

CENSUS OF INDIA

REGIONAL DIVISIONS OF INDIA -A CARTOGRAPHIC ANALYSIS

OCCASIONAL PAPERS

SERIES - I
VOLUME - VI

HARYANA

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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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गृह मंत्री
भारत
नई दिल्ली-११०००१

HOME MINISTER
INDIA
NEW DELHI-110001
Oct. 26, 1988

FOREWORD

Experience has taught us that planning has to be related to the situation in the field in order to better respond to local aspirations and for better utilization of local resources. A lot of planning has, of necessary, 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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2nd of January, 1989

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PART-I

REGIONAL DIVISIONS OF INDIA —A CARTOGRAPHIC ANALYSIS
GENERAL NOTE

The regional spatial patterns, variations of resources, heterogeneous physiogeographic factors and problems in development bring out the necessity for a regional approach to planning. Delineation of physiogeographic regions of a country of sub-continental size like India with an area of 3,287,263 km^2, 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 of geographic environment, is a gigantic task. During the past 30 years, the macro level planning at the national level and meso level planning at the state level have been duly emphasised. Micro level planning needs, perhaps, to be further emphasised. For this to happen, one requirement consists of homogeneous regions, with natural boundaries, forming viable units of planning.

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

i) contiguous geographical area,
ii) homogenous 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 through 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 geog-

raphic 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 frame work of natural regions. A map of India showing Physiographic 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 provinding 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 landuse pattern should be adopted as per physical conditions of the region, the demarcation of physio-geographic regions will help in the long-term planning for the country. It is hoped that this scheme, the first of its kind in the history of the Census in India, besides enlarging the scope of Census Atlases, would serve as a useful framework for administrators, planners, researchers and other data users.

The Procedure Followed

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

Since the aim was to delineate sub-micro regions within

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

While operating on the above system, step 3 required the consulting of maps on geology to further streamline the region-forming factors in the delineation of sub-micro areas. Where the micro relief and the micro physiographic elements on such consideration 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 (isoh-yetal) 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 bounderies 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 state/union territories, this excercise is, naturally, restricted to the limits of region/regions transcending the

boundaries of the concerned state/union terriory 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 signigicant role in delineating these divisions. However, sub-montane soil (Podsolic) is dominant in the Kashmir Valley and brown hill soil is seen in the southern part of Jammu and Kashmir. Ladakh region is fully predominated by mountain meadow soils as well as glaciers and eternal snow. Forest is mostly alpine type in the northern regions and sub-alpine in the southern regions.

1.2 Himachal Pradesh Himalaya

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

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

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

1.3 Uttar Pradesh Himalaya

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

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

In these areas, the elevation has been taken as the main basis for classfication. 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 Dehradun, 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 (3630 m), Sabargam (3546 m) and Phalut (3596 m)are located in this section of Himalayan zone. Similarly, the loftly range of about 5000 m with intermittent summits are the chief charcteristics 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 Predesh, 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 arid Rajasthan, Punjab, Haryana, Chandigarh, Delhi and Western Uttar Pradesh is slightly higher in elevation over 150 m, than the eastern section of the plain. However, according to elevation, this plain shows three levels of relief configuration, between 0 to 75 m in the eastern section, 75 to 150 m in the Central Uttar Pradesh and 150 to 300 m in the western zone with the exception of 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 the 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 'banger' and 'Khadar'. Agriculturally, this is the most important region.

2.1.1	Ravi—Beas Inter-Fluvial 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 received an average 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 estern 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 vegetations throughout. Hence, on these 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 regions 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 the Rajasthan (2.3). The annual rain fall 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 scraps. Three divisions made in this mesco region are :

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

3.5 Central Madhya Pradesh Plateau

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

3.5.1 Sagar Plateau
3.5.2 Bhopal Plateau
3.5.3 Ratlam Plateau

3.6 Southern Madhya Pradesh Uplands

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

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

3.7 Northern Maharashtra

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

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

3.8 Maharashtra Plateau

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

3.8.1 Eastern Plateau
3.8.2 Western Plateau with Protruded Hills

3.9 Karnataka Plateau

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

3.11.1 Godavari Depressions
3.11.2 Telengana 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, where the range of elevation is between 300 and 900 m Average annual rainfall of the region is between 200and 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 Plains adjacent to the Penisular regiona re 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 Bangal 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 Coastal Plain

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 division 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 cultural zone of India.

INDIA

REGIONAL DIVISIONS



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

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

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REGIONAL DIVISIONS OF INDIA

Regions with Code No. (Macro)	Sub-regions with Code No. (Meso)	Divisions with Code No. (Micro)	Districts	State/ Union Territory
1	2	3	4	5
1. The Northern Mountains	1.1 Jammu & Kashmir Himalaya	1.1.1. Ladakh	Ladakh & Kargil	Jammu & Kashmir
		1.1.2 Kashmir Valley	Anantnag (KS), Baramula,(K.N), Pulwama,Badgam, Kupwara & 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-Himmalayan Zone	Kinnaur, Lahul & Spiti	Himachal Pradesh
		1.2.3 Central Himachal Pradesh	Kangra, Kullu, Una, Hamirpur & Mandi	Himachal Pradesh
		1.2.4. Southern Himachal Pradesh	Bilaspur, Solan, Shimla, & Sirmaur	Himachal Pradesh
	1.3 Uttar Pradesh Himalaya	1.3.1 Kumaon Himalaya North	Chamoli, Pithoragarh, Uttarkashi	Uttar Pradesh
		1.3.2 Western Kumaon Himalaya, Siwalik & Doons	Dehra Dun, Garhwal, Tehri Garhwal	Uttar Pradesh
		1.3.3 Kumaon Himalaya East	Almora, Nainital	Uttar Pradesh
	1.4 North Eastern Himalaya	1.4.1 Sikkim Himalaya	North District, West District, South District, & East District	Sikkim
		1.4.2 Darjiling Himalaya including Duars	Darjiling & Jalpaiguri	West Bengal
		1.4.3 Western Arunachal Pradesh Himalaya	West Kameng, East Kameng, Lower Subansiri, Upper Subansiri, West Siang and East Siang	Arunachal Pradesh
		1.4.4 Eastern Arunachal Pradesh Himalaya	Dibang Valley, Lohit and 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 and Chimtupui	Mizoram
		1.5.5 Tripura Plain	South Tripura & West Tripura	Tripura
		1.5.6 Tripura Hills	North Tripura	Tripura
		1.5.7 Cachar Plain	Cachar	Assam
		1.5.8 Karbi Anglong & Cachar-Hills North	Karbi Anglong & North Cachar-hills	Meghalaya

1	2	3	4	5
		1.5.9 Eastern Meghalaya	West Khasi Hills, East Khasi Hills & Jaintia Hills	Meghalaya
		1.5.10 Western Meghalaya	West Garo Hills & East Garo Hills	Meghalaya
2. The Great Plains	2.1 Punjab Plain	2.1.1 Ravi-Beas Inter-Fluvial Plain	Amritsar and Gurdaspur	Punjab
		2.1.2 Hoshiarpur, Chandigarh Sub-Montane Plain	Chandigarh, Hoshiarpur & Rupnagar	Chandigarh & Punjab
		2.1.3 Beas Sutluj Doab	Jalandhar and Kapurthala	Punjab
		2.1.4 Punjab Malwa Plain	Bathinda, Firozpur, Ludhiana, Patiala, Sangrur & Faridkot	Punjab
	2.2 Haryana Plain	2.2.1 Eastern Haryana Plain	Ambala, Kurukshetra, Jind, Karnal, Rohtak and Sonipat	Haryana
		2.2.2 Western Haryana	Hisar, Sirsa & 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 Jaiselmer	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
		2.4.2 Southern Upper Ganga Plain	Aligarh, Agra, Bareilly, Budaun, Bulandshahr, Etah, Etawah, Farrukhabad, Kheri, Mainpuri, Mathura, Pilibhit and Shahjahanpur	Uttar Pradesh
	2.5 Middle Ganga Plain	2.5.1 Middle Ganga Plain West	Allahabad, Bahraich, Bara-Banki, Faizabad, Fatehpur, Gonda, Hardoi, Kanpur, Lucknow, Pratapgarh, Rae Bareli, Sitapur, Sultanpur & Unnao	Uttar Pradesh
		2.5.2 Middle Ganga Plain East	Azamgarh, Ballia, Basti, Deoria, Gorakhpur, Varanasi, Jaunpur and Ghazipur	Uttar Pradesh
	2.6 Lower Ganga Plain	2.6.1 North Bihar Plain	Paschim Champaran, Purba Champaran, Darbhanga, Muzaffarpur, Purnia, Saharsa, Saran, Sitamarhi, Madhubani, Begusarai, Katihar, Samastipur, Vaishali, Siwan and Gopalganj.	Bihar
		2.6.2 South Bihar Plain	Bhagalpur, Gaya, Munger, Patna, Bhojpur, Nalanda, Nawada, Rohtas and Aurangabad	Bihar
		2.6.3 Barind Tract	Koch Bihar, Maldah & West Dinajpur	West Bengal
		2.6.4 Moribund Delta	Murshidabad and Nadia	West Bengal
		2.6.5 Proper Delta	Bardhaman, Calcutta, Hugli, Haora and Twenty four Parganas	West Bengal
		2.6.6 Rarh Plain	Bankura, Birbhum & Medinipur	West Bengal
	2.7 Brahmaputra Valley	2.7.1 Western Brahmaputra Valley	Goalpara and Kamrup	Assam

1	2	3	4	5
		2.7.2 Central Brahmaputra Valley	Darrang and Nagaon	Assam
		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, Jhalwar & Tonk	Rajasthan
		3.1.3 Banas-Chambal Basin	Bharatpur and Sawai Madhopur	Rajasthan
	3.2 Uttar Pradesh Uplands	3.2.1 Jhansi Uplands	Banda, Hamirpur, Jalaun, Lalitpur & 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
	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 and Sehore	Madhya Pradesh
		3.5.3 Ratlam Plateau	Dhar, Jhabua, Mandsaur, Ratlam, Rajgarh, Shajapur and Ujjain	Madhya Pradesh
	3.6 Southern Madhya Pradesh Uplands	3.6.1 Narmada Region including flanks of Vindhya Satpura	Balaghat, Betul Chhindwara, Hoshangabad, Jabalpur, West Nimar, East Nimar, Mandla, Narsimhapur, Seoni	Madhya Pradesh
		3.6.2 Mahanadi Basin	Bilaspur, Durg, Raigarh, Raj Nandgaon & Raipur	Madhya Pradesh
		3.6.3 Madhya Pradesh Dandakaranya	Bastar	Madhya Pradesh
	3.7 Northern Maharashtra	3.7.1 Tapti-Purna Valley	Amravati, Akola, Buldana, Dhule and 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,	Tamil Nadu

1	2	3	4	5
			Kolar, Mandya Mysore and Tumkur	
	3.10 Tamil Nadu Uplands	3.10.1 Eastern flanks of Sahyadri	Coimbatore, Madurai, Nilgiri and Periyar	Tamil Nadu
		3.10.2 Tamil Nadu Uplands	Dharmapuri, North Arcot and Salem Karimnagar,	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 & Rangareddi	Andhra Pradesh
		3.11.3 Krishna Piedmont Plain	Nalgonda	Andhra Pradesh
		3.11.4 Rayalaseema	Anantpur, 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)	Balangir, 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 & Daman	Gujarat Dadra & Nagar Haveli & Goa Daman & Diu
		4.1.2 Eastern Hilly Region	Panch Mahals and the Dangs	Gujarat
		4.1.3 Kathiawar Peninsula	Amreli, Bhavnagar, Jamnagar, Junagadh, Rajkot, Surendranagar and Diu	Gujarat and Goa, Daman & Diu
		4.1.4 Kachchh Peninsula	Kachchh	Gujarat
	4.2 Western Coastal Region.	4.2.1 Maharashtra Littoral	Greater Bombay, Raigarh, Ratnagiri and Thane	Maharashtra
		4.2.2 Goa Coast	Goa	Goa, Daman & Diu
		4.2.3 Karnataka Coast	Uttar Kannad & Dakshin Kannad	Karnataka
		4.2.4 North Kerala Coast	Cannanore, Kozhicode, Wayanad and Mahe	Kerala & Pondicherry
		4.2.5 Central Kerala Coast	Ernakulam, 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	Kanniyakumari	Tamil Nadu
		4.3.2 Sandy Littoral	Ramanathapuram & Tirunelveli	Tamil Nadu
		4.3.3 Coromandel Coast	Chengalpattu, Madras Thanjavur, Tiruchchirappalli, South Arcot, Pudukkottai, Karaikal and 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, Cuttak & Puri	Orissa
	4.4 The Islands	4.4.1 Andaman & Nicobar Islands	Andaman, Nicobar	Andaman & Nicobar
		4.4.2 Lakshadweep	Lakshadweep	Lakshadweep

PART - II

REGIONAL DIVISIONS OF HARYANA

REGIONAL DIVISIONS OF HARYANA

The state of Haryana was carved out of the territories of the composite state of Punjab on the Ist November, 1966 under the Punjab Reorganisation Act, 1966. The origin of the name Haryana is a matter of controversy which admits of diverse interpretation. The 'Imperial Gazetteer of India' says that Haryana is probably derived from 'Hari' (Green) and is reminiscent of the time when this was a rich and fertile tract. The Haryana state (Latitudes 27°39' to 30°55'5" North and Longitudes 74°27'8" to 77°36'5" East) is one of the north-western states of India adjoining Delhi, the capital of the country. The total area of the state is 44212 km^2 (represents provisional geographical area figures) which is inhabited by 12,922,618 persons as per 1981 Census. It is bounded by Himachal Pradesh in the north, Uttar Pradesh and Delhi in the east, by Rajasthan on its south and sout-west and by Punjab and Chandigarh on the north-west.

Excepting some hills of the Siwalik system in the north and of the Aravalli system in the south, Haryana is a plain area. In this region three sub-divisions have been delineated on the basis of local topography and distribution of sandy and calcareous sierozemic soils :-

2.2.1 Eastern Haryana Plain covering the districts of Ambala, Kurukshetra, Jind, Karnal, Sonipat and Rohtak.

2.2.2 Western Haryana Plain covering the districts of Sirsa, Hisar and Bhiwani.

2.2.3 Southern Haryana Plain covering the districts of Mahendragarh, Gurgaon, Faridabad and Delhi-Union Territory.

Generally speaking, the Eastern Haryana Plain is bordered by low hills of Siwalik system in the north-east. The Siwalik tract consists of a broad tableland which is composed of sand, silt, clay and conglomerates, ranging in age from the Middle Eocene to Lower Pleistocene. The slope is generally from the northeast to the southwest in which direction most of the rivers flow. A large number of rainfed torrents flow down the outer slopes of the Siwalik and spread much gravel and pebbles in their bed. Of these streams, the Ghaggar, the Markanda, the Chautang and the Sarasvati are the important ones. The state is devoid of any perennial river except for extreme eastern side of the state. The region has yielded a rich and varied mammalien fauna. The Haryana Plain is a part of the Indo- Gangetic Plain which was formed by the deposition of the alluvial sediments brought by the Himalayan rivers. The rivers Ghaggar, Markanda, Sarasvati and Yamuna have their flood plains, commonly known as *'Khadar'* or *'Bet'* areas. The soils of these flood plains are riverborne sand, silt and clay.

The Western Haryana Plain covers the districts of Sirsa, Hisar and Bhiwani. It is different from the Northern Haryana Plain because of the presence of a number of sand dunes of varying heights and magnitudes. Wind erosion is active and water table is deep. The region is also geographically known as Bhiwani Bagar. The Ghaggar river and its flood plain bifurcate the Sirsa district. The region is important for cotton, grams and oil seeds.

The Southern Haryana Plain covers the districts of Mahendragarh, Gurgaon, Faridabad and Union Territory of Delhi. It differs from the Western Haryana Plain because of the presence of Aravalli Offshoots and its slope towards the north and undulating character. The regions do have sand dunes of varying size and particularly Mahendragarh district is dotted with sand dunes. Since the Aravalli hills project from the south towards north, a number of small rainy season rivulets carry the water from Rajasthan into Haryana in the south. Among them, the Sahibi, the Krishnawati, the Indoris and the Landoha are worth mentioning here. They represent inland drainage. In view of the small volume of water carried by them, they lack in potentialities for utilisation on an extensive scale. Sahibi valley project over Sahibi river is coming up now a days. Here the lithological diversity in alluvial monotony has a strong bearing upon the distributional pattern of land use, cropping pattern and crop production. The undulating sandy plain of the south is a scene of dramatic development with the introduction of Lift Irrigation Scheme which will bring prosperity in the region.

The climate of Haryana is a semi-arid in the south-west and of the 'Gangetic' type in the rest of the state, due to its continental location on the outer margins of the Monsoon region between the Thar desert and the Himalaya in the north-west of the Indian sub-continent. Monsoons bring rain from July to September. From October to June the weather is dry except for a few showers received from western cyclones. It is significant for *Rabi* crops. The most important features emerging from the rainfall map is a low rainfall in the south and south western Haryana and its gradual increase towards north-east. The southern and south-western half of Haryana is bounded on its north by a 500 millimetres isohyet. In the northern half, rainfall gradually increase towards Siwalik hills where it approaches 1100 millimetres. The climate of Haryana is attributed to short wet months or weeks and long spells of dry months or weeks, but there are considerable variations on the monthly and weekly regime of rainfall from place to place depending on the distance from mountains, topographical alignment and location in respect of Thar desert. The constrast between rainfall pattern of Eastern Haryana

Plain, Western Haryana Plain and Southern Haryana Plain has a clear effect on agricultural practices e.g. raising of crops like sugarcane, rice and wheat, in the former case, cotton, oilseeds and grams in the Western Haryana Plain and bajra and grams in the latter case. Hence, it is concentration and intensity of rainfall, the weekly rainfall occurence and variability and evapotranspiration that determine rainfall effectiveness which has also been taken into account for making sub-divisions. Here, the temperature is inversely related to rainfall, it is highest in the south-west and gradually decreases towards the north-east, as the region has Bagar area in the south-west and the Siwalik in the north-east. The variations in monthly and annual temperature observed at different meteorological station are not very wide, Haryana being a plain area of smaller size as is clear from the map. Temperature is for less inconsistent from year to year then rainfall, but here great annual range of temperature is important, giving rise to two cropping seasons. Between the major seasons, there is *Zaid* (additional) cropping as well, which is traditionally known as *Rabi-Zaid.* Cropping pattern is different in Eastern, Western and Southern Haryana because of physiogeographic factors. The relationship between rainfall, temperature and farming should be studied by employing water balance, techniques keeping sub-micro regions into account as they represent homogeneity in their physio-geographic conditions. It may be mentioned here that the rain and the types of soils are the main determining factors of vegetation types in plain while in the hilly areas, temperature, altitude and slope are additional influencing factors. The natural vegetation found in *Bhangar* and *Bet* areas while sub-tropical broad leafed forest type is found in the hot and sub-humid areas adjoining the Siwalik of Eastern Haryana Plain.

Maps on geology and soils also support the sub-divisions made in case of Haryana. When the state of Haryana was divided into assessment circles, the division purely agreeable to the surface texture of soil and the availability of water and sources of irrigation which combinedly determine the land productitvity. On the basis of such information, the villages were groped into *Barani, Nehri, Khadar, Bhangar, chhachhra, Naili, Rehi, Rangoi, Bagar, Tibba, Tal, Bet,* etc. Later on, scientific classifcation of soils was undertaken by the National Bureau of Soil Survey and Land Use Planning, Nagpur based on Recent United State's System of soil classifications and is depicted in the map. Efforts have been made to understand the relationship between soils and also between soils and the factors responsible for their character. Most of the soils in the state are medium textured. Degrees of salanity and alkalinity hazards varies from palce to place and salinity seems to be a great hazard than alkalinity in the soils of the state.

The state economy being predominantly agricultural, the factors explaining the disributional pattern of rural population relate mostly to the productivity of soils. In the hilly areas of Eastern Haryana Plain, population is concentrated along with rivers/streams where small patches of culturable land and water are available. In Western Haryana Plain where sand dunes topography is dominant *(Bagar area),* the concentration of population is sparse. In Southern Haryana Plain where Aravalli Offshoots and semi-arid climate are dominant, population is sparsely distributed except the industrial belt of Gurgaon-Faridabad and the National Capital. In the *Bet* and *Bhangar* areas of Eastern Haryana Plain, concentration of population is thick. A statement giving the concentration of population in each sub-micro region, is furnished along with the map of Regional Divisions which also explains about the constituents in each sub-micro region and its areas. Haryana is a region with a deficiency of females. This fact supported by the 1981 Census results that sex ratio in Haryana is 870 against 934 for the country as a whole. Low sex ratio at birth and a higher rate of mortality may explain this phenomenon. The density of population for Haryana as whole is 292 persons per square kilometre against 216 for India (including projected population of Assam) in 1981 Census. As the density of population is influenced by various factors such as productivity of soils, climate, topography, industrial development, urbanisation, irrigational facilities and other factors of the economic development of the area, accordingly the denisity is strikingly uneven in the state as is clear from the map. Maps on rural density and urban density (by Tahsils) also reflect the agricultural and industrial development of the areas and their capacity to support the population pressure. Area which are industrially developed, attracting in-migration have high density of population. Some parts of the Southern and Western Haryana Plains which are characterised by semi-arid climate, inferior soils, lack of irrigational facilities and industrial development are the regions of low density of population. It reflects that these areas require extra planning emphasis. To talk more realistically, we must speak of the land and its region, of the richness of land and of the distribution of population in relation to regional capacities. Among the districts, the denisity of population was 466 in Faridabad, 384 in Sonipat, 368 in Ambala, 356 in Karnal, 349 in Rohtak, 319 in Mahendragarh, 313 in Gurgaon, 302 in Kurukshetra, 284 in Jind, 237 in Hisar, 180 in Bhiwani and 165 in Sirsa. Even in the districts the density varies within the district. It also supports the sub-divisions of districts based on physio-geographical factors and carving out the sub-micro regions based on homogeneity. The denisity is highest in Faridabad Undulating Plain of Southern Haryana which is the industrial hub of the state and is the lowest in Siwani Undulating Plain with sand dunes of western Haryana where *Bagar* topography and semi-arid climate are responsible for sparse population.

Maps on density (Total, rural and urban) by sub-micro regions clearly reflect the economic health of the area, its capacity to support the population and pin point the areas where extra planning emphasis is required. There is also a wealth of conflicting opinions with details expositions of the region, methods of finding, defining, mapping and describing the region, all of which perhaps, cannot be reconciled into one philosophy.

There are 37 scheduled castes in Haryana as listed in Para I under 'Haryana' of Schedule I of the Scheduled Castes and Scheduled Tribes List (Modification Order, 1956) corrected upto date. These are amongst the Hindus and sikhs only. According to 1981 Census, total numerical strength of these scheduled castes is 2,464,012 accounting for 19.07 per cent of the total population of Haryana. The proportion of scheduled caste population living in rural and urban areas is 84.94 per cent and 15.06 per cent respectively. It reveals that they are mainly confined to rural areas by residence. Like the general population, they are unevenly distributed in the state. Ambala district claims for 13.44 per cent of the total scheduled caste population of the state, closely followed by Hisar district where 13.32 per cent of them reside. The percentage of scheduled castes in the remaining districts to total scheduled caste popualtion of the state is 9.64 in Karnal, 9.44 in Rohtak, 9.30 in Kurukshetra, 7.33 in Jind, 7.25 in Sirsa, 6.85 in Bhiwani, 6.40 in Mahendragarh, 6.36 in Faridabad, 5.77 in Sonipat and 4.90 in Gurgaon. Among the tahsils, the proportion of scheduled caste population to total population is the highest (29.3 %) in Tohana tahsil of Hisar district and the lowest (8.09%) in Ferozepur Jhirka tahsil of Gurgaon district. By and large it is higher in the tahsils of north-western Haryana. In the 17 tahsils viz., Tohana, Dabwali, Bawani Khera, Jagadhri, Naraingarh, Sirsa, Guhla, Fatehabad, Ambala, Assandh, Narwana, Thanesar, Hisar, Maham, Kalka, Hansi and Kaithal the proportion of scheduled caste population is above the state average.

A person who can both read and write with understanding in any language is taken as literate. The percentages have been calculated on the total population inclusive of the population in age group 0-4 as the data regarding children in age group 0-4, cannot be generated at the moment. The literacy rates are 36.14 per cent for the state as a whole, 30.33 per cent for rural areas and 56.86 per cent for urban areas. The literacy rate is 48.20 per cent for males as against 22.27 per cent for females. As expected, the literacy rates are higher among the males in urban areas. Among the districts, literacy rate is highest (44.62 per cent) in Ambala district and the lowest (26.18 per cent) in Jind district. Among the tahsils, it is highest in Ambala tahsil (50.10 per cent) and the lowest in Ferozepur Jhirka Tahsil (19.48 per cent). Areas which are industrially developed and urbanised have higher literacy rates. Lieracy rates are relatively higher in the eastern half of Haryana.

The proportion of total workers to total population in Haryana is 31.63 per cent, of which 28.35 per cent are main workers and 3.28 per cent are marginal workers. The proportion of male main workers to total male popualtion in the state is 48.94 pe cent, of which 21.68 per cent are cultivators, 7.64 per cent agricultural labourers, 1.39 per cent in household industry and 18.23 per cent other workers. The proportion of female main workers to total female population in the state as a whole works out to 4.69 per cent, of which 2.31 per cent are cultivators, 1.03 per cent agricultural labourers, 0.11 per cent in household industry and 1.24 per cent other workers. The proportion of male main workers is relatively higher along the north-western areas of Haryana. Culturally speaking, Haryana is known as the cradle of ancient Indian civilisation. It is a land in which myths, legends, archaeological finds and vedic references, all point towards its rich heritage. It was on this sacred soil that Lord Krishna gave this immortal message of selfless action to the wavering Arjuna, who guivered before the clear call of duty to take up arms in defence of his honour and dignity and give a fight to this evil-minded kinsmen. Haryana is dotted with places of pilgrimage, antiquity and tradition, remembrance of the days gone by when sages compiled the epics and sacred books which have directed the actions of men for generations. The land which witnessed the epic struggle of the Mahabharata subsequently became the seat of early Indian empires. Harsavardhana, the popular ruler, had his kingdom here and several other kings had to test their might in the battlefields of Taraori and Panipat which have marked important watersheds in Indian history.

The people of Haryana are simple, straight-forward, enterprising and hardworking. They have preserved their old religious and social traditions and customs. They celebrate their festivals with great enthusiasm and devotion. Their popular folk lore reflects the sincerity and devotion of th people. Their culture and popular art are expressed through mimes, dramas, ballads and songs in which they take great delight. Haryana has always remained a rendezvous for diverse races, cultures and faiths. It is on this soil that they met, fused and crystallised into some thing truly Indian.

Haryana's agriculture has undergone rapid transformation. There has been increase in agricultural production and improvement in farm practices. The breakthrough achieved in agricultural production is due to a vastly improved and sophisticated irrigation system and

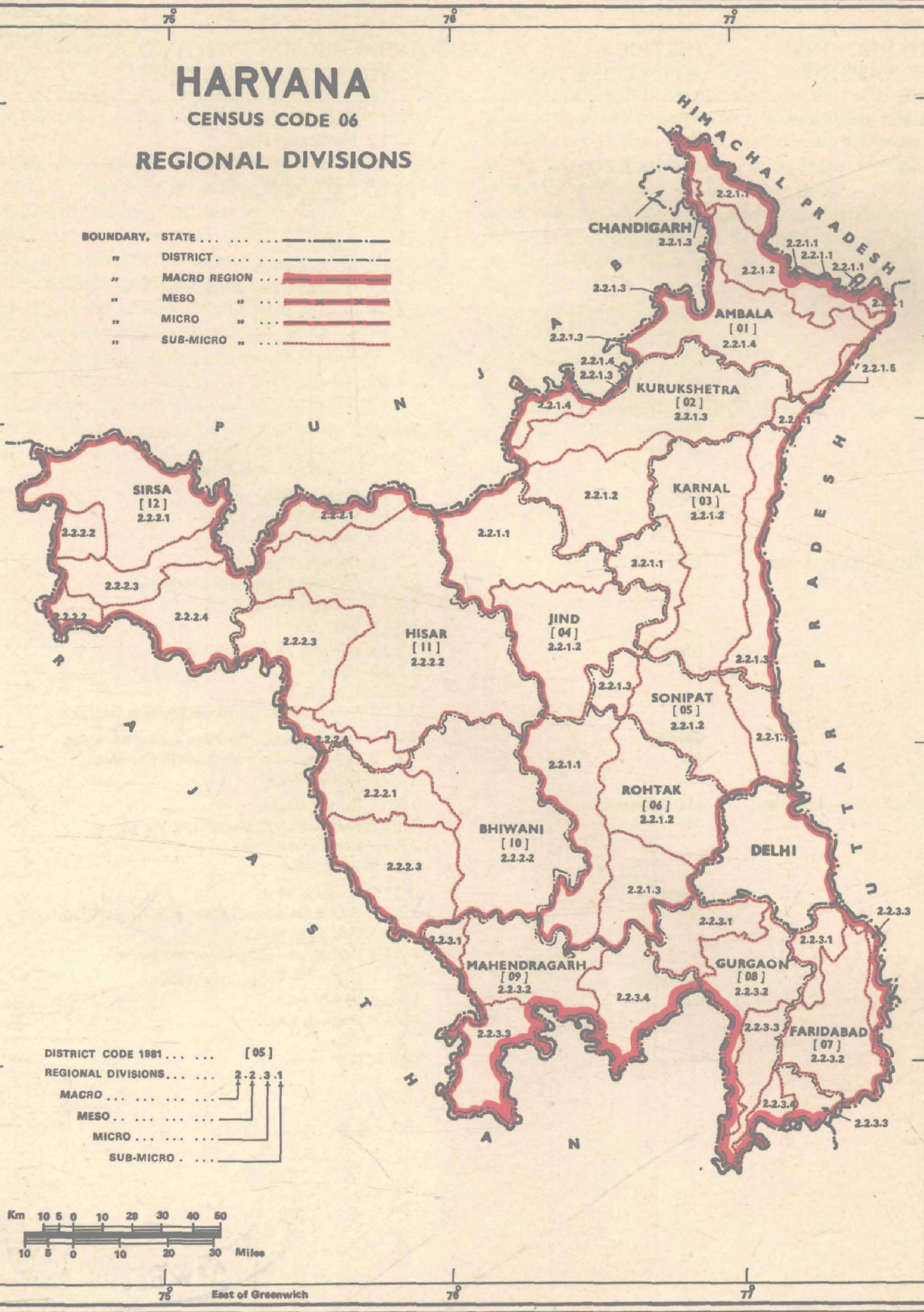
optimum utilisation of its water resources. The land once flowing with milk and honey, as the saying goes, is again on the threshold of a white revoluation. The per capita consumption of milk and milk products is 494 grams as against the country's overall average of 137 grams. It has earned the distinction of being the home of the world famous Murrah buffalo and the Haryana Sahiwal cow.

