Nattar, Arasalar and Tirumalairajanar rivers and canals. This region is located in the matured flood plain and it is in the alluvium deposited zone of Cauvery river and its distributaries. In this part, the movement of the river is very sluggish. Over the mouth of the Arasalar and Tirumalairajanar rivers, near to the place Karakkudimedu we find muddy and swampy land. Salt pans are noticed over Karaikal coast. The sand deposit is found all along the coast. A narrow stretch of sand dunes to the height of 3 m is found along the Karaikal coastal part. A strong narrow wall or embankment of roughly 2 m high is constructed from Karaikal coast to Kottucherry coast to a length of about 6 Km and also on the mouth of Tirumalairajanar river in order to restrict the sea erosion. The highest point of this region (6 m) is located in the Kottucherry village (2) of Kottucherry commune. As this region lies in the Cauvery delta, adequate water supply, flat terrain and fertile soil help the cultivation of paddy besides pulses like green-gram, black-gram etc. The other crops grown in this region are tapioca, groundnut, coconut, palmyra etc. Geologically, this region is of alluvium of Recent origin as of the preceding region. The soil found here is alluvial and it is black in colour. Along the coast line, light brownish, black and pink coloured sands are found. These sands comprise mostly quartz and ilmenite, magnetite and garnet. The oil exploration provides hopeful situation and this may transform the activity of the region considerably in future. The region has a good transportation network. One State Highway which connects Poraiyar and Nagore runs through this region. There are many other metalled roads to connect the important settlements of this region. Karaikal (43,408 persons) is the district headquarters. Kottucherry and Tirumalirayan-

1	2	3	4	5	6
					pattinam are the commune headquarters and also important nodal points of this region. The main activity of the people is fishing in coastal areas whereas it is cultivation and other economic activities in the western part of this region. Regarding the industrial development small scale industries are located in this region. There are 10 villages mainly engaged in fishing. They are north Vanjoor, Karukalacherry, Karaikal Medu, Akkampatti, Kalikuppam, Mandapathur, Kilinjal Medu, Kizhakasakudy & Kottucherry Medu. Inland fishing is also done in Vizhithiyur, Karaikal Mathagadi and Arulmozhi Devar villages. Tuna fishing is the unique feature of Karaikal coast along with sardines fishing.

Note: The census village location code number is given in bracket after village name.

YANAM DISTRICT

REGIONAL DIVISIONS

This district lies in the Godavari Delta (4.3.6) region. As the whole of the district has similar physio-geographical characteristics, it is treated as a single sub-micro region, namely, Godavari (Yanam) Flood Plain (4.3.6.1). The region lies on the mouth of Godavari river and the movement of the river in the region is very sluggish. It is a low-lying area with a height of below 3 metres from the mean sea level and is liable to flood during rainy season. The western section of the region has swampy land and its eastern section has mangrove type of forest. The area is only 30.00 Km^2 and it supports a population of 11,631 persons. The whole of this region is treated as urban. The population density is 388 persons per Km^2 which is the lowest in the union territory.

YANAM DISTRICT

CENSUS CODE 04

REGIONAL DIVISIONS

Boundary, State/Union Territory ... ...

Urban Area ... ...

Important Road ... ...

Other Roads ... ...

River ... ...

Regional Divisions 4.3.6.1

Macro

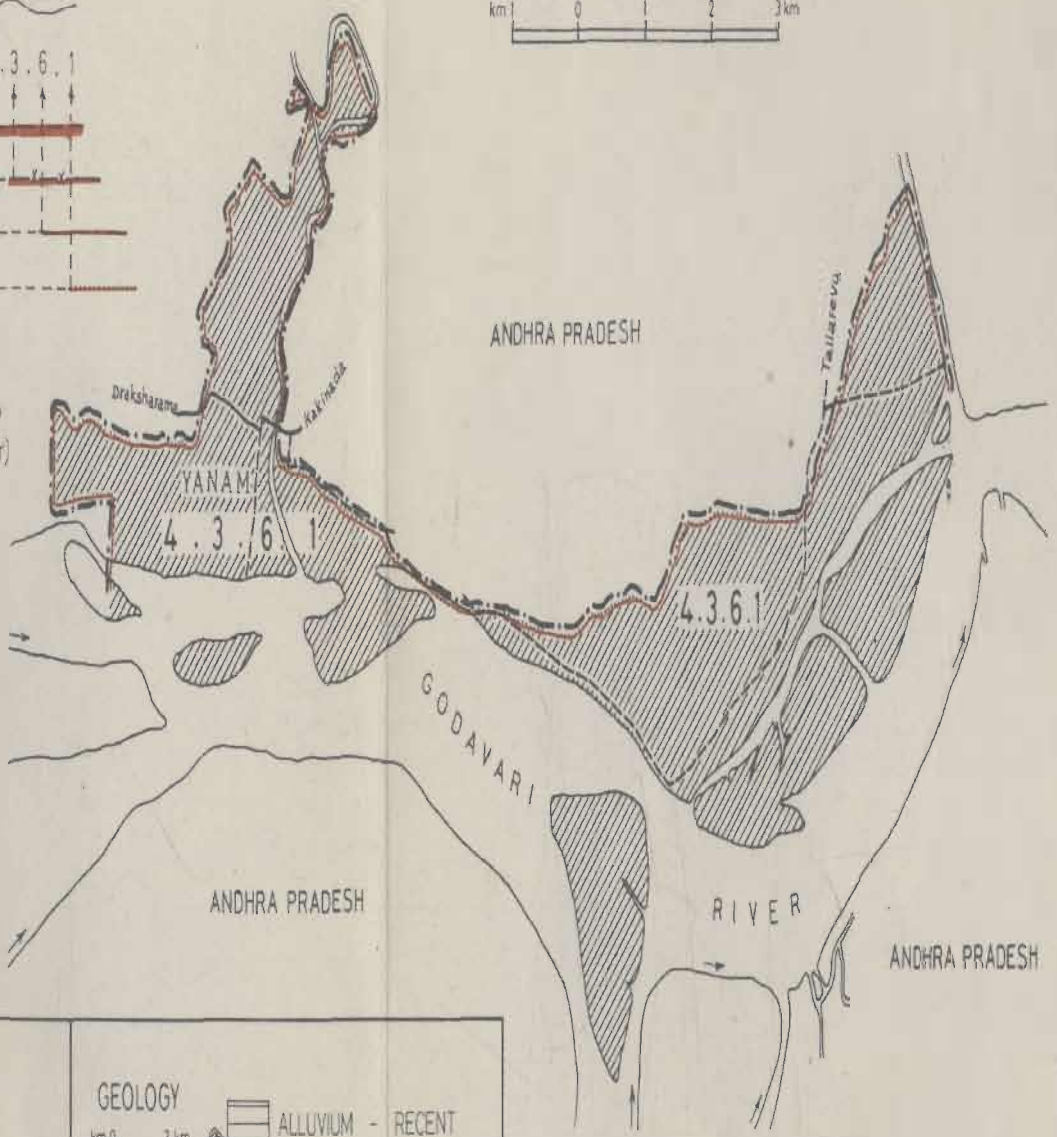
Meso

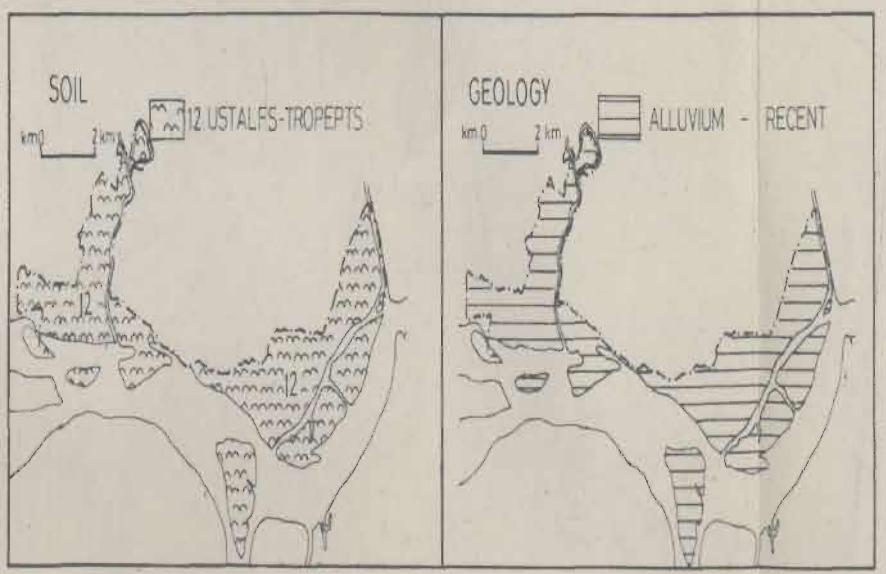
Micro

Sub-Micro with Boundary

(Read the sequence of regional divisions with reference to the India map codes upto 3 tier)

km 1 0 1 2 3 km





4.3.6.1 GODAVARI (YANAM) FLOOD PLAIN

DATA ON REGIONAL DIVISIONS

District Name:YANAM Census Location Code No: 04 Union Territory:PONDICHERRY

District	Region number and name	Number of villages in each region as evolved	Number of towns in region	Area in Km^2			Population in region		
				Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10
Yanam	4.3.6.1 Godavari (Yanam) Flood plain	Nil	One town (Yanam)	30.0	Nil	30.0	11,631	Nil	11,631

REGION-WISE VILLAGE CODES, 1981

District Name: YANAM | Census Location Code No: 04 | Union Territory: PONDICHERRY

Sl. No.	Region no. and name	Commune	Location code no. of census villages	Total No. of villages/towns in commune	Total No. of villages/towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	4.3.6.1 Godavari (Yanam) Flood Plain	Yanam commune	Nil	Nil	One town	30.00	The district is entirely urban

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name: YANAM | Census Location Code No. 04 | Union Territory:PONDICHERRY

Sl. No.	Region number & name	Name of administrative divisions	Geology	Soils	Physio-cultural characteristics
1	2	3	4	5	6
1.	4.3.6.1 Godavari (Yanam) Flood Plain	Yanam	Alluvium	Ustalfs-Tropepts	The whole of the district is treated as a single region, namely, Godavari (Yanam) Flood Plain. It has a small area of 30.00 Km^2 and a population of 11,631. This region is bounded by East Godavari district of Andhra Pradesh in all its directions. This region is situated in the Godavari delta which is one of the biggest deltaic regions in India. This is a flood plain area where the mighty river Godavari is depositing fertile alluvium since long back. The movement of the river Godavari is very sluggish and brings huge amount of water to dispose it off into the Bay of Bengal. The Coringa river which runs from north to south over Yanam district joins the river Godavari. This river is used for ferry service, which is the main source of transportation to reach Yanam from south. There are a number of channels to irrigate the cultivable lands. The region is a low-lying area and its average height is only between 2 and 3 m. The maximum height of this region is only 3 m. This region has no remarkable relief features except that it is a flood plain area. The eastern section of this region has swampy land with mud. In this area we find mangrove type of forest. The western section of this region is having cultivable land and settlements. Adequate water facility, flat terrain and fertile alluvial soils promote paddy cultivation widely in this region. The other crops grown here are coconut, ragi, jowar, cumbu, pulses and groundnut. This region has a good amount of rainfall during north-east monsoon season. The region is formed of alluvium of Recent age. The soils are greyish-black and are clayey in texture. There is one metalled road connecting Draksharama and Kakinada which passes through this region. There is one more road connecting Yanam with Tallareva. The other source of transportation is ferry service. The main occupation of the people is fishing and agriculture. The important fishing hamlets are Mettakurru, Kothapeta, Sangadirevpeta,

1	2	3	4	5	6
					Agraharam, Kanakalapeta and Kurasampeta. The major varities of fish caught here are Hilsailisha, Mugli cephalus, Labeo finbriatus, Catla etc. Prawn fishing in Godavari river is an important feature of this region. The main fishing centre of this region is Gerempeta. There is one ceramic industry located in this region at Yanam.

APPENDIX

Showing administrative constituents by district with reference to the Sub-Micro regions in Pondicherry U.T. and other States, namely, Karnataka, Kerala, Tamil Nadu and Andhra Pradesh

Macro region with code no. & name	Meso region with no. code & name	State/U.T.	Micro region with code no. & name	District	Sub-micro region with code no. & name
1	2	3	4	5	6
			COASTAL PLAIN (WEST)		
4. The Coastal Plains & Islands	4.2 Western Coastal Region	Karnataka	4.2.3 Karnataka Coast	Uttar Kannad	4.3.3.1 Karwar-Honavar Coast
				Dakshin Kannad	4.3.3.1 Coondapoor-Mangalore Coast
		Kerala	4.2.4 North Kerala Coast	Cannanore	4.2.4.1 Cannanore Coast
				Kozhikode	4.2.4.1 Kozhikode Coast
		Pondicherry		Mahe	4.2.4.1 Mahe Coastal Plain
				Mahe	4.2.4.2 Mahe Rolling Plain
		Kerala	4.2.5 Central Kerala Coast	Malappuram	4.2.5.1 Malappuram Coast
				Trichur	4.2.5.1 Trichur Coast
				Ernakulam	4.2.5.1 Cochin Coast
			4.2.6 South Kerala Coast	Alleppey	4.2.6.1 Alleppey Coast
				Quilon	4.2.6.1 Quilon Coast
				Trivandrum	4.2.6.1 Trivandrum Coast
			COASTAL PLAIN (EAST)		
	4.3 Eastern Coastal Region	Tamil Nadu	4.3.1 Kanniya Kumari Coast	Kanniya Kumari	4.3.1.3 Kanniya Kumari Coastal Plain
			4.3.2 Sandy Littoral	Tirunelveli	4.3.2.4 Tirunelveli Coastal Plain
				Ramanathapuram	4.3.2.4 Sandy Coastal Plain
			4.3.3 Coromandel Coast	Madras	4.3.3.1 Madras Coastal Plain
		Pondicherry		Pondicherry	4.3.3.1 Gingee-Ponnaiyar Interfluvial Plain
				Karaikal	4.3.3.1 Nedungadu-Tinunallar Plain
				Karaikal	4.3.3.2 Karaikal Coastal Plain
				Pondicherry	4.3.3.2 Pondicherry Coastal Plain
		Tamil Nadu		Thanjavur	4.3.3.2 Kollidam-Cauvery Delta
				Chengalpattu	4.3.3.3 Chengalpattu Coastal Plain
				Pudukkottai	4.3.3.4 Pudukkottai Coastal Plain
				Thanjavur	4.3.3.4 Thanjavur Coastal Plain
				Thanjavur	4.3.3.5 Vedaranniyam Swamp
				South Arcot	4.3.3.5 South Arcot Coastal Plain

1	2	3	4	5	6		
		Andhra Pradesh	4.3.4	Southern Andhra Coastal Plain	Nellore	4.3.4.4	Kovur-Allur Coastal Plain
					Prakasam	4.3.4.4	Ongole-Chirala Coastal Plain
					Nellore	4.3.4.5	Nellore-Sullurupet Coastal Plain
			4.3.5	Krishna Delta	Krishna	4.3.5.6	Kaikalur-Machilipatnam Coastal Plain
					Krishna	4.3.5.7	Krishna Delta
					Guntur	4.3.5.7	Bapatla-Repalle Coastal Plain
		Pondicherry	4.3.6	Godavari Delta	Yanam	4.3.6.1	Godavari (Yanam) Flood Plain
		Andhra Pradesh			West Godavari	4.3.6.4	Godavari Delta
					East Godavari	4.3.6.4	Tuni-Kakinada Coastal Plain
					East Godavari	4.3.5.6	Godavari Delta
			4.3.7	Northern Andhra Coastal Plain	Vishakhapatnam	4.3.7.4	Yellamanchili-Nakkapalle Coastal Plain
					Srikakulam	4.3.7.4	Sompeta-Inchchapuram Coastal Plain
					Srikakulam	4.3.5.7	Tekkali-Palasa Coastal Plain
					Vizianagaram	4.3.7.5	Vizianagaram-Bhogapuram Coastal Plain
					Vishakhapatnam	4.3.7.5	Vishakhapatnam-Anakapalle Coastal Plain
					Srikakulam	4.3.7.6	Srikakulam Coastal Plain