



CENSUS OF INDIA

**REGIONAL
DIVISIONS OF INDIA
-A CARTOGRAPHIC ANALYSIS**

OCCASIONAL PAPERS

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Planning & Supervision
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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).

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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?

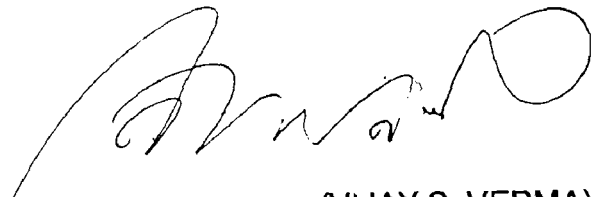
As in most areas of human endeavour, no one can hope either for totally foolproof delineation or immediate and whole hog adoption thereof for purposes of administration and development planning. And yet, all such exercises, should, I think, be welcome as contributive to the filling out of the complex 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

CONTENTS

	Page
Foreword	iii
Preface	v
PART I	
Regional Divisions of India—A Cartographic Analysis—General Note	3-6
Brief Characteristics of Regional Divisions	7-13
Statement on Physio-Geographic Regions of India (Regional Divisions)	17-24
PART II	
Regional Divisions of Delhi	27-32
GENERAL MAPS	
Position of Delhi in India, 1981	35
Administrative Divisions, 1981	36
Relief and Drainage	37
Normal Monthly and Annual Rainfall	38
Monthly Temperature	39
Geology	40
Soils	41
Distribution of Population, 1981	42
Density of Population, 1981 (By Administrative Units)	43
Density of Population, 1981 (By Sub-micro Regions)	44
PART III	
REGIONAL DIVISIONS OF DISTRICTS	
(i) Regional Divisions of Delhi	47-48
(ii) Data on Regional Divisions of Delhi	51-52
(iii) Region-wise village codes of Delhi, 1981	53-54
(iv) Statement on Region-wise Physio-cultural details of Delhi	55-58
APPENDIX	61-63

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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 Km², extending between latitudes 8° 4'28" and 37° 17'53" North and longitudes 68° 7'53" and 97° 24'47" East and having a great range 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 constituent 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 land use 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 highland 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-micro 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 been

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, list 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 further 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 (Podsollic) 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 'Duar' areas of West Bengal and Arunachal Pradesh. The Darjiling section of the Himalayan zone rises abruptly from 'Duar' plains 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 - Vindhyan 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. Forests 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 Sahyadri (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.

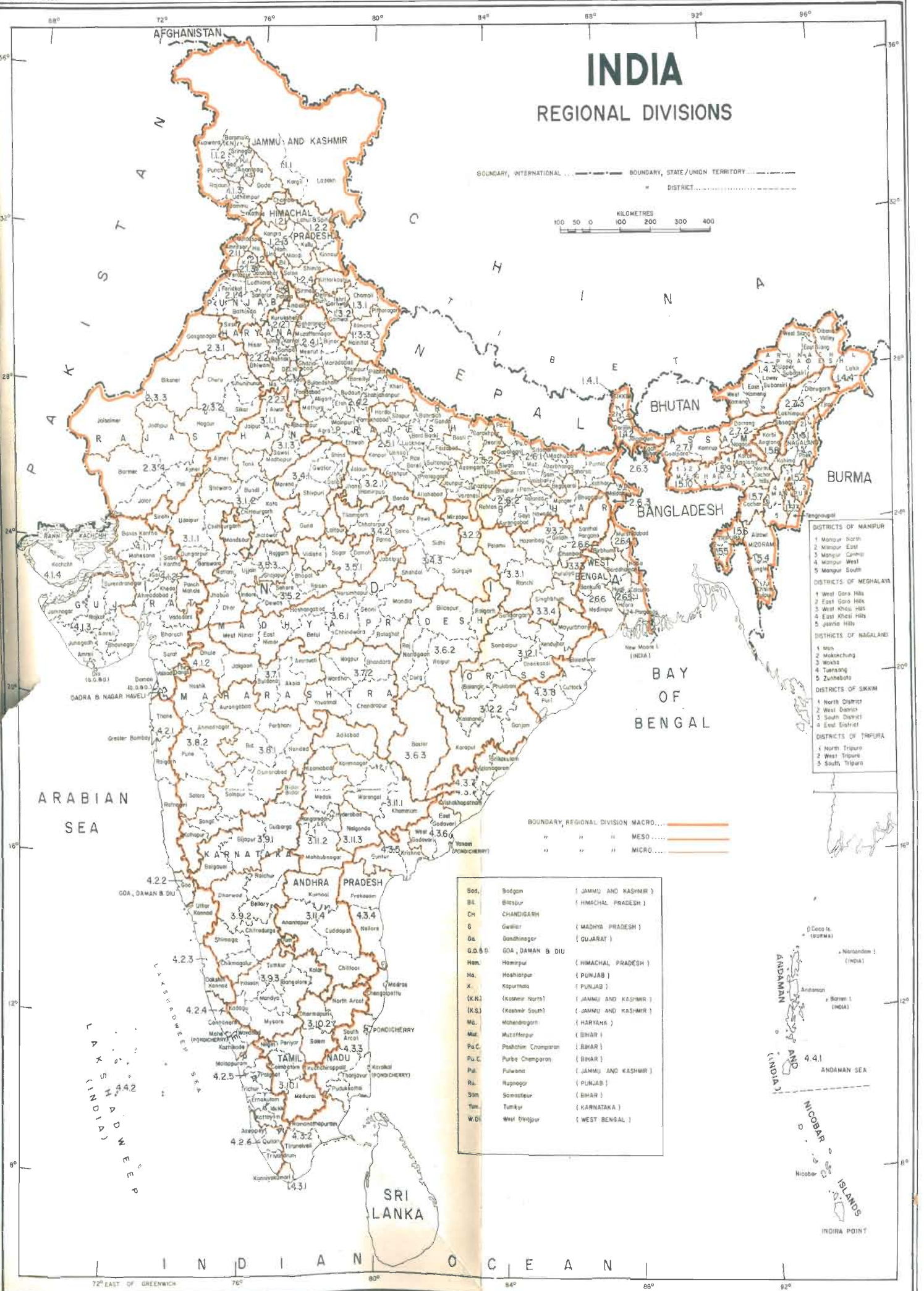
These two present a particular geographical environment, ecology and culture zone of India.

INDIA

REGIONAL DIVISIONS

BOUNDARY, INTERNATIONAL BOUNDARY, STATE/UNION TERRITORY
DISTRICT

100 50 0 100 200 300 400
KILOMETRES



- DISTRICTS OF MANIPUR**
1. Manipur North
 2. Manipur East
 3. Manipur Central
 4. Manipur West
 5. Manipur South
- DISTRICTS OF MIZORAM**
1. West Gorkh Hills
 2. East Gorkh Hills
 3. West Khasi Hills
 4. East Khasi Hills
 5. Jaintia Hills
- DISTRICTS OF MEGHALAYA**
1. Myn
 2. Mokokchung
 3. Jowai
 4. Tura
 5. Zualkaret
- DISTRICTS OF NAGALAND**
1. Kohima
 2. Mokokchung
 3. Wokha
 4. Tura
 5. Zualkaret
- DISTRICTS OF SIKKIM**
1. North District
 2. West District
 3. South District
 4. East District
- DISTRICTS OF TRIPURA**
1. North Tripura
 2. West Tripura
 3. South Tripura

BOUNDARY, REGIONAL DIVISION MACRO
" " " MESO
" " " MICRO

Bd.	Bodgan	(JAMMU AND KASHMIR)
BE.	Bilaspur	(HIMACHAL PRADESH)
CH.	CHANDIGARH	
G.	Gwalior	(MADHYA PRADESH)
Ga.	Gandhinagar	(GUJARAT)
G.O.&D.	GOA, DAMAN & DIU	
Ham.	Hamirpur	(HIMACHAL PRADESH)
Ho.	Hoshiarpur	(PUNJAB)
K.	Kapurthala	(PUNJAB)
(K.N.)	(Kashmir North)	(JAMMU AND KASHMIR)
(K.S.)	(Kashmir South)	(JAMMU AND KASHMIR)
Ms.	Mohandragarh	(HARYANA)
Mat.	Muzaffargarh	(BIHAR)
Pa.C.	Patna Champaran	(BIHAR)
Pa.C.	Purbi Champaran	(BIHAR)
Pal.	Pulwama	(JAMMU AND KASHMIR)
RL.	Rajpootana	(PUNJAB)
San.	Sambhar	(BIHAR)
Sim.	Simla	(HARYANA)
Tmk.	Tumkur	(KARNATAKA)
W.D.	West Durgam	(WEST BENGAL)

Based upon Survey of India map with the permission of the Surveyor General of India. The horizontal wavy lines 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 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.
		1.2 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
	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, Uppar 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 & Chhimituipui	Mizoram
		1.5.5	Tripura Plain	South Tripura & West Tripura	Tripura
		1.5.6	Tripura Hills	North Tripura	Tripura
		1.5.7	Cachar Plains	Cachar	Assam
		1.5.8	Karbi Anglong & North Cachar Hills	Karbi Anglong & North Cachar-Hills	Meghalaya
		1.5.9	Eastern Meghalaya	West Khasi Hills, East Khasi Hills & Jaintia Hills	Maghalaya
		1.5.10	Western Meghalaya	West Garo Hills & East Garo Hills	Meghalaya

1	2	3	4	5
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 Sonapat.	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, Badaun, 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, Har-doi, 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, Katiahar, 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	Moriband Delta	Murshidabad and Nadia	West Bengal
		2.6.5	Proper Delta	Bardhaman, Calcutta, Hugli, Haora and Twentyfour Parganas	West Bengal
		2.6.6	Rath 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, Gwalior, 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, Mandasaur, 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 Highlands	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, Gandhinagar, 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	Great 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	Kanniyakumari Coast	Tamil Nadu
		4.3.2	Sandy Littoral	Ramanathapuram & Tirunelveli	Tamil Nadu
		4.3.3	Coromandel Coast	Chengalpattu, Madras, Thanjavur, Tiruchirapalli, 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 Islands
		4.4.2	Lakshadweep	Lakshadweep	Lakshadweep

PART II
REGIONAL DIVISIONS
OF
DELHI

REGIONAL DIVISIONS OF UNION TERRITORY OF DELHI

The Union Territory of Delhi occupies a nodal position on the sub-continent and has the honour of being the capital of India. Delhi as a Union Territory was constituted under the States re-organisation Act, 1956, and the constitution (Seventh Amendment) Act, 1956. The legislative assembly was abolished and the administration of Delhi Union Territory became a direct responsibility of President of India through an Administrator. It continued to be governed by a Chief Commissioner till a new Administrative set up for the Union Territory was contemplated in 1966. Under the provisions of the Delhi Administration Act, 1966, a Lt. Governor, a Metropolitan Council and an Executive Council have been provided for Delhi.

The name Delhi may be attributed to Raja Dhilu who ruled before the Christian era but the exact period of his reign is not definitely known. According to another and more reliable source, Delhi as a capital was found in 736 A.D. by Tomaras, a Rajput clan, who ruled over Haryana with 'Dhillika' as their capital. The name 'Delhi' might have been derived from 'Dhillika'.

The Union Territory of Delhi is a part of Southern Haryana Plain micro-region (2.2.3) falling under the Haryana Plain meso region. It lies approximately between $28^{\circ}25'$ and $28^{\circ}53'$ North latitudes and $76^{\circ}50'$ and $77^{\circ}22'$ East longitudes and has a mean elevation of 215 metres above the sea level. It is surrounded by Haryana State on three sides-north, south and west, while in the east it is bounded by Uttar Pradesh. The total area of the Union Territory is 1483.0 km^2 . As per the 1981 Census it has a population of 6,220,406 with 3,440,081 males and 2,780,325 females. The population of Delhi at the time of 1971 Census was 4,065,698. It has, therefore, recorded an increase of 53.00 per cent during the last decade.

Physiographically, Delhi Union Territory is characterised by Piedmont Plain, Old Flood Plain,

Yamuna Khadar and the Aravalli Ridge. The physiogeographic conditions of the territory are mainly influenced by river Yamuna and Aravalli range.

The southern part is generally rugged while on the eastern part low lying areas created by Yamuna get flooded during rainy season.

The general slope of Delhi Union Territory is from west to east. In trans-Yamuna area while the slope is from north to south, it is from east to west in the southern part of the territory. One of the important physical features of the area is the ridge, the last spur thrown out by the Aravalli towards the plains of the northern India. The ridge almost reaches near the bank of Yamuna river at Wazirabad village, then runs parallel to the river encircling the walled city and extends towards the western part of New Delhi. It runs further towards the Qutab and Mehrauli where it throws out numerous branches, some of which extend towards Gurgaon district and others push eastward again towards the Yamuna. One of the highest spurs supports the Tughlakabad Fort.

The ridge runs in south western direction with its surface gradually rising from the Mutiny Memorial on the ridge. After some discontinuity it reappears near Sadar Bazar. Near Munirka it has two branches, one extending in the south-west direction towards Gurgaon and other passes through Mehrauli.

The southern part near Mehrauli and Tughlakabad is called Kohi (hilly), the low lying land along the river is called Khadar and the tract lying to the north of the ridge and west of Grand Trunk Road, which separates it from the Khadar is a level plain known as Bangar. The rain water in Bangar is drained by Najafgarh drain and West Mungashpur drain. Western Yamuna canal irrigates the north western parts of the Union Territory.

Over most part of the territory, the water table is high. It is, however, low in the areas adjacent to the Aravalli outcrops. The water table in east and north east of Mehrauli, ranges from 10-20 metres below ground level.

The rocks in Delhi belong to the Middle Proterozoic and Recent times and are of the Alwar series of the Delhi system. Except the areas around Mehrauli and Tughlakabad belonging to Aravallies, most part of Delhi territory has alluvium deposits of recent formation. In summer these Aravalli hills are barren due to lack of water but in rainy season thorny bushes grow. The ridge is prolongation of Alwar series and is formed of hard quartzite which is resistant to erosion. In addition to Delhi quartzite, in some parts thick pegmatites of white Kaolinised feldspar, biotite and little quartz with scanty tourmaline also occur. The areas with abundance of Delhi quartzite and alluvium are marked on the geological map.

The Delhi Union Territory can be divided into following five major categories according to traditional soil classification and are depicted on the soil map of the territory.

1. Sandy loam
2. Calcareous, silty clay loam (fine loamy)
3. Mixed calcareous, silty, clay and sandy loam (coarse to fine loamy)
4. Sand, silt and calcareous (coarse loamy)
5. Rocky Aravalli ridge and dissected land

According to the latest soil map prepared by ICAR Delhi falls into two sub-order association of soils viz; *Aquents-Fluvents* and *Ochrepts*. These have been shown by an inset on the map. The soils of Delhi Union Territory are generally of medium fertility. The soil formation has been influenced by river Yamuna, the ridge and the winds from the south western direction. Clay content-generally varies from place to place and salinity is a great problem in the soils of the Union Territory. The structure is mainly grained or weakly developed

granular. These are sandy loam in texture becoming slightly heavier with depth. The southern part of Delhi Union Territory is formed of quartzite or sand stone and the alluvium brought by small streams.

The climate of Delhi Union Territory is mainly influenced by its inland position and continental air prevailing over most part of the year. The climate of Delhi can be divided into four seasons. The cold season starts in late November and extends to March. This is followed by hot season which lasts till June. The monsoon continues upto the end of September. Rest is transition season. Mean daily temperature varies from minimum of 7.3^oc in the month of January (winter) to 40.5^oc in May (summer). Winds are generally light during the post-monsoon and winter months. They are stronger during the summer. Except during the monsoon months winds are predominantly from westerly or north-westerly direction and tend to be more northerly in the afternoons. Easterly and south-easterly winds are more common in the monsoon months. Annual average rainfall is 660 mm. About 75 per cent of the total rainfall occurs during monsoons. Rainfall increases from south west to north east and isolated squalls also take place. The isohyet of 600 mm surrounds Yamuna Khadar in the eastern part while the western part shows the isohyet of 300 mm.

Being the capital, the Union Territory of Delhi is densely populated. It has a density of 4194 persons per km² as per 1981 census, which is the highest amongst all the States and Union Territories of India. Within the Union Territory, great variations in the density of population can be marked.

The share of rural population is less than one tenth of the total with the continuous shifting of the ratio in favour of urban population. In 1901 it had almost equal distribution. In 1971 the share of urban population was 89.70 per cent which rose to 92.73 per cent in 1981.

As per the 1981 Census the sex ratio of Delhi Union Territory is 808 females per thousand males, as against 933 for the country as a whole. The most striking characteristic of the population of the Union Territory of Delhi is the predominance of in-

migrants. Only 54.65 per cent are born in Delhi and rest have their birth places elsewhere in the country. At the time of partition of the country in 1947, Delhi attracted gigantic and un-precedented mass migration of displaced persons.

The principal communities living in the territory are Hindus, Muslims and Sikhs. Their proportion to total population of Delhi Union Territory is 83.60, 7.75 and 6.33 per cent respectively, as per religion of the head of the households at the time of 1981 Census.

According to the notified list of scheduled castes, 36 castes are recognised as scheduled castes for the Union Territory of Delhi. The total strength of scheduled castes in Delhi Union Territory is 1,121,643 which is 18.03 per cent of total population. The proportion of scheduled caste population living in rural and urban areas is 9.27 per cent and 90.73 per cent respectively. Amongst all the States and Union Territories of India, Delhi has the largest proportion of scheduled caste population living in urban areas.

As per the 1981 Census the literacy rate of Delhi Union Territory is 61.54 per cent; 47.56 per cent for rural areas and 62.64 per cent for urban areas. The literacy rate for males is 68.40 per cent as against 53.07 per cent for females.

The proportion of total workers to total population in Delhi Union Territory is 32.19 per cent (31.93 per cent main workers and 0.26 per cent marginal workers). The proportion of male main workers to total male population is 52.47 per cent (0.94 per cent cultivators, 0.40 per cent agricultural labourers, 0.88 per cent household industry workers and 50.25 per cent other workers). The proportion of female main workers to total female population works out to be 6.52 per cent (0.09 per cent cultivators, 0.08 per cent agricultural labourers, 0.11

per cent household industry workers and 6.24 per cent other workers).

Economy of the Delhi Union Territory is mostly trade, industry and services oriented. Manufacturing, public administration and trade account for the bulk of the total income of Delhi Union Territory. Agricultural sector is not very important due to fast urbanisation process which is progressively reducing the share of cultivated land. However, the main crops grown over this limited cultivated land are; wheat, bazra, jowar, gram, rice and also the vegetables. River Yamuna is the main source of irrigation through its canal system. Tubewells, well and lift irrigation are some of the other sources of irrigation. Most prominent occupation is administration services, followed by industrial employment and self-employment in trade & commerce. Thus economically, Delhi performs three functions viz; Central administration of the country, servicing, commerce and trade. The Union Territory of Delhi is a dry port handling all imports and exports of northern and central zone and it is a centre for manufacture and distribution of variety of consumer and industrial goods. The per capita income in 1985-86 at current prices (Base 1970) of Delhi is Rs. 5315 (represents provisional figure of per capita income), which is the highest as compared to other States/Union Territories. It is more than double of the per capita current income of the country as a whole in 1985-86 at current prices (Base 1970) which is Rs. 2596 (represents provisional figures of per capita income).

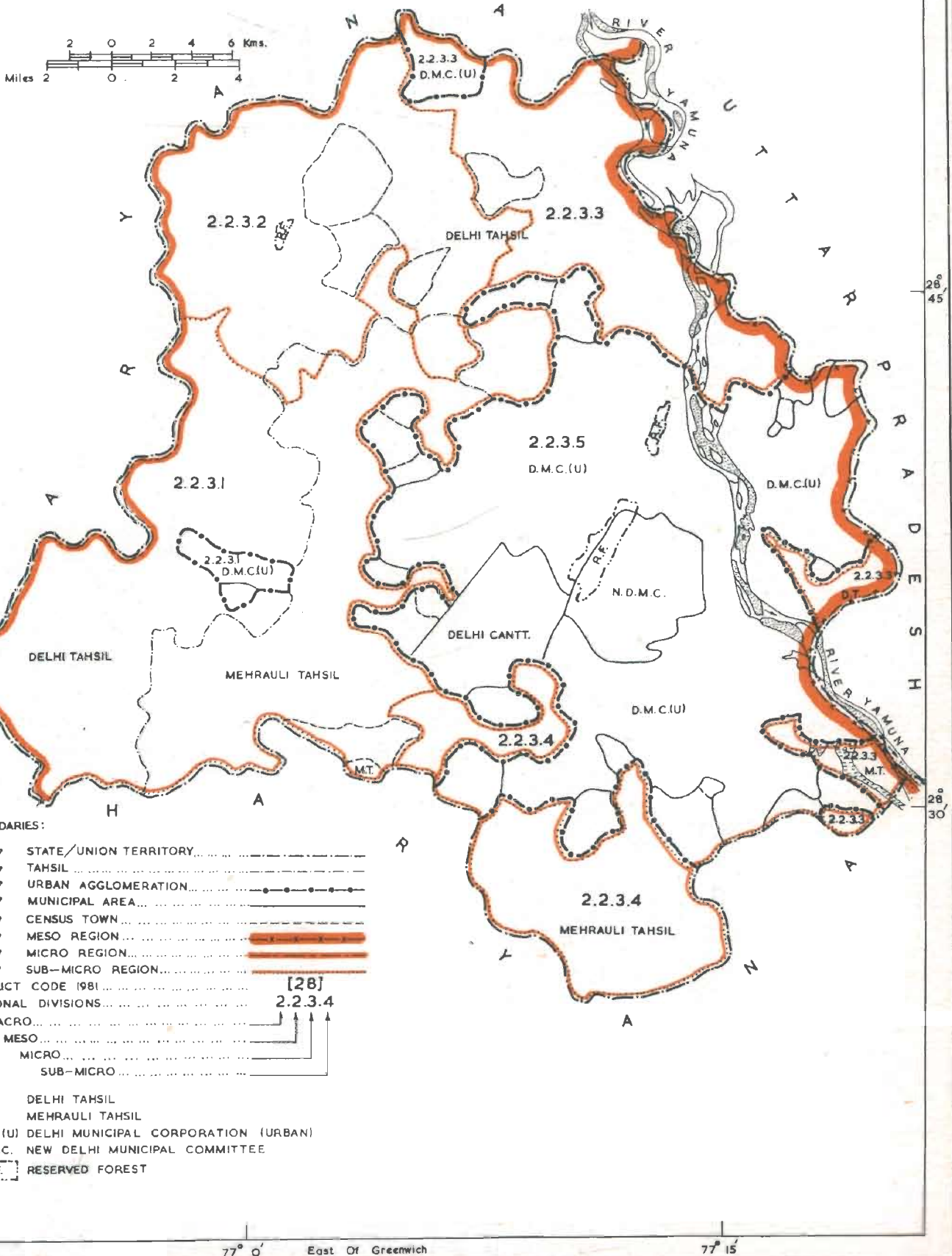
Within the broad frame of regions as delineated at district level micro region, viz., (2.2.3) Southern Haryana Plain, the entire union territory has been further divided into five sub-micro regions presented at the end. Further details of these sub-micro regions are given in part III of this volume. These regions may serve a step further in planning process of the union territory of Delhi for integrating in the multi level development programmes.

2.2 Haryana Plain

Micro Region with Code No.	District with Code No.	Sub-micro Region with Code No. (Fourth Tier Regions)
2.2.3 Southern Haryana Plain	Delhi (U.T.) 28	2.2.3.1 Najafgarh plain 2.2.3.2 Bawana Alluvial Plain 2.2.3.3 Yamuna Khadar 2.2.3.4 Aravalli Rock Outcrops 2.2.3.5 Delhi Urban

DELHI

CENSUS CODE 28
REGIONAL DIVISIONS



BOUNDARIES:

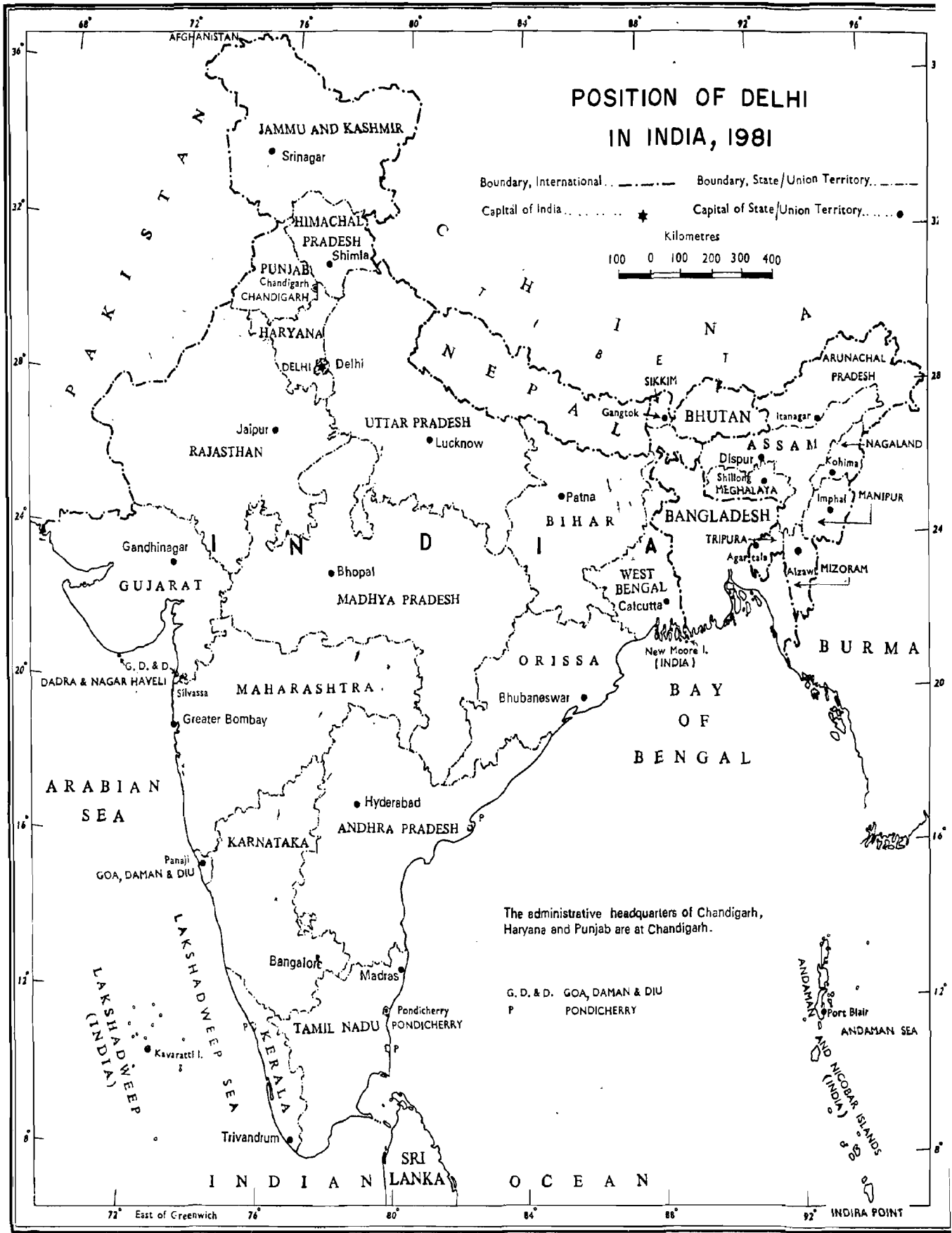
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- ” TAHSIL.....
- ” URBAN AGGLOMERATION.....
- ” MUNICIPAL AREA.....
- ” CENSUS TOWN.....
- ” MESO REGION.....
- ” MICRO REGION.....
- ” SUB-MICRO REGION.....

DISTRICT CODE (1981)..... [28]
 REGIONAL DIVISIONS..... 2.2.3.4
 MACRO.....
 MESO.....
 MICRO.....
 SUB-MICRO.....

D.T. DELHI TAHSIL
 M.T. MEHRAULI TAHSIL
 D.M.C.(U) DELHI MUNICIPAL CORPORATION (URBAN)
 N.D.M.C. NEW DELHI MUNICIPAL COMMITTEE
 R.F. RESERVED FOREST

Macro Region with Code No.	Meso Region with Code No.	Micro Region with Code No.	District	Sub-Micro Regions with Code No. (Fourth Tier Regions)	Constituents Villages/ Towns	Area in Km ²			Population (1981 Census)		
						Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11	12
2. The Great Plains	2.2 Haryana Plain	2.2.3 Southern Haryana Plain	Delhi	2.2.3.1 Najafgarh Plain	100 Villages 2 Census Towns + Part of DMC(U)	421.3	398.4	22.9	229104	199320	29784
				2.2.3.2 Bawana Alluvial Plain	37 Villages 3 Census Towns	214.2	182.6	31.6	117877	93084	24793
				2.2.3.3 Yamuna Khadar	70 Villages 1 Census Town + Part of DMC(U)	192.3	170.1	22.2	127486	95311	32175
				2.2.3.4 Aravalli Rock Outcrops	24 Villages	128.3	128.3	--	64491	64491	--
				2.2.3.5 Delhi Urban	3 Towns, 21 Census Towns	515.2	--	515.2	5681448	--	5681448

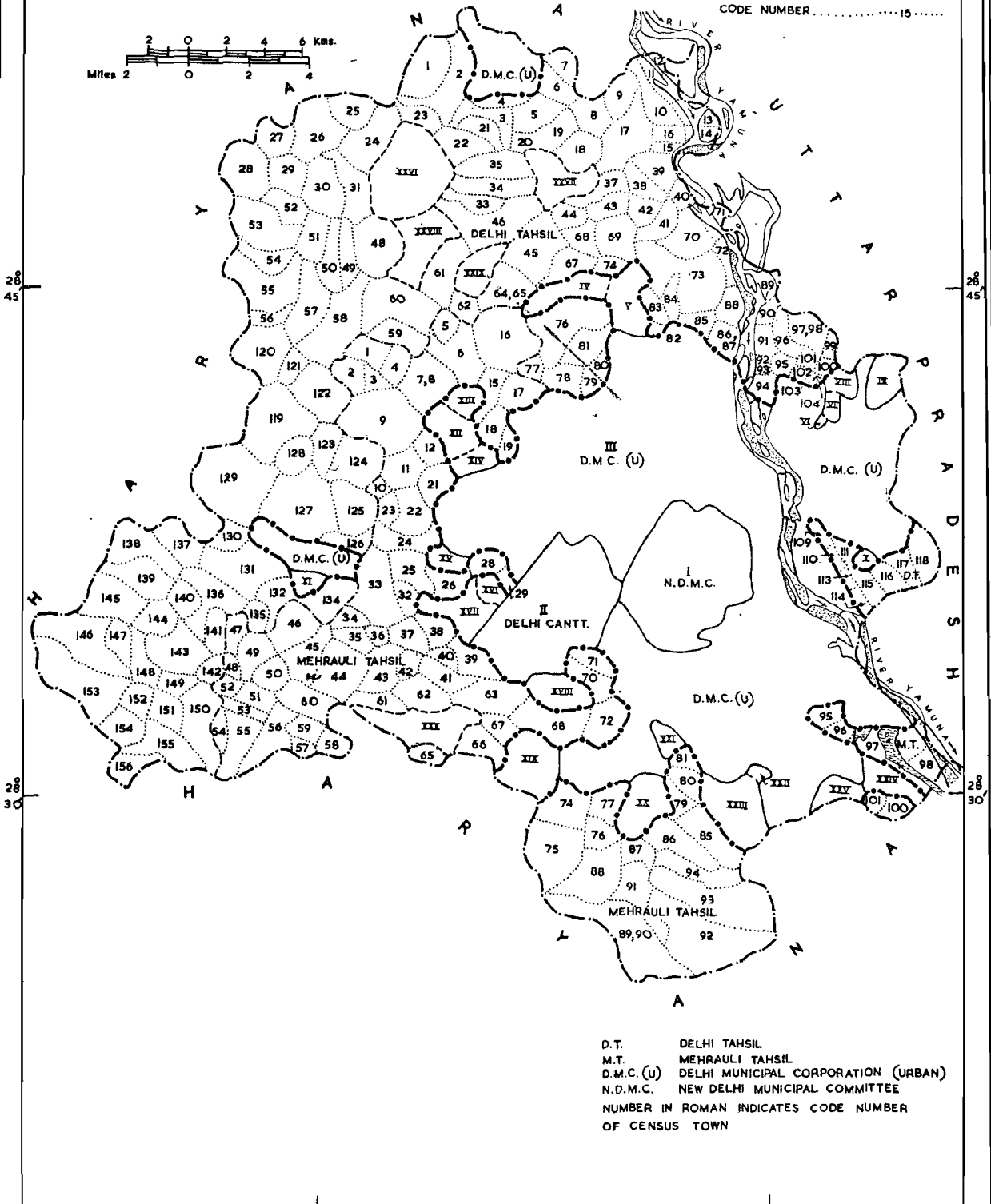
GENERAL MAPS



DELHI



ADMINISTRATIVE DIVISIONS 1981

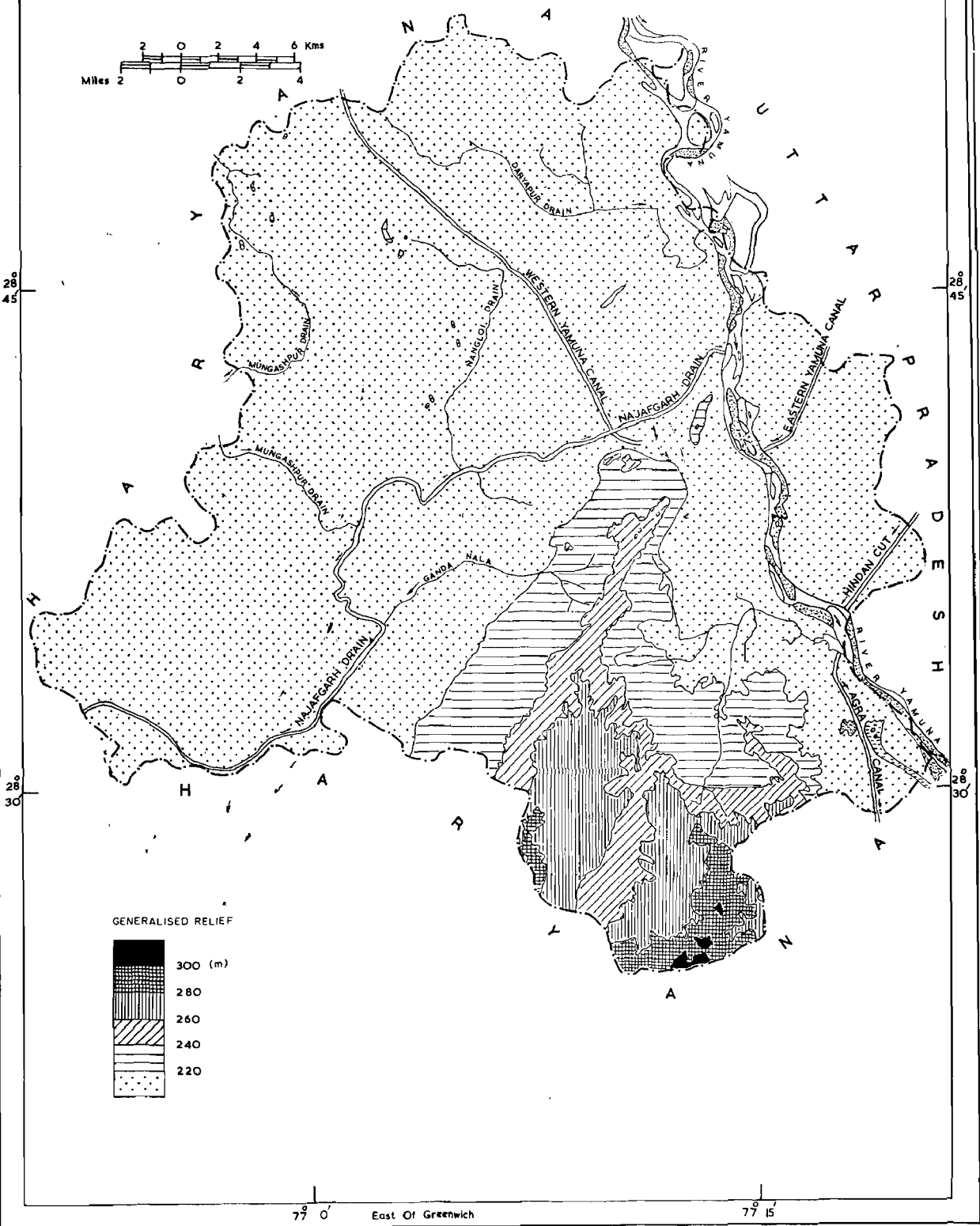
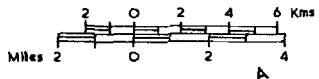
BOUNDARIES:
 STATE/UNION TERRITORY - - - - -
 TAHSIL - - - - -
 URBAN AGGLOMERATION - - - - -
 MUNICIPAL AREA - - - - -
 CENSUS TOWN - - - - -
 VILLAGE WITH LOCATION - - - - -
 CODE NUMBER - - - - -15 - - - - -

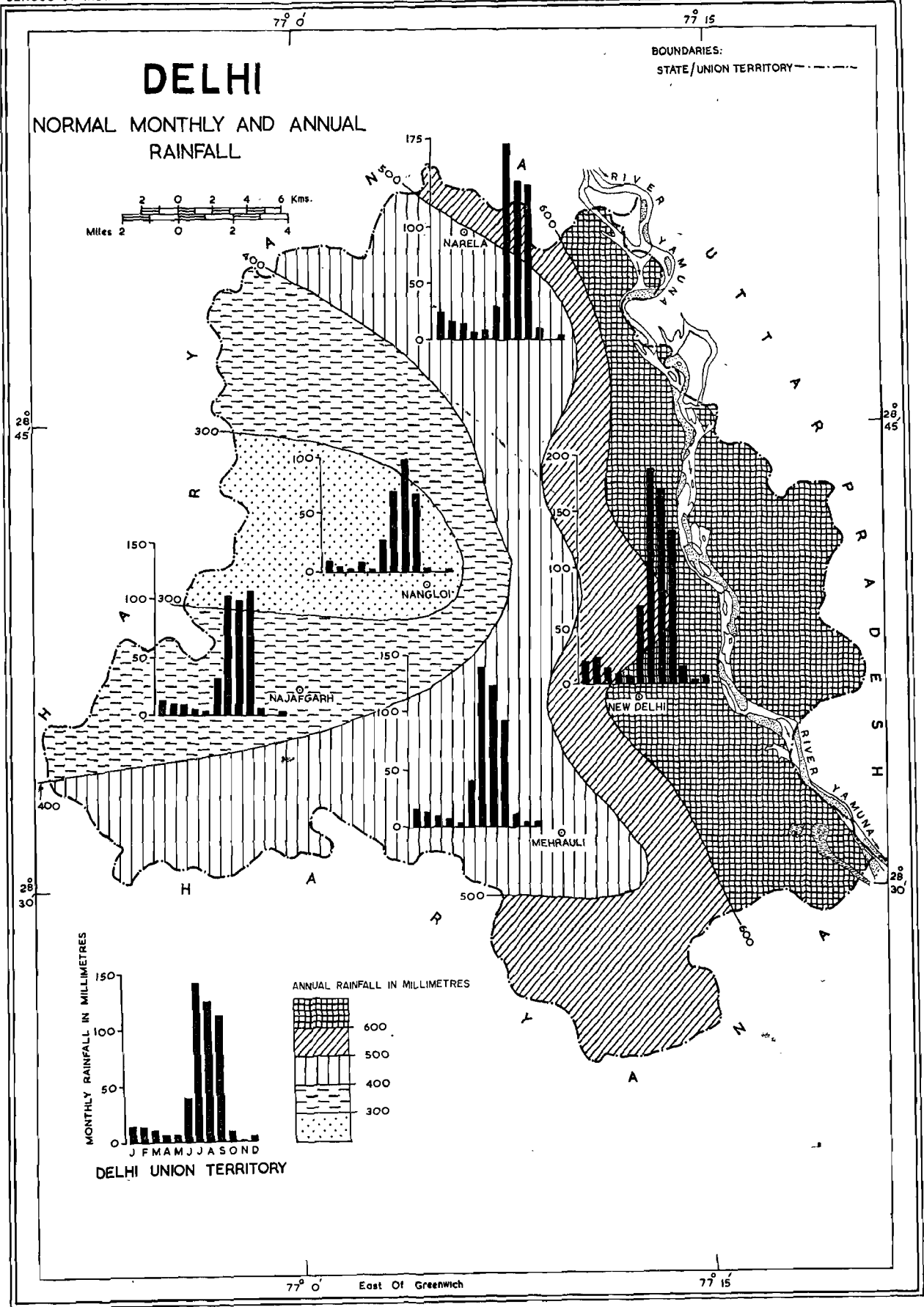


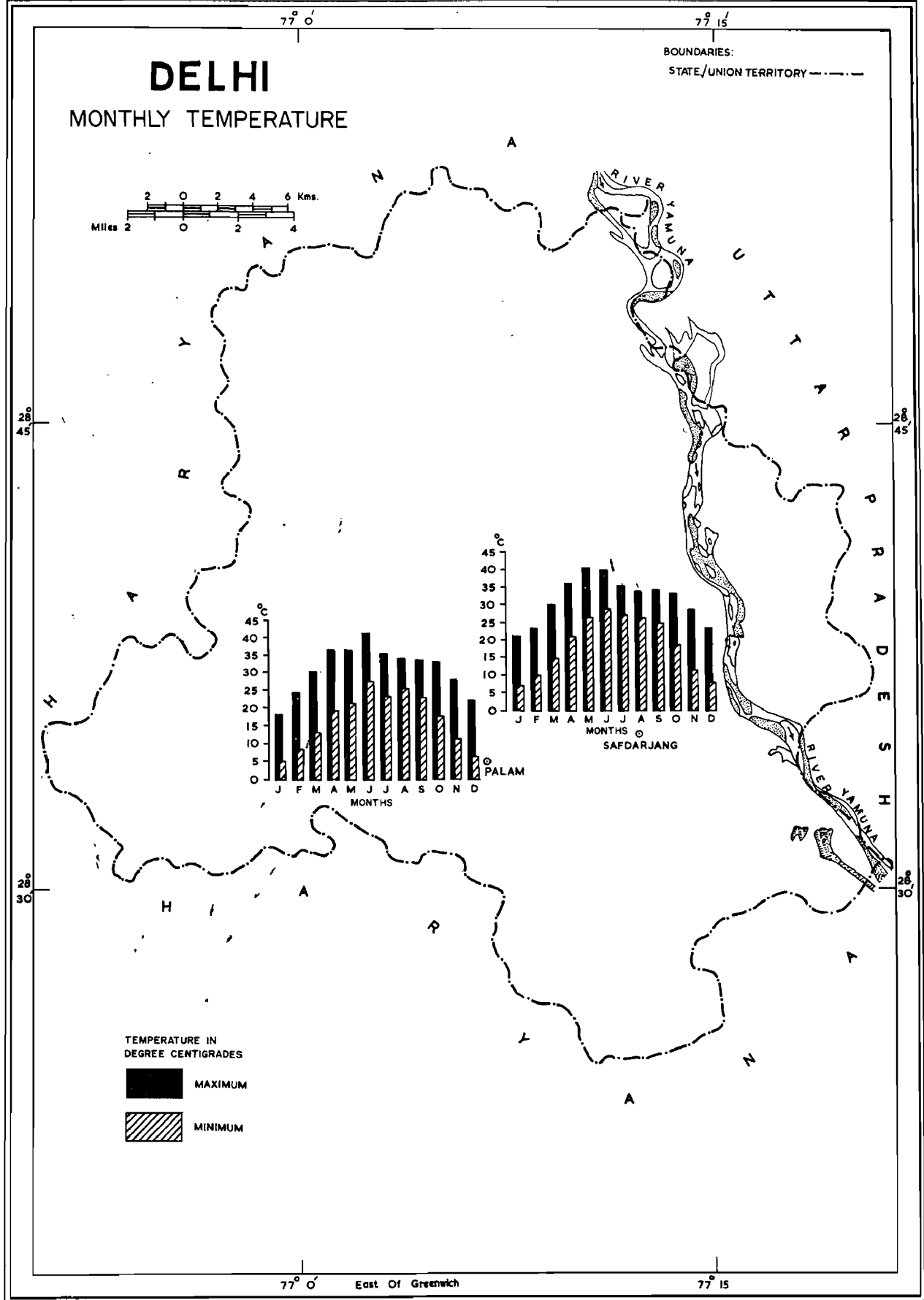
DELHI

RELIEF AND DRAINAGE

BOUNDARIES
 STATE/UNION TERRITORY 
 CANAL/DRAIN 



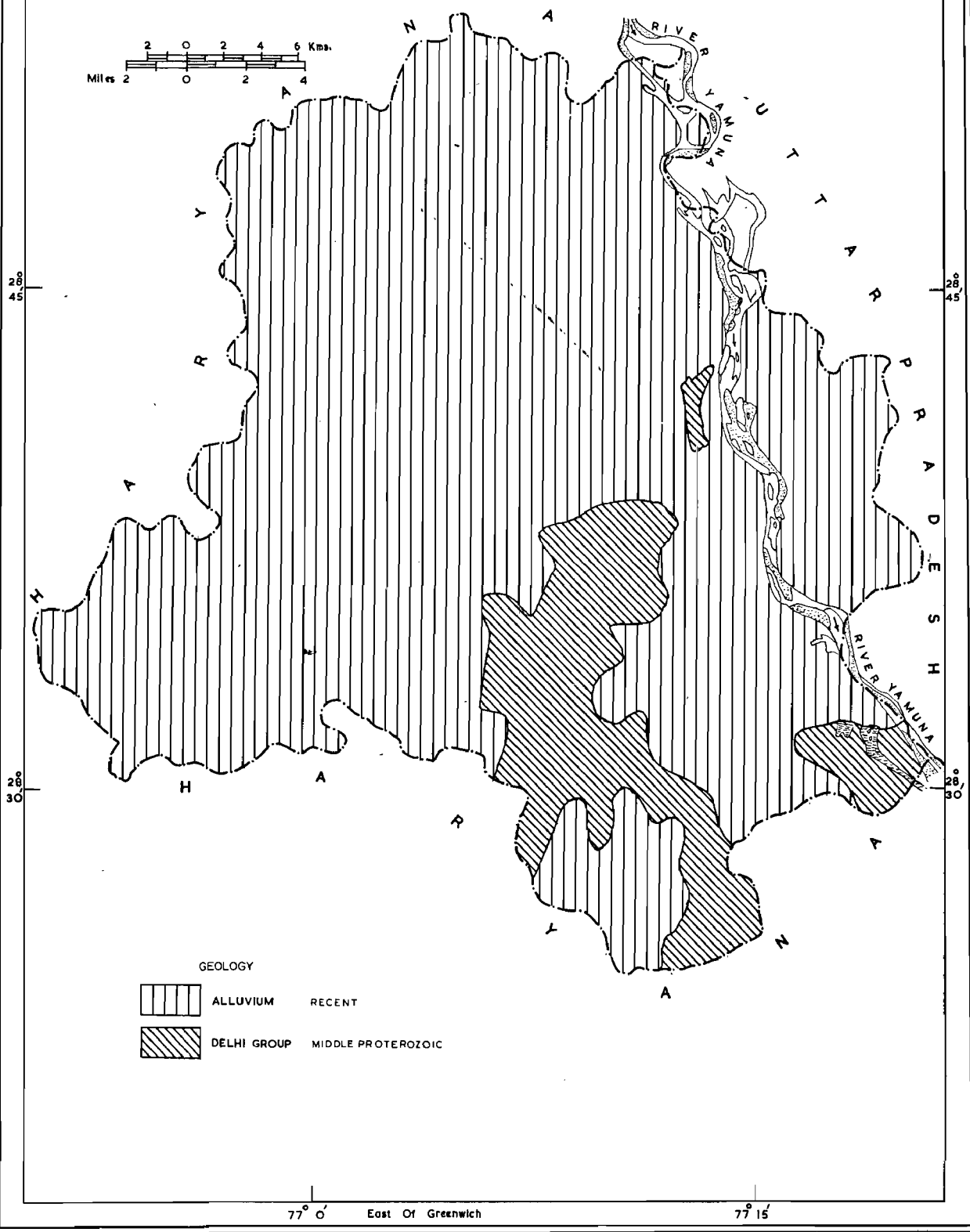
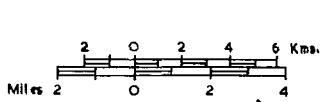






DELHI

GEOLOGY

BOUNDARIES:
STATE / UNION TERRITORY



GEOLOGY

-  ALLUVIUM RECENT
-  DELHI GROUP MIDDLE PROTEROZOIC

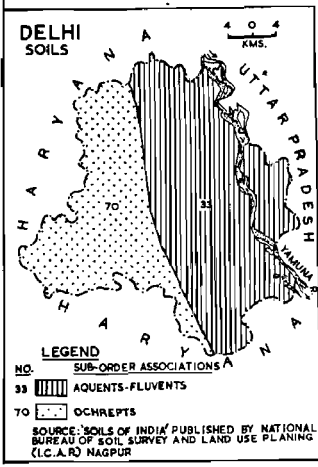
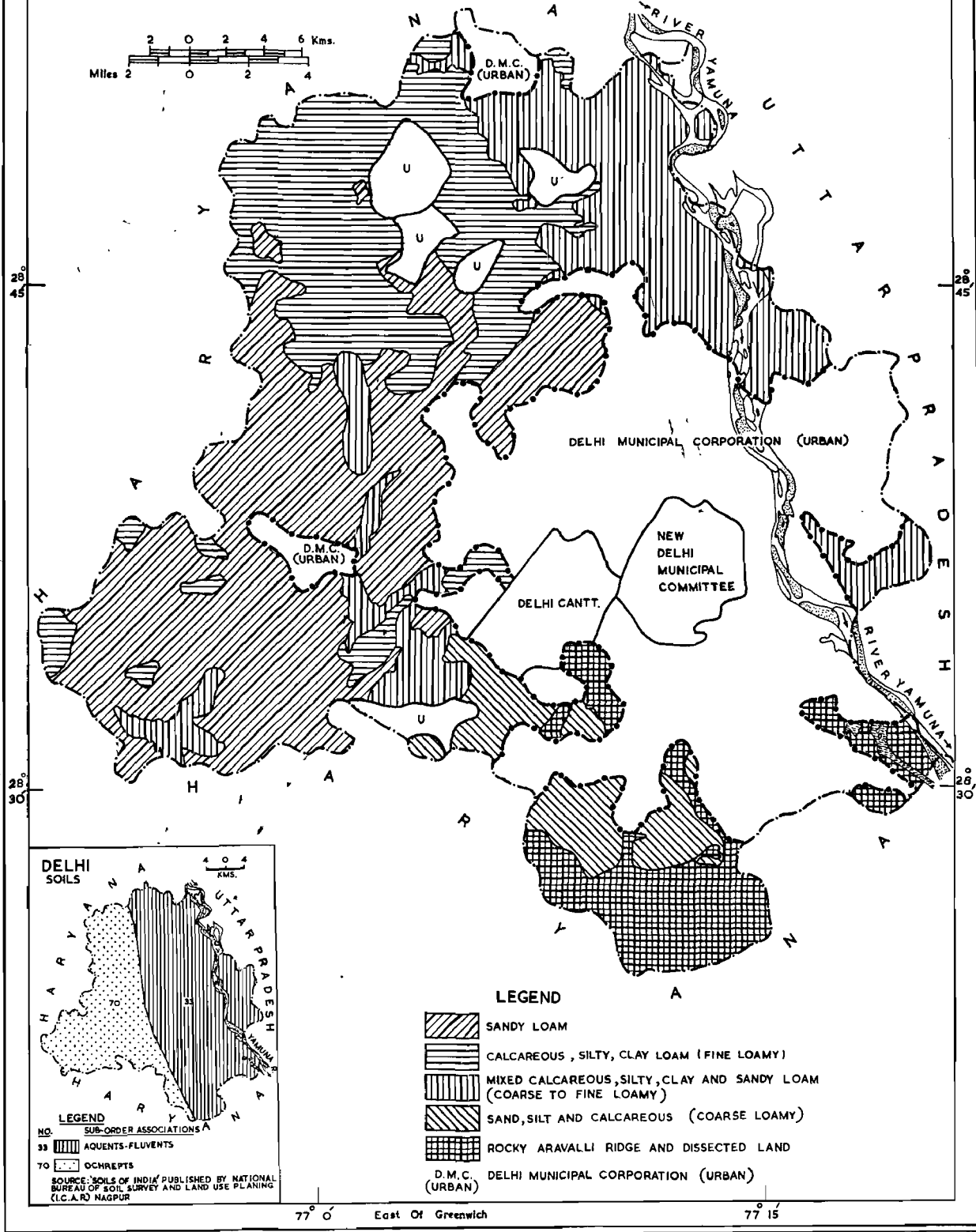
77° 0' East Of Greenwich

77° 15'

DELHI

SOILS

BOUNDARIES:
 STATE/UNION TERRITORY ———
 URBAN AREA ———
 URBAN AGGLOMERATION - - - - -
 SOIL ———
 U URBAN AREA

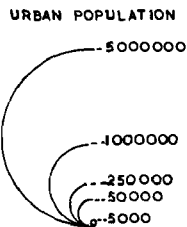
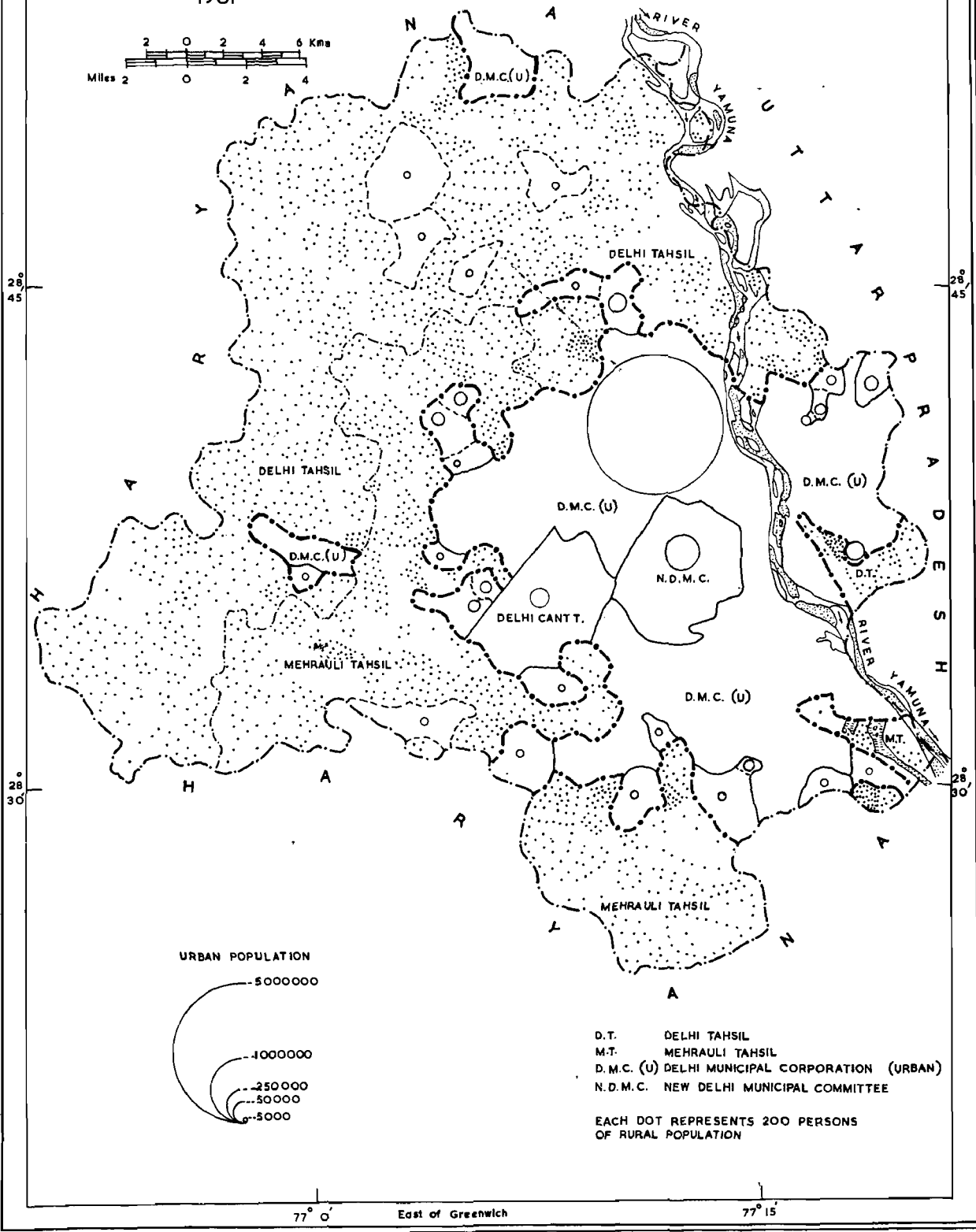
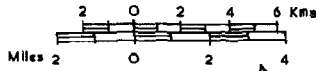


- LEGEND**
- SANDY LOAM
 - CALCAREOUS, SILTY, CLAY LOAM (FINE LOAMY)
 - MIXED CALCAREOUS, SILTY, CLAY AND SANDY LOAM (COARSE TO FINE LOAMY)
 - SAND, SILT AND CALCAREOUS (COARSE LOAMY)
 - ROCKY ARAVALLI RIDGE AND DISSECTED LAND
 - D.M.C. (URBAN)

DELHI

DISTRIBUTION OF POPULATION 1981

BOUNDARIES:
 STATE/UNION TERRITORY
 TAHSIL
 URBAN AGGLOMERATION
 MUNICIPAL AREA
 CENSUS TOWN



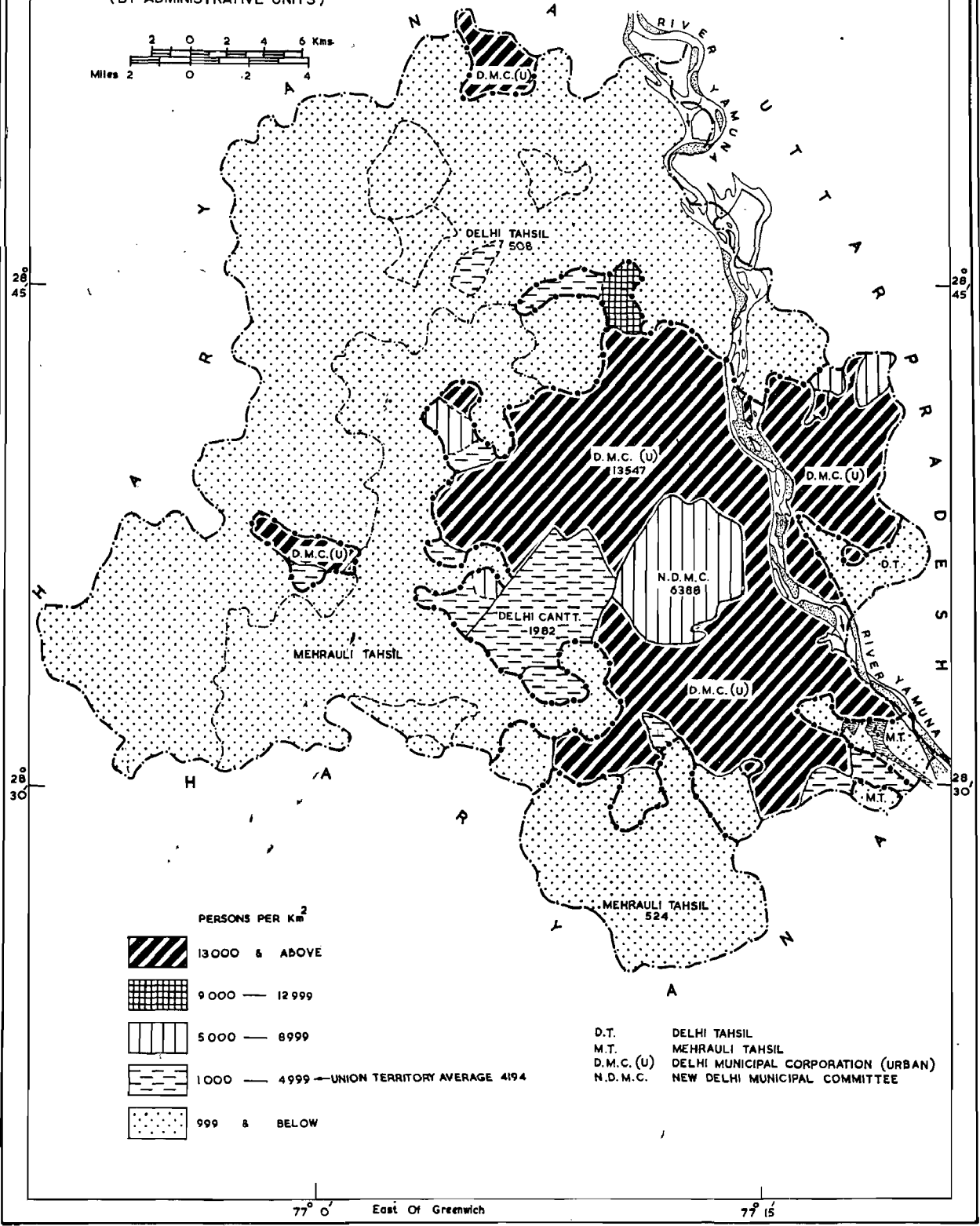
D.T. DELHI TAHSIL
 M.T. MEHRAULI TAHSIL
 D.M.C. (U) DELHI MUNICIPAL CORPORATION (URBAN)
 N.D.M.C. NEW DELHI MUNICIPAL COMMITTEE

EACH DOT REPRESENTS 200 PERSONS
 OF RURAL POPULATION

DELHI

DENSITY OF POPULATION 1981
(BY ADMINISTRATIVE UNITS)

BOUNDARIES:
STATE/UNION TERRITORY ———
TAHSIL ———
URBAN AGGLOMERATION —●—●—
MUNICIPAL AREA ———
CENSUS TOWN ———

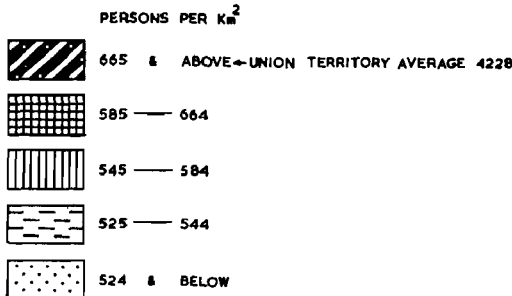
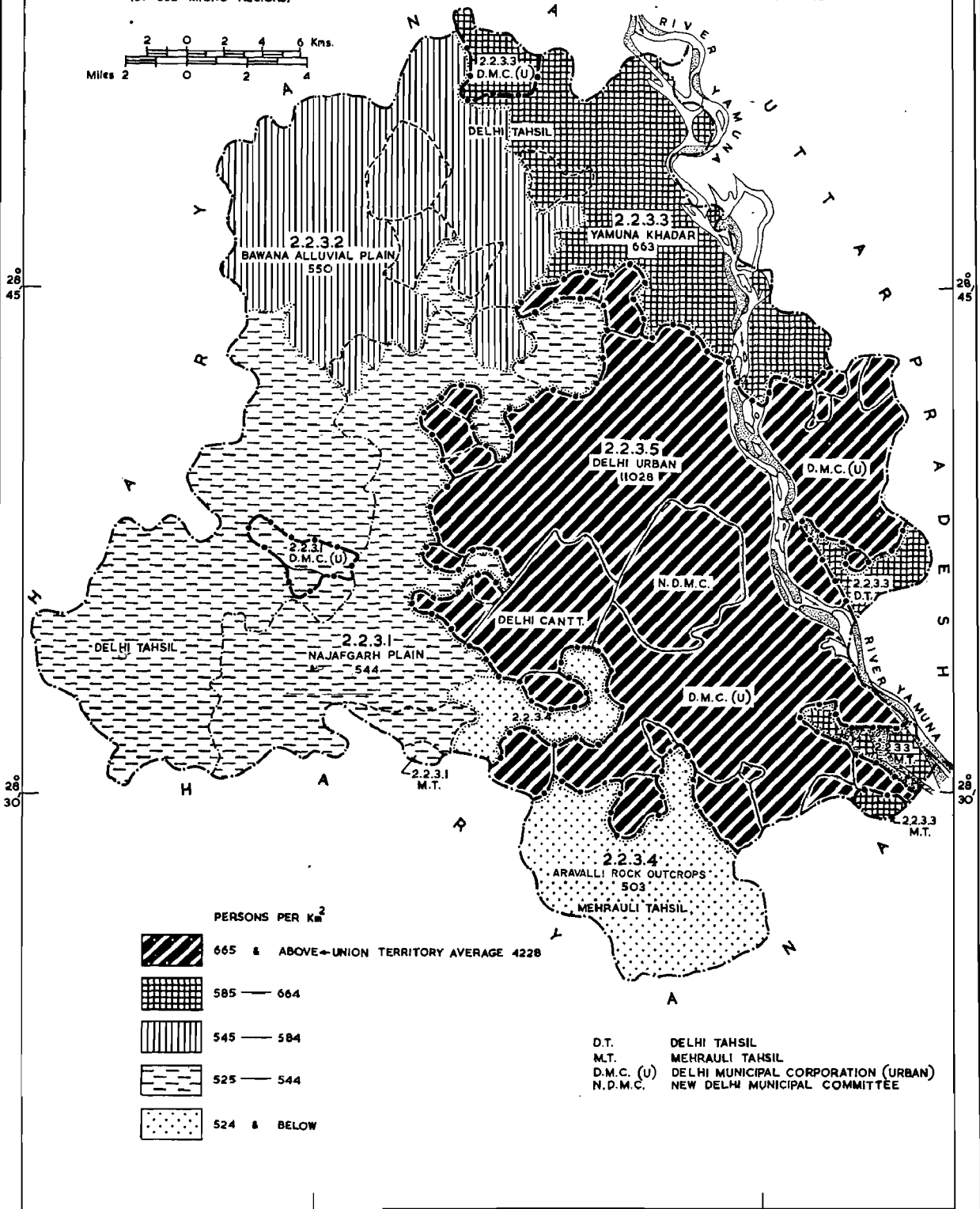


DELHI

DENSITY OF POPULATION 1981 (BY SUB-MICRO REGIONS)



- BOUNDARIES:**
- STATE/UNION TERRITORY ————
 - TAHSIL ————
 - URBAN AGGLOMERATION ————
 - MUNICIPAL AREA ————
 - CENSUS TOWN ————
 - SUB-MICRO REGION ————



- D.T. DELHI TAHSIL
- M.T. MEHRAULI TAHSIL
- D.M.C. (U) DELHI MUNICIPAL CORPORATION (URBAN)
- N.D.M.C. NEW DELHI MUNICIPAL COMMITTEE

PART III

**REGIONAL DIVISIONS
OF
DISTRICTS**

DISTRICT DELHI

REGIONAL DIVISIONS

The Union Territory of Delhi falls in the micro region Southern Haryana Plain (2.2.3). It is a uni-district territory and is divided into following five sub-micro regions on the basis of geology, soil, topography, climate, natural vegetation and the present land use.

2.2.3.1 Najafgarh Plain

The region occupies the larger parts of Delhi and Mehrauli tahsils consisting of 100 villages and some parts of Najafgarh (part of D.M.C. (U)), Roshanpura alias Dichaon Khurd and Bijwasan. Its area is 421.3 km² which is inhabited by 2,29,104 persons of which 1,99,320 reside in rural and 29,784 in urban areas accounting for a density of 544 persons per km². Its geology is Alluvium and soils are sandy loam, mixed, calcareous, silty, clay and sandy loam (coarse to fine loam). Generally the soils are sandy loam in texture becoming slightly heavier with depth and becoming lighter from east to west. Najafgarh plain region is an old flood plain.

2.2.3.2 Bawana Alluvial Plain

The region extends over the north-western parts of the Union Territory occupying 34 villages of Delhi Tahsil and 3 villages of Mehrauli Tahsil. Bawana, Pooth Khurd and Pehladpur Bangar are the Census towns of this region. The geology of the region is alluvium. The region is an old flood plain of Yamuna river which lies between the Yamuna Khadar and the Najafgarh plain. The water table is comparatively lower. It is characterised by patches of saline efflorescence which are the result of the composition of the alluvium and the gentle slope of the land. The western Yamuna canal which traverses the Bawana Alluvial plain, provides irrigation facility to this tract. Its area is 214.2 km² where 1,17,877 persons are residing, of which 93,084 persons are in rural and 24,793 persons in

urban areas. The region has a density of 550 persons per km².

2.2.3.3 Yamuna Khadar

The region extends over the district in its north eastern side along Yamuna river which includes 70 villages alongwith Alipur Census town and Narela (Part of DMC (U)). The area of this region is 192.3 km² which is inhabited by 1,27,486 persons of which 95,311 persons reside in rural and 32,175 persons in urban areas. The density of the region is 663 persons per km². Its geology is alluvium. The region is a flood plain with recent river deposits. The soils of the region are coarse to fine loamy i.e. calcareous, silt, clay and loam in the profile depth. The water table is high, facilitating irrigation from wells. In general, soils are fertile and with good management practices, high yield of crops can be obtained.

2.2.3.4 Aravalli Rock Outcrops

The region extends over the southern parts in Mehrauli Tahsil. The region is predominantly rocky with undulating relief and slopes of various steepness. It is the culminating spur of the Aravalli Range. The region is fairly dissected. Apart from the main branch of the Aravalli, there are number of flanking spurs which add to the complexity of the landscape in this region. It contains 24 villages of Mehrauli Tahsil with an area of 128.3 km² and is inhabited by 64,491 persons. It has a density of 503 persons per km². The geology of this region is of Delhi group of rocks which belongs to the Middle Proterozoic age. Alluvium areas are also present in this region. Soils of the region are shallow to moderately deep with strong brown colour. The soils are modified to some extent by the Aeolian deposits. The texture of soils varies from sandy loam to loam. Due to uneven topography the soils

are subjected to erosion and at various points deep gullies are formed. Irrigation is a great problem as the water table is low.

2.2.3.5 Delhi Urban

The region extends over the district in its central and eastern sides along Yamuna river. The general slope of Delhi Urban region is from south-west to north-east. Major part of this region comes under alluvium. The region is considerably wider and

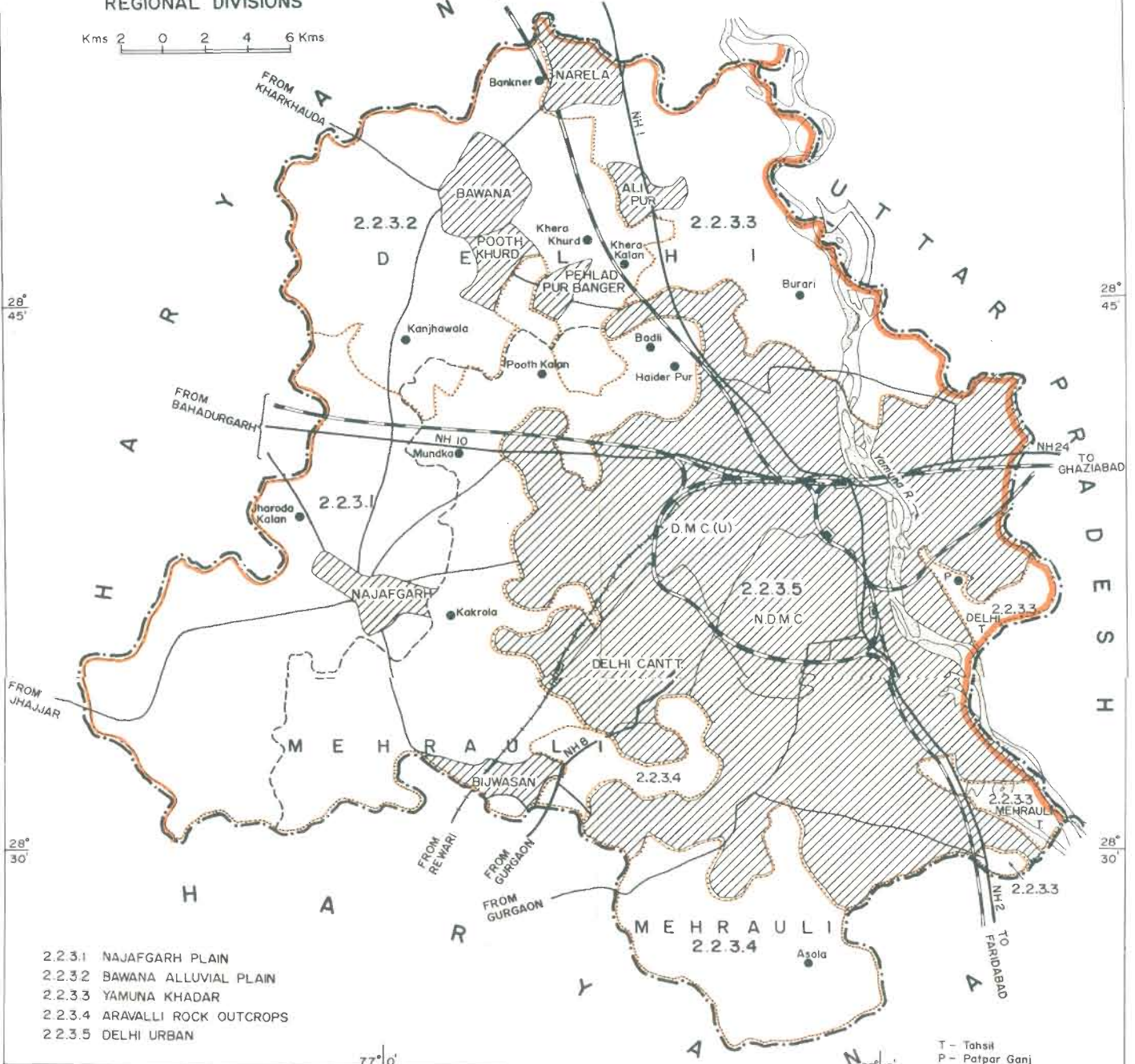
populous. The region as a whole is characterised by acute congestion. The economic activities relating to trade and small scale household industries are characteristic to the region. The area is rich in agro-based industries, textile industries, metal based industries, engineering and scientific industries, transport equipment industries, rubber and chemical industries and also has good network of internal communication. Its area is 515.2 km² which is inhabited by 5,681,448 persons. The region contains 21 Census towns and 3 towns viz; (DMC (U)), NDMC and Delhi Cantt.

Note:- (a) The total area of Delhi Union Territory is as per data supplied by the Surveyor General of India. Figures for urban areas have been worked out by adding the area figures of New Delhi Municipal Committee, Delhi Cantonment, Delhi Municipal Corporation (Urban) and 27 Census towns. The rural area figures have been derived by subtracting the urban area from the total area of Union Territory. The total rural area of two Tahsils given in the District Primary Census Abstract does not tally with the total rural area of the Union Territory given in this table, since the former represents land use area calculated by adding the area figures of villages falling in these Tahsils as supplied by the Revenue Authorities.

DELHI

CENSUS CODE 28
REGIONAL DIVISIONS

Kms 2 0 2 4 6 Kms

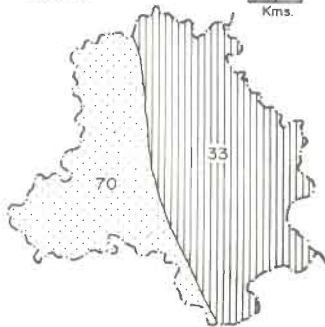


- 2.2.3.1 NAJAFGARH PLAIN
- 2.2.3.2 BAWANA ALLUVIAL PLAIN
- 2.2.3.3 YAMUNA KHADAR
- 2.2.3.4 ARAVALLI ROCK OUTCROPS
- 2.2.3.5 DELHI URBAN

T - Tahsil
P - Patpar Ganj

SOILS

4 0 4
Kms



- SUB-ORDER ASSOCIATIONS
- 33 AQUENTS-FLUVENTS
 - 70 OCHREPTS

GEOLOGY

4 0 4
Kms



- ALLUVIUM
- DELHI GROUP

- BOUNDARY, STATE / U.T.
- " TAHSIL
- VILLAGE HAVING 5 000 & ABOVE POPULATION
- URBAN AREA
- NATIONAL HIGHWAY
- OTHER ROADS
- RAILWAY LINE WITH STATION (BROAD GAUGE)
- " " " (METRE GAUGE)
- RIVER
- REGIONAL DIVISION
- MACRO
- MESO
- MICRO
- SUB-MICRO WITH BOUNDARY

(Read the sequence of regional divisions with reference to the all India map code up to 3 tier.)

DATA ON REGIONAL DIVISIONS

District Name : DELHI Census Location Code No. 28 U.T. : DELHI

Sl. No.	District	Region No. and Name	No. of villages in each Region as evolved	No. of towns in each Region	Area in km ² in region			Population (1981) in region		
					Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7	8	9	10	11
1.	Delhi	2.2.3.1 Najafgarh Plain	100 villages (46 villages in Delhi Tahsil and 54 villages in Mehrauli Tahsil)	2 Census Towns (i) Roshanpura alias Dhi-chaon Khurd (ii) Bijwasan; and Najafgarh (Part of D.M.C. (U))	421.3	398.4	22.9	229104	199320	29784
2.		2.2.3.2 Bawana Alluvial Plain	37 villages (34 villages in Delhi Tahsil and 3 villages in Mehrauli Tahsil)	3 Census Towns (i) Bawana (ii) Pooth Khurd (iii) Pehladpur Bangar	214.2	182.6	31.6	117877	93084	24793
3.		2.2.3.3 Yamuna Khadar	70 villages (64 villages in Delhi Tahsil & 6 villages in Mehrauli Tahsil)	1 Town (i) Alipur; and Narela (Part of D.M.C. (U))	192.3	170.1	22.2	127486	95311	32175
4.		2.2.3.4 Aravalli Rock Outcrops	24 villages (All in Mehrauli Tahsil)	Nil	128.3	128.3	—	64491	64491	—

1	2	3	4	5	6	7	8	9	10	11
5.	Delhi	2.2.3.5 Delhi Urban	Nil	3 Towns (i) D.M.C. (U) (less Najafgarh and Narela) (ii) N.D.M.C. (iii) Delhi Cantt; and 21 Census Towns (i) Samepur (ii) Bhalswa Jahangirpur (iii) Jaffarabad (iv) Babarpur (v) Gokalpur (vi) Mandoli (vii) Kotla (viii) Nangloi Jat. (ix) Sultanpur Majra (x) Nangloi Sayed (xi) Bindapur (xii) Nasirpur (xiii) Palam (xiv) Mahipal Pur (xv) Rajokri (xvi) Chhattarpur (xvii) Lado Sarai (xviii) Tigri (xix) Deoli (xx) Molar Band (xxi) Pul Pehlad	515.2	Nil	515.2	5681448	--	5681448

REGION-WISE VILLAGE CODES, 1981

District Name : DELHI Census Location Code No. 28 U.T. : DELHI

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census Villages as per 1981	Total No. of Villages/Towns of Tahsil	Villages/Towns in Division	Area of Regional Division in km ²	Remarks
1	2	3	4	5	6	7	8
1.	2.2.3.1 Najafgarh Plain	(i) Delhi Tahsil	56, 61, 62, 76 to 81, 119 to 132, 134 to 156	46			Location Code No. 133 of Delhi Tahsil and 64 of Mehrauli Tahsil are Census towns. The name of part of D.M.C. (U) is Najafgarh,
		(ii) Mehrauli Tahsil	3 to 12, 15, 17 to 19, 21 to 26, 28, 29, 32 to 62, 65	54	100 villages + 2 Towns and Part of D.M.C. (U)	421.30	
2.	2.2.3.2 Bawana Alluvial Plain	(i) Delhi Tahsil	1 to 3, 21 to 31, 33 to 35, 44 to 46, 48 to 55, 57 to 60, 64, 65	34			Location Code Nos. 32, 47 & 63 of Delhi Tahsil are Census towns.
		(ii) Mehrauli Tahsil	1, 2, 16	3	37 villages + 3 Towns	214.20	
3.	2.2.3.3 Yamuna Khadar	(i) Delhi Tahsil	4 to 20, 37 to 43, 67 to 74, 82 to 104, 109 to 111, 113 to 118	64			Location Code No. 36 of Delhi Tahsil is Census town and name of part of D.M.C. (U) is Narela.
		(ii) Mehrauli Tahsil	95 to 98, 100, 101	6	70 villages + 1 Town and Part of D.M.C. (U)	192.30	
4.	2.2.3.4 Aravalli Rock Outcrops	(i) Mehrauli Tahsil	63, 66 to 68, 70 to 72, 74 to 77, 79 to 81, 85 to 94	24	24 villages	128.30	

1	2	3	4	5	6	7	8
5.	2.2.3.5 Delhi Urban	--	--	3 Towns + 21 Census Towns	Village Nil + 3 Towns + 21 Census Towns	515.20	Location Code.Nos. 66, 75, 105 to 108 and 112 of Delhi Tahsil, 13, 14, 20, 27, 30, 31, 69, 73, 78, 82 to 84, 99 & 102 of Mehrauli Tahsil are Census towns. The name of other towns are Delhi Municipal Corporation, New Delhi Municipal Committee and Delhi Cantt.

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name : DELHI Census Location Code No. 28 U.T. : DELHI

State/ U.T.	District Name	Division Number & Name	Name of Admini- strative Division	Geology	Soils	Physio-Cultural Characteristics
1	2	3	4	5	6	7
Delhi	Delhi	2.2.3.1 Najafgarh Plain	Delhi Tahsil, Mehrauli Tahsil and part of D.M.C. (U)	Alluvium	Sandy Loam and Mixed Calcareous soil (Ochrepts)	<p>The region spreads over west and south-western parts of Delhi district, occupying a large part of Delhi, Mehrauli Tahsil, whole area of Roshanpura alias Dichaon Khurd, Bijwasan Census towns and Najafgarh urban area [(part of D.M.C. (U)]. The region is surrounded by the state of Haryana in the south and west, Bawana Alluvial plain in the north and Delhi Urban in the east.</p> <p>The region has an average height of 215 metres above mean sea level. The drainage of the hills collects in this natural receptacle. The Najafgarh escape canal carries water to the Yamuna. The Najafgarh drain forms the most important drainage channel in the territory. Starting from the Najafgarh Jheel, the drain passes by Kakrola, Hastal and Basai Darapur. In its lower reaches, it drains the Delhi Urban region and falls into the Yamuna river just below Wazirabad pumping station. In years of low rainfall, the Jheel shrinks and its fringes are used for cultivation. Soils found in the region are sandy loam, clay loam and saline. Generally the soils are sandy loam in texture slightly heavier with depth and becoming lighter from east to west.</p> <p>Means of transport and communication facilities in the region are good. All the villages of this region are linked with roads. The major road of the region is Najafgarh to Delhi. National Highway No. 10 and N.R. Broad-gauge which run between Delhi and Rohtak passes through this region.</p>
Delhi	Delhi	2.2.3.2 Bawana Alluvial Plain	Delhi Tahsil, Mehrauli Tahsil	Alluvium	Calcareous, silty clay loam, Sandy soils. (Ochrepts, Aqvents- Fluents)	<p>The region spreads over north western parts of the territory occupying a large part of Delhi tahsil, some part of Mehrauli tahsil and three Census towns namely; Bawana, Pooth Khurd and Pehladpur Bangar.</p> <p>The region makes its boundaries with state of Haryana in the north-west, Najafgarh plain region in</p>

1	2	3	4	5	6	7
Delhi	Delhi	2.2.3.2 Bawana Alluvial Plain	Delhi Tahsil, Mehrauli Tahsil	Alluvium	Calcareous, silty clay loam, Sandy soils. (Ochrepts, Aquents- Fluents)	<p>the south and Yamuna Khadar Plain in the east. From relief point of view the region is an old flood plain of Yamuna river having gentle slope towards south-east. The average height of the region is 215 metres above the mean sea level.</p> <p>Soils found in the region are calcareous, silty, clay loam (fine loamy and sandy loam). The soil series identified in this area are Bawana, Gheora, Karala, Ladpur and Pooth Khurd.</p> <p>From communication and transport point of view, the region on the whole is well developed and metalled roads are found connecting all the Census towns and villages with each other. Delhi-Ambala broad-gauge railway line passes through the region.</p>
Delhi	Delhi	2.2.3.3 Yamuna Khadar	Delhi Tahsil, Mehrauli Tahsil	Alluvium	Mixed Calcareous, Silty, clay and sandy loam (coarse to fine loamy) (Aquents- Fluents)	<p>The region extends over the parts of Delhi and Mehrauli tahsil, some part of Narela (part of DMC (U) and Alipur Census Town. It is surrounded by Bawana Alluvial plain in the western side, Yamuna river and state of Uttar Pradesh in the east and state of Haryana in the north while in south the region is limited by Delhi urban. The Yamuna river is flowing through this region from north to south.</p> <p>From relief point of view, the region is characterised by river deposits, and ox-bow lakes. The average height of the region is 210 metres above sea level. The Plain is considerably wider and more fertile in the north. The Yamuna Khadar has the deposits of Recent Alluvium.</p> <p>The soils of the region are coarse to fine loamy i.e. calcareous, silt, clay and loam in the profile depth. As per latest classification and soil sub-order associations found in the region are AQUENTS-FLUENTS.</p> <p>From communication and transport point of view, the region is well developed. National Highway No. 1, Delhi to Amritsar passes through this region touching Alipur Census town.</p>
Delhi	Delhi	2.2.3.4 Aravalli Rock Outcrops	Mehrauli Tahsil	Delhi Group & Alluvium	Rocky Aravalli Ridge and Dissected land & sand, silt calcareous soils. (Ochrepts and Aquents- Fluents)	<p>The region extends over the southern part in Mehrauli Tahsil. It is surrounded by Delhi Urban region in north and state of Haryana in the remaining three sides.</p> <p>From physiographic point of view the region represents the highest relief with the hills stretching in the north-south direction. The height varies from 220-300 metres from mean sea level. The ridge is predominantly rocky with undulating relief and steep slopes. The region is made of a great thickness of compact quartzites and conglomerates with minor clay and lime stone beds. In this region the quartzites</p>

1	2	3	4	5	6	7
Delhi	Delhi	2.2.3.4 Aravalli Rock Outcrops	Mehrauli Tahsil	Delhi Group & Alluvium	Rocky Aravalli Ridge and Dissected land & sand, silt calcareous soils. (Ochrepts and Aquents- Fluents)	<p>are the most prevalent. They are known as Alwar or Aravalli Rock Outcrops. The region is fairly dissected. The dry channels, the gulleys and ravines sculptured by soil erosion, the residual hills, the boulders scattered over gulleys pene-plains, the undulating dales and vales all these give the region a fairly high degree of picturesqueness. Due to inadequacy of water and rocky nature of the terrain, the region is generally bare of vegetation. At best it supports some stunted trees of Kikar, Karil, or thorny shrubs and bushes of ber and other hardy varieties. There are traces of thin laminae of mica over the surface which shines brightly under the inhospitable tropical sun.</p> <p>Soils of the Aravalli Rock Outcrops region are formed from the quartzite or sand stone rocks of Delhi ridge and local alluvium of the small streams. Soil texture varies from sandy loam to loam. Due to uneven topography the soils are subject to erosion and in the extreme areas deep gully are formed. The Region has <i>Aquents-Fluents</i> sub-order association of soils.</p> <p>All the villages and towns of the region are connected by the roads. National Highway No. 8 Delhi to Gurgaon passes through this region.</p>
Delhi	Delhi	2.2.3.5 Delhi Urban	3 Towns D.M.C.(U) N.D.M.C. Delhi Cantt.	Delhi Group & Alluvium	(Aquents- Fluents Ochrepts)	<p>The region spreads over the central parts of Delhi Union Territory, occupying a large part of D.M.C. (U), N.D.M.C., Delhi Cantt, 7 Census towns of Delhi Tahsil and 14 Census towns of Mehrauli Tahsil.</p> <p>It is surrounded by Yamuna Khadar in the north-east, state of Uttar Pradesh alongwith Yamuna river in the east, Aravalli Rock Outcrops region in the south and Najafgarh plain in the west.</p> <p>From relief point of view, the southern part of this region is piedmont plain while rest of the area of this region is plain. The height of the region varies from 200 to 260 metres above sea level. The region is considerably wider and populous.</p> <p>The major part of the region is under roads and buildings. Being the capital of India, the region is well developed. The region is a good trade centre for north India. Chandni Chowk, Sadar Bazar, Connaught Place, Karol Bagh etc. are the main business centres. Delhi Urban region has become a focal point of five National Highways described as below:-</p> <p style="text-align: right;">National Highway No.1- Delhi Panipat, Ambala, Jalandhar, Amritsar.</p>

1	2	3	4	5	6	7
Delhi	Delhi	2.2.3.5 Delhi Urban	3 Towns D.M.C.(U) N.D.M.C. Delhi Cantt.	Delhi Group & Alluvium	(Aquents- Fluvents Ochrepts)	<ol style="list-style-type: none"> 2. National Highway No. 2 - Delhi Mathura, Agra-Kanpur-Allahabad. 3. National Highway No. 8 -Delhi-Gurgaon-Jaipur. 4. National Highway No. 10 - Delhi-Rohtak. 5. National Highway No. 24 - Delhi-Lucknow.

The inhabitants have good facility for marketing of their products. The region is an industrial hub of the territory and known for scientific and utensil industries. The region is also an administrative, cultural and educational centre.

APPENDIX

APPENDIX

SHOWING ADMINISTRATIVE CONSTITUENTS BY DISTRICTS WITH REFERENCE TO THE SUB-MICRO REGIONS IN DELHI AND OTHER STATES NAMELY: HARYANA, UTTAR PRADESH, RAJASTHAN AND GUJARAT

Macro Region with Code No. & Name	Meso Region with Code No. & Name	State/U.T.	Micro Region with Code No. & Name	Districts	Sub-Micro Region with Code No. & Name
1	2	3	4	5	6
YAMUNA BASIN/KHADAR					
1. The Northern Mountains	1.3 Uttar Pradesh Himalaya	Uttar Pradesh	1.3.1 Kumaon Himalaya North	Uttar Kashi	1.3.1.4 Yamuna Basin
			1.3.2 Western Kumaon Himalaya Siwalik & Doons	Tehri-Garhwal	1.3.2.1 Yamuna Basin
				Dehra Dun	1.3.2.2 Yamuna Basin
2. The Great Plains	2.2 Haryana Plain	Haryana	2.2.1 Eastern Haryana Plain	Kurukshetra	2.2.1.1 Yamuna Khadar
				Sonipat	2.2.1.1 Yamuna Khadar
				Karnal	2.2.1.3 Yamuna Khadar
			2.2.3 Southern Haryana Plain	Ambala	2.2.1.5 Yamuna Khadar
				Faridabad	2.2.3.3 Yamuna Khadar
	2.4 Upper Ganga Plain	Uttar Pradesh	2.4.1 Northern Upper Ganga Plain	Delhi	2.2.3.3 Yamuna Khadar
				Saharanpur	2.4.1.1 Yamuna Khadar
				Muzaffarnagar	2.4.1.1 Yamuna Khadar
				Meerut	2.4.1.1 Yamuna Khadar
				Ghaziabad	2.4.1.1 Yamuna Khadar
2.5 Middle Ganga Plain	Uttar Pradesh	2.4.2 Southern Upper Ganga Plain	Bulandshahr	2.4.2.1 Yamuna Khadar	
			Aligarh	2.4.2.1 Yamuna Khadar	
			Mathura	2.4.2.2 Yamuna Khadar	
			Agra	2.4.2.2 Yamuna Khadar	
			Etawah	2.4.2.3 Chambal Yamuna Ravines	
2.5.1 Middle Ganga Plain West	Uttar Pradesh	2.5.1 Middle Ganga Plain West	Mainpuri	2.4.2.4 Yamuna Ravines	
			Fatehpur	2.5.1.3 Yamuna Ravines Tract	
			Kanpur	2.5.1.5 Yamuna Ravines	
			Allahabad	2.5.1.5 Yamuna Khadar	

1	2	3	4	5	6
3. The Deccan Plateau	3.2 Uttar Pradesh Uplands	Uttar Pradesh	3.2.1 Jhansi Uplands	Jalaun	3.2.1.4 Yamuna Ravines Tract
PLAIN					
2. The Great Plains	2.2 Haryana Plain	Haryana	2.2.1 Eastern Haryana Plain	Jind Karnal Rohtak Rohtak Ambala Kurukshetra Jind Karnal Sonipat Sonipat Kurukshetra Rohtak Ambala	2.2.1.1 Narwana Plain 2.2.1.1 Asandh Plain 2.2.1.1 Maham Plain 2.2.1.2 Rohtak Plain 2.2.1.2 Naraingarh Plain 2.2.1.2 Kaithal Plain 2.2.1.2 Jind Plain 2.2.1.2 Karnal Bhangar 2.2.1.2 Eastern Sonipat Plain 2.2.1.3 Western Sonipat Plain 2.2.1.3 Bet Kurukshetra 2.2.1.3 Jhajjar Low Land 2.2.1.4 Ambala Plain
			2.2.2 Western Haryana Plain	Sirsa Hisar	2.2.2.1 Dubwalli Plain 2.2.2.2 Hisar Plain
			2.2.3 Southern Haryana Plain	Gurgaon	2.2.3.1 Gurgaon Plain
		Delhi		Delhi Delhi	2.2.3.1 Najafgarh Plain 2.2.3.2 Bawana Alluvial Plain
		Haryana		Faridabad Mahendragarh Gurgaon Mahendragarh	2.2.3.2 Palwal Plain 2.2.3.3 Krishnawati Plain 2.2.3.3 Nuh-Punhana Plain 2.2.3.4 Sahibi Plain
		Delhi		Delhi	2.2.3.5 Delhi Urban
	2.3 Arid Rajasthan Plain	Rajasthan	2.3.2 Rajasthan Bagar	Jhunjhunun	2.3.2.4 Baloda-Dohan Plain
3. The Deccan Plateau	3.1 Semi-Arid Rajasthan		3.1.1 Aravalli Range and the associated Uplands	Alwar	3.1.1.1 Behror-Salawas Plain
ARAVALLI HILLS					
2. The Great Plains	2.2 Haryana Plain	Haryana	2.2.2 Western Haryana Plain	Bhiwani	2.2.2.2 Bhiwani Plain with Aravalli offshoots

1	2	3	4	5	6
			2.2.3 Southern Haryana Plain	Faridabad Gurgaon	2.2.3.1 Faridabad Undulating Plain 2.2.3.2 Sohna Undulating Plain with Aravalli Offshoots
				Mahendragarh Gurgaon	2.2.3.2 Mahendragarh Undulating Plain 2.2.3.4 Firozpur Jhirka Dissected Upland
		Delhi		Delhi	2.2.3.4 Aravalli Rock Outcrops
	2.3 Arid Rajasthan Plain	Rajasthan	2.3.2 Rajasthan Bagar	Sikar Sikar Nagaur	2.3.2.3 Central Sikar Aravalli Hills 2.3.2.4 Eastern Sikar Aravalli 2.3.2.5 Nagaur Aravalli Region
			2.3.4 Luni Valley	Jalor Pali	2.3.4.3 Jalor Aravalli 2.3.4.5 Pali Aravalli
3. The Deccan Plateau	3.1 Semi-Arid Rajasthan		3.1.1 Aravalli Range and the associated Uplands	Udaipur Udaipur Ajmer Sirohi Sirohi Ajmer	3.1.1.1 Western Aravalli 3.1.1.2 Central Aravalli 3.1.1.2 Aravalli Hills 3.1.1.2 Mount Abu Hills 3.1.1.4 Sirohi Aravalli 3.1.1.5 Ajmer Aravalli
			3.1.2 Semi-Arid Uplands of Eastern Rajasthan	Bhilwara Bundi Jhalawar Kota	3.1.2.1 Bhilwara Aravalli 3.1.2.3 Bundi Hills 3.1.2.3 Mukandara Hills 3.1.2.5 Mukandara Hills
			3.1.3 Banas-Chambal Basin	Sawai Madhopur	3.1.3.2 Godhwara Hills
4. The Coastal Plains and Islands	4.1 Gujarat Region	Gujarat	4.1.1 Gujarat Plain	Sabar-Kantha Mahesana Kheda Banas-Kantha Banas-Kantha	4.1.1.2 Sabar Kantha Aravalli 4.1.1.3 Mahesana Aravalli 4.1.1.3 Aravalli Forested Rock outcrops 4.1.1.4 Banas Kantha Aravalli Range 4.1.1.5 Jasor-Chhotila Hills

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