Haryana has taken a big lead in increasing industrial production in urban and rural centres. A systematic planning of its industrial activity and sustained promotion of new enterprise, in an atmosphere of harmonious industrial relations, coupled with calm and peaceful atmosphere, have contributed significantly to the achievement of the present high level of industrialisation in the state. The general prosperity evident in various facets of the state's economy notably agriculture and industry, has been made possible by a very substantial step-up in the availablity of electricity in the state. Power generation and distribution systems have been enhanced manifold. The consumption of power which was 17 lakh units a day in 1966 has now increased to 187 lakh units a day. The installed capacity of power has risen from 343 MW to 1572 MW in this period.

Within the broad framework of a physiogeographic regional plan for different regions of the state, the framework of an area development plan at the district level should illustrate two things, one is a landuse plan and other one is of the proposed integration of villages around some important settlement as the focal points. This should convey the nature of services and amentities needed by the people in the focal point and its surrounding villages. The regional planning takes note of the two-way process in which the national plan ought to be formulated i.e. translating the national plan downwards through different ladders of the administrative hierarchy and simultaneous aggregation upwards. We have delineated the sub-micro regions within the districts and somewhere with minor adjstments, as there are great variations in their physio-geographic factors from area to area :-

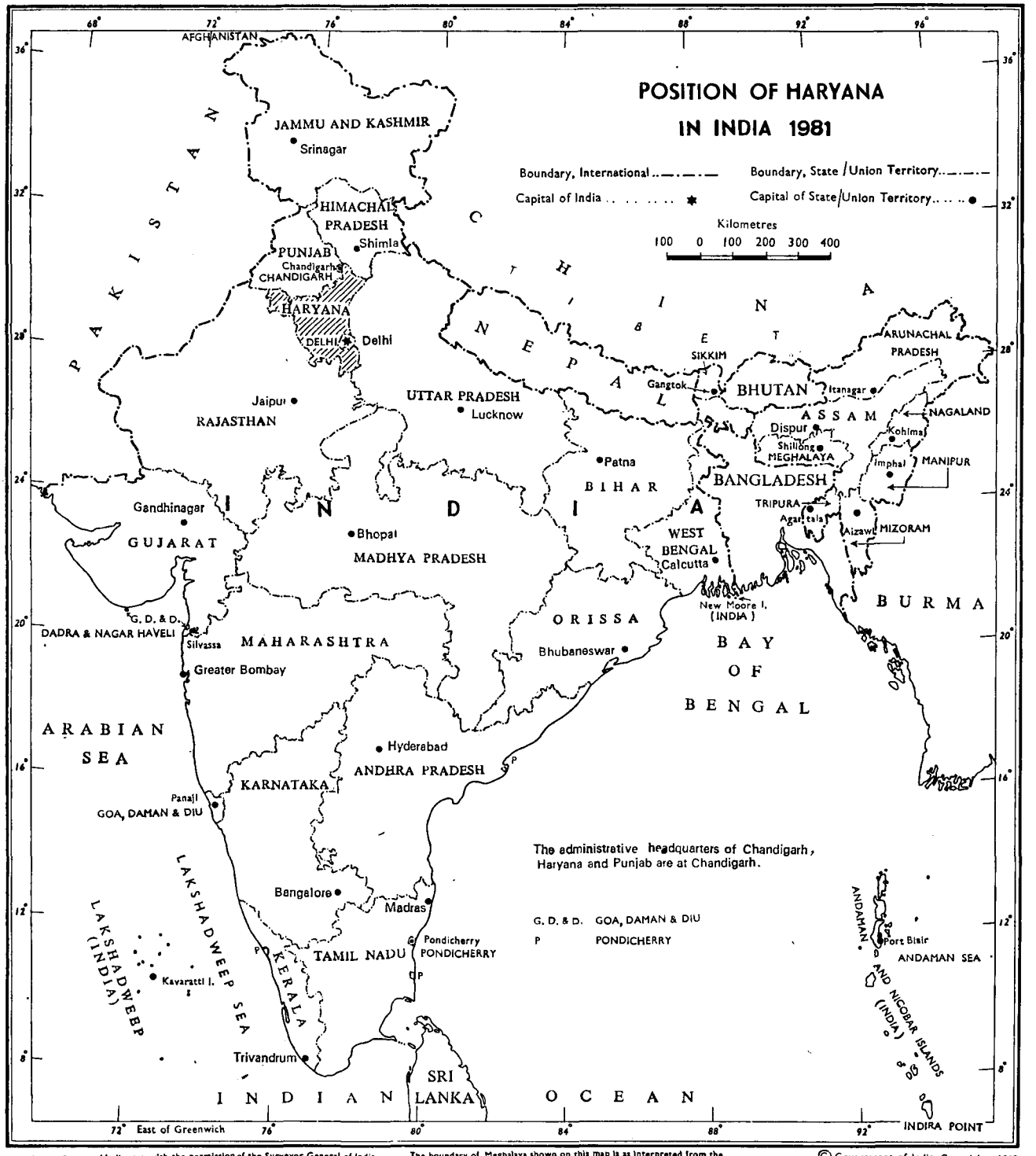
2.2 HARYANA PLAIN

MICRO REGIONS WITH CODE NO.	DISTRICT WITH CODE NO.	SUB-MICRO REGIONS WITH CODE NO. (FOURTH TIER REGIONS)
2.2.1 Eastern Haryana Plain	Ambala 01	2.2.1.1 Kalka Siwalik 2.2.1.2 Naraingarh Plain 2.2.1.3 Ghaggar Flood Plain 2.2.1.4 Ambala Plain 2.2.1.5 Yamuna Khadar
	Kurukshetra 02	2.2.1.1 Yamuna Khadar 2.2.1.2 Kaithal Plain 2.2.1.3 Bet Kurukshetra 2.2.1.4 Ghaggar Flood Plain
	Karnal 03	2.2.1.1 Assandh Plain 2.2.1.2 Karnal Bhangar 2.2.1.3 Yamuna Khadar
	Jind 04	2.2.1.1 Narwana Plain 2.2.1.2 Jind Plain
	Sonipat 05	2.2.1.1 Yamuna Khadar 2.2.1.2 Eastern Sonipat Plain 2.2.1.3 Western Sonipat Plain
	Rohtak 06	2.2.1.1 Maham Plain 2.2.1.2 Rohtak Plain 2.2.1.3 Jhajjar Low land
2.2.2 Western Haryana Plain	Sirsa 12	2.2.2.1 Dabwali Plain 2.2.2.2 Ellanabad-Nathohar Sandy Plain 2.2.2.3 Ghaggar Flood Plain 2.2.2.4 Sirsa Bagar
	Hisar 11	2.2.2.1 Ghaggar Flood Plain 2.2.2.2 Hisar Plain 2.2.2.3 Hisar Bagar 2.2.2.4 Balsmand Undulating Plain with sand dunes
	Bhiwani 10	2.2.2.1 Siwani Undulating Plain with sand dunes 2.2.2.2 Bhiwani Plain with Aravalli Offshoots 2.2.2.3 Loharu Bagar
2.2.3 Southern Haryana Plain	Mahendragarh 09	2.2.3.1 Satnali Bagar 2.2.3.2 Mahendragarh Undulating Plain 2.2.3.3 Krishnawati Plain 2.2.3.4 Sahibi Plain
	Gurgaon 08	2.2.3.1 Gurgaon Plain 2.2.3.2 Sohna Undulating Plain with Aravalli Offshoots 2.2.3.3 Nuh-Punahana Plain 2.2.3.4 Ferozepur Jhirka Dissected Upland
	Faridabad 07	2.2.3.1 Faridabad Undulating Plain 2.2.3.2 Palwal Plain 2.2.3.3 Yamuna Khadar
		Delhi - U.T.


HARYANA
CENSUS CODE 06
REGIONAL DIVISIONS
BOUNDARY, STATE
" DISTRICT
" MACRO REGION
" MESO "
" MICRO "
" SUB-MICRO "
HIMACHAL PRADESH
CHANDIGARH
2.2.1.3
AMBALA
[01]
2.2.1.4
KURUKSHETRA
[02]
2.2.1.3
KARNAL
[03]
2.2.1.2
JIND
[04]
2.2.1.2
SONIPAT
[05]
2.2.1.2
ROHTAK
[06]
2.2.1.2
DELHI
FARIDABAD
[07]
2.2.3.2
GURGAON
[08]
2.2.3.2
MAHENDRAGARH
[09]
2.2.3.2
BHIWANI
[10]
2.2.2.2
HISAR
[11]
2.2.2.2
SIRSA
[12]
2.2.2.1
PUNJAB
RAJASTHAN
UTTAR PRADESH
DISTRICT CODE 1981 [05]
REGIONAL DIVISIONS 2.2.3.1
MACRO
MESO
MICRO
SUB-MICRO
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
East of Greenwich
75° 76° 77°
31° 30° 29° 28°

Macro Region with Code No.	Meso Region with Code No.	Micro Region with Code No.	Districts with Code No.	Sub-Micro Regions with Code No. (Fourth Tier Regions)	Constituents		Area in km^2			Population (1981 Census)		
					Villages	Towns	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	2.2.1 Eastern Haryana Plain	Ambala 01	2.2.1.1 Kalka Siwalik	146	2	377.36	370.53	6.83	100,482	73,377	27,105
				2.2.1.2 Naraingarh Plain	341	2	876.9877	872.9377	4.05	230,283	210,782	19,501
				2.2.1.3 Ghaggar Flood Plain	50	1	128.83	118.46	10.37	52,558	41,319	11,239
				2.2.1.4 Ambala Plain	694	9	1933.628	1846.138	87.49	977,265	571,333	405,932
				2.2.1.5 Yamuna Khadar	68	—	178.691	178.691	—	42,754	42,754	—
			Kurukshetra 02	2.2.1.1 Yamuna Khadar	41	—	127.03	127.03	—	30,415	30,415	—
				2.2.1.2 Kaithal Plain	138	2	1228.6044	1216.8144	11.79	395,119	324,930	70,189
				2.2.1.3 Bet Kurukshetra	502	5	2063.4456	2030.4456	33.00	635,827	519,964	115,863
				2.2.1.4 Ghaggar Flood Plain	69	—	337.03	337.03	—	74,786	74,786	—
			Karnal 03	2.2.1.1 Assandh Plain	55	1	655.80	651.85	3.95	172,920	159,711	13,209
				2.2.1.2 Karnal Bhangar	350	5	2052.70	1999.40	53.30	855,297	544,050	311,247
				2.2.1.3 Yamuna Khadar	229	2	989.10	982.06	7.04	294,609	272,773	21,836
			Jind 04	2.2.1.1 Narwana Plain	145	2	1599.365	1586.865	12.50	423,092	382,885	40,207
				2.2.1.2 Jind Plain	209	4	1672.068	1648.498	23.57	514,982	425,733	89,249
			Sonipat 05	2.2.1.1 Yamuna Khadar	122	1	545.240	536.180	9.06	212,594	196,105	16,489
				2.2.1.2 Eastern Sonipat Plain	206	2	1369.101	1341.161	27.94	562,960	427,403	135,557
				2.2.1.3 Western Sonipat Plain	20	—	279.497	279.497	—	71,211	71,211	—
			Rohtak 06	2.2.1.1 Maham Plain	141	2	1527.3410	1518.151	9.19	408,973	384,871	24,102
				2.2.1.2 Rohtak Plain	160	2	1348.19	1317.16	31.03	657,330	453,075	204,255
				2.2.1.3 Jhajjar Low land	157	2	963.0949	954.5049	8.59	275,650	237,913	37,737
		2.2.2 Western Haryana Plain	Sirsa 12	2.2.2.1 Dabwali Plain	140	2	1913.877	1904.177	9.70	279,112	240,398	38,714
				2.2.2.2 Ellanabad-Nathohar Sandy Plain	29	—	559.6355	559.6355	—	69,531	69,531	—
				2.2.2.3 Ghaggar Flood Plain	65	1	675.826	672.896	2.93	124,288	107,574	16,714
				2.2.2.4 Sirsa Bagar	89	1	1121.1257	1101.795	19.33	234,137	145,069	89,068
			Hisar 11	2.2.2.1 Ghaggar Flood Plain	92	2	624.94	620.27	4.67	129,669	111,995	17,674
				2.2.2.2 Hisar Plain	323	6	4405.24	4336.37	68.87	1,120,514	849,541	270,973
				2.2.2.3 Hisar Bagar	72	—	1177.356	1177.356	—	197,833	197,833	—
				2.2.2.4 Balsmand Undulating Plain with Sand Dunes	23	—	394.739	394.739	—	48,518	48,518	—
			Bhiwani 10	2.2.2.1 Siwani Undulating Plain with Sand Dunes	54	—	848.5530	848.5530	—	102,841	102,843	—
				2.2.2.2 Bhiwani Plain with Aravalli Offshoots	215	3	2295.6191	2254.4591	41.16	622,937	482,815	140,122
				2.2.2.3 Loharu Bagar	159	1	1415.8769	1413.2869	2.59	194,272	187,025	7,247
		2.2.3 Southern Haryana Plain	Mahendragarh 09	2.2.3.1 Satnali Bagar	19	—	187.5164	187.5164	—	31,146	31,146	—
				2.2.3.2 Mahendragarh Undulating Plain	195	2	1185.9746	1174.5446	11.43	297,828	276,209	21,619
				2.2.3.3 Krishnawati Plain	227	2	969.6535	958.3335	11.32	308,370	263,936	44,434
				2.2.3.4 Sahibi Plain	302	2	912.0439	905.6239	6.42	322,056	262,734	59,322
			Gurgaon 08	2.2.3.1 Gurgaon Plain	188	6	775.5737	732.0737	43.50	348.134	213.916	134,218
				2.2.3.2 Sohna Undulating Plain with Aravalli Offshoots	256	3	965.5312	954.6212	12.91	231,721	202,742	28,979
				2.2.3.3 Nuh-Punahana Plain	200	1	693.2545	692.9545	0.30	202,068	196,076	5,992
				2.2.3.4 Ferozepur Jhirka Dissected Upland	77		269.5796	269.5796	—	67,675	67,675	—
			Faridabad 07	2.2.3.1 Faridabad Undulating Plain	88	1	396.2172	217.9772	178.24	381,381	50,517	330,864
				2.2.3.2 Palwal Plain	299	3	1340.8172	1331.0572	9.76	526,161	453,540	72,621
				2.2.3.3 Yamuna Khadar	118	1	440.40	439.4777	0.93	93,317	88,208	5,109
				DELHI								

GENERAL MAPS

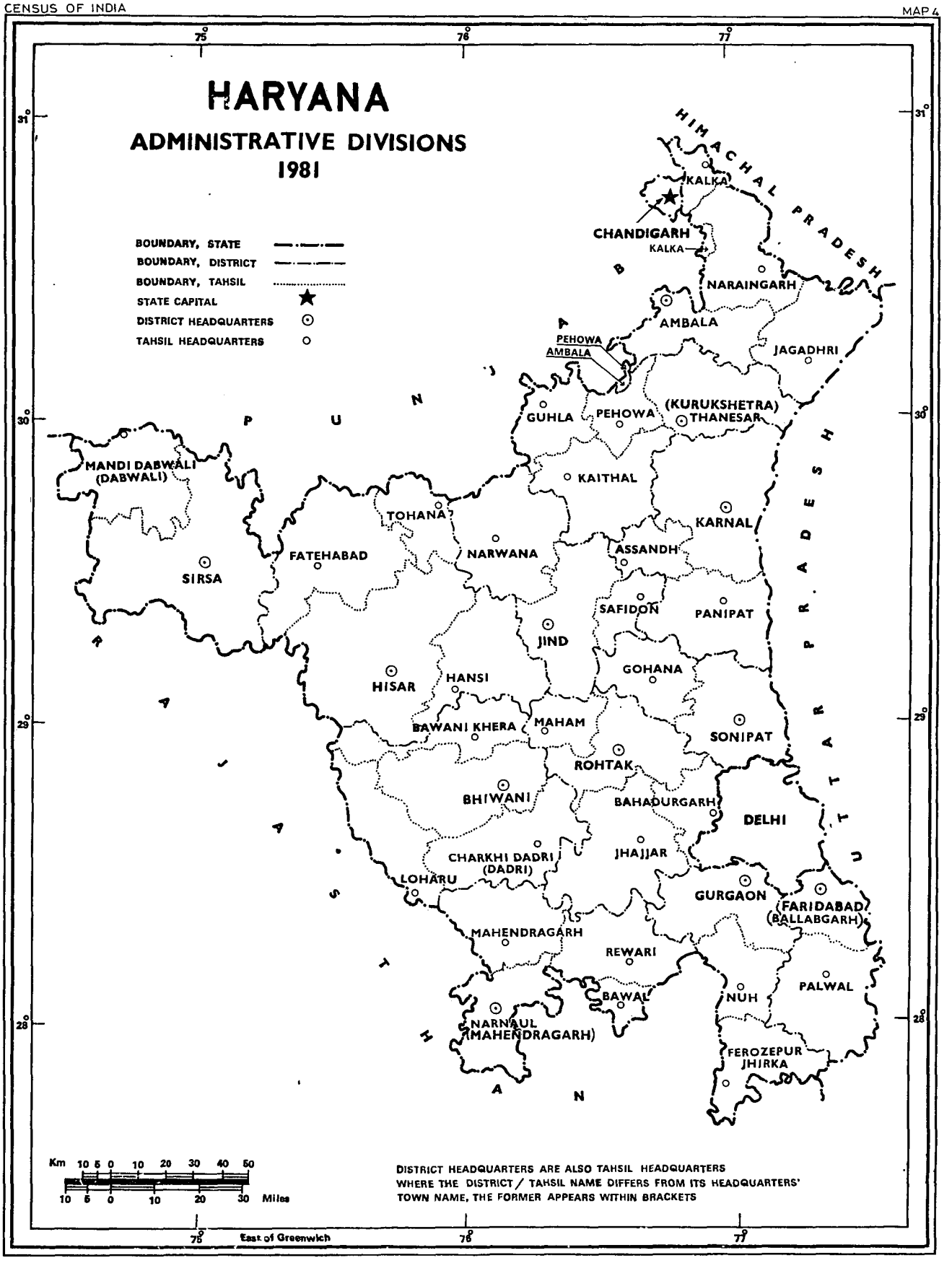


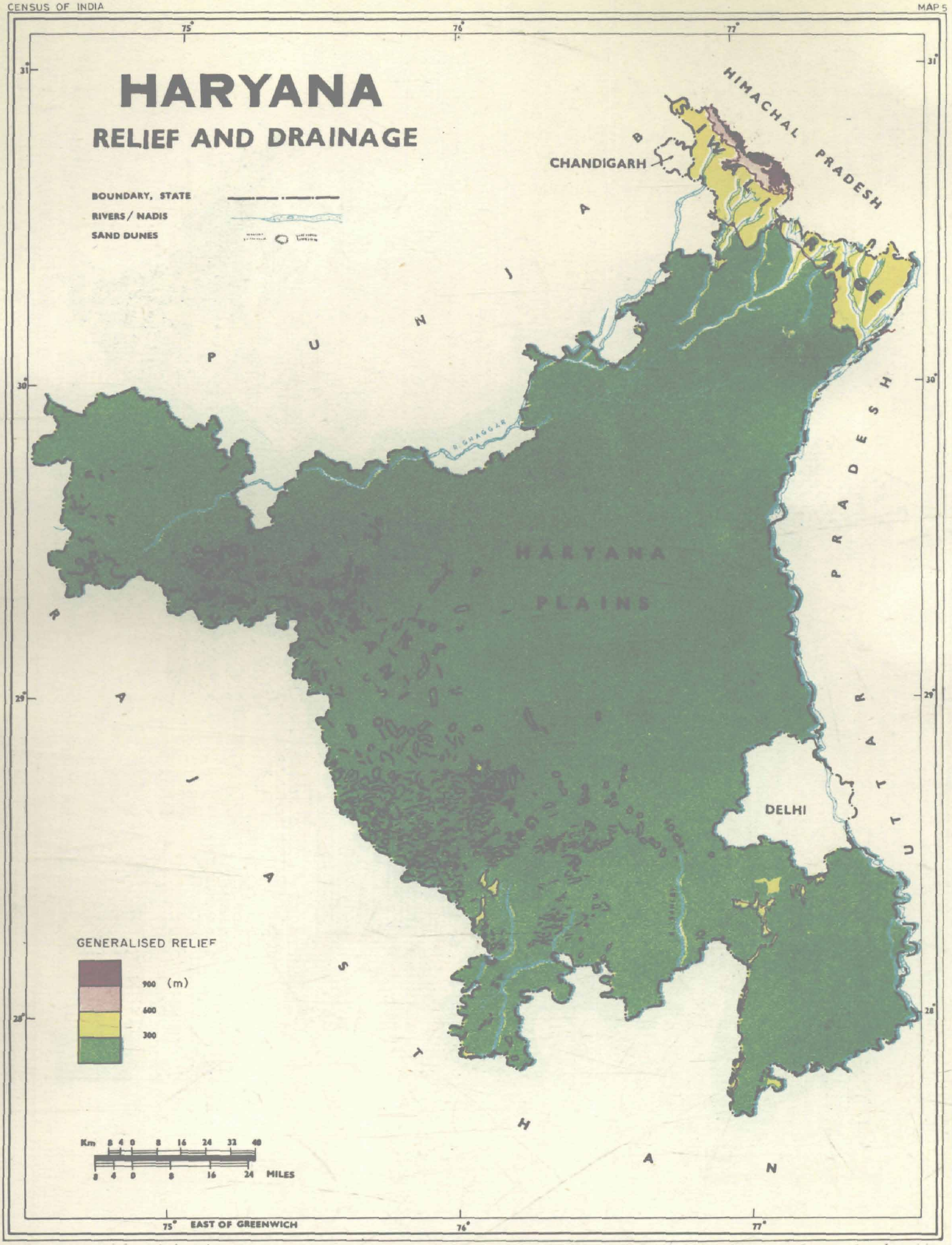
Based upon Survey of India map with the permission of the Surveyor General of India.

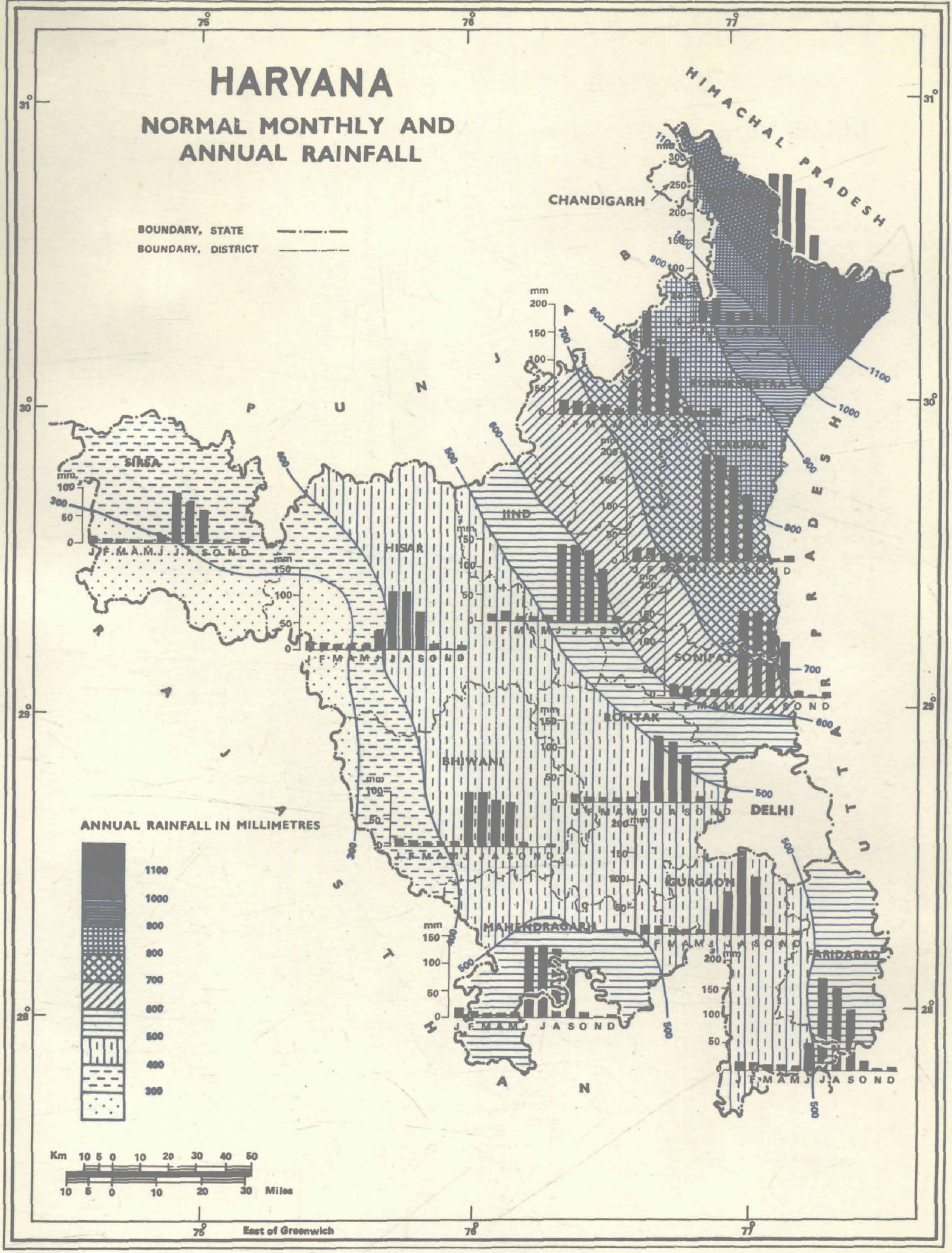
The territorial waters of India extend into the sea to a distance of twelve nautical miles measured from the appropriate base line.

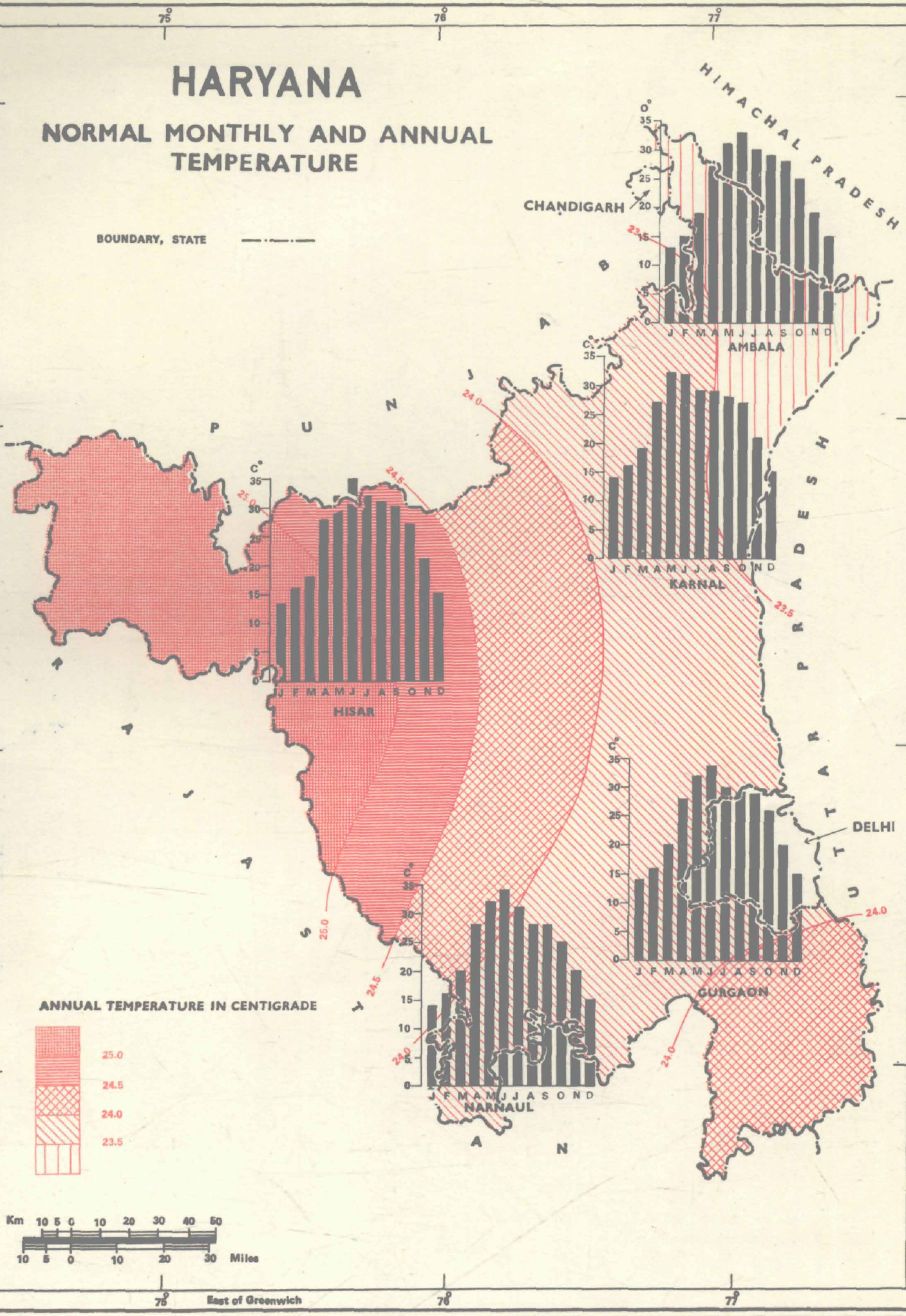
The boundary of Meghalaya shown on this map is as interpreted from the North-Eastern Areas (Reorganisation) Act, 1971, but has yet to be verified.

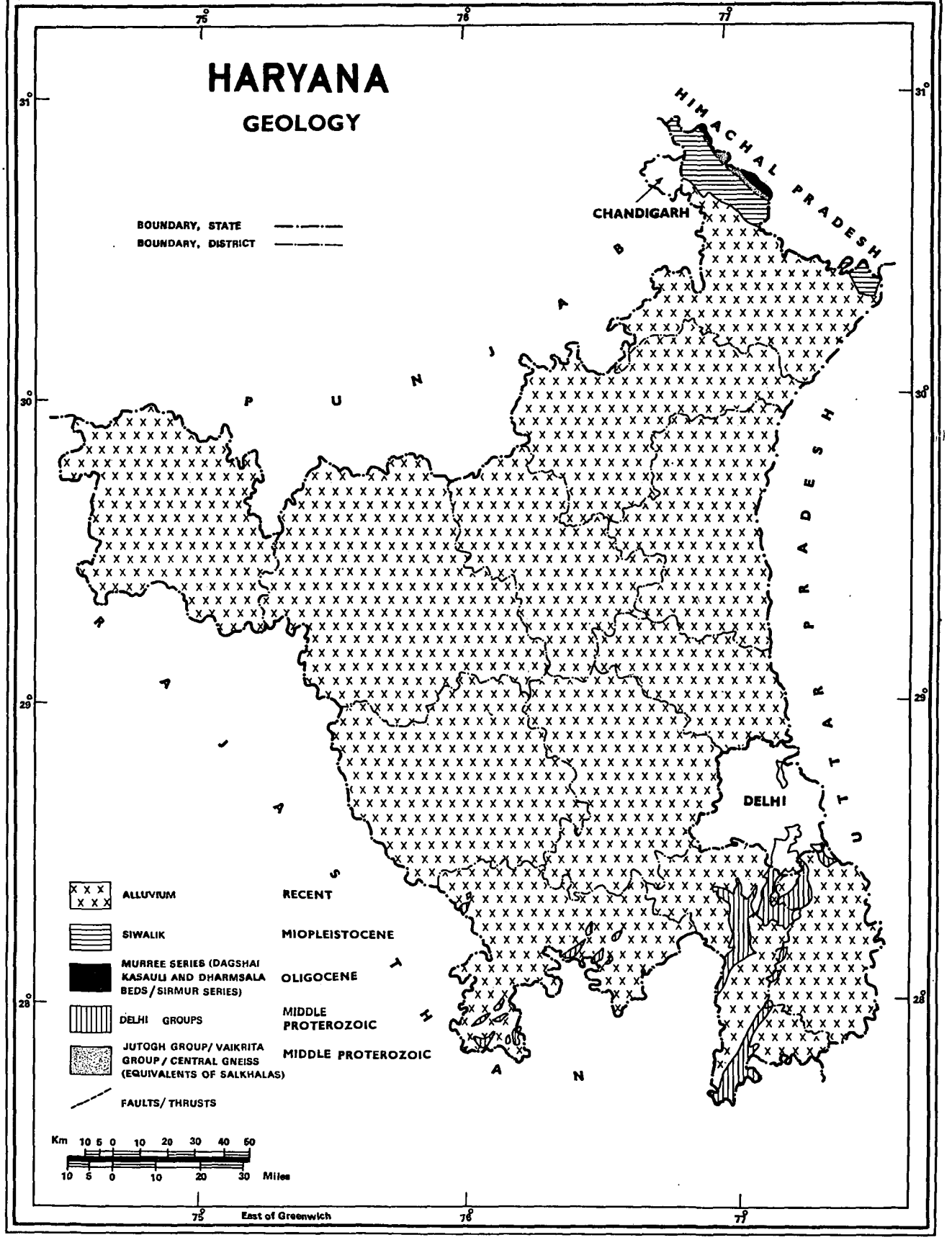
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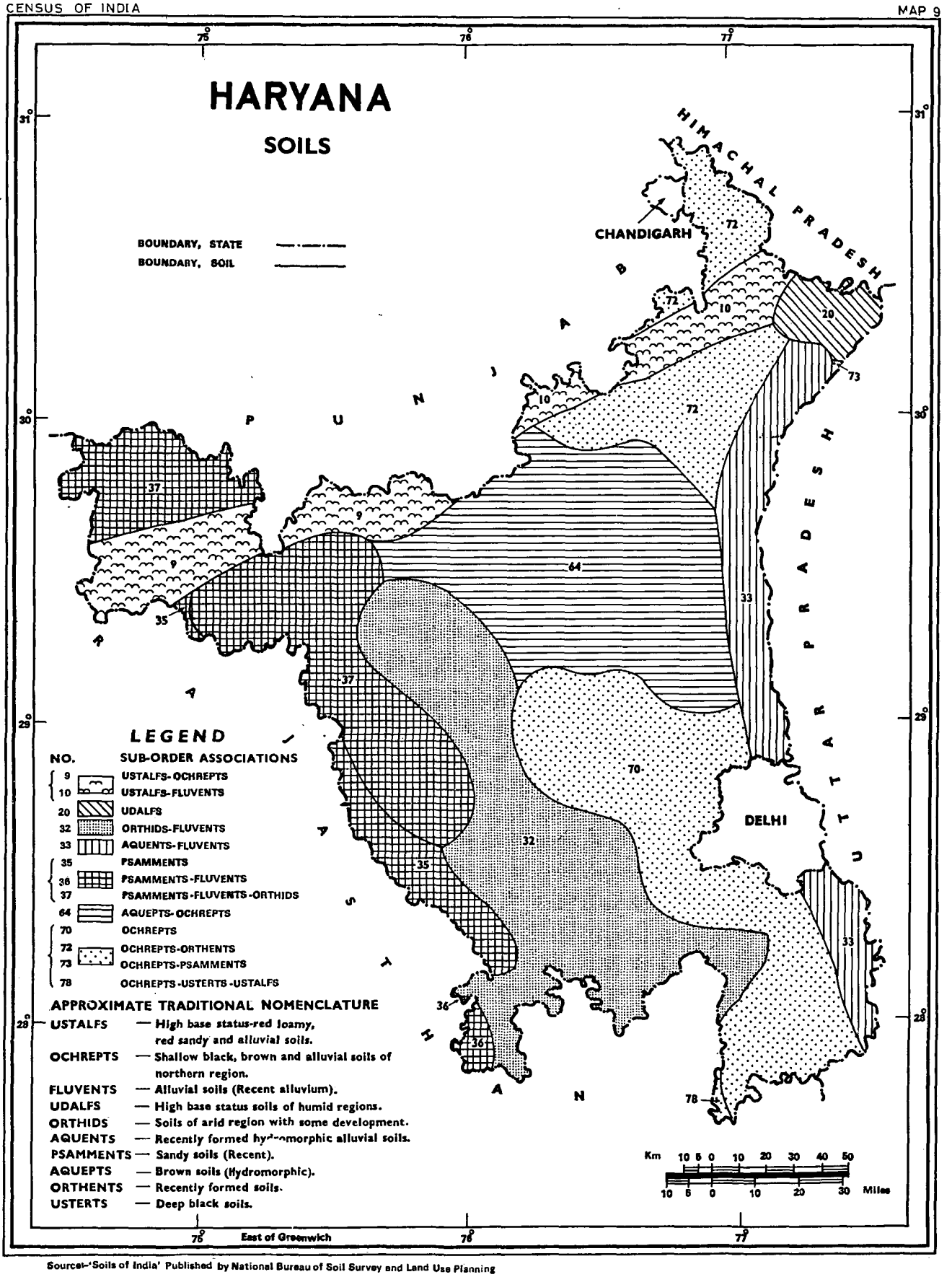

HARYANA
ADMINISTRATIVE DIVISIONS
1981
BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
STATE CAPITAL
DISTRICT HEADQUARTERS
TAHSIL HEADQUARTERS
HIMACHAL PRADESH
UTTAR PRADESH
PUNJAB
RAJASTHAN
KALKA
CHANDIGARH
KALKA
NARAINGARH
AMBALA
PEHOWA
AMBALA
JAGADHRI
GUHLA
PEHOWA
(KURUKSHETRA)
THANESAR
MANDI DABWALI
(DABWALI)
KAITHAL
TOHANA
KARNAL
FATEHABAD
NARWANA
ASSANDH
SIRSA
SAFIDON
PANIPAT
JIND
GOHANA
HISAR
HANSI
BAWANI KHERA
MAHAM
SONIPAT
ROHTAK
BHIWANI
BAHADURGARH
DELHI
CHARKHI DADRI
(DADRI)
JHAJJAR
LOHARU
GURGAON
FARIDABAD
(BALLABGARH)
MAHENDRAGARH
REWARI
PALWAL
BAWAL
NUH
NARNAUL
(MAHENDRAGARH)
FEROZEPUR
JHIRKA
75°
76°
77°
31°
30°
29°
28°
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
East of Greenwich
DISTRICT HEADQUARTERS ARE ALSO TAHSIL HEADQUARTERS
WHERE THE DISTRICT / TAHSIL NAME DIFFERS FROM ITS HEADQUARTERS'
TOWN NAME, THE FORMER APPEARS WITHIN BRACKETS


HARYANA
RELIEF AND DRAINAGE
BOUNDARY, STATE
RIVERS / NADIS
SAND DUNES
CHANDIGARH
HIMACHAL PRADESH
SIWALIK RANGE
PUNJAB PLAINS
HARYANA
PRADESH
UTTAR
DELHI
R. GHAGGAR
GENERALISED RELIEF
900 (m)
600
300
Km 8 4 0 8 16 24 32 40
8 4 0 8 16 24 MILES
75° EAST OF GREENWICH
76°
77°
31°
30°
29°
28°

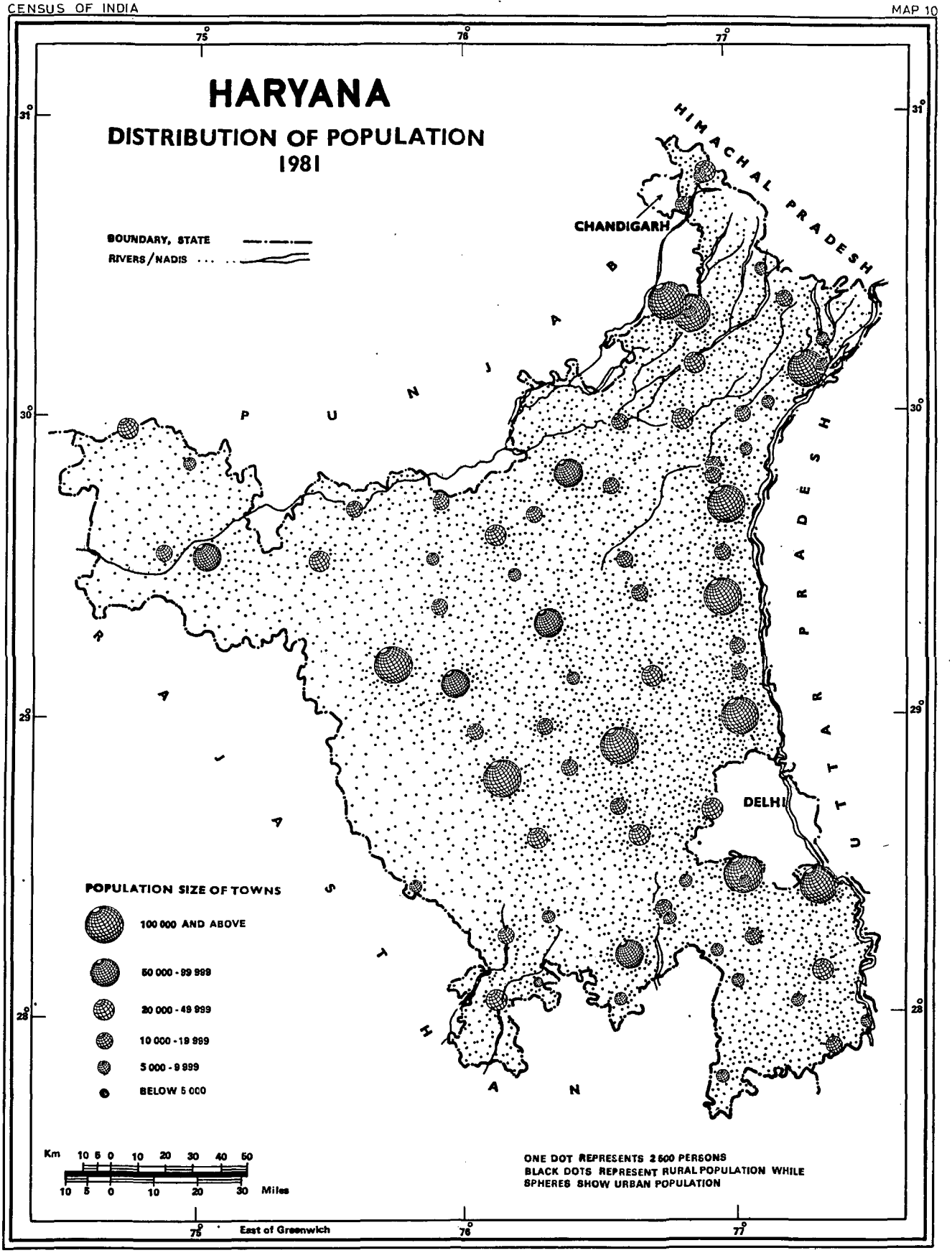

HARYANA
NORMAL MONTHLY AND ANNUAL RAINFALL
BOUNDARY, STATE
BOUNDARY, DISTRICT
HIMACHAL PRADESH
CHANDIGARH
PUNJAB
RAJASTHAN
UTTAR PRADESH
SIRSA
HISAR
JIND
KARNAL
SONIPAT
ROHTAK
BHIWANI
MAHENDRAGARH
GURGAON
FARIDABAD
DELHI
ANNUAL RAINFALL IN MILLIMETRES
1100
1000
900
800
700
600
500
400
300
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
East of Greenwich
75°
76°
77°
31°
30°
29°
28°

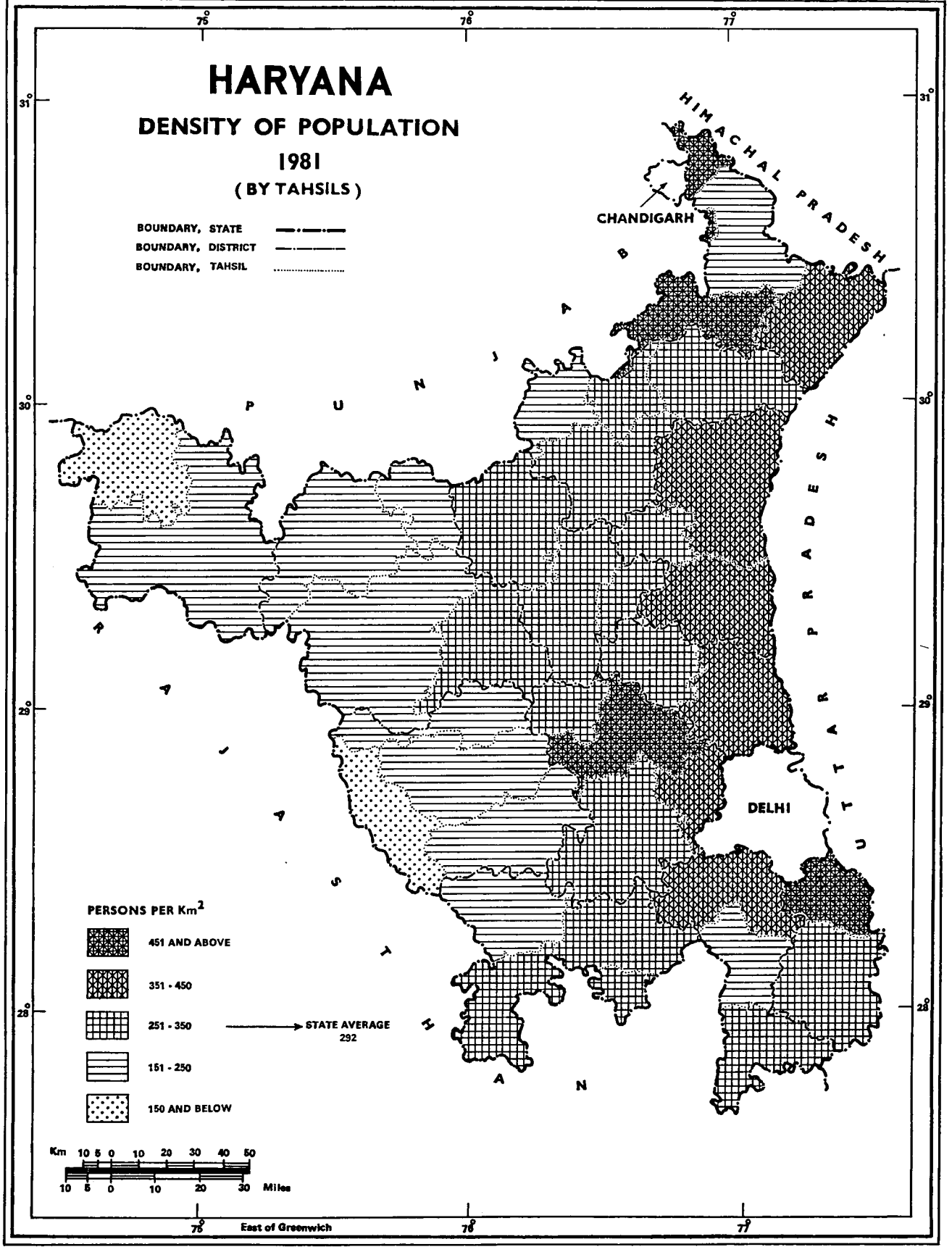

HARYANA
NORMAL MONTHLY AND ANNUAL TEMPERATURE
BOUNDARY, STATE
HIMACHAL PRADESH
CHANDIGARH
AMBALA
KARNAL
HISAR
NARNAUL
GURGAON
DELHI
PUNJAB
RAJASTHAN
UTTAR PRADESH
HARYANA
J F M A M J J A S O N D
ANNUAL TEMPERATURE IN CENTIGRADE
25.0
24.5
24.0
23.5
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
East of Greenwich
75° 76° 77°
31° 30° 29° 28°

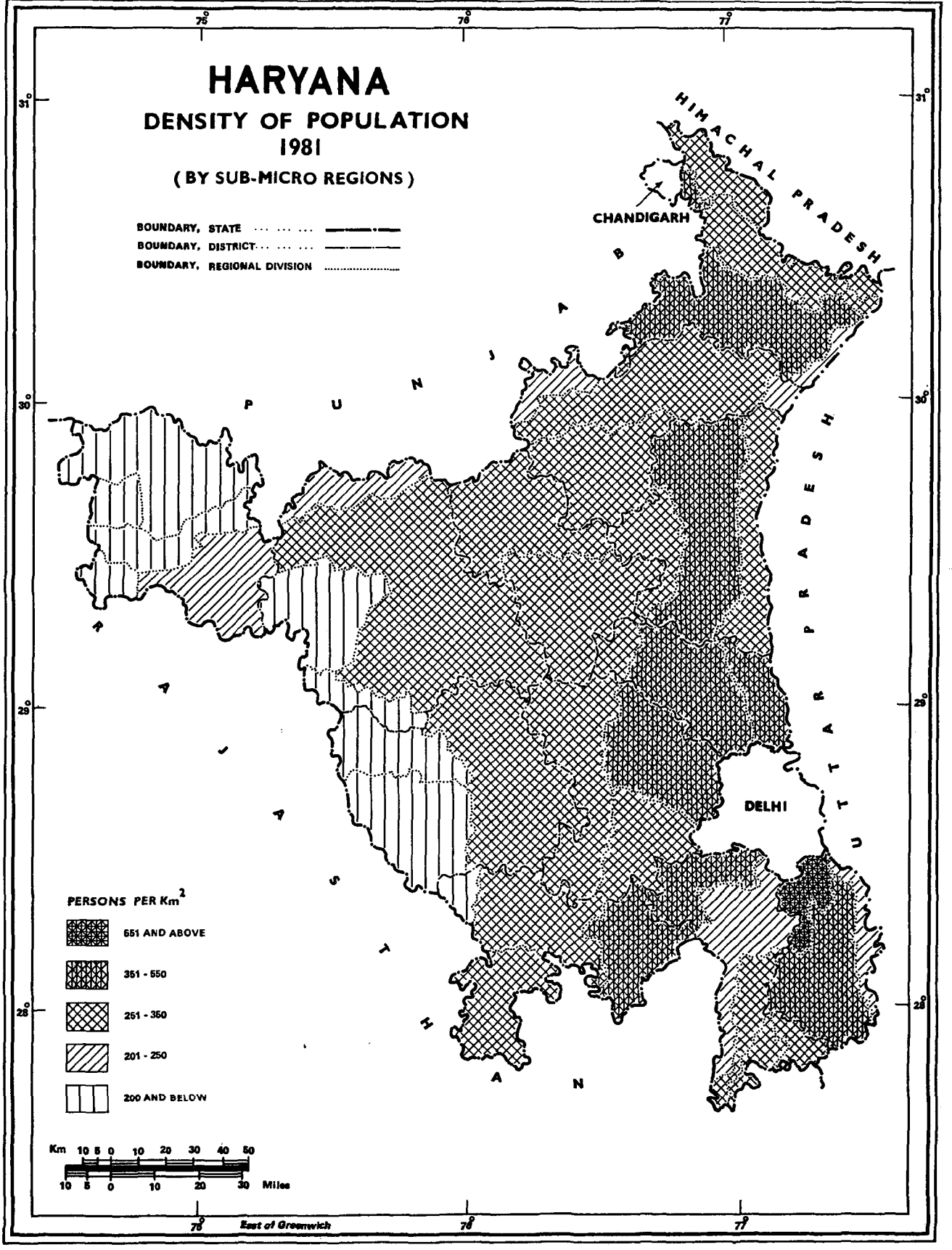

HARYANA
GEOLOGY
BOUNDARY, STATE
BOUNDARY, DISTRICT
CHANDIGARH
HIMACHAL PRADESH
PUNJAB
UTTAR PRADESH
RAJASTHAN
DELHI
ALLUVIUM
RECENT
SIWALIK
MIOPLEISTOCENE
MURREE SERIES (DAGSHAI KASAULI AND DHARMSALA BEDS / SIRMUR SERIES)
OLIGOCENE
DELHI GROUPS
MIDDLE PROTEROZOIC
JUTOGH GROUP/ VAIKRITA GROUP / CENTRAL GNEISS (EQUIVALENTS OF SALKHALAS)
MIDDLE PROTEROZOIC
FAULTS/ THRUSTS
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
75° East of Greenwich
76°
77°
31°
30°
29°
28°

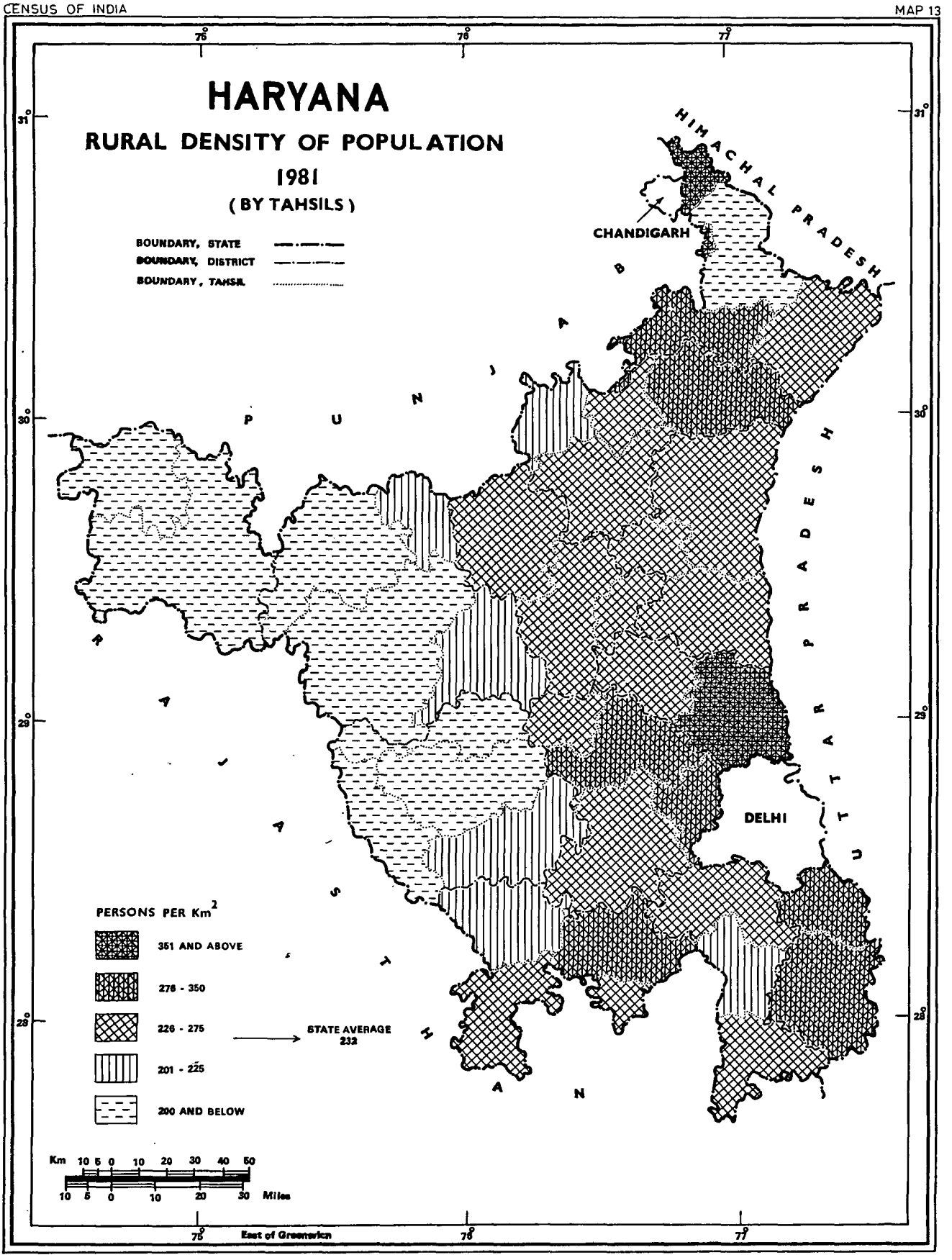


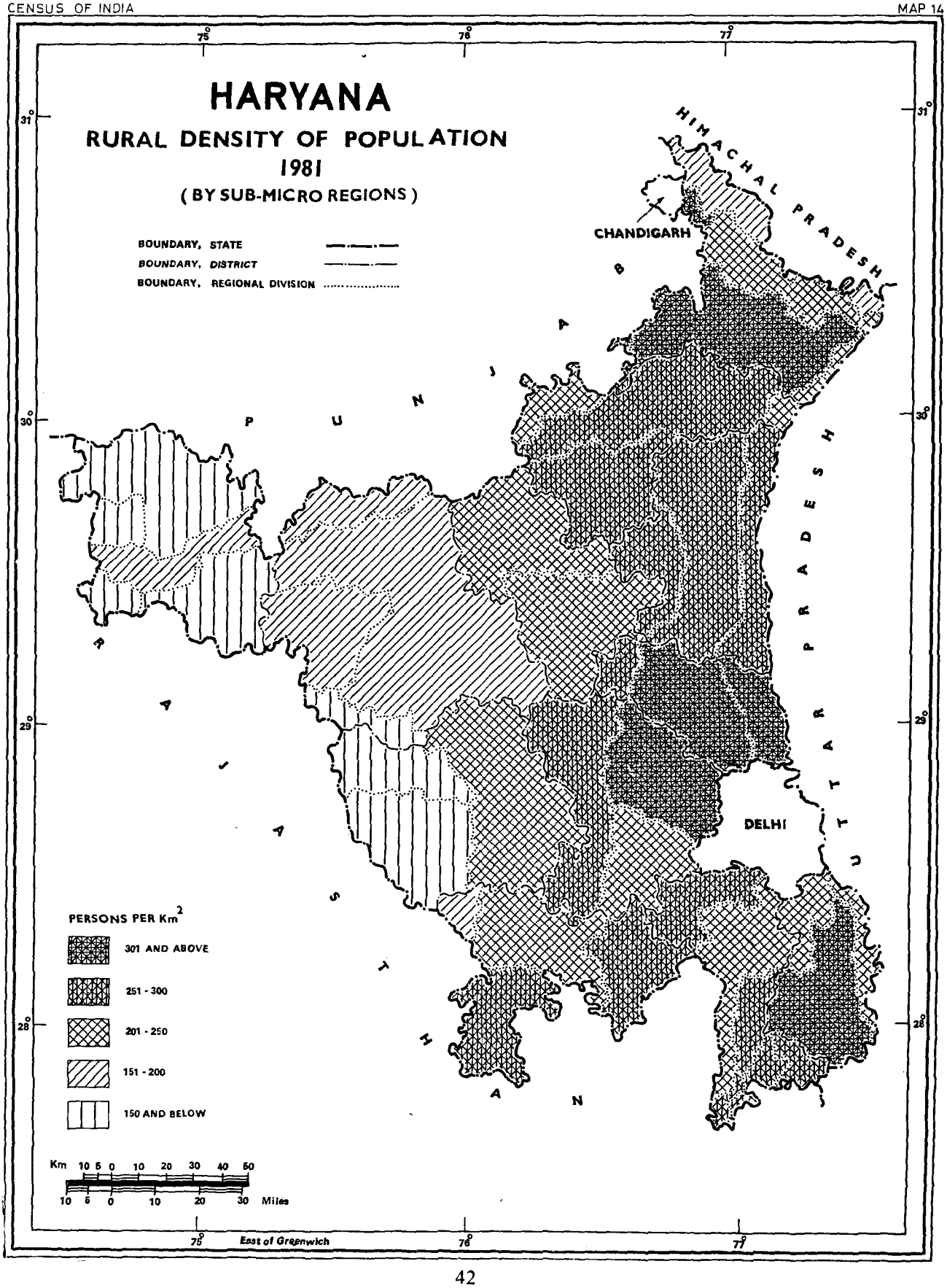
Source:-'Soils of India' Published by National Bureau of Soil Survey and Land Use Planning (I C A R), Nagpur.

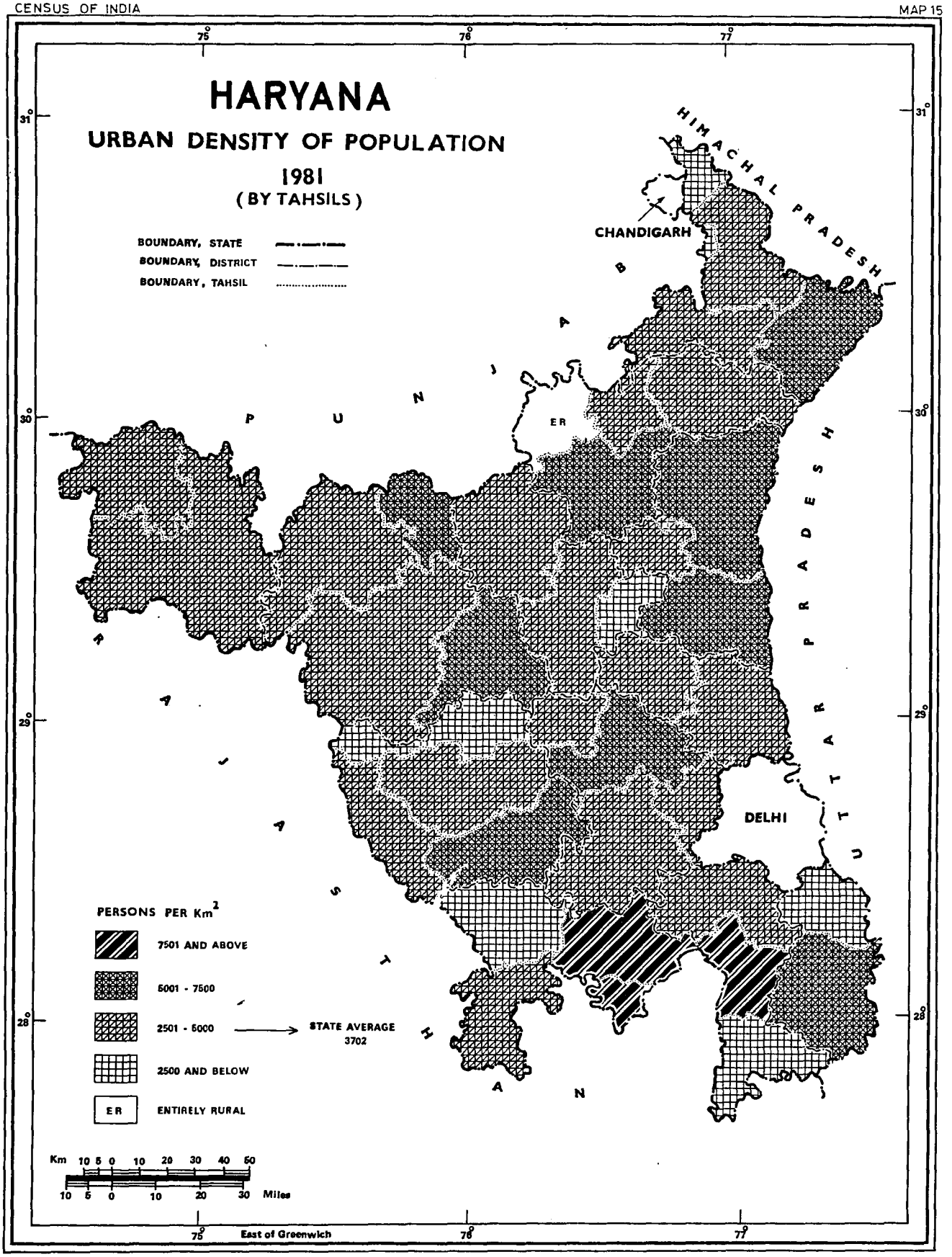

HARYANA
DISTRIBUTION OF POPULATION
1981
BOUNDARY, STATE
RIVERS/NADIS
CHANDIGARH
HIMACHAL PRADESH
PUNJAB
UTTAR PRADESH
DELHI
RAJASTHAN
POPULATION SIZE OF TOWNS
100 000 AND ABOVE
50 000 - 99 999
20 000 - 49 999
10 000 - 19 999
5 000 - 9 999
BELOW 5 000
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
ONE DOT REPRESENTS 2 500 PERSONS
BLACK DOTS REPRESENT RURAL POPULATION WHILE
SPHERES SHOW URBAN POPULATION
75° East of Greenwich
76°
77°
31°
30°
29°
28°

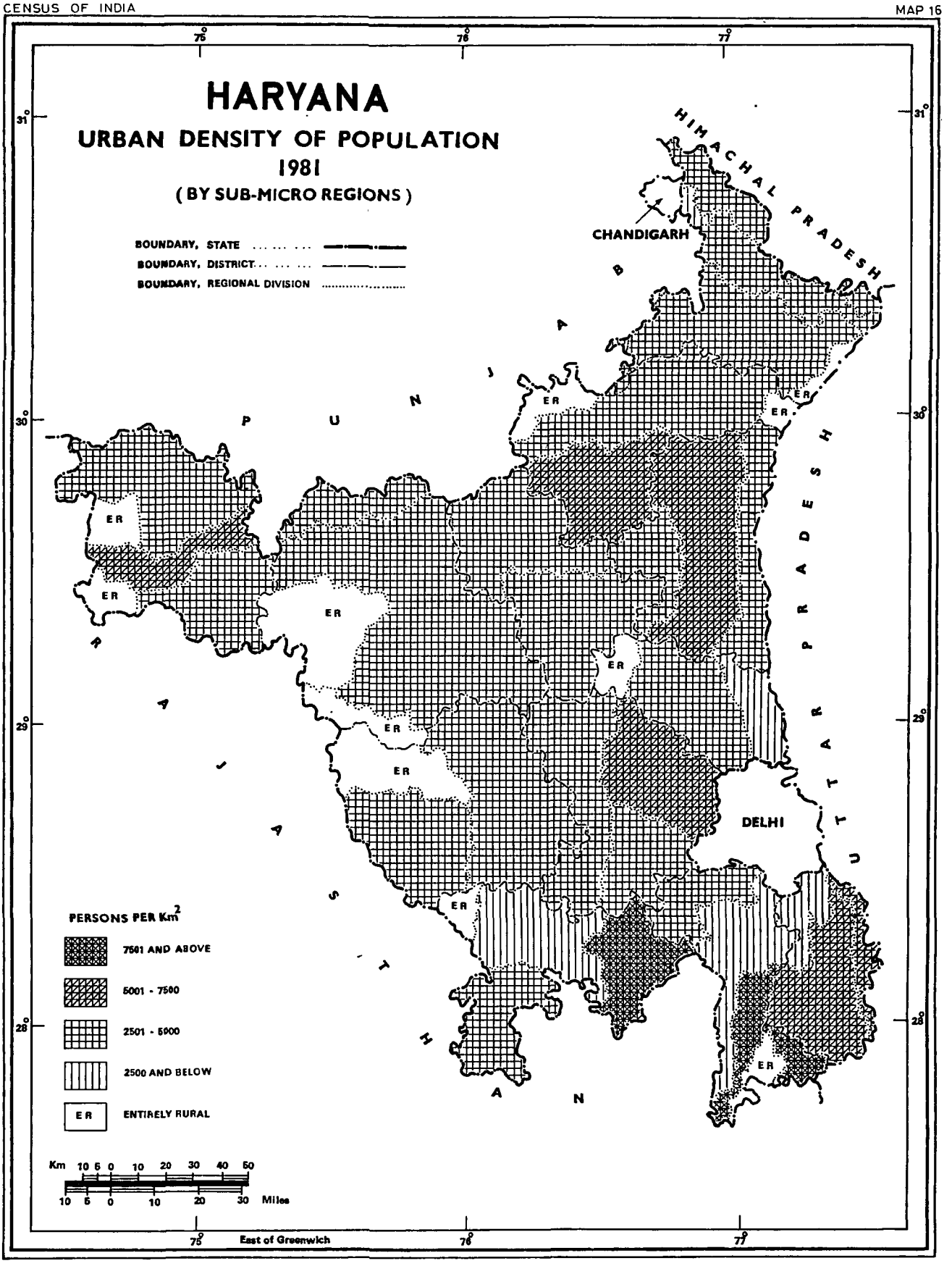

HARYANA
DENSITY OF POPULATION
1981
(BY TAHSILS)
BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
HIMACHAL PRADESH
CHANDIGARH
PUNJAB
UTTAR PRADESH
DELHI
RAJASTHAN
PERSONS PER Km²
451 AND ABOVE
351 - 450
251 - 350
STATE AVERAGE 292
151 - 250
150 AND BELOW
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
East of Greenwich
75° 76° 77°
31° 30° 29° 28°


HARYANA
DENSITY OF POPULATION
1981
(BY SUB-MICRO REGIONS)
BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, REGIONAL DIVISION
HIMACHAL PRADESH
CHANDIGARH
PUNJAB
RAJASTHAN
UTTAR PRADESH
DELHI
PERSONS PER Km²
651 AND ABOVE
351 - 550
251 - 350
201 - 250
200 AND BELOW
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
East of Greenwich
75° 76° 77°
31° 30° 29° 28°


HARYANA
RURAL DENSITY OF POPULATION
1981
(BY TAHSILS)
BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
HIMACHAL PRADESH
CHANDIGARH
PUNJAB
UTTAR PRADESH
DELHI
RAJASTHAN
PERSONS PER Km²
351 AND ABOVE
276 - 350
226 - 275
201 - 225
200 AND BELOW
STATE AVERAGE 232
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
East of Greenwich
75° 76° 77°
31° 30° 29° 28°


HARYANA
RURAL DENSITY OF POPULATION
1981
(BY SUB-MICRO REGIONS)
BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, REGIONAL DIVISION
CHANDIGARH
HIMACHAL PRADESH
PUNJAB
UTTAR PRADESH
RAJASTHAN
DELHI
PERSONS PER Km2
301 AND ABOVE
251 - 300
201 - 250
151 - 200
150 AND BELOW
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
75° East of Greenwich
76°
77°
31°
30°
29°
28°


HARYANA
URBAN DENSITY OF POPULATION
1981
(BY TAHSILS)
BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
CHANDIGARH
HIMACHAL PRADESH
PUNJAB
ER
UTTAR PRADESH
DELHI
RAJASTHAN
PERSONS PER Km²
7501 AND ABOVE
5001 - 7500
2501 - 5000
STATE AVERAGE 3702
2500 AND BELOW
ENTIRELY RURAL
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
75° East of Greenwich
76°
77°
31°
30°
29°
28°


HARYANA
URBAN DENSITY OF POPULATION
1981
(BY SUB-MICRO REGIONS)
BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, REGIONAL DIVISION
CHANDIGARH
HIMACHAL PRADESH
PUNJAB
UTTAR PRADESH
RAJASTHAN
DELHI
ER
PERSONS PER Km2
7501 AND ABOVE
5001 - 7500
2501 - 5000
2500 AND BELOW
ENTIRELY RURAL
Km 10 5 0 10 20 30 40 50
10 5 0 10 20 30 Miles
75° East of Greenwich
76°
77°
31°
30°
29°
28°

PART - III

REGIONAL DIVISIONS OF DISTRICTS

DISTRICT AMBALA
REGIONAL DIVISIONS

Ambala district is a part of the Eastern Haryana Plain (2.2.1). The name of the district is derived after its headquarters town, Ambala. According to a local tradition it was founded by one Amba Rajput during the 14th Century. Another version associate the name of the town with godess Bhawani Amba whose temple exists in the town. Yet another version is that the name of the town is a corruption from Ambwala or a place abounding in Mangoes.

The district lies between 30°02'30" and 30°55'5" North Latitudes and 76° 32'45" and 77° 36'20" East Longitudes. On its north and north-east are the districts of Solan and Sirmaur of Himachal Pradesh. To its east and south-east is the Yamuna river and across the river is Saharanpur district of U.P. On its south is the district of Kurukshetra. To its west are the districts of Patiala and Rupnagar of Punjab and Union Territory of Chandigarh.

The district has sharply rising Siwalik hills and foot hill rolling plain in north and north-east, a doon in Pinjore area and flood plains along the Ghaggar, Sarasvati and Yamuna rivers. Morni hills lying in Naraingarh tahsil constitute the highest point of district as well as of Harayana.

The district has a sub-tropical continental monsoon climate. The soils in the district are light loam (*Bet*), Piedmont (*Ghar and Kandi)* and Siwalik (*Pahar).* Area under reserved forests is 137 km^2. The soils as classified by NBSS & LUP (ICAR), Nagpur, the district has Ustalfs-Fluvents, Udalfs, Aquents—Fluents, Ochrepts-Orthents and Ochrepts- Psamments types of soils.

The total area of the district is 3832.00 km^2 having a population of 1,409,463, of which 753,308 persons are male and 656,155 persons are female in 1981. 945,686 persons are residing in the rural areas while 463,777 persons are living in urban areas. Literacy rate of the district is 44.62 per cent in 1981.

The district comprises the tahsils of kalka, Naraingarh, Ambala and Jagadhri. Kalka tahsil has 154 villages and 3 towns (Kalka, Pinjore and Panchkula U.E.). Naraingarh tahsil has 334 villages and two towns (Naraingarh and Sadaura). Ambala tahsil consists of 325 villages and four towns (Ambala, Ambala Cantt., Ambala Sadar and Babiyal) where as Jagadhri tahsil comprises 493 villages and five towns (Jagadhri W.R.C., Yamuanagar, Jagadhri, Buria and Chhachhrauli).

The district on the whole is sub-divided into following five sub-micro regions on the basis of geology, soils, topography, climate and natural vegetation :-

2.2.1.1 Kalka Siwalik

The region spreads over the northern and northeastern parts of Ambala district into five parts, occupying a larger part of Kalka tahsil and some hilly parts of Naraingarh and Jagadhri tahsils. The main part of its makes it boundaries with Ghaggar Flood Plain, Chandigarh (U.T.) and state of Punjab in the west, state of Himachal Pradesh in the north and east, Naraingarh Plain and Ghaggar Flood Plain in the south. Other three parts of the region make their boundaries with state of Himachal Pradesh in the north and Naraingarh Plain in the south. Another part of the region makes its limits with the state of Himachal Pradesh in the north-west and north, state of Uttar Pradesh in the east and Naraingarh Plain in the south and south-west. It includes 146 villages and 2 towns namely, Kalka and Pinjore. Kalka town is a terminus of Delhi-Kalka railway line and starting point of narrow gauge Kalka-Shimla railway line and gateway of Himachal Pradesh. A temple of Kalka Devi is located on Kalka-Shimla road. Pinjore town is an ancient historical and religious place. Both towns are tourist places with all facilities to the tourists i.e., tourist bungalows, rest houses, dispensaries, etc. Its area is 377.36 km^2 which is inhabited by 100,482 persons, of which 73,377 reside in rural and 27,105 in urban areas. The geological structure of this region is formed of Siwalik, Murree series and Jutogh group Vaikrita group, etc. The soils as classified by the NBSS & LUP (ICAR), Nagpur, are Ochrepts, Orthents and Udalfs types of soils with hilly topography and highest concetration of rainfall. The area is less developed in the district and its density is 266 persons per km^2. Transportation and communications' facilities in the region are as good as in hilly areas. Kalka is the main town known for transport activities. National Highway passes through Kalka town and a broad gauge railway line comes from Ambala Cantt. upto Kalka and then from Kalka, a narrow gauge railway line goes to Shimla. Foot paths and minor roads lead towards north-west from plain land alongwith the river bed and boundary of reserved forests.

2.2.1.2 Naraingarh Plain

The region extends over the parts of Kalka, Naraingarh

and Jagadhri tahsils. The regions makes its boundaries with state of Himachal Pradesh and Kalka Siwalik in the north, Ambala Plain in the south, Yamuna Khadar and state of Uttar Pradesh in the east and Ghaggar Flood Plain and state of Punjab in the west. It is a Piedmont plain (alluvial fan). It is traversed by a large number of rainfed streams. It is undulating and contains large streches of silt, sand and pebbles in the beds of seasonal streams which come down the slopes of Siwalik. The Naraingarh Plain is sandy undulating with a perceptible slope near the hills. The region contains 341 villages and 2 towns namely, Naraingarh and Sadaura. Naraingarh town is tahsil headquarters and Sadaura town is a place of antiquity as indicated by the discovery of ancientcoins. The region has an area of 876.9877 km^2 where 230, 283 persons are residing, of which 210, 782 are in rural and 19,501 in urban areas. The geological structure of this region is mainly counisted of alluvium (Recent)..

The soils are poor and sandy, lying on uneven surface and pebbles, shingles and boulders often lie close to the surface. The soils as classified by the NBBS & LUP (ICAR), Nagpur, the region has Ustalfs-Fluvents, Udalfs and Ochrepts-Orthents types of soils. The region has a density of 263 persons per km^2. In view points of the means of communications and transportation, the region on the whole, is well developed. All kinds of metalled and unmetalled and unmetalled roads are found.

2.2.1.3 Ghaggar Flood Plain

The region extends over the district in its western side alongwith Ghaggar river into three parts. One of its parts makes boundaries with U.T. of Chandigarh and state of Punjab in the west and Kalka Siwalik and Naraingarh Plain in the remaining three sides. Second part of this region is situated in extreme west of the district. It makes its limits with the state of Punjab from southwest to north-east and Ambala Plain from north-east to south-west. The third part of the region makes its boundaries with the state of Punjab in the north-west and south and Ambala, Plain in the east. It includes 50 villages and 1 town namely, Panchkula (U.E.). It is situated 270 km away from Delhi on Chandigarh-Shimla road. Its area is 128.83 km^2 which is inhabited by 52,558 persons of which 41,319 reside in rural and 11,239 in urban areas The geological structure of this region is consited of Alluvium (Recent). Soils are silt and clay. The region is river borne plain which has silts and clay over the area except silts, gravel and pebbles in the bed. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ochrepts-Orthents types of soils. Its density is 408 persons per km^2 which relfects its agricultural richness. All types of roads are serving the region.

2.2.1.4 Ambala Plain

The region extends over the parts of Ambala, Jagadhri and Naraingarh tahsils, covering the lower half of the district. The region makes its boundaries with Naraingarh Plain in the north, Yamuna Khadar in the east, Kurukshetra district in the south and the state of Punjab and Ghaggar Flood Plain in the west. The region slopes towards the south-west in which direction the rivers/streams flow. Geologically, it is comming under Alluvium (Recent). Soils in the region are coarse loam (*Dahar* and *Chaeknote*), light loam (*Seoti*) and loam (*Bhangar* and *Nardak*). The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ustalfs-Fluvents, Cohrepts-Orthents and Aquents-Fluvents, types of soils. The area is rich in agriculture, agro-based industries, scientific instruments and metal industries and also has a good net work of communications. The region contains 694 villages and 9 towns namely, Ambala (district headquarters town) Ambala Cantt., Ambala Sadar, Babiyal, Jagadhri WRC, Jagadhri, Yamunagar, Buria and Chhachhrauli. Ambala Cantt. has assumed importance as the centre for the manufacture of scientific and surgical instruments and as an important rail junction. Jagadhri, Buria and Chhachhrauli towns are having historical importance. The region has an area of 1933.628 km^2 and is inhabited by 977,265 persons, of which 571,333 reside in rural and 405,932 in urban areas. The region has a density of 505 persons per km^2which speaks of its productiveness and industrial development. The region has well developed system of transportation and means of communications.

2.2.1.5 Yamuna Khadar

The region extends over the eastern part in Jagadhri tahsil along the Yamuna river. It is surrounded by Naraingarh Plain in the north, state of Uttar Pradesh in the east, Kurukshetra district in the south and Ambala Plain in the west. The region is formed by deposition of the alluvial sediments, clay and sand. Water worn gravel and pebbles are also visible in the bed in the lower part. Geological structure of this region is consisted of Alluvium(Recent).It is having silty loam type of soil. Silty loam is an easy workable and productive except some patches of land which are under bad effect of riverian action and covered with thorny bushy types of vegetation. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils. It contains 68 villages with an area of 178.691 km^2 and is inhabited by 42,754 persons which is entirely rural. Its density is 239 persons per km^2. With regard to the means of transportation, the region has good connection of roads from village to village. A main road and railway (N.R.

Broad gauge) which run between Saharanpur and Ambala are important in this region.

Note : Seven villages of ambala tahsil have been considered as a part of Bet Kurukshetra in Kurukshetra district being a contiguous area.

The unsurveyed area (214.70 km^2) of Naraingarh tahsil has not been included in any sub-micro region, as the compiled area is based on villagewise figures.

HARYANA
DISTRICT AMBALA
CENSUS CODE 01
REGIONAL DIVISIONS

Km 5 0 5 10 15 20
5 4 3 2 1 0 5 10 Miles

2.2.1.1 KALKA SIWALIK
2.2.1.2 NARAINGARH PLAIN
2.2.1.3 GHAGGAR FLOOD PLAIN
2.2.1.4 AMBALA PLAIN
2.2.1.5 YAMUNA KHADAR

76° 45' 77° 0' 77° 15' 77° 30'
30° 45' 30° 30' 30° 15'

PUNJAB
HIMACHAL PRADESH
UTTAR PRADESH
DISTRICT KURUKSHETRA

From Nalagarh
KALKA
To Shimla
Pinjore (Rural)
PINJORE
From Chandigarh
Ghaggar River
CHANDIGARH U.T.
PANCHKULA URBAN ESTATE
From Derabassi
Part of Tahsil Kalka
From Ambala
Dangri Nadi
Baliali Nadi
To Nahan
NARAINGARH
From Rajpura
NH 1
AMBALA
AMBALA CANTT.
BABIYAL
AMBALA SADAR
Begna Nadi
SADAURA
Boli Nadi
Somb Nadi
To Paonta Sahib
Markanda River
Saraswati River
Bilaspur
Chautang
CHHACHHRAULI
Behta
Barara
Mustafabad
Kharwan
Yamuna River
From Shahbad
From Pehowa
Part of District Kurukshetra 2.2.1.4
JAGADHRI
BURIA
JAGADHRI WRC
YAMUNA-NAGAR
Rakhsi Nadi
From Ladwa
To Saharanpur
Part of Tahsil Ambala

2.2.1.1 2.2.1.2 2.2.1.3 2.2.1.4 2.2.1.5

2.2.1.3 Part of Ambala district considered as a part of Bet Kurukshetra in Kurukshetra district for micro region.

GEOLOGY

Km 10 0 10
10 0 10 Miles

- Alluvium — RECENT
- Siwalik — MIO-PLEISTOCENE
- Murree Series (Dagshai Kasauli and Dharmsla Beds/Sirmur Series) — OLIGOCENE
- Jutogh Group/Vaikrita Group/Central Gneiss (quivalents of Salkhalas) — MIDDLE PROTEROZOIC
- Faults/Thrusts

SOILS

Km 10 0 10
10 0 10 Miles

72 10 20 72 33 73 72

- Ustalfs – Fluvents (10)
- Udalfs (20)
- Aquents – Fluvents (33)
- Ochrepts – Orthents (72)
- Ochrepts – Psamments (73)

- BOUNDARY, STATE
- BOUNDARY, DISTRICT
- BOUNDARY, TAHSIL
- REGIONAL DIVISIONS — 2. 2. 1. 1
- MACRO
- MESO
- MICRO
- SUB-MICRO WITH BOUNDARY
- NATIONAL HIGHWAY — NH 22
- STATE HIGHWAY — SH 31
- IMPORTANT METALLED ROAD
- RAILWAY LINE WITH STATION, BROAD GAUGE — RS
- RAILWAY LINE WITH STATION, NARROW GAUGE — RS
- RIVER AND STREAM; RESERVED FOREST — RF
- VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME — Barara
- URBAN AREA

[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

77° 15' East of Greenwich 77° 30'

DATA ON REGIONAL DIVISIONS

District Name AMBALA Census Location Code No. 01 State HARYANA

Sl. No.	District	Region No. and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Ambala	2.2.1.1. Kalka Siwalik	146 Villages (113 Villages in Kalka Tahsil 21 Villages in Naraingarh Tahsil 12 Villages in Jagadhri Tahsil)	2 Towns Kalka M.C. & Pinjore M.C. in Kalka Tahsil	377.36	370.53	6.83	100 482	73 377	27 105
2.		2.2.1.2 Naraingarh Plain	341 Villages (17 Villages in Kalka Tahsil 215 Villages in Naraingarh Tahsil 109 Villages in Jagadhri Tahsil)	2 Towns Naraingarh M.C & Sadaura M.C. in Naraingarh Tahsil	876.9877	872.9377	4.05	230 283	210 782	19 501
3		2.2.1.3 Ghaggar Flood Plain	50 Villages (24 Villages in Kalka Tahsil 11 Villages in Naraingarh Tahsil 15 Villages in Ambala Tahsil)	1 Town Panchkula U.E. in Kalka Tahsil	128.83	118.46	10.37	52 558	41 319	11 239.
4.		2.2.1.4 Ambala Plain	694 Villages (87 Villages in Naraingarh Tahsil 303 Villages in Ambala Tahsil 304 Villages in Jagadhri Tahsil)	9 Towns Ambala M.C. Ambala Cantt. Ambala Sadar M.C. Babiyal C.T. in Ambala Tahsil Jagadhri W.R.C. M.C. Yamuna-Nagar M.C. Jagadhri M.C.	1933.628	1846.138	87.49	977 265	571 333	405 932

1	2	3	4	5	6	7	8	9	10	11
				Buria M.C. & Chhachhrauli M.C. in Jagadhri Tahsil						
5.		2.2.1.5 Yamuna Khadar	68 Villages (All in Jagadhri Tahsil)	—	178.691	178.691	—	42 754	42 754	—

REGION-WISE VILLAGE CODES, 1981

District Name AMBALA Census Location Code No. 01 State HARYANA

Sl. No.	Division Numbers & Name	Tahsil	Location Code No. of Census Villages as per 1981	Total No of Villages of Tahsil	Total No. of Villages and Towns in division	Area of regional division in km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.1.1 Kalka Siwalik	Kalka Tahsil	1 to 111, 114, 119	113 Villages			Code No. 112, 113, 115 to 118 in region 2.2.1.3
		Naraingarh Tahsil	5 to 7, 15 to 28, 267, 268, 272, 273	21 Villages			Code No. 14, 29 to 47, 49 to 86, 89 to 96, 107, 108, 137 to 142, 160, 162 to 261, 266, 269 to 271 are in region 2.2.1.2 Code No. 8 to 13, 48 are in region 2.2.1.3 Code No. 87, 88, 97 to 106, 109 to 136, 143 to 159, 161, 262 to 265 are in region 2.2.1.4
		Jagadhri Tahsil	43, 44, 51, 54, 55, 170, 171, 182 to 185, 190	12 Villages	146 Villages + 2 Towns	377.36	Code No. 45 to 50, 52, 53, 56 to 80, 84, 87 to 94, 96 to 99, 160 to 169, 172, to 174, 176 to 181, 186 to 189 are in region 2.2.1.2 Code No. 81 to 83, 85, 86, 95, 100 to 159, 175 are in region 2.2.1.4
2.	2.2.1.2 Naraingarh Plain	Naraingarh Tahsil	14, 29 to 47, 49 to 86, 89 to 96, 107, 208, 137 to 142, 160, 162 to 261, 266, 269 to 271, 274 to 303, 315 to 320	215 Villages			Code No. 15 to 28, 267, 268, 272, 273 are in region 2.2.1.1 Code No. 48 is in region 2.2.1.3 Code No. 87, 88, 97 to 106, 109 to 136, 143 to 159, 161, 262 to 265, 267, 268, 304 to 314 are in region 2.2.1.4
		Jagadhri Tahsil	4 to 12, 15, 16, 21 to 42, 45 to 50, 52, 53, 56 to 80, 84, 87 to 94, 96 to 99, 160 to 169, 172 to 174, 176 to 181, 186 to 189, 191 to 194, 196, 203, 399	109 Villages			Code No. 43,44,51,54,55,170, 171, 182, t0 185, 190, are in region 2.2.1.1 Code No. 195, 227 to 230, 235 to 269 271 to 275, 280, 281, 283, 289, 312, 313, 316 to 324, 330 to 336 are in region 2.2.1.5 Code No. 13, 14, 17 to 20, 81, 82, 83, 85, 86, 95, 100 to 159, 175, 197 to 202, 204 to 226, 231 to 234, 270, 276 to 279, 282, 284 to 288, 290 to 311, 314, 315, 325 to 329, 337 to 398 are in region 2.2.1.4
		Kalka Tahsil	138 to 154	17 Villages	341 Villages + 2 Towns	876.9877	
3.	2.2.1.3 Ghaggar Flood Plain	Kalka Tahsil	112, 113, 115 to 118, 120 to 137	24 Villages			Code No. 114, 119 are in region 2.2.1.1

	2	3	4	5	6	7	8
		Naraingarh Tahsil	1 to 4, 8 to 13, 48	11 Villages			Code No. 5 to 7, 15 to 28 are in region 2.2.1.1 Code No. 14, 29 to 47 are in region 2.2.1.2
		Ambala Tahsil	3 to 11, 299 to 304	15 Villages	50 Villages + 1 Town	128.83	Code No. 12 to 298 are in region 2.2.1.4
4.	2.2.1.4 Ambala .Plain	Ambala Tahsil	1, 2, 12 to 298, 305 to 318	303 Villages			Code No. 3 to 11, 299 to 304 are in region 2.2.1.3 Code No. 319 to 325 are considered as a part of Bet Kurukshetra in Kurukshetra district being contiguous area.
		Naraingarh Tahsil	87, 88, 97 to 106, 109 to 136, 143 to 159, 161, 262 to 265, 304 to 314, 321 to 334	87 Villages			Code No. 267, 268, 272, 273 are in region 2.2.1.1 Code No. 89 to 96, 107, 108, 137 to 142, 160, 162 to 261, 266, 269 to 271, 274 to 303, 315 to 320 are in region 2.2.1.2
		Jagadhri Tahsil	1 to 3, 13, 14, 17 to 20, 81 to 83, 85, 86, 95, 100 to 159, 175, 197 to 202, 204 to 226, 231 to 234, 270, 276 to 279, 282, 284 to 288, 290 to 311, 314, 315, 325 to 329, 337 to 398, 400 to 489, 491 to 493	304 Villages	694 Villages + 9 Towns	1933.628	Code No. 43, 44, 51, 54, 55, 170, 171, 182 to 185, 190 are in region 2.2.1.1 Code No. 4 to 12, 15, 16, 21 to 42, 45 to 50, 52, 53, 56 to 80, 84, 87 to 94, 96 to 99, 160 to 169, 172 to 174, 176 to 181, 186 to 189, 191 to 194, 196, 203, 399 are in region 2.2.1.2 Code No. 195, 227 to 230, 235 to 269, 271 to 275, 280, 281, 283, 289, 312, 313, 316 to 324, 330 to 336, 490 are in region 2.2.1.5
5.	2.2.1.5 Yamuna Khadar	Jagadhri Tahsil	195, 227 to 230, 235 to 269, 271 to 275, 280, 281, 283, 289 312, 313, 316 to 324, 330 to 336, 490	68 Villages	68 Villages	178.691	Code No. 196, 203, 399 are in region 2.2.1.2 Code No. 197 to 202, 204 to 226, 231 to 234, 270, 276 to 279, 282, 284 to 288, 290 to 311, 314, 315, 325 to 329, 337 to 398, 400 to 489 are in region 2.2.1.4

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name AMBALA Census Location No. 01 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics
1	2	3	4	5	6	7 8
Haryana	Ambala	2.2.1.1 Kalka Siwalik	Kalka tahsil, Naraingarh tahsil & Jagadhri tahsil	Siwalik Murree Series (Dagshai, Kasauli and Dharmsala Beds/Sirmur series) and Jutogh group/ Vaikrita group/ Central Gneiss (equivalents of Salkhalas)	Ochrepts-Orthents and Udalfs	The region spreads over north and north eastern parts of Ambala district occupying a large part of Kalka tahsil, some parts of Naraingarh tahsil and Jagadhri tahsil. The region extends into five parts over the district. The main parts of the region makes its boundaries with Ghaggar Flood Plain, Chandigarh (U.T.) and state of Punjab in the west, state of Himachal Pradesh in the north and east, Naraingarh Plain and Ghaggar Flood Plain in the south. Other three parts of the region make their surrounding boundaries with state of Himachal Pradesh in the north and Naraingarh Plain in the south. Another part of the region makes its limits with the state of Himachal Pradesh in the north-west and north, state of Uttar Pradesh in the east and Naraingarh Plain in the south and south-west. From relief point of view, the region has maximum height of 1206 metres above m.s.l. near village Bhoj Jabial (23) in Naraingarh tahsil while the minimum height is 480 metres near village sitomajra (6) in Kalka tahsil. The maximum height is on the top of Morni Hills. Ambala district is bounded by the sharply-rising and straight Siwalik ranges forming a narrow belt which is mostly sub-mountainous in the north. A large number of rainy seasonal torrents come down the outer slope of the Siwalik and spread much gravel boulders and pebbles in the region. Ghaggar river, Dangri *Nadi*, Somb *Nadi*, Boli *Nadi*, etc. arise from this Siwalik range, which drain the plain land of Ambala district. Mostly, the land is covered with forests in the region and only a few patches of lands which are lying by the side of streams and rivulets are under cultivation. Soils found in the region are rocky and hilly. In very rare places it has *Ghar* & *Kandi* types of soils. Soils as classified by NBSS & LUP (ICAR), Nagpur, the region has Ochrepts-Orthents and Udalfs types of soils. Ochrepts : Shallow black, brown & alluvial soils of northern region. Orthents : Recently formed soils. Udalfs : High base status soils of humid regions. Transportation and communication facilities in the region are as good as in the hilly areas, Kalka is a main town-known for transport activities. National Highway

1	2	3	4	5	6	7	8
						passes through Kalka town and Broad gauge railway line comes from Ambala Cantt. upto Kalka and then from Kalka. a narrow gauge railway line goes to Shimla. Foot paths and minor roads lead towards north-west from plain area along with the river bed and the boundary of reserved forests.	
Haryana	Ambala	2.2.1.2 Naraingarh Plain	Kalka, tahsil, Nariangarh tahsil and Jagadhri tahsil	Alluvium	Ustalfs-Fluvents, Udalfs & Ochrepts-Orthents	The region extends over the parts of Kalka, Nariangarh and Jagadhri tahsils. The region makes its boundaries with state of Himachal Pradesh and Kalka Siwalik in the north, Ambala Plain in the south, Yamuna Khadar and state of Uttar Pradesh in the east and Ghaggar Flood Plain & state of Punjab in the west. From relief point of view, the maximum height of the region is 343 metres above m.s.l. near village Tibi Majra (57) in Naraingarh tahsil while the minimum height is 327 metres near village Bir Tahanpur (169) in Jagadhri tahsil. It is transitional track between the Kalka Siwalik and Ambala Plain. It is traversed by a large number of rainy seasonal streams of which the Chautang river, Markanda, Somb and Boli *Nadis* are the important ones. It is undulating and contains large stretches of silts and pebbles in the beds of the seasonal streams which come down the slopes of Siwalik. The region is mostly covered by sandy shingly soils much overgrown with thorn bushes and cut by ravines. The area is known as *Ghar* in Kalka and Naraingarh tahsils and *Kandi* in Jagadhri tahsil. Broken Piedmont area called *Ghar*, is mostly of a very inferior characteristics. *Kandi* in Jagadhri is a sandy uneven track. The land whether *Ghar* or *Kandi* is in similar situation and character, being throughout a sandy shingly broken area much honey-combed with small ravines and called *Darrar* the locally recognised name of land hopelessly cut up by deep ravines. The soils are poor and sandy, lying on uneven surface, and pebbles, shingles and boulders often life close to the surface. Soils as classified by NBSS & LUP (ICAR), Nagpur, the region has Ustalfs-Fluvents, Udalfs and Ochrepts-Orthents types of soils. Ustalfs : High base status-red loamy, red sandy and alluvial soils. Fluvents : Alluvial soils (Recent alluvium). Udalfs : High base status soils of humid regions. Ochrepts : Shallow black, brown and alluvial soils of northern region. Ochrepts : Shallow black, brown and alluvial soils of northern region. Orthents : Recently formed soils. In view to the means of communications and transportation, the region on the whole, is well developed. All kinds of metalled roads are found in the region connecting the towns with each other situated in the region namely, Naraingarh and Sadaura towns in Naraingarh tahsil. Most of the villages are interlinked by minor metalled roads footpaths & tracks.	

1	2	3	4	5	6	7	8
Haryana	Ambala	2.2.1.3 Ghaggar Flood Plain	Kalka tahsil, Naraingarh tahsil & Ambala tahsil	Alluvium	Ochrepts-Orthents	The region extends over three parts in western side of the district. One of its parts lies in Kalka and Naraingarh tahsils. This part makes its boundaries with U.T. of Chandigarh and state of Punjab in the west and Kalka Siwalik and Naraingarh Plain in the remaining three sides. Second part of this region situated in the extreme west of the distrct. covering 9 villages. It makes its limits with the state of Punjab from south-west to north-east and Ambala Plain in the east. The third part makes its boundaries with the state of Punjab in the north-west and south and Ambala Plain in the east. From relief point of view, the region has the maximum height of 487 metres above m.s.l. near village Bhainsa Tibba (120) inKalka tahsil, while minimum height is 254 metres near village Dhelo Majra (300) in Ambala tahsil. The flood plain is drained by the main river Ghaggar along with other seasonal streams. The region is river-borne plain which has silts and clay over the region except silts, gravel and pebbles in the bed. After rainy season the streams come into the limits of bed. Soils as classified by NBSS & LUP (ICAR), Nagpur, the region has Ochrepts-Orthents types of soils. Ochrepts : Shallow black, brown and alluvial soils of northern region. Orthents : Recently formed soils. With regard to the means of tranportation, *Pucca* and *Kutcha* roads are serving the region. Panchkula Urban Estate is a developing town in the region.	
Haryana	Ambala	2.2.1.4 Ambala Plain	Naraingarh tahsil, Ambala tahsil & Jagadhri tahsil	Alluvium	Ustalfs-Fluvents. Ochrepts-Orthents & Aquents-Fluvents	The region extends over parts of Ambala, Jagadhri and Naraingarh tahsils of the district. It covers the lower half of the district. The region makes its boundaries with Naraingarh Plain in the north, Yamuna Khadar in the east, Kurukshetra district in the south and the state of Punjab and Ghaggar Flood Plain in the west. From physiographic point of view, the maximum height of the region is 299 metres above m.s.l. near village Kakrali (87) in Naraingarh tahsil and in village Bhogpur (4) in Jagadhri tahsil while the minimum height is 265 metres above m.s.l. near village Kanwala (48) in Ambala tahsil. The region slopes towards South-west. Markanda river, Chautang river and Sarasvati river are the main rivers which drain the region along with its tributaries. Seasonal streams and other rivulets like Dangri *Nadi*, Somb *Nadi*, Boli *Nadi*, Begna *Nadi*, etc. bring rain water from Siwalik & Naraingarh Plain in the rainy season. The region is largely cleared off of natural vegetation for cultivation. The soils found in the region are coarse loam (*Dahar & Chaeknote*), light loam *(Seoti)* and loam *(Bhangar & Nardak)*. Loam soils is compact & stiff. It is less granular	

1	2	3	4	5	6	7	8
						and has a low water holding capacity. Light loam is easily ploughed and fit for agriculture because it needs little moisture for germination and growth of crops. Soils as classified by NBSS & LUP (ICAR), Nagpur, the region has Ustalfs-Fluvents, Ochrepts-Orthents and Aquents-Fluvents types of soils. Ustalfs : High base status-red loamy, red sandy and alluvial soils. Fluvents : Alluvial soils (Recent alluvium). Ochrepts : Shallow black, brown and alluvial soils of northern region. Aquents : Recently formed hydromorphic alluvial soils. Orthents : Recently formed soils. With regard to the means of communications and transportation, the region is well developed. Towns of Ambala Cantt., Ambala Sadar and Babiyal are grown up in the western part of the region and Yamunanagar, Jagadhri & Jagadhri (WRC), Buria & Chhachhrauli in the eastern part which are interlinked with each other by major metalled roads and railways (Broad gauge). Mostly villages are also connected by the metalled roads. Therefore the habitants have good facility for marketing their products. The region is an industrial hub of the state and known for the scientific and utensils industries.	
Haryana	Ambala	2.2.1.5 Yamuna Khadar	Jagadhri tahsil	Alluvium	Aquents-Fluvents	The region extends over the eastern part in Jagadhri tahsil of the district. It is surrounding by Naraingarh Plain in the north, state of Uttar Pradesh in the east, Kurukshetra district in the south and Ambala Plain in the west. From relief point of view, the maximum height of the region is BM 280.4 metres above m.s.l. near village Lahoriwala (246) while the minimum height is 272 metres near village Ghoron (258). Both the heights are lying in the Jagadhri tahsil. The region is formed by deposition of the alluvial sediments, clay & sand. Water-worn gravel and pebbles are also seen in the bed in lower part towards Kurukshetra district. It is flooded with sands, silt, mud and clay. There is less of *Kankar* and *Reh* formation in it. Soils as classified by NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils. Aquents : Recently formed hydromorphic alluvial soils. Fluvents : Alluvial soils (Recent alluvium). Silty loam is an easy workable and productive therefore the entire region is under cultivation except some patches of land which are under bad effect of riverian-action and covered with thorny bushy type of vegetation. With regard to the means of transportation, the region has good link roads from village to village. A main road and railway (N.R., Broad guage) which run between Saharanpur and Ambala are important in this region. Note : Code numbers are written within brackets after village names.	

DISTRICT KURUKSHETRA
REGIONAL DIVISIONS

Kurukshetra district is a part of the Eastern Haryana Plain (2.2.1). The name of Kurukshetra is associated in the Puranas and the Great Epic with legendary King Kuru. Mythologically, the name kurukshetra applies to a circuit of about 128 km^2 which includes a large number of holy places, temples, tanks, conncected with the ancient Indian tradition and the Mahabharata war. The district lies between 29° 34' 15" and 30° 15' 15" North Latituds and 76° 10' 10" and 77° 17' 5" East Longituds. On its north lies the districts of Ambala and Patiala. Patiala district of Punjab has boundary with Kurukshetra extended upto north-west. To its west and south-west is the district of Jind. Karnal district lies on its south and south-east. Yamuna river makes the eastern boundary of the district and across the river lies Saharanpur district of Uttar Pradesh.

On the whole, the district is a plain which slopes from north-east to south and south-west. The plain is remarkably flat. Yamuna, Sarasvati, Markanda and Ghaggar are the important rivers of the district. The district has a sub-tropical continental monsoon climate. The geological structure of this district is formed of Alluvium (Recent). The old alluviam lying between *Khadar* of the Yamuna river and the *Naili* and *Bet* of the northern river. The soils as classified by NBSS & LUP (ICAR), Nagpur, the district has Ustalfs-Fluvents, Aquents-Fluvents, Aquepts-Ochrepts and Ochrepts-Orthents types of soils.

The total area of the district is 3740.00 km^2 having a population of 1,130,026, of which 606,571 persons are male and 523,455 persons are female in 1981. 943,974 persons are residing in the rural areas while 186,052 persons are living in urban areas. Literacy rate of th district is 32.40 per cent in 1981.

The present Kurukshetra district comprises the tahsils of Pehowa, Guhla, Kaithal and Thanesar. Pehowa tahsil has 98 villages and one town (Pehowa). Guhla tahsil has 115 vilalges only. Kaithal tahsil has 134 villages and two towns of Kaithal and Pundri whereas Thanesar tahsil comprises 396 villages and four towns, namely, Shahbad, Thanesar, Ladwa and Radaur. The district on the whole is sub-divided into following four sub-micro regions on the basis of soils, natural vegetation and topography :-

2.2.1.1 Yamuna Khadar

The region spreads over the eastern part of Thanesar tahsil along the Yamuna river. It makes its boundaries with the state of Uttar Pradesh in the east, Karnal district in the south, Bet Kurukshetra in the west and Ambala district in the north. The region is formed by deposition of the alluvial sediments, clay and sand. The soil of the region is river borne (silt and loam) which is locally known as Yamuna Khadar, The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils. It contains 41 villages with an area of 127.03 km^2 and is inhabited by 30,415 persons which is entirely rural. Its density is 239 persons per km^2. Modern facilities of communications and transportation are not developed here due to riverian action. Mainly villages are interlinked with minor roads and foot paths.

2.2.1.2 Kaithal Plain

The region extends over the lower half of the district covering the whole of Kaithal tahsil (except two villages-code 6 & 7) and also including two villages of Guhla tahsil and four villages of Pehowa tahsil. It makes its limits with Bet Kurukshetra in the north, Karnal district in the east and south-east and state of Punjab and Jind district in the west and south-west. It is a *Bhangar* area, at very depths contains carbonate of lime, usually occuring in nodules called *Kankar*. The soil is less granular and has a low water holding capacity. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts and Ochrepts-Orthents types of soils. On the whole, the area is under extensive agriculture due to canal irrigation from western Yamuna canal. It contains 138 villages and two towns namely, Kaithal and Pundri with an area of 1228.6044 km^2 and is inhabited by 395,119 persons, of which 324,930 reside in rural and 70,189 in urban areas. Its density is 322 persons per km^2. With regard to the means of communications, the region has a good net work of roads and railways. Roads are radiating from Kaithal town to various directions serving important villages. Other minor metalled roads are connecting villages to the main roads. Pundri is another is town in the region. A broad gauge railway is also passing from east to west from Thanesar to Narwana via Kaithal.

2.2.1.3 Bet Kurukshetra

The region extends over the parts of Guhla, Pehowa and Thanesar tahsils and also covers two villages of Kaithal tahsil of the district and seven villages of Ambala tahsil of Ambala district being a contiguous area. The region makes its boundaries with state of Punjab, Ghaggar Flood Plain and Ambala district in the west and north,

Yamuna Khadar in the east, Karnal district and Kaithal Plain in south. It is low laying flood plain of seasonal rivers and rivulets. Silty clay or loam and coarse loam are available in the region. It is a more fertile tract and known as rich bowl of Haryana. The soils as classified by NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts, Ochrepts-Orthents, Ustalfs-Fluvents types fo soils. Good net work of communications is helpful in disposing off their agricultural produce. Region is important for its educational, religious historical and cultural affinity. Agro-based industries are coming up fastly. The region contains 502 villages and 5 towns, viz., Thanesar, Pehowa, Shahbad, Ladwa and Radaur. Thanesar town is also headquarters of Kurukshetra district alongwith tahsil headquarters. It is associated with the historic importance of Kurukshetra which is venue of the Mahabharata war and the birth place of the Bhagwad Gita and the starting point of a great pilgrimage for millions of Hindu from all over the country. It has an area of 2063.4456 km^2 and is inhabited by 635,827 persons, of which 519,964 reside in rural and 115, 863 in urban areas. Its density is 308 persons per km^2 which reflects its agricultural richness. With regard to the means of communications and transportation all types of roads are found here. Two railways serve the region connecting Thanesar to Kaithal and Delhi to Ambala cantt. via Thanesar.

2.2.1.4 Ghaggar Flood Plain

The region spreads over the north western and northern parts of Guhla tahsil and 3 villages of Pehowa tahsil. It makes its boundaries with state of Punjab in the west and northwest, Bet Kurukshetra in the east and south. The flood plain is gently sloping towards south-west in which direction the Ghaggar river flows. The soils are river borne sand soft loam and silty clay. The region is fertile and suitable for producing of variety of crops. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ustalfs-Fluvents types of soils. It contains 69 villages with an area of 337.03 km^2 and is inhabited by 74,786 persons which is entirely rural. Its density is 222 persons per km^2. Two metalled roads are passing through the region from south to north and east to west. Other minor metalled roads are also available in the region.

HARYANA
DISTRICT KURUKSHETRA
CENSUS CODE 02
REGIONAL DIVISIONS

Km 5 0 5 10 15 20
5 4 3 2 1 0 5 10 Miles

[Part of Ambala district considered as a part of Bet Kurukshetra in Kurukshetra district for micro region. 2.2.1.4

BOUNDARY, STATE ... ...
BOUNDARY, DISTRICT ... ...
BOUNDARY, TAHSIL ... ...
REGIONAL DIVISIONS 2. 2. 1. 4
MACRO ... ...
MESO ... ...
MICRO ... ...
SUB-MICRO WITH BOUNDARY ... ...
NATIONAL HIGHWAY NH1
STATE HIGHWAY SH2
IMPORTANT METALLED ROAD ... ...
RAILWAY LINE WITH STATION, BROAD GAUGE RS
RIVER AND STREAM ; RESERVED FOREST RF
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME ... ... Siwan
URBAN AREA ... ...

[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

2.2.1.1 YAMUNA KHADAR
2.2.1.2 KAITHAL PLAIN
2.2.1.3 BET KURUKSHETRA
2.2.1.4 GHAGGAR FLOOD PLAIN

PUNJAB
DISTRICT AMBALA
DISTRICT KARNAL
DISTRICT JIND
UTTAR PRADESH

Part of Tahsil Pehowa
Part of District Ambala
To Ambala
To Patiala
To Panchkula U.E.
To Sadaura
To Yamunanagar
From Indri
From Karnal
From Nilokheri
From Sangrur
From Narwana
From Kalayat
From Assandh
To Karnal

SHAHBAD
THANESAR
2.2.1.3
PEHOWA
LADWA
RADAUR
2.2.1.1
KAITHAL
PUNDRI
2.2.1.2
2.2.1.4

Ismailabad
Bhagal
Cheeka
Gumthala Garh
Siwan
Keorak
Pabnawa
Pharal
Kaul
Fatehpur
Pai
Habri
Bhana
Karora
Jakholi
Serhada
Rahara

Ghaggar River
Danger River
Markanda River
Sarasvati River
Chautang River
Rakhsi River
Yamuna River

NH1
SH2
SH3
SH4
SH6
SH7
SH8
SH9
SH11
SH11A
RS
RF

SOILS

Km 10 0 10
10 0 10 Miles

10 72 33 64

USTALFS - FLUVENTS (10)
AQUENTS - FLUVENTS (33)
AQUEPTS - OCHREPTS (64)

GEOLOGY

Km 10 0 10
10 0 10 Miles

XX ALLUVIUM RECENT

DATA ON REGIONAL DIVISIONS

District Name KURUKSHETRA Census Location Code No. 02 State HARYANA

Sl. No.	District	Region No and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Kurukshetra	2.2.1.1 Yamuna Khadar	41 Villages (In Thanesar Tahsil)		127.03	127.03	—	30 415	30 415	—
2.		2.2.1.2 Kaithal Plain	138 Villages (132 Villages in Kaithal Tahsil 4 Villages in Pehowa Tahsil 2 Villages in Guhla Tahsil)	2 Towns Kaithal M.C. & Pundri M.C. in Kaithal Tahsil	1228.6044	1216.8144	11.79	395 119	324 930	70 189
3.		2.2.1.3 Bet Kurukshetra	502 Villages (47 Villages in Guhla Tahsil 91 Villages in Pehowa Tahsil 355 Villages in Thanesar Tahsil 2 Villages in Kaithal Tahsil 7 Villages in Ambala Tahsil of Ambala Distt.)	5 Towns Pehowa M.C. in Pehowa Tahsil Thanesar M.C. Shahbad M.C. Ladwa M.C. & Radaur M.C. in Thanesar Tahsil	2063.4456	2030.4456	33.00	635 827	519 964	115 963
4.		2.2.1.4 Ghaggar Flood Plain	69 villages (66 villages in Guhla Tahsil 3 Villages in pehowa Tahsil)	—	337.03	337.03	—	74 786	74 786	—

REGION-WISE VILLAGE CODES, 1981

District Name KURUKSHETRA Census Location Code No. 02 State HARYANA

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.1.1 Yamuna Khadar	Thanesar Tahsil	185 to 225	41 Villages	41 Villages	127.03	
2.	2.2.1.2 Kaithal Plain	Kaithal Tahsil	1 to 5, 8 to 134	132 Villages			Code No. 6, 7 are in region 2.2.1.3
		Guhla Tahsil	114, 115	2 Villages			
		Pehowa Tahsil	91, 96 to 98	4 Villages	138 Villages + 2 Towns	1228.6044	Code No. 92 to 95 are in region 2.2.1.3
3.	2.2.1.3 Bet Kurukshetra	Guhla Tahsil	31 to 36, 68 to 92, 98 to 113	47 Villages			Code No. 37 to 67, 93 to 97 are in region 2.2.1.4
		Pehowa Tahsil	2 to 65, 68 to 90, 92 to 95	91 Villages			Code No. 66, 67 are in region 2.2.1.4 Code No. 91 is in region 2.2.1.2
		Thanesar Tahsil	1 to 184, 226 to 396	355 Villages			Code No. 185 to 225 are in region 2.2.1.1
		Kaithal Tahsil	6, 7	2 Vilalges			
		Ambala Tahsil	319 to 325	7 Villages	502 Villages + 5 Towns	2063.4456	Part of Ambala tahsil of Ambala district considered as a part of Bet Kurukshetra being contiguous area.
4.	2.2.1.4 Ghaggar Flood Plain	Guhla Tahsil	1 to 30, 37 to 67, 93 to 97	66 Villages			Code No. 31 to 36, 68 to 92 are in region 2.2.1.3
		Pehowa Tahsil	1, 66, 67	3 Villages	69 Villages	337.03	Code No. 2 to 65 are in region 2.2.1.3

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name KURUKSHETRA Census Location No. 02 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Kurukshetra	2.2.1.1 Yamuna Khadar	Thanesar tahsil	Alluvium	Aquents-Fluvents	The region spreads over the eastern part of Thanesar tahsil of Kurukshetra district. It makes its limits with the state of Uttar Pradesh in the east, Karnal district in the south, Bet Kurukshetra in the west and Ambala district in the north. From relief point of view, the maximum height of the region is 268 metres above m.s.l. near village Lalchhapar (207) while the minimum height of 259 metres above m.s.l. is found near village Gumthala Rao (213). Both the heights are in Thanesar tahsil of Kurukshetra district. The region is built and drained by Yamuna river, so it contains various interlinking channels of streams, rivulets, ponds and swamps. The soil found in the region is silty loam (*Khadar*). Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils. Aquents : Recently formed hydromorphic alluvial soils. Fluvents : Alluvial soils (Recent alluvium). The silty loam is an easily workable and productive. Therefore the entire region is under cultivation except a few patches of land near the river bed covered by scrub type fo vegetation. A number of such patches are also seen near villages Gumthala Rao (213), Pahladpur (211) and Nagli (212). The soil of the region is river borne silt and loam which is locally known as *Khadar* of Yamuna river. Modern facilities of communications & transportation are not developed here due to riverian action. Mainly villages are inter-linked with minor roads and foot paths.	
Haryana	Kurukshetra	2.2.1.2 Kaithal Plain	Kaithal tahsil Guhla tahsil, Pehowa tahsil and Thanesar tahsil	Alluvium	Aquepts-Ochrepts and Ochrepts-Orthents	The region extends over Kaithal tahsil except villages Ruan (6) and Sarsa (7) and including villages Budha Khera (114) and Sangatpura (115) of Guhla tahsil and Rasulpur (91), Jandola (96), Bindrana (97) & Kheri Raiwali (98) of Pehowa tahsil. It makes its boundaries with Bet Kurukshetra in the north, Karnal district in the east and south-east and state of Punjab and Jind district in the west and south-west. From relief point of view, the maximum height of the region is 247 metres above m.s.l. near village Lohar Majra (11) in Kaithal tahsil while the minimum height is 233 metres near village Kotra (68) in Kaithal tahsil. This	

1	2	3	4	5	6	7	8
						plain comprises the higher ground than the flood plains of the district. In general, it slopes gently from the north-east to the south-west. The soil of the region is loam (*Bhangar* and *Nardak*). Soils as classified by the NBSS & LUP (ICAR), Nagpur, this region has Aquepts-Ochrepts & Ochrepts-Orthents types of soils. Aquepts : Brown soils (Hydromorphic). Ochrepts : Shallow black, brown and alluvial soils of northern region. Orthents : Recently formed soils. The soil of the region is less granular and has a low water holding capacity. On the whole, the region is under extensive agriculture. Canal system is one of the important sources for irrigation in the area. Western Yamuna canal (Sirsa branch) is serving the region with its minors and distributaries. With regard to the means of communications, the region has a good net work of roads and railways. Roads are radiating from Kaithal town to various directions serving important villages. Other minor metalled roads are connecting villages to the main roads. Pundri is another town in the region. A broad gauge railway is also passing through the region from east to west from Thanesar to Narwana via Kaithal. On the whole, the communications facilities are well developed in the region.	
Haryana	Kurukshetra	2.2.1.3 Bet Kurukshetra	Thanesar tahsil, Pehowa tahsil & Guhla tahsil	Alluvium	Aquepts-Ochrepts, Ochrepts-Orthents & Ustalfs-Fluvents	The region spreads over the maximum parts of Guhla, Pehowa and Thanesar tahsils of the district and also covers two villages viz. Ruan (6) and Sarsa (7) of the Kaithal tahsil and seven villages viz. Danipur (319), Jandhari (320), Kalawar (321), Kangwal (322), Chhapra (323), Getpura (324) and Roshanpura (325) of Ambala tahsil of Ambala district. The regions makes its boundaries with the state of Punjab, Ghaggar Flood Plain and Ambala district in the west and north, Yamuna Khadar in the east, Karnal district and Kaithal Plain in the south. From physiographic point of view, the maximum height in the region is 268 metres above m.s.l. near village Daulatpur (167) in Thanesar tahsil while the minimum height is 228 metres near village Kharak (98) in the Guhla tahsil. Important rivers of the region are Markanda, Chautang and Sarasvati which drain the entire region. It is a low lying flood plain of seasonal rivers and rivulets. Many patches of dense scrubs are found near villages Topra (161), Kalisra (171), chhari (175), Dhandhala (248), Bahlolpur (257), Bagthala (367), Lukhi (373), Hasanpur (370), Dig (62), Bakana (64), Bir Chhapar (81), Masana (82), Dhudhla (87), Morthala (88) and Kalal Majra (89) in Thanesar tahsil. Jorasikalan (55), Badhni (60), Zulmat (59), Siana Saidan (57), Bakhli (73) and Surmi (37) in Pehowa tahsil. A large patch of land near village Dhantauri (80) and Machhrauli (63) of Thanesar tahsil, Kakheri (81), Rasulpur (83) Mandi	

1	2	3	4	5	6	7	8
						Sadra (84) and Sotha (88) in Guhla tahsil are covered with swamps. Another area of the region which is badly affected by flood of Sarasvati river in Guhla tahsil is under reserved forests near village Kakeor (70), Pabsar (71), Theh Maji Bullah (72), Machhar Heri (73) and Ramgarh Alias Rohar (74) in Guhla tahsil and villages Seonsar (72), Sataura (82) and Helwa (86) in Pehowa tahsil. Soils of the region are silty clay or loam and course loam *(Dahar and Chaeknote)*. In this Bet region the proportion of silty deposits is significant. Soils as classified by the NBSS & LUP (ICAR), Nagpur, this region has Aquepts-Ochrepts, Ochrepts-Orthents and Ustalfs-Fluvents types of soils. Aquepts : Brown soils (Hydromorphic). Ochrepts : Shallow black, brown and alluvial soils of northern region. Orthents : Recently formed soils. Ustalfs : High base status-red loamy, red sandy and alluvial soils. Fluvents : Alluvial soils (Recent alluvium). The proportion of silt and clay is quite high and these soils have an appearance of hard red clay. They have compact structure. They tend to become puddled under direct impact of rainfall and flood and undurated when expose to isolation making their tillage and sowing difficult in either cases. With regard to means of communications & transportation, all types of roads are found in the region, radiating in all directions from Thanesar and Shahbad. Thanesar town is a district headquarters town and important for its history and religious activities. Two railways serve the region i.e. Thanesar to Kaithal and Delhi to Ambala Cantt. via Thanesar and Shahbad. Both railways are broad guage. Pehowa, Ladwa and Radaur towns are also situated in the region.	
Haryana	Kurukshetra	2.2.1.4 Ghaggar Flood Plain	Guhla tahsil and Pehowa tahsil	Alluvium	Ustalfs-Fluvents	The region spreads over north-west and northern parts of Guhla tahsil and three villages of Pehowa tahsil. It makes its boundaries with state of Punjab in the west and north-west, Bet Kurukshetra in the east and south. The physiography of the region reveals that the maximum height is 242 metres near village Bhunalan (62) above m.s.l. while the minimum height is 236 metres near village Agondh (30). Both the heights are fallling within the Guhla tahsil. The flood plain is gently sloping from north-east to south-west in which direction the river flows. The soils of this flood plain are riverborne sand soft loam and silty clay. Soils are poorly permeable and their power of holding moisture is less. The region is largely cleared off of natural vegetation for cultivation due to long human occupance. With the installation of Bhuna minor and Uklana minor and its distributaries, the crop yields have gone very high. These soils are suitable for producing	

1	2	3	4	5	6	7	8

a variety of crops. A land patch under reserved forests is also seen near village Kasaur (28) and Khushhal Majra (11) on the left bank of the river. Soils as classified by the NBSS & LUP (ICAR), Nagpur, this region has Ustalfs-Fluvents types of soils.

Ustalfs : High base status-red loamy, red sandy and alluvial soils.
Fluvents : Alluvial soils (Recent alluvium).

With regard to the means of transportation and communications two metalled roads are passing through the region from south to north and from east to west which cross one another near village Cheeka (37). Mostly villages are interlinked with each other by minor metalled roads.

Note : Code numbers are written within the brackets after village names.

DISTRICT KARNAL
REGIONAL DIVISIONS

The district is a part of the Eastern Haryana Plain (2.2.1). The district is named after the town of Karnal, which according to legends owes its name to Raja Karna who, although an elder brother of the Pandavas-born to Kunti of God Sun before marriage, was a very close associate of Duryodhana and fought for him in the great Mahabharata war. A tank in the city also bears the name Karna Tal and a town gate is called Karna gate after him.

The district lies between 29° 09'50" and 29°59' North Latitudes and 76°31'15" and 77° 12'45" East Longitudes. On its north and north-west is the district of Kurukshetra. To its west is Jind district. Sonipat district lies on its south. Yamuna river makes the eastern boundary of the district and across the river are the districts of Saharanpur, Muzaffarnagar and Meerut of Uttar Pradesh.

The district is a plain area which slopes from north-east to south and south-west. Yamuna is a perennial river which flows from north to south in the eastern part of the district along the eastern boundary. The district has sub-tropical continental monsoon climate. The geological structure of this district is consisted of Alluvium (Recent). The soils found in the district are loam (Bhangar) and silty loam (*Khadar*). Soils as classified by the NBSS & LUP (ICAR), Nagpur, the district has Aquents-Fluvents, Aquepts-Ochrepts, and Ochrepts-Orthents types of soils.

The total area of the district is 3721.00 km^2 having a population of 1,322,826 as per 1981 Census. 713,478 persons are male while 609,348 persons are female. Of the total population, 976,534 persons are residing in the rural areas and 346,292 are in urban areas in 1981 Census. Literacy rate of the district is 36.77 per cent.

The present Karnal district comprises the tahsils of Karnal, Assandh and Panipat. At the time of 1971 Census, the tahsils of Guhla, Kaithal and Thanesar which are now in the newly created Kurukshetra district were part of this district. Karnal tahsil has 407 villages and five towns namely, Indri, Nilokheri, Taraori, Karnal and Gharaunda. Tahsil Assandh consists of 42 villages and one town (Assandh) whereas Panipat tahsil comprises 185 villages and two towns of Panipat and Samalkha.

The district on the whole is sub-divided into following three sub-micro regions on the basis of soils, topography and climate :-

2.2.1.1 Assandh Plain

The region extends over Assandh tahsil (except three villages), three villages of Karnal tahsil and a few villages in the western part of Panipat tahsil. It makes its limits with Jind and Kurukshetra districts from south-west to north-west and with Karnal Bhangar from north-east to southeast. The region is a level land, having a gentle slope towards south-west. The old alluvium of *Nardak* is available which has low fertility as compared to *Bhangar* alluvium on account of *Kankar* formation in the former case. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts types of soils. The concentration of rainfall is relatively less in comparison to Karnal Bhangar. A few patches of scrubs and waste land are found in the area. It contains 55 villages and 1 town (Assandh) which is tahsil headquarters also of Assandh tahsil. Assandh is the main town. The region has an area of 655.80 km^2 and is inhabited by 172,920 persons of which 159,711 reside in rural and 13,209 in urban areas. Its density is 264 persons per km^2. The region has all types of metalled roads. Northern railway (Broad gauge) Jind to Panipat (Branch) passes through the region.

2.2.1.2 Karnal Bhangar

It extends over the major portion of Karnal and Panipat tahsils and also includes three villages of Assandh tahsil. It covers the central part of the district in north-south direction. It makes its limits with Assandh Plain and Kurukshetra district in the west and north, Yamuna Khadar in the east and Sonipat district in the south. The soil of the region is loam (*Bhangar*) which is compact and stiff. It is less granular. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ochrepts-Orthents and Aquepts-Ochrepts types of soils. Western Yamuna canal is the main source for irrigation. Concentration of rainfall is adequete. Scrubs and bushy types of vegetation is found in the region. Thr region is agriculturally rich and industries are coming up. A good net work of rail/road is available. On the whole, the region is well drained and fertile, capable of producing a variety of crops such as wheat, sugarcane and rice. It contains 350 villages and 5 towns namely, Karnal, Panipat, Gharaunda, Taraori and Nilokheri. These towns are grown up and well developed in the region. The region has an area of 2052.70 km^2 and is inhabited by 855,297 persons, of which 544,050 reside in rural and 311,247 in urban areas.

Its density is 417 persons per km^2 which reflects its agricultural richness and supporting capacity of the region.

2.2.1.3 Yamuna Khadar

The region extends over the eastern parts of Karnal and Panipat tahsils along the Yamuna river. It makes its boundaries with Kanral Bhangar in the west, Kurukshetra district in the north, state of Uttar Pradesh in the east and Sonipat district in the south. Its slope is towards south in which direction Yamuna river flows. The region is built and drained by Yamuna river, so it contains various inter-locking channels of streams, ponds and swamps. The flood plain is low-lying and slightly undulating in topography. The soil is silty loam (*Khadar).* The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils. It contains 229 villages and 2 towns (Indri and Samalkha) with an area of 989.10 km^2 and is inhabited by 294,609 persons, of which 272,773 are in rural and 21,836 in urban areas. Its density is 298 persons per km^2. The region is not much developed in its transportation facilities due to riverian action. All the villages are interlinked with each other by *Kutcha* roads and foot paths.

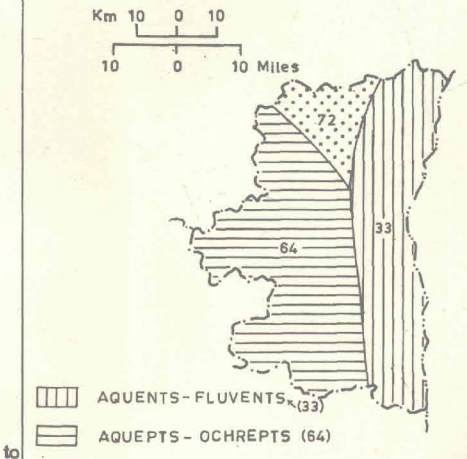
HARYANA
DISTRICT KARNAL
CENSUS CODE 03
REGIONAL DIVISIONS

2.2.1.1 ASSANDH PLAIN
2.2.1.2 KARNAL BHANGAR
2.2.1.3 YAMUNA KHADAR

BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
REGIONAL DIVISIONS — 2.2.1.2
MACRO
MESO
MICRO
SUB-MICRO WITH BOUNDARY
NATIONAL HIGHWAY — NH 1
STATE HIGHWAY — SH 7
IMPORTANT METALLED ROAD
RAILWAY LINE WITH STATION, BROAD GAUGE — RS
RIVER AND STREAM
LAKE
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME — Kurana
URBAN AREA

[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

SOILS



GEOLOGY



76° 30' East of Greenwich

DATA ON REGIONAL DIVISIONS

District Name	KARNAL			Census Location Code No. 03			State	HARYANA	
Sl. No.	District	Region No and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Karnal	2.2.1.1 Assandh Plain	55 Villages (39 Villages in Assandh Tahsil 13 Villages in Panipat Tahsil 3 Villages in Karnal Tahsil)	1 Town Assandh M.C. in Assandh Tahsil	655.80	651.85	3.95	172 920	159 711	13 209
2.		2.2.1.2 Karnal Bhangar	350 Villages (252 Villages in Karnal Tahsil 3 Villages in Assandh Tahsil 95 Villages in Panipat Tahsil)	5 Towns Panipat M.C. in Panipat Tahsil Gharaunda M.C. Karnal M.C. Taraori. M.C. & Nilokheri M.C. in Karnal Tahsil	2052.70	1999.40	53.30	855 297	544 050	311 247
3.		2.2.1.3 Yamuna Khadar	229 Villages (152 Villages in Karnal Tahsil 77 Villages in Panipat Tahsil)	2 Towns Indri M.C. in Karnal Tahsil Samalkha C.T. in Panipat Tahsil	989.10	982.06	7.04	294 609	272 773	21 836

REGION-WISE VILLAGE CODES, 1981

District Name KARNAL Census Location Code No. 03 State HARYANA

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.1.1 Assandh Tahsil	Assandh Tahsil	1 to 10, 13 to 18, 20 to 42	39 Villages			Code No. 11, 12, 19 are in region 2.2.1.2
		Karnal Tahsil	304 to 306	3 villages			
		Panipat Tahsil	11 to 16, 177 to 181, 183, 184	13 Villages	55 Villages + 1 Town	655.80	Code No. 17 to 61, 63, 90, 91, 141, 142, 144 to 176, 182 are in region 2.2.1.2. Code No. 62, 64 to 89, 92 to 140, 143 are in region 2.2.1.3 Code No. 304 to 306 are in region 2.2.1.1
2.	2.2.1.2 Karnal Bhangar	Karnal Tahsil	1 to 94, 108 to 119, 126, 128 to 137, 204 to 221, 224, 225, 268 to 303, 307 to 358, 377, 378, 383 to 407	252 Villages			Code No. 95 to 107 120 to 125, 127, 138 to 203, 222, 223, 226 to 267, 359 to 376, 379 to 382 are in region 2.2.1.3
		Panipat Tahsil	1 to 10, 17 to 61, 63, 90, 91, 141, 142, 144 to 176, 182, 185	95 Villages			Code No. 11 to 16, 177 to 181, 183, 184 are in region 2.2.1.1 Code No. 62, 64 to 89, 92 to 140, 143 are in region 2.2.1.3
		Assandh Tahsil	11, 12, 19	3 Villages	350 Villages + 5 Towns	2052.70	Code No. 13 to 18 are in region 2.2.1.1
3.	2.2.1.3 Yamuna Khadar	Karnal Tahsil	95 to 107, 120 to 125, 127, 138 to 203, 222, 223, 226 to 267, 359 to 376, 379 to 382	152 Villages			Code No. 108 to 119, 126, 128 to 137, 204 to 221, 224, 225, 268 to 303, 307 to 358, 377, 378 are in region 2.2.1.2 Code No. 304 to 306 are in region 2.2.1.1
		Panipat Tahsil	62, 64 to 89, 92 to 140, 143	77 Villages	229 Villages + 2 Towns	989.10	Code No. 63, 90, 91 141, 142 are in region 2.2.1.2

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name KARNAL Census Location No. 03 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Karnal	2.2.1.1 Assandh Plain	Assandh tahsil, Panipat tahsil & Karnal tahsil	Alluvium	Aquepts-Ochrepts	The region extends over Assandh tahsil except three villages viz. Peont (11), Bansa (12) and Rer Kalan (19), three villages of Karnal tahsil viz. Gunana (304), Nisang (305) and Gondar (306) and a few villages in the western part of Panipat tahsil. It makes its limits with Jind and Kurukshetra districts from south-west to north-west and with Karnal Bhangar from north-west to south-east. From relief point of view, maximum height of the region is 243 metres above mean sea level near village Gunana (304) in Karnal tahsil while the minimum height is 235 metres near village Rattak (32) in Assandh tahsil. The region is entirely plain area having a gentle slope from north-east to south-west. It is predominantly agricultural. A few small patches of scrubs and waste land are seen near villages Karsachaur (2), Uplani (3), Uplana (4), Rattak (32), Chochran (33), Lailain Pinghala (34) and Kurlan (16) of Assandh tahsil, Gunana (304) of Karnal tahsil, Qawi (11), Ahmadpur Majra (12), Joshi (14), Adiyana (16), Daryapur (178), Urlana Khurd (179) and Urlana Kalan (180) of Panipat tahsil. The old alluvium of *Nurdak* has low fertility as compared to the *Bhangar* alluvium on account of *Kankar* formation in the former. The soil of the region is loam *(Nardak)*. Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts types of soils. Aquepts : Brown soils (Hydromorphic). Ochrepts : Shallow black, brown and alluvial soils of northern region. With regard to the means of communications and transportation facilities, the region is seen covered with all types of metalled roads. Assandh is the main town from where roads are radiating to all directions viz. Assandh to Safidon, to Jind, to Rajaund and to Karnal. Northern railway (Broad gauge) Jind to Panipat (Branch) passes through the region.	
Haryana	Karnal	2.2.1.2 Karnal Bhangar	Karnal tahsil, Panipat tahsil & Assandh tahsil	Alluvium	Ochrepts-Orthents and Aquepts-Ochrepts.	The region spreads over the major portion of Karnal and Panipat tahsils and also three villages viz. Peont (11), Bansa (12) and Rerkalan (19) of Assandh tahsil. It covers the central part of the district in north-south direction. The region makes its boundaries with Assandh Plain and Kurukshetra district in the west and north, Yamuna Khadar in the east and Sonipat district in the south.	

1	2	3	4	5	6	7	8
						From relief point of view, the maximum height of the region is 254 metres above mean sea level near village Nilokheri (rural) (65) and minimum height is 237 metres near village Malakpur (400). Both the heights are lying in the Karnal tahsil. This *Bhangar* area comprises the higher ground than the recent flood plain. Scruby and bushy types of vegetation are seen scattered over the region. A few patches of land are under swamps. Over the region, cultivated land is very extensive besides some patches of scrubs. Western Yamuna canal (Main branch) alongwith its distributaries is the main source to facilitate canal irrigation. The soil of the region is loam (*Bhangar*). The soil found here is compact and stiff due to addition of silt. It is less granular. Soils as classified by the NBSS & LUP (ICAR), Nagpur, found in the region are Ochrepts-Orthents and Aquepts-Ochrepts types of soils. Ochrepts : Shallow black, brown and alluvial soils of northern region. Orthents : Recently formed soils. Aquepts : Brown soils (Hydromorphic). With regard to the means of communications and transportation facilities, the region is well developed and advanced. All types of roads and two railways (Broad gauge) are in the service to this region. National Highway No. 1 Delhi to Ambala and N.R. (Main line) Delhi to Ambala pass through the region from south to north covering the whole region. Panipat, Gharaunda, Karnal, Taraori and Nilokheri towns are grown up and well developed in the region. These are situated along National Highway No. 1 and N.R. (Main line) which are parallel to each other from south to north.	
	Haryana	**Karnal**	**2.2.1.3 Yamuna Khadar**	Karnal tahsil & Panipat tahsil	Alluvium	Aquents-Fluvents	The region extends over the eastern parts of Karnal and Panipat tahsils of the district. it runs along the Yamuna river in the eastern part of the district from north to south as a linear track. The region makes its boundaries with Karnal Bhangar in the west, Kurukshetra district in the north, state of Uttar Pradesh in the east and Sonipat district in the south. From relief point of view, the maximum height of the region is 257 metres above mean sea level near village Hanauri (161) in Karnal tahsil while the minimum height is 225 metres near village Bodhwal Majri (124) in the Panipat tahsil. The region is built and drained by the Yamuna river. So it contains various interlocking channels of streams, rivulets, ponds and swamps. The flood plain is lowlying. It is slightly undulating in topography and swampy in places. The soil found in the region is silty loam *(Khadar)*. Khadar of Karnal is throughout inferior being either the lightest sand or stiffest clay. The region is under cultivation except a few patches which are covered with bushes. Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils.	

Aquents : Recently formed Hydromorphic alluvial soils.
Fluvents : Alluvial soils (Recent alluvium).

With regard to the means of communications and transportation facilities, the region is not much developed - due to riverian action. Mainly all the villages are interlinked with each other by *Kutcha* roads or foot paths. Indri and Samalkha towns are developing in the northern and southern parts of the region respectively.

Notes : Code numbers are written within brackets after village names.

DISTRICT JIND
REGIONAL DIVISIONS

Jind district is a part of the Eastern Haryana Plain (2.2.1). The district was formed at the time of reorganisation of the composits state of Punjab and creation of Haryana in November, 1966, which had been a part of the Sangrur district. The Sangrur district was itself carved out of the territories of erstwhile Patiala, Nabha and Jind states, collectively known as Phulkian states.

According to the local tradition recorded in the Imperial Gazetteer, the town of Jind owes its foundation to the Pandavas who are supposed to have built a temple here to Jainti Devi, the 'goodess of victory' around which sprang up the town of Jaintapuri since corrupted into Jind. The district of Jind represents one of the three major *Tirtha* complexes of Haryana. The district lies between 29°03' and 29°50' North Latitudes and 75°57' and 76°47' East Longitudes. On its east and north-east lies the districts of Karnal and Kurukshetra. On the north-west it borders with the Patiala and Sangrur districts of Punjab. In the north-west, west and south-west it has a common boundary with Hisar district and on its south and southeast lie the Rohtak and Sonipat districts.

In its physical features it represents a level plain without any hill or stream. Jind district has sub-tropical continental monsoon climate. The geological structure of this district is consisted of Alluvium (Recent). Medium soils, particularly loam, *(Bhangar* and *Nardak)* are found in the district. The soils as classified by the NBSS & LUP (ICAR), Nagpur in the district has Aquepts-Ochrepts and Ochrepts types of soils. The total area of the district is 3306.00 km^2 having a population of 938,074, of which 505,937 persons are male and 432,137 persons are female in 1981. 808,618 persons are residing in the rural areas while 129,456 persons are living in urban areas. Literacy rate of the district is 26.18 per cent in 1981.

The district comprises the tahsils of Narwana, Jind and Safidon. Narwana tahsil consists of 140 villages and 3 towns (Narwana, Uchana & Kalayat). Jind tahsil has 149 villages and 2 towns (Jind & Julana) and Safidon tahsil comprises 65 villages and one town of Safidon.

The district on the whole is sub-divided into following two sub-micro regions on the basis of soils and topography :-

2.2.1.1 Narwana Plain

The region extends over Narwana tahsil (except few villages) and the northern part of Jind tahsil. The region makes its limits with Punjab state in the north, Kurukshetra and Karnal districts in the east, Jind Plain in the south and Hisar district in the west. It is entirely a plain land having a gentle slope towards southwest. Its western parts are relatively dry than the eastern parts where small patches of scrubs are available. Its soil is compact and stiff because of the addition of silt over years by flowing water. It is less granular and has a low water holding capacity. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts types of soils. The region is predominantly agricultural. Canal irrigation has boosted its economy. It contains 145 villages and 2 towns namely, Narwana and Kalayat, with an area of 1599.365 km^2 and is inhabited by 423,092 persons, of which 382,835 reside in rural and 40,207 in urban areas. Its density is 275 persons per km^2. Communications and transportation facilities are well developed. The entire region is covered with a net of all types of roads. Narwana to Jind and Narwana to Chandigarh (State Highway No. 15) and Narwana to Ukalan and Narwana to Kaithal via Kalayat (State Highway No.2) are the major roads in this region.

2.2.1.2 Jind Plain

The region extends over Jind tahsil (except few villages) in the north, the whole of Safidon tahsil and some villages of Narwana tahsil. It makes its boundaries with Hisar district in the west, Rohtak district in the south, districts of Sonipat and Karnal in the east and Narwana Plain in the north. The soil of the region is loam *(Bhangar* and *Nardak).* The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts and Ochrepts types of soils. The region is under intensive agriculture due to the availability of fertile soil and irrigational facilities. It has a good net work of communications. Its towns are important agricultural markets. It contains 209 villages and 4 towns namely, Jind, Safidon, Julana and Uchana. jind town is a district headquarters while Safidon is a tahsil headquarters of Safidon tahsil. Both towns have their historical importance. The region has an area of 1672.068 km^2 and is inhabited by 514,982 persons, of which 425,733 reside in rural and 89,249 in

urban areas. Its density is 308 persons per km^2. In view point of communication facilities, it seems that all kinds of roads are found in the region connecting villages with towns namely, Safidon, Jind, Julana and Uchana. Two broad gauge railways Panipat to Jind and Rohtak to Jakhalmandi are also passing within the heart of the region from east to west and from south to north direction respectively.

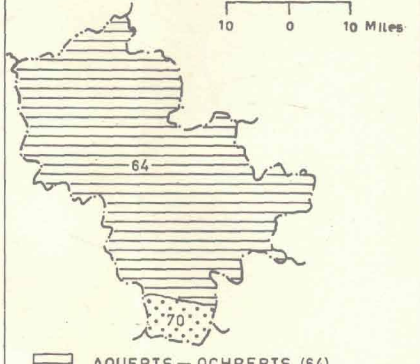
HARYANA
DISTRICT JIND
CENSUS CODE 04
REGIONAL DIVISIONS

2.2.1.1 NARWANA PLAIN
2.2.1.2 JIND PLAIN

BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
REGIONAL DIVISIONS 2.2.1.1
MACRO
MESO
MICRO
SUB-MICRO WITH BOUNDARY
STATE HIGHWAY SH12
IMPORTANT METALLED ROAD
RAILWAY LINE WITH STATION, BROAD GAUGE RS
RIVER AND STREAM
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME Kalwa
URBAN AREA

[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

SOILS



AQUEPTS — OCHREPTS (64)
OCHREPTS (70)

GEOLOGY



ALLUVIUM RECENT

76° 0′ East of Greenwich

DATA ON REGIONAL DIVISIONS

District Name		JIND		Census Location Code No. 04			State HARYANA		
Sl. No.	District	Region No. and Name	No. of villages in each region as evolved	No. of towns in region	Area in Km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Jind	2.2.1.1 Narwana Plain	145 Villages (127 Villages in Narwana Tahsil 18 Villages in Jind Tahsil)	2 Towns Narwana M.C. & Kalayat M.C. in Narwana Tahsil	1599.365	1586.865	12.50	423 092	382 885	40 207
2.		2.2.1.2 Jind Plain	209 Villages (131 Villages in Jind Tahsil 65 Villages in Safidon Tahsil 13 Villages in Narwana Tahsil)	4 Towns Uchana M.C. in Narwana Tahsil Jind M.C. & Julana M.C. in Jind Tahsil Safidon M.C. in Safidon Tahsil	1672.068	1648.498	23.57	514 982	425 733	89 249

REGION-WISE VILLAGE CODES, 1981

District Name JIND Census Location Code No. 04 State HARYANA

Sl. No.	Division Numbers & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.1.1 Narwana Plain	Narwana Tahsil	1 to 85, 99 to 140	127 villages			Code No. 86 to 98 are in region 2.2.1.2
		Jind Tahsil	4, 9 to 11, 13 to 23, 25, 27, 28	18 Villages	145 Villages + 2 Towns	1599.365	Code No. 5 to 8, 12, 24, 26 are in region 2.2.1.2
2.	2.2.1.2 Jind Plain	Jind Tahsil	1 to 3, 5 to 8, 12, 24, 26, 29 to 149	131 Villages			Code No. 4, 9, 10, 11, 13 to 23, 25, 27, 28 are in region 2.2.1.1
		Safidon Tahsil	1 to 65	65 Villages			
		Narwana Tahsil	86 to 98	13 Villages	209 Villages + 4 Towns	1672.068	

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name JIND **Census Location No. 04** **State** HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Jind	2.2.1.1 Narwana Plain	Narwana tahsil & Jind tahsil	Alluvium	Aquepts-Ochrepts	The region spreads over Narwana tahsil (except a few villages in central and southern parts of tahsil) and part of Jind tahsil of the district. The region makes its boundaries with Punjab state in the north, districts of Kurukshetra and Karnal in the east, Jind Plain in the south and Hisar district in the west. From relief point of view, the maximum height of the region is 233 metres above mean sea level near village Kheri Lamba (121) in Narwana tahsil and minimum height is 223 metres near village Sandil (10) in Jind tahsil. It is entirely plain land having a general slope from north-east to south-west. The region is predominantly agricultural as is exhibited by rural character of the settlements. Over the region, cultivated land is very extensive. A few small patches of scrubs and bushy types of vegetation are found here and there. The soil of the region is loam (*Bhangar & Nardak*). Soils as classified by National Bureau of Soil Survey and Land Use Planning (ICAR), Nagpur, this region has Aquepts-Ochrepts types of soils. Ochrepts : Shallow black, brown and alluvial soils of northern region. Aquepts : Brown soils (Hydromorphic). The soil is compact and stiff because of the addition of silt over years by flowing water. It is less granular and has a low water holding capacity. Canal system is the only important source to supply the water for irrigation and domestic purpose also. Communication and transportation facilities in the entire region are well developed. The entire region is covered with a net of all types of roads, radiating in all directions from Narwana town which is an important town in the region. The major roads are Narwana to Jind, Narwana to Chandigarh (State Highway No. 15) Narwana to Ulkana and Narwana to Kaithal via Kalayat (State Highway No. 2). Next to Narwana is a Kalayat town in the region which is historically important. The main railways passing through the region are Narwana to Jind, to Jakhalmandi and to Kaithal via Kalayat (Broad gauge).	

1	2	3	4	5	6	7	8
Haryana	Jind	2.2.1.2 Jind Plain	Jind tahsil, Narwana tahsil and Safidon tahsil	Alluvium	Aquepts-Ochrepts and Ochrepts	The region spreads over Jind tahsil leaving a few villages in the north, whole of Safidon tahsil & some villages of central and a southern Narwana tahsil. The region makes its boundaries with Hisar district in the west, Rohtak district in the south, districts of Sonipat and Karnal in the east and Narwana Plain and district Karnal in the north. From physiographic point of view, it is a plain area having maximum height 233 metres above m.s.l. near village Baroda (88) and minimum height 232 metres near village Ramnagar (12). Both the heights are found in Narwana tahsil and Safidon tahsil respectively. The soil of the region is loam (*Bhangar* and *Nardak*). Soils as classified by National Bureau of Soil Survey and Land Use Planning (ICAR), Nagpur, the region has Acquepts-Ochrepts and Ochrepts types of soils. *Aquepts* : *Brown soils (Hydromorphic).* Ochrepts : Shallow black, brown and alluvial soils of northern region. On the whole, the region is under intensive agriculture due to availability of fertile soil and irrigation facilities. A net of major & minor distributaries of canals covers every patch of land. In view point of communication and transportation facilities, it seems that all kind of roads are found in the region connecting villages with the towns namely Safidon, Jind, Julana and Uchana. Two broad gauge railways-Panipat to Jind and Rohtak to Jakhalmandi are also passing within the heart of the region from east to west and from south to north directions respectively. All these provide good and developed communication facilities to the inhabitants. Notes : Code numbers are written within brackets after village names.	

DISTRICT SONIPAT
REGIONAL DIVISIONS

Sonipat district is a part of the Eastern Haryana Plain (2.2.1). The name of the district is derived after its headquarters town, Sonipat. It is often believed that Sonepat (now spelt as Sonipat) was one of the five (*Preasthas* or towns demanded by Yudhishthira from Duryodhana as the price of peace. Another tradition ascribes its foundation to Raja Soni, thirteenth in descent from Arjun, a brother of Yudhishthira. Both the traditions are without substance. There is no mention of Sonipat in the Mahabharata although it has been noted much earlier by the great grammerian Panini in his celebrated Ashtadhyayi The town was therefore already in existence around 600 B.C.

The district lies between 28°48'30" and 29°17' 54" North Latitudes and 76°28' 30" and 77°13'40" East Longitudes. On its north lies Karnal district. To its north-west and west is Jind district. To its south-west and south are the district of Rohtak and Delhi (U.T.) respectively. Yamuna river makes the eastern boundary of the district and across the river lies Meerut district of Uttar Pradesh.

From relief point of view, it is plain area. The river Yamuna on the eastern side forms a flood plain along its bed. The geological structure of this district is consisted of Alluvium (Recent). Loam (*Bhangar* and *Nardak*) and silty loam (*Khadar*) soils are found in the district. The soils as classified by the NBSS& LUP (ICAR), Nagpur, the district has Aquents-Fluvents, Aquepts-Ochrepts and Ochrepts types of soils.

The total area of the district is 2206.00 km^2 having a population of 846,765, of which 453,873 persons are male and 392,892 persons are female as per 1981, Census. 694,719 persons are residing in the rural areas while 152,046 persons are living in the urban areas. Literacy rate of the district is 40.85 in 1981.

The present Sonipat district comppises the tahsils of Gohana and Sonipat. Gohana tahsil consists of 94 villages and one town (Gohana) whereas Sonipat tahsil has 254 villages and two towns of Sonipat and Ganaur.

The district on the whole is sub-divided into three sub-micro regions on the basis of soils, topography and climate :-

2.2.1.1 Yamuna Khadar

The region extends over the eastern part of Sonipat tahsil along the Yamuna river. It makes its boundaries with state of Uttar Pradesh in the east, Union territoy of Delhi in the south, Eastern Sonipat Plain in the west and Karnal district in the north. It has a gentle slope towards the south in which direction Yamuna river flows. The region is built and drained by yamuna river,so it contains interlocking channels of steams, ponds and swamps. The flood plain is low-lying and slightly undulating in topography. The region contains a few patches of land covered with scrubs and bushes, and deposition of sand and gravel due of to riverian action. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils. The soils is silty loam (*Khadar)* with a slightest mixture of sand or the stiff clay. It contains 122 villages and 1 town (Ganaur). The region has an area of 545,240 km^2 and is inhabited by 212,594 persons, of which 196,105 reside in rural and 16,489 in urban areas. Its desnity is 390 persons per km^2. With regard to the means of communications and transportation facilities, roads are found in the southern part of the region due to effect of nearness to Delhi which is National Capital. Ganaur, an industrial town is situated in northern part of the region. National Highway No.1 and N.R. (Broad gauge) are in service to the region.

2.2.1.2 Eastern Sonipat Plain

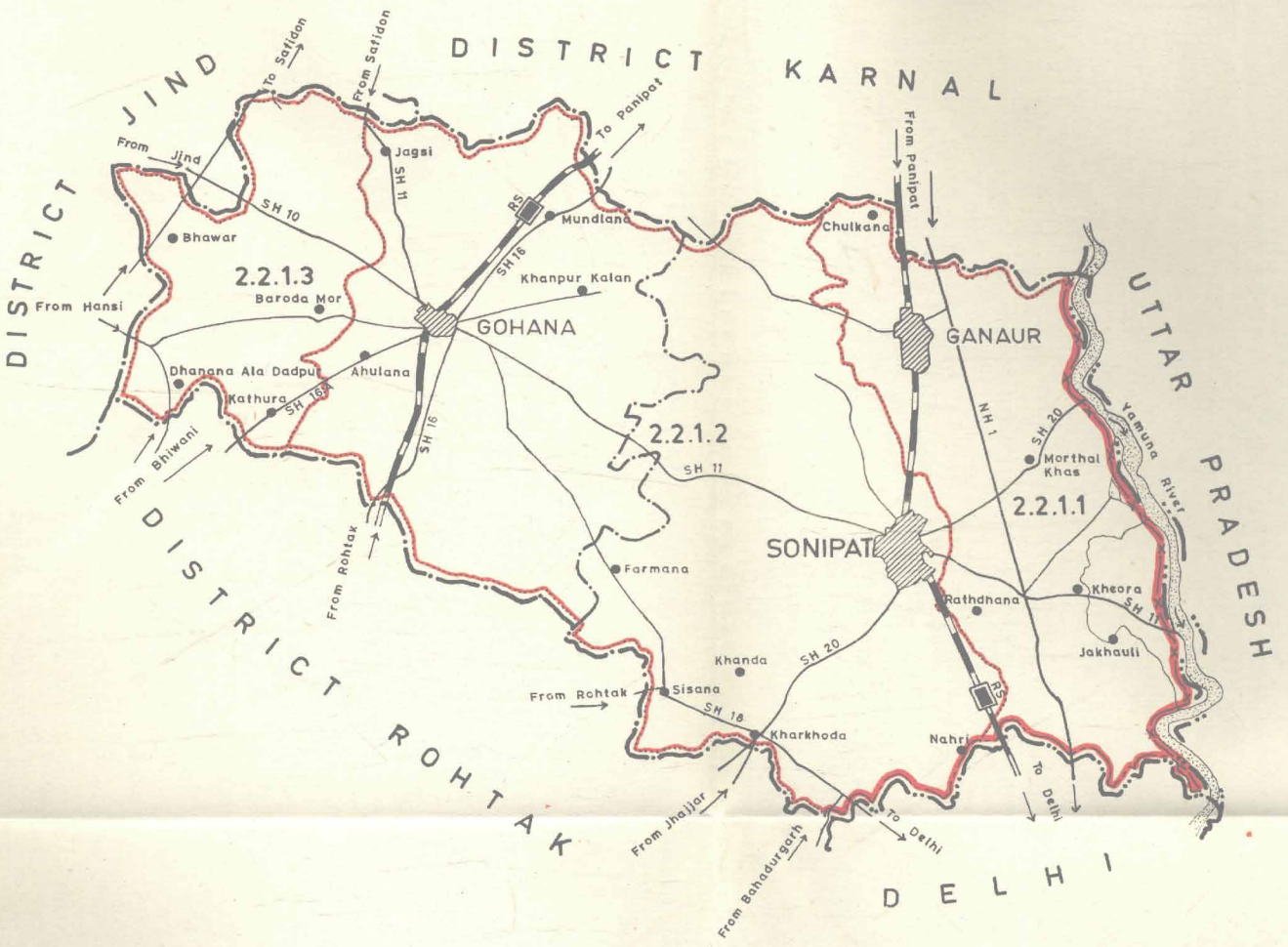
The region spreads over the parts of Sonipat and Gohana tahsils. It makes its boundaries with Western Sonipat Plain in the west, Karnal district in the north, Yamuna Khadar in the east, and union territory of Delhi and Rohtak district in the south. The soil of this region is loam (*Bhangar* and *Nardak),* Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts and Ochrepts types of soils. It has relatively high concentration of rainfall in comparison to Western Sonipat Plain. The area is rich in agricultural and is industrially developed. With regard to means of communications, the region is well developed. It contains 206 villages and 2 towns, namely, Sonipat and Gohana. The region has an area of 1369.101 km^2 and is inhabited by 562,960 persons, of which 427,403 reside in rural and 135,557 in urban areas. Its density is 411 persons per km^2 which speaks of its capacity to bear the concentration of population.

2.2.1.3 Western Sonipat Plain

The region spreads over the western part of Gohana tahsil. It makes its boundaries with Jind district from west to north, Eastern Sonipat Plain in the east and Rohtak district in the south. The soils found in this region are loam (*Bhangar* and *Nardak).* The soils as classified by the

NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts and Orthids types of soils. It differs from the Eastern Sonipat Plain where higher productivity caused by better concentration of rainfall and canal irrigations is found. The area is industrially backward. It is away from the National Highway. It contains 20 villages with an area of 279.497 km^2 and is inhabited by 71,211 persons, which is entirely rural. Its density is 255 persons per km^2. With regard to the means of transportation, the region has all kinds of roads, viz., Gohana to Jind and to Bhiwani. Major metalled roads are passing through the northern and southern parts of the region. Mostly, the villages are interlinked with each other by minor metalled roads.

HARYANA
DISTRICT SONIPAT
CENSUS CODE 05
REGIONAL DIVISIONS

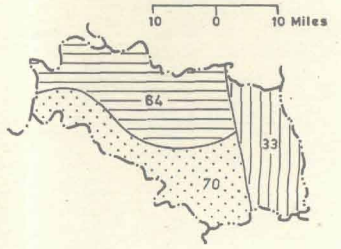


BOUNDARY, STATE ... ...
BOUNDARY, DISTRICT ... ...
BOUNDARY, TAHSIL ... ...
REGIONAL DIVISIONS 2.2.1.3
MACRO ... ...
MESO ... ...
MICRO ... ...
SUB-MICRO WITH BOUNDARY ... ...
NATIONAL HIGHWAY ... ... NH 1
STATE HIGHWAY ... ... SH 11
IMPORTANT METALLED ROAD ... ...
RAILWAY LINE WITH STATION, BROAD GAUGE ... RS
RIVER AND STREAM ... ...
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME ... ... Khanda
URBAN AREA ... ...

[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier]

2.2.1.1 YAMUNA KHADAR
2.2.1.2 EASTERN SONIPAT PLAIN
2.2.1.3 WESTERN SONIPAT PLAIN

SOILS



AQUENTS – FLUVENTS (33)
AQUEPTS – OCHREPTS (64)
OCHREPTS (70)

GEOLOGY



X X ALLUVIUM RECENT

76°30' East of Greenwich

DATA ON REGIONAL DIVISIONS

District Name SONIPAT Census Location Code No. 05 State HARYANA

Sl. No.	District	Region No. and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Sonipat	2.2.1.1 Yamuna Khadar	122 Villages (All in Sonipat Tahsil)	1 Town Ganaur M.C. in Sonipat Tahsil	545.240	536.180	9.06	212594	196105	16489
2.		2.2.1.2 Eastern Sonipat Plain	206 Villages (132 Villages in Sonipat Tahsil 74 Villages in Gohana Tahsil)	2 Towns Sonipat M.C. in Sonipat Tahsil Gohana M.C. in Gohana Tahsil	1369.101	1341.161	27.94	562960	427403	135557
3.		2.2.1.3 Western Sonipat Plain	20 Villages (All in Gohana Tahsil)	–	279.497	279.497	–	71211	71211	—

REGION-WISE VILLAGE CODES, 1981

District Name SONIPAT Census Location Code No. 05 State HARYANA

Sl. No.	Division Numbers Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in km²	Remarks
1	2	3	4	5	6	7	8
1.	2.2.1.1 Yamuna Khadar	Sonipat Tahsil	9,10, 42, 44 to 51, 53 to 150, 152 to 160, 162, 163, 166,	122 Villages	122 Villages + 1 Town	545.24	Code No. 11 to 41, 43, 52, 151, 161, 164, 165, 167 to 169 are in region 2.2.1.2
2.	2.2.1.2 Eastern Sonipat Plain	Sonipat Tahsil	1 to 8, 11 to 41, 43, 52, 151, 161, 164, 165, 167 to 169, 171 to 254	132 Villages			Code No. 9, 10, 42, 44 to 51, 53 to 150, 152 to 160, 162, 163, 166, 170 are in region 2.2.1.1
		Gohana Tahsil	12, 16, 22 to 73, 75 to 94	74 Villages	206 Villages + 2 Towns	1369.101	Code No. 13 to 15, 17 to 21, 74 are in region 2.2.1.3
3.	2.2.1.3 Western Sonipat Plain	Gohana Tahsil	1 to 11, 13 to 15, 17 to 21, 74	20 Villages	20 Villages	279.497	Code No. 12, 16, 22 to 73 are in region 2.2.1.2

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name SONIPAT Census Location No. 05 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Sonipat	2.2.1.1 Yamuna Khadar	Sonipat tahsil	Alluvium	Aquents-Fluvents	The region extends over the eastern part of Sonipat tahsil of the district. It makes its limits with state of Uttar Pradesh in the east, Union Territory of Delhi in the South, Eastern Sonipat Plain in the west and Karnal district in the north. From relief point of view, the maximum height of the region is BM 223.8 metres above mean sea level near village Rajlu (74) while the minimum height is BM 214.0 metres near village Nangal Kalan (137). Both the heights are in the Sonipat tahsil. It has a gentle slope towards south in which direction Yamuna river flows. The region contains a few patches of sand and gravel on account of riverian action and its deposits. It is obvious to find a few patches of land covered with scrubs and bushes near villages Shahpur Taga (64), Nisfgarhi Bakhtawar pur (94), Basaudi (115), Palra (116) and Khurram Pur (126). The whole region is under cultivation except a few land patches near river bed. The soil found in the region is silty loam (*Khadar*) with a slightest mixture of sand or the stiff clay due to riverian deposits. Soils as classified by NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils. Aquents : Recently formed hydromorphic alluvial soils. Fluvents : Alluvial soils (Recent alluvium). With regard to the means of communications and transportation facilities, roads are found in the southern part of the region due to the effects of nearness to Delhi which is National Capital. Ganaur, an industrial town is situated in northern part of the region. National Highway No. 1 and a N.R. (Broad gauge) are in service to the region.	
Haryana	Sonipat	2.2.1.2 Eastern Sonipat Plain	Sonipat tahsil & Gohana tahsil	Alluvium	Aquepts-Ochrepts and Ochrepts	The region spreads over the parts of Sonipat and Gohana tahsils of the district. It makes its boundaries with Western Sonipat Plain in the west, Karnal district in the north, Yamuna Khadar in the east, and Union Territory of Delhi and Rohtak district in the south. From relief point of view, the maximum height of the region is 225 metres above m.s.l. near village Kakrol (201) while the minimum height is 218 metres near village Jataula (211). Both the heights are in Sonipat tahsil. The region is entirely plain land and is under cultivation. Canal system is the main source of irrigation. Soil found in the region is loam (Bhangar & Nardak). The soil is compact and stiff because of addition of silt by canal water. The soil is less granular and has a low water holding capacity. The moderate permeability characteristic of the soil linked with intensive irrigation has led to	

1	2	3	4	5	6	7	8
						water logging in the vicinity of the canals. With sufficient seasonal rain it is very productive. Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts and Ochrepts types of soils. Aquepts : Brown soils (Hydromorphic). Ochrepts : Shallow black, brown and alluvial soils of northern region. With regard to the means of communications and transportation facilities, the region is well developed. All kinds of metalled roads and unmetalled roads are found in the region. Sonipat and Gohana are the main towns in the region. Sonipat is an important industrial town in the state.	
Haryana	Sonipat	2.2.1.3 Western Sonipat Plain	Gohana tahsil	Alluvium	Aquepts-Ochrepts and Ochrepts	The region spreads over western part of Gohana tahsil in Sonipat district. It makes its limits with Jind district from west to north, Eastern Sonipat Plain in the east and Rohtak district in the south. From relief point of view, maximum height of the region is 229 metres above m.s.l. near village Kathura (west) (74) while the minimum height is 224 metres near village Kathura (east) (74). Both the heights are in Gohana tahsil. The entire region is a plain land and is under extensive agriculture except a few patches covered with scrubs and grass land near villages Banwasa (8) and Rindrana (5). The intensive net work of canals in the region provides irrigation facilities. Soil found in the region is loam (*Bhangar & Nardak*). Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquepts-Ochrepts and Ochrepts types of soils. Aquepts : Brown soils (Hydromorphic). Ochrepts : Shallow black, brown and alluvial soils of northern region. With regard to the means of communications and transportation the region has all kinds of roads, viz., Gohana to Jind, and to Bhiwani. Major metalled roads are passing through the northern and southern parts of the region. Mostly the villages are interlinked with each other by minor metalled roads. Note : Code numbers are written within brackets after village names.	

DISTRICT ROHTAK
REGIONAL DIVISIONS

Rohtak district is a part of Eastern Haryana Plain (2.2.1). The district derived its name from its headquarters town Rohtak which is said to be a corruption of Rohtasgarh, a name still applied to the ruined sites (also called khokrakot) of two older cities, one lying immediately north of the present town and. the other about 3 miles to east. Traditionally it is named after Raja Rohtas in whose days the city is said to have been built. It is also claimed that the town derives its name from the roherra (Tecoma Undulate) tree called *Rohitak* in sanskrit.It is said that before the town came into existence, it was the site of a forest of *Rohitak* trees and hence its name Rohtak. The name Rohitaka is, however, well known to early literature. The district lies between 28°19'30" and 29°06'3" North Latitudes and 76°12'45" and 76°58'15" East Longitudes. On its north are the districts of Jind and Sonipat. Sonipat district extends upto north-eastern boundary of Rohtak district. To its east is the Union Territory of Delhi. Gurgaon district lies on its southeast. To its south is the district of Mahendragarh. On its western side are the districts of Bhiwani and Hisar.

From relief point of view, the general slope of Haryana is from north-east to south-west with an exception in the south where the slope is towards north. The variable slope tendencies and resultant topographical difference are responsible for the formation on a saucer like depression in the eastern margin of Rohtak district. During rainy season, soil salts are washed down towards the ground water in summer evaporation takes place resulting it capilary action, on reaching the surface these salt solutions evaporate and the salts crystallise as a white incrustation on the surface appearing like a skin disease. Such incrustation are visible in the low lying saucer of Rohtak district. The geological structure of this district is consisted of Alluvium (Recents). Loam (*Bhangar & Nardak),* Coarse Loam (*Dahar & Chaeknote)* and realtively Sandy Loam types of soils are found in this district. Soils as classified by the NBSS & LUP (ICAR), Nagpur, the district has Orthds-Fluvents and Ochrepts types of soils.

The total area of the district is 3841.00 km^2 with a population of 1,341, 953. of which 712,769 persons are male and 629, 184 persons are female. Out of the total population, 1,075,859 persons are residing in the rural areas while 266.094 persons are living in the urban areas in 1981. Literacy rate of the district is 42.55 per cent.

The district comprises the tahsils of Maham, Rohtak, Jhajjar and Bahadurgarh. Maham tahsil has 30 villages and one town (Maham), Rohtak tahsil comprises 108 villages and two towns of Kalanaur and Rohtak, Jhajjar tehsil consists of 241 villages and two towns of Beri and Jhajjar, whereas Bahadurgarh tahsil comprises 79 villages and one town (Bahadurgarh).

The district is sub-divided into following three sub-micro regions on the basis of soils, topography and climate :-

2.2.1.1 Maham Plain

The region extends over Maham tahsil and western parts of Rohtak and Jhajjar tahsils. It makes its boundaries with Hisar and Bhiwani districts in the west, Mahendragarh district in the south, Rohtak Plain and Jajjar Low land in the east and Jind and Sonipat districts in the north. The soil of this region is loam (*Bhangar* and *Nardak).* The soils as classified by the NBSS & LUP (ICAR) Nagpur, the region has Ochrepts and Orthids-Fluvents types of soils. Climatically the region is relatively dry than the Rohtak Plain. Due to a good network of canals, the region has shown progress in the field of agriculture. The region has not developed any major industry. It contains 141 villages and 2 towns namely, Maham and Kalanaur, with an area of 1527.3410 km^2 and is inhabited by 408,973 persons, of which 384,871 reside in rural and 24,102 in urban areas. Its density is 268 persons per km^2. With regards to the means of communications facilities all kinds of roads are found in the region. Maham and Kalanaur are two towns. Main roads, Rohtak to Bhiwani, to jind via Maham and to Hansi pass through the region.

Railway (N.R.-Broad gauge) is also serving in north-eastern part from Rohtak to Jind and another railway (N.R-Metre gauge) Rewari-Fazilka Section is also in the service in the extreme southwestern part of the region.

2.2.1.2 Rohtak Plain

The region extends over the parts of Rohtak, Bahadurgarh and Jhajjar tahsils. It makes its boundaries with Maham Plain in the west, Sonipat district in the north, U.T. of Delhi in the east and Jhajjar Low land in the south. The soil found in this region is loam (*Bhangar* and *Nardak). The* soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Orchrepts types of soils. It is agriculturally well off due to better concentration of rainfall and canal irrigation. Its slope is towards south. Due to its close proximity to Delhi, the region has been developed industrially. It is important for educational facilities as medical college and university are also located

there. It contains 160 villages and 2 towns namely, Rohtak and Bahadurgarh, with an area of 1348.19 km^2 and is inhabited by 657, 330 persons, of which 453,075 reside in rural and 204,255 in urban areas. Its density is 488 persons per km^2 which reflects its development. In view points of communications facilities, the region is well developed and all kinds of roads are found. Rohtak and Bahadurgarh are important educational and industrial towns respectively. A net of roads is oviously seen over the entire region.

2.2.1.3 Jhajjar Low land

The region spreads over the parts of Jhajjar and Bahadurgarh tahsils. It makes its boundaries with Maham Plain in the west, Mahendragarh and Gurgaon districts in south, again Gurgaon district and U.T. of Delhi in the east, and Rohtak Plain in the north. The soil found in this region is coarse loam (*Dahar* and *Chaeknote).* The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Orthids-Fluvents and Ochrepts types of soils. The variable slope tendencies and resultant topographic differences in the region are responsible for the formation of a saucer like depression in the eastern margin. During the periods of monsoon rainfall, soil salts are washed down towards the ground water; and in summer season extensive evaporation takes place resulting in capillary action, on reaching the surface these salt solutions evaporate and the salts crystallise as a white incrustation on the surface looking like a skin disease. It contains 157 villages and 2 towns, namely, Jhajjar and Beri with an area of 963.0949 km^2 and is inhabited by 275,650 persons, of which 237,913 reside in rural and 37,737 in urban areas. Its density is 286 persons per km^2. With regard to the means of communications and transportation the region is well developed. All kinds of roads are found here. Jhajjar and Beri are two towns. Jhajjar being tahsil headquarters is also important as commercial town.

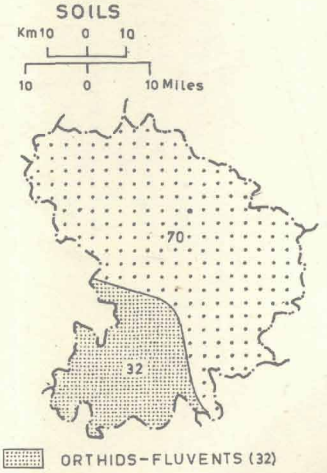
HARYANA
DISTRICT ROHTAK
CENSUS CODE 06
REGIONAL DIVISIONS

2.2.1.1 MAHAM PLAIN
2.2.1.2 ROHTAK PLAIN
2.2.1.3 JHAJJAR LOW LAND

BOUNDARY, STATE ... ...
BOUNDARY, DISTRICT ... ...
BOUNDARY, TAHSIL ... ...
REGIONAL DIVISIONS 2.2.1.2
MACRO ... ...
MESO ... ...
MICRO ... ...
SUB-MICRO WITH BOUNDARY ... ...
NATIONAL HIGHWAY NH10
STATE HIGHWAY SH16
IMPORTANT METALLED ROAD ... ...
RAILWAY LINE WITH STATION, BROAD GAUGE RS
RAILWAY LINE WITH STATION, METRE GAUGE RS
RIVER AND STREAM ... ...
VILLAGE HAVING 5000 AND ABOVE Badli
POPULATION WITH NAME ... ...
URBAN AREA ... ...

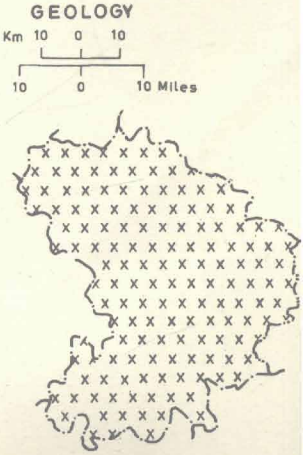
[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

SOILS



ORTHIDS-FLUVENTS (32)
OCHREPTS (70)

GEOLOGY



XX ALLUVIUM RECENT

76° 15' East of Greenwich 76° 30'

DATA ON REGIONAL DIVISIONS

District Name ROHTAK Census Location Code No. 06 State HARYANA

Sl. No.	District	Region No. and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Rohtak	2.2.1.1 Maham Plain	141 Villages (31 Villages in Rohtak Tahsil 80 Villages Jhajjar Tahsil 30 Villages in Maham Tahsil)	2 Towns Maham M.C. in Maham Tahsil Kalanaur M.C. in Rohtak Tahsil	1527.3410	1518.151	9.19	408 973	384 871	24 102
2.		2.2.1.2 Rohtak Plain	160 Villages (77 Villages in Rohtak Tahsil 17 Villages in Jhajjar Tahsil 66 Villages in Bahadur-garh Tahsil)	2 Towns Rohtak M.C. in Rohtak Tahsil Bahadurgarh M.C. in Bahadurgarh Tahsil	1348.19	1317.16	31.03	657 330	453 075	204 255
3.		2.2.1.3 Jhajjar Low land	157 Villages (144 Villages in Jhajjar Tahsil 13 Villages in Bahadur-garh Tahsil)	2 Towns Beri M.C. & Jhajjar M.C. in Jhajjar Tahsil	963.0949	954.5049	8.59	275 650	237 913	37 737

REGION-WISE VILLAGE CODES, 1981

District Name ROHTAK Census Location Code No. 06 State HARYANA

Sl. No.	Division Numbers & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.1.1 Maham Plain	Maham Tahsil	1 to 30	30 Villages			
		Rohtak Tahsil	1 to 5, 7, 68 to 72, 77 to 82, 95 to 108	31 Villages			Code No. 6, 8 to 67, 73 to 76, 83 to 94 are in region 2.2.1.2
		Jhajjar TAhsil	1 to 5, 13 to 18, 136 to 200, 223 to 226	80 Villages	141 Villages + 2 Towns	1527.341	Code No. 6, 7, 26 to 39, 41 are in region 2.2.1.2 Code No. 8 to 12, 19 to 25, 40, 42 to 135, 201 to 222 are in region 2.2.1.3
2.	2.2.1.2 Rohtak Plain	Rohtak Tahsil	6, 8 to 67, 73 to 76, 83 to 94	77 Villages			Code No. 7, 68 to 72, 77 to 82 are in region 2.2.1.1
		Jhajjar Tahsil	6, 7, 26 to 39, 41	17 Villages			Code No. 8 to 12, 19 to 25, 40 are in region 2.2.1.3 Code No. 13 to 18 are in region 2.2.1.1
		Bahadurgarh Tahsil	1 to 65, 69	66 Villages	160 Villages + 2 Towns	1348.19	Code No. 66 to 68 are in region 2.2.1.3
3.	2.2.1.3 Jhajjar Low land	Jhajjar Tahsil	8 to 12, 19 to 25, 40, 42 to 135 201 to 222, 227 to 241	144 Villages			Code No. 13 to 18 136 to 200, 223 to 226 are in region 2.2.1.1 Code No. 26 to 39, 41 are in region 2.2.1.2
		Bahadurgarh Tahsil	66 to 68, 70 to 79	13 Villages	157 Villages + 2 Towns	963.0949	Code No. 69 is in region 2.2.1.2

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name ROHTAK Census Location No. 06 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Rohtak	2.2.1.1 Maham Plain	Maham tahsil, Rohtak tahsil & Jhajjar tahsil	Alluvium	Ochrepts & Orthids-Fluvents	The region covers the whole of Maham tahsil and some western parts of Rohtak tahsil and Jhajjar tahsil. From relief point of view, the maximum height of the region is 249 metres above m.s.l. near village Bawa (175) while the minimum height is 217 metres near village Kalanaur Kalan (101). Both the heights are in Jhajjar and Rohtak tahsils respectively. The region is entirely plain land. A contour line of 220 metres spreads throughout and shows the general height of the region. Due to intensive installation of canals over the region, the area is under cultivation with high yields. A few patches of scrubs are found near villages Seman (4), Bhaini Bharon (10) and Madina Gindhran (27) in Maham tahsil and Kharari (108) of Rohtak tahsil. Soil found in the region is loam (*Bhangar* and *Nardak*). Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ochrepts and Orthids-Fluvents types of soils. Ochrepts : Shallow black, brown and alluvial soils of northern region. Orthids : Soils of arid region with some development. Fluvents : Alluvial soils (Recent alluvium). With regard to the means of communications and transportation all kinds of roads are found in the region. Maham and Kalanaur are two towns in the region. Main roads, Rohtak to Bhiwani, to Jind via Maham, to Hansi pass through the region covering all parts of region. Railway (N.R. - Broad gauge) is also serving the region in north eastern part from Rohtak to Jind and another railway (N.R.) Rewari-Fazilka section is also in the service in the extreme south western part of the region.	
Haryana	Rohtak	2.2.1.2 Rohtak Plain	Rohtak tahsil, Bahadurgarh tahsil & Jhajjar tahsil	Alluvium	Ochrepts	The region extends over parts of Rohtak, Bahadurgarh and Jhajjar tahsils of the district. It makes its boundaries with Maham Plain in the west, Sonipat district in the north, Union Territory of Delhi in the east and Jhajjar Low land in the south. From relief point of view, the region has its maximum height 222 metres above m.s.l. near village Dhamar (19) in Rohtak tahsil while the minimum height is 215 metres near village Sarai Aurangabad (24) in Bahadurgarh tahsil. Contour line of 220 metres is seen spread over the region showing general height of the area. Canal irrigation is important. A large patch of scrubs land is seen near village Maroudi Jatan (87) and other patches of scrubs are also found near villages Makrouli Kalan (14)	

1	2	3	4	5	6	7	8
						and Bohar (17) in Rohtak tahsil. Lalpur dense forest (PF) is seen in the north-west of Rohtak town. Soil found in the region is loam (*Bhangar & Nardak*). Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ochrepts type of soils. Ochrepts : Shallow black, brown and alluvial soils of northern region. With regard to the means of communications and transportation facilities, the region is well developed and all kinds of roads are found. Rohtak and Bahadurgarh are important educational and industrial towns respectively. A net of roads is obviously seen over the entire region. A railway (N.R. - Broad gauge) Delhi to Jind joins these two towns of Bahadurgarh and Rohtak and passes through the region from east to west. Main roads are Rohtak to Delhi via Bahadurgarh, Rohtak to Jhajjar, to Bhiwani, to Kharkhoda, to Gohana and Jhajjar to Kharkhoda pass from southwest to northeast in the mid of the region.	
Haryana	Rohtak	2.2.1.3 Jhajjar Low land	Jhajjar tahsil & Bahadurgarh tahsil	Alluvium	Orthids-Fluvents and Ochrepts	The region spreads over Jhajjar tahsil (except a few villages of western and northern parts) and thirteen villages in south eastern part of Bahadurgarh tahsil. The region makes its boundaries with Maham Plain in the west, Mahendragarh and Gurgaon districts in south, Gurgaon district and Union Territory of Delhi in the east, and Rohtak Plain in the north. From relief point of view, the maximum height of the region is 228 metres shown by the spot height near village Karoda (229) while the minimum height is 214 metres above m.s.l. near village Jahangirpur (60). Both the heights are in Jhajjar tahsil. In fact the variable slope tendencies and resultant topographic differences are responsible for the formation of a soucer like depression in the eastern margin of the region. The region has coarse loam (Dahar & Chaeknote) relatively sandy loam and loam (Bhangar & Nardak). Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Orthids-Fluvents And Ochrepts types of soils. Orthids : Soils of arid region with some development. Fluvents : Alluvial soils (Recent alluvium). Ochrepts : Shallow black, brown and alluvial soils of northern region. With regard to the means of communications and transportation facilities, the region is well developed. All kinds of roads are found here. Jhajjar and Beri are two towns. Jhajjar being tahsil headquarters and also remained seat of power, is important as administrative and commercial town. These two towns are mainly connected with each other and other parts of the region by roads. Villages are also interlinked with metalled major and minor roads. Note : Code numbers are written within brackets after village names.	

DISTRICT SIRSA
REGIONAL DIVISIONS

The district is a part of Western Haryana Plain (2.2.2). The district is named after the town of Sirsa. Sirsa is a town of great antiquity. Its first known mention occured in Paninis celebrated Sanskrit grammer, popularly known as Ashtadhyayi, where the name is given as *Shairishaka* and derived from the Sanskrit word *Shirisha* meaning "Acacia speciosa" tree suggesting its preponderance in the flora of the region. Local tradition ascribes the origin of the town to an eponymous Raja Saras who is supposed to have built it alongwith the fort lying to its south-west and nearly 3 miles in circuit about 1400 years ago.

The district lies between 29°14' and 29°59' North Latitudes and 74°27'08" and 75°18' East Longitudes. It is the western-most district of the state enclosed by Punjab state in the north and north-east, by Hisar district of Harayana in the east and by Rajasthan state in the south and south-west.

In its physical features it presents a level plain. Ghaggar is only river associated with this district. There is a lake at Ottu, which is filled by the over flow of the Ghaggar. The Sirsa district is comparatively very hot and dry district.The geological structure of this district is formed of Alluvium (Recent). Sirsa district is comparatively very hot and dry distrct. The soils found in the district are sandy soft loam and silty clay. Soils as classified by the NBSS & LUP (ICAR), Nagpur, the district has Ustalfs-Ochrepts, Psamments, and Psamments-Fluvents-Orthids types of soils.

The total area of the district is 4726.00 km^2 having a population of 707,068, of which 376,602 persons are male and 330,466 persons are female as per 1981 Census. Out of total population 562,572 persons are residing in the rural areas while 144,496 persons are living in urban areas. Literacy rate of the district is 29.87 per cent in 1981.

As a result at the time of 1971 Census, the two tahsils of Sirsa and Dabwali now forming Sirsa district were part of Hisar district. Dabwali tahsil consists of 84 villages an and one town (Mandi Dabwali) whereas Sirsa tahsil has 239 villages and 3 towns, namely, Kalanwali, Sirsa and Rania.

The district on the whole is sub-divided into four sub-micro regions on the basis of soils, topography, climate and natural vegetation :-

2.2.2.1 Dabwali Plain

The region spreads over the parts of Dabwali and Sirsa tahsils covering the upper half of the district. It has a border with Punjab in the north and north-east, with Rajasthan and Ellanabad-Nathohar Sandy Plain in the west and with Ghaggar Flood Plain in the south. Western part of the region is relatively low as compared to its eastern part. The general slope of the region is from north-east to south-west. Some sand dunes are found in the south western part. The soil is mainly sandy soft loam which is generally a light loam interspersed here and there, with sandy undulations. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ustalfs-Ochrepts and Psamments-Fluvents-Orthids types of soils, Initialiy, dut to dry climate and sandy soft loam soil, the area had steppe type of vegetation but with the introduction of canel irrigation, it has turned into a cotton belt of Haryana. Grams, wheat and oilseeds are other important crops of the region. A satisfactory net work of roads and railways is found in the region. It contains 140 villages and 2 towns namely, Mandi Dabwali and Kalanwali, with an area of 1913.877 km^2 and is inhabited by 297,112 persons, of which 240,398 reside in rural and 38,714 in urban areas. Its density is 146 persons per km^2.

2.2.2.2 Ellanabad-Nathohar Sandy Plain

The region spreads over the western and south western parts of the district, which is seperated into two parts by the Ghaggar Flood Plain. The first part of the region makes its limits with the state of Rajasthan in the west, Ghaggar Flood Plain in the south and with Dabwali Plain in remaining two sides i.e., east and north.

Another part of the region makes its boundaries with the state of Rajasthan in the west and south, Sirsa Bagar in the east and Ghaggar Flood Plain in the north. The soils of this region are mostly alluvial, sandy soft loam and silty clay covered with sand flats. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ustalfs-Ochrepts, and Psamments-Fluvents-Orthids types of soils. It has unreliable rainfall and accordingly scattered scrubs and bushes are found in this region. Sand dunes are common as it lies close to the desert of Rajasthan. These sand dunes were of shifting nature but their march has been checked with the extension of irrigational facilities and plantation of trees. The sand dunes are flat and crescentic in shapes. The major part of the region has been

reclaimed and brought under cultivation on account of its suitability to non-irrigated and irrigated farming. Grams and bajra are the principal crops. It contains 29 villages, with an area of 559.6355 km^2 and is inhabited by 69,531 persons which is entirely rural. Its density is 124 persons per km^2. Communication facilities are very poor. Only one railway line (Metre gauge) passes through the second part of the region from Hanumangarh to Nahar via Ellanabad which is an important place in that part. State Highway No. 23 from Sirsa to Ellanabad is also in service while in the first part of the region Nathohar village has its historical importance. A metalled road from Rania to Mandi Dabwali serves this part of the region.

2.2.2.3 Ghaggar Flood Plain

The region spreads over the middle of the district from east to west along the Ghaggar river, covering the areas of Sirsa tahsil. It makes its boundaries with main part of Ellanabad-Nathohar Sandy Plain and Dabwali Plain in the north, state of Punjab in the east, Sirsa Bagar and another part of Ellanabad-Nathohar Sandy Plain in the south and state of Rajasthan in the west. The region is built and drained by Ghaggar river. The region is made of silty clayl (*Naili* and *Chhachhra Dakar)* with certain features of sand deposition in the eastern side. The soils as classified by the NBSS & LUP (ICAR), Nagpur; the region has Ustalfs-Ochrepts types of soils. It is gently sloping from north-east to south-west, in which direction the river flows. The silt and clay features have association with the old abandoned bed of Ghaggar. Swamps are found in the western parts. The best texture of soil for good agricultural use is that of soft loam i.e., a mixture of sand and silt with moderate proposition of clay in order to retain moisture and to present the rapid drainage of moisture and fertilizer from the soil. These soils are available here and are good for wheat, grams and barley. It contains 65 villages and 1 town namely, Rania, with an area of 675.826 $km^2$and is inhabited by 124,288 persons, of which 107,574 reside in rural and 16,714 in urban areas. Its density is 184 persons per km^2. Communication facilities in the region are very poor, only NH-10 and railway (Metre gauge) from Sirsa to Kalanwali and three other minor metalled roads are in service.

2.2.2.4 Sirsa Bagar

The region extends over the south eastern parts of Sirsa tahsil. It makes its boundaries with Ellanabad-Nathohar Sandy Plain in the west, state of Rajasthan in the south, Hisar district in the east and Ghaggar Flood Plain in the north. The term 'Bagar' in common parlance means dry country or where there is deficiency of water. Sand dunes are mostly latitudinal in extent in the south-western part of the region. The concentration of sand dunes and undulations in topography is relatively high in southern and south-western parts. The soils are mostly sandy and loamy sand. The soils classified by the NBSS & LUP (ICAR), Nagpur, Ustalfs-Ochrepts and Psamments-Fluvents-Orthids, types of soils are available in this region. The pattern of sand dunes frequently varies over the dune field and interdune soils are loamy sand. The area is subject to excessive wind erosion and to over laying by drifting sand cover. The chief characteristics of the soils are that they are very deep, light and highly permeable. They suffer from the drawback of maximum permeability causing excessive drainage, a tending to dry up rapidly and a low water holding capacity. A steppe type of vegetation is found here. The net work of roads is comparatively less developed in relation to Dabwali Plain. It contains 89 villages and 1 town of Sirsa with an area of 1121.1257 $km^2$and is inhabited by 234,137 persons, of which 145,069 reside in rural and 89,068 in urban areas. Its density is 209 persons per km^2. The net work of roads is comparatively less developed in relation to Dabwali Plain. Only in eastern part of the region, NH 10 and a railway (Metre gauge) are available.

HARYANA
DISTRICT SIRSA
CENSUS CODE 12
REGIONAL DIVISIONS

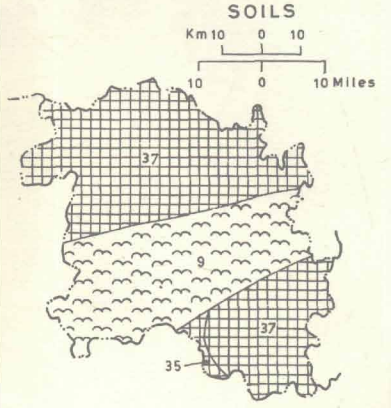


2.2.2.1 DABWALI PLAIN
2.2.2.2 ELLANABAD – NATHOHAR SANDY PLAIN
2.2.2.3 GHAGGAR FLOOD PLAIN
2.2.2.4 SIRSA BAGAR

BOUNDARY , STATE
BOUNDARY , DISTRICT
BOUNDARY , TAHSIL
REGIONAL DIVISIONS 2. 2. 2. 1
MACRO
MESO
MICRO
SUB–MICRO WITH BOUNDARY
NATIONAL HIGHWAY NH10
STATE HIGHWAY SH23
IMPORTANT METALLED ROAD
RAILWAY LINE WITH STATION , METRE GAUGE RS
RIVER AND STREAM
LAKE
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME Ding
URBAN AREA

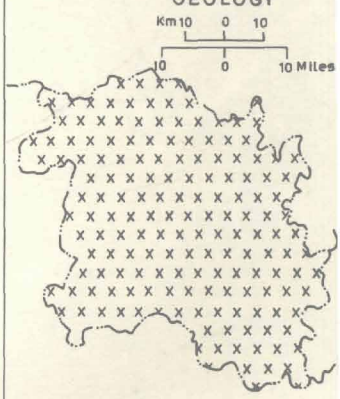
[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

SOILS



USTALFS – OCHREPTS (9)
PSAMMENTS (35)
PSAMMENTS – FLUVENTS – ORTHIDS (37)

GEOLOGY



ALLUVIUM RECENT

DATA ON REGIONAL DIVISIONS

District Name SIRSA Census Location Code No. 12 State HARYANA

Sl. No.	District	Region No. and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population in region (1981)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Sirsa	2.2.2.1 Dabwali Plain	140 Villages (75 Villages in Dabwali Tahsil 65 Villages in Sirsa Tahsil)	2 Towns Dabwali M.C. in Dabwali Tahsil & Kalanwali M.C. in Sirsa Tahsil	1913.877	1904.177	9.70	279112	240398	38714
2.		2.2.2.2 Ellanabad Nathohar Sandy Plain	29 Villages (9 Villages in Dabwali Tahsil, 20 villages in Sirsa Tahsil)	–	559.6355	559.6355	—	69531	69531	—
3.		2.2.2.3 Ghaggar Flood Plain	65 Villages (All in Sirsa Tahsil	1 Town Rania M.C. in Sirsa Tahsil	675.826	672.896	2.93	124288	107574	16714
4.		2.2.2.4 Sirsa Bagar	89 Villages (All in Sirsa Tahsil)	1 Town Sirsa M.C. in Sirsa Tahsil	1121.1257	1101.7957	19.33	234137	145069	89068

REGION-WISE VILLAGE CODES, 1981

District Name SIRSA Census Location Code No. 12 State HARYANA

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.2.1 Dabwali Plain	Dabwali Tahsil	1 to 16, 18 to 76	75 Villages			Code No. 17 is in region 2.2.2.2
		Sirsa Tahsil	1 to 50, 54 to 60, 199 to 205, 217	65 Villages	140 Villages + 2 Towns	1913.877	Code No. 51 to 53, 61 to 70, 74 to 76, 83, 86 to 99, 170 to 173, 178 to 184, 189 to 198, 213 to 216 are in region 2.2.2.3 Code No. 206 to 212 are in region 2.2.2.2 Code No. 71 to 73, 77 to 82, 84, 85, 100 to 169, 174 to 177, 185 to 188 are in region 2.2.2.4
2.	2.2.2.2 Ellanabad-Nathohar Sandy Plain	Dabwali Tahsil	17, 77 to 84	9 Villages			Code No. 18 to 76 are in region 2.2.2.1
		Sirsa Tahsil	206 to 212, 220, 225 to 227, 231 to 239	20 Villages	29 Villages	559.6355	Code No. 221 to 224, 228 to 230 are in region 2.2.2.3
3.	2.2.2.3 Ghaggar Flood Plain	Sirsa Tahsil	51 to 53, 61 to 70, 74 to 76, 83, 86 to 99, 170 to 173, 178 to 184, 189 to 198, 213 to 216, 218, 219, 221 to 224, 228 to 230	65 Villages	65 Villages + 1 Town	675.826	Code No. 54 to 60, 199 to 205, 217 are in region 2.2.2.1 Code No. 206 to 212, 220, 225 to 227 are in region 2.2.2.2 Code No. 71 to 73, 77 to 82, 84, 85, 100 to 169, 174 to 177, 185 to 188 are in region 2.2.2.4
4.	2.2.2.4 Sirsa Bagar	Sirsa Tahsil	71 to 73, 77 to 82, 84, 85, 100 to 169, 174 to 177, 185 to 188	89 Villages	89 Villages + 1 Town	1121.1257	Code No. 74 to 76, 83, 86 to 99, 170 to 173, 178 to 184 are in region 2.2.2.3

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name SIRSA Census Location No. 12 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Sirsa	2.2.2.1 Dabwali Plain	Dabwali & Sirsa tahsils	Alluvium	Ustalfs-Ochrepts and Psamments-Fluvents-Orthids	The region spreads from northeast to northwestern parts covering the upper half of the district. It includes most of Dabwali tahsil and some parts of Sirsa tahsil. Generally the region is plain land with maximum height of 210 metres above m.s.l. near village Tiloka wala (east of Kalanwali town) in Sirsa tahsil. Whereas the minimum height is 188 metres above m.s.l. near village Chutala (4) (Western most part of Dabwali Plain near Rajasthan border) in Dabwali Tahsil. Contour of 200 metres passes through the region. It divides the region into two parts namely, eastern and western. Western part of the region is relatively low as compared to eastern part. The general slope of the region is from north-east to south-west. In the west, Dabwali plain has border with Rajasthan and Ellanabad-Nathohar Sandy Plain, in the north and north-east with Punjab and with Ghaggar Flood Plain, in the south. Accordingly sand flats are found nearby the villages Bharukhera (6), Modi (16) and Ganga (14) in the southwestern part. Transverse sand dunes are found to the south of village Odhan (53) near Memmar Khera Major distributary. Small size sand dunes are seen in the northeastern part of Dabwali plain near villages Rori (44), Rohan (45), Bhiwan (49), Bada Gudha (13), Bhadra (40), Thiraj (47), Fagu (42) and Surtia (43). The soil is mainly sand soft loam. Soil is generally a light loam interspersed here and there with sandy undulations which become common in the western part of the region. Previously, due to the dry climate and sandy soft loam soils, the area had the steppe type of vegetation but with the introduction of canal irrigation, the area has turned into a cotton belt of Haryana and is known for grams, wheat and oilseeds. Soils as classified by the NBSS & LUP (ICAR), Nagpur are Ustalfs-Ochrepts and Psamments-Fluvents-Orthids types of soils. Ustalfs : High base status-red loamy, red sandy and alluvial soils. Psamments : Sandy soils (Recent). Fluvents : Alluvial soils (Recent alluvium). Orthids : Soils of arid region with some development. A good net work of roads and railways is found throughout the region. The roads are metalled and most of the villages are interlinked, which provide facilities to transport their products for marketing.	
Haryana	Sirsa	2.2.2.2 Ellanabad-Nathohar Sandy Plain	Dabwali & Sirsa tahsils	Alluvium	Ustalfs-Ochrepts and Psamments-Fluvents-Orthids	The region spreads over the west and southwestern part of Sirsa district. It is divided by the Ghaggar Flood Plain into two separate parts, the north and south, in which two historical places are located namely, Nathohar (83) and Ellanabad (232) respectively.	

1	2	3	4	5	6	7	8
						From relief point of view, the maximum height of the region is 212 metres above mean sea level near village Pohra Kan (225) in southern part of the region while the minimum height is 188 metres above m.s.l. near village Kaluana (81) in northern part. Northern part is comparatively lower than the southern part. Both the parts of region are covered with sand flats and small sand dunes. Sand dunes are common in the region as it lies close to the desert of Rajasthan. These sand dunes were of shifting nature but their march has been checked with extension of irrigational facilities. The sand dunes are flat and crescentic in shapes. The clusters of sand dunes are lying in the surrounding areas of Ellanabad (232), Mamera (227), Mithanpur (236) ane Neemla (237) in southern part of the region. In the northern part, the clusters of sand dunes are found in the surrounding area of Nathohar (83), Kaluana (81), Ahmadpur Darewala (79) and Bani (211). Except near villages Mithanpur (236) and Neemla (237) in southern part and villages Kaluana (81) & Nathohar (83) in northern part, sand dunes are transverse in their extent. The soils are mostly old alluvium, sandy soft loam and silty clay covered with sand flats. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Ustalfs-Ochrepts and Psamments-Fluvents-Orthids types of soils. Ustalfs : High base status-red loamy, red sandy and alluvial soils. Ochrepts : Shallow black, brown and alluvial soils of northern region. Psamments : Sandy soils (Recent). Fluvents : Alluvial soils (Recent alluvium). Orthids : Soils of arid region with some development. The scattered scrubs and bushes are found in this region. The major part of the region has been reclaimed and brought under cultivation on account of its suitability to non-irrigated and irrigated farming. Grams and Bajra are the dominant crops. The rural settlements is of medium size and widely spaced in the both parts of the region due to the presence of sand flats. The net work of roads is very poor. The region has (N.R.) railway link (Metre gauge).	
Haryana	**Sirsa**	**2.2.2.3 Ghaggar Flood Plain**	**Sirsa tahsil**	**Alluvium**	**Ustalfs-Ochrepts**	The region is the boon of Ghaggar river and extends in the middle of Sirsa district. from east to west, both sides along the Ghaggar river. To the north of Ghaggar Flood Plain are the Dabwali Plain and main parts of Ellanabad-Nathohar Sandy Plain while on its south are Sirsa Bagar and another part of Ellanabad-Nathohar Sandy Plain. To its north, the area is important for cash crops farming while the area south of it, is pulling on with coarse grain cultivation. From relief point of view, the maximum height is 211 metres above m.s.l. near village Jiwan Nagar (215) and Mirzapur (229) in western part whereas the minimum	

1	2	3	4	5	6	7
						height is 190 metres near village Kariwali (213) in the western part. Surprisingly both the maximum and minimum heights are located in the western part. The region is made of silty clay (*Naili* and *Chhachhar Dakar*) with certain features of sand deposition near Ranga (53), Nagoki (92), Panihari (93) and Budha Bhana (90) villages in the eastern side. The region is gently sloping from northeast to southwest, in which direction the river flows. The silt and clay features have association with the old abandoned bed of Ghaggar. Swamps are found in the western most parts of flood plain near village Thobaria (230). The clusters of sand flats are found at Amritsar (228) Moosli (224) in the western part of the region. In western part, there are some patches of swamps and scrubs in the river basin due to the shallowness of the region and silty soils covered with sands. The best texture of soil for good agricultural use is that of soft loam i.e. a mixture of sand and silt with moderate proposition of clay in order to retain moisture and to prevent the rapid drainage of moisture and fertilizer from the soils. These soils are capable for producing a variety of crops, such as wheat, grams and barely. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Ustalfs-Ochrepts types of soils. Ustalfs : High base status-red loamy, red sandy and alluvial soils. Ochrepts : Shallow black, brown and alluvial soils of northern region. Mostly settlements are of medium size and closely located on both sides along the Ghaggar river. The region is most fertile and have adequate irrigation facilities.
Haryana	Sirsa	2.2.2.4 Sirsa Bagar	Sirsa tahsil	Alluvium	Ustalfs-Ochrepts and Psamments-Fluvents-Orthids	The micro region marked Sirsa Bagar is found in the southeastern part of the district. The term 'Bagar' in common parlance means dry country or where there is deficiency of water. From relief point of view, the maximum height of 225 metres above m.s.l. is found near Sirsa town on its western side whereas the minimum height is 193 metres above mean sea level near village Malekan (177) in the western part. Sand dunes are mostly latitudinal in extent and their peculiar examples can be seen near village Dhookara (164) in the southwestern part of the region bordering Rajasthan. Sand hills (small size) can be explained with the help of 200 metres contour rings found at many places in the southern parts. Concentration of sand dunes and undulations in topography is relatively high in the southern and south western part of the region. Waste land topography is found nearby the villages Madho Singhana (176), Modia Khera (166), Umedpura (185), Gudia Khera (165), Bakarianwali (160), Shahidanwali (167), etc.

1	2	3	4	5	6	7	8

The soils are mostly sandy and loamy sand. The pattern of sand dunes frequently varies over the dune field and inter dune soils are mostly loamy sand. The area is subject to excessive wind erosion and to over laying by drifting sand cover. The chief characteristics of the soils found in the region are that they are very deep, light & highly permeable. They suffer from the drawback of maximum permeability causing excessive drainage, a tending to dry up rapidly and a low water holding capacity. Soils as classified by the NBSS & LUP (ICAR), Nagpur are Ustalfs-Ochrepts and Psamments-Fluvents-orthids types fo soils.

Ustalfs : High base status-red loamy, red sandy and alluvial soils.
Ochrepts : Shallow black, brown and alluvian soils of northern region.
Psamments : Sandy soils (Recent)
Fluvents : Alluvial soils (Recent alluvium).
Orthids : Soils of arid region with some development.

The western part of the region is covered with barren land scrubs. The region has very thin vegetation cover on undulating surfaces. Irrigation facility in this area is a great need for agriculture due to meagre and unreliable rainfall. The average yield of the region is very low as compared to other regions due to the availability of saline water.

Due to the sandy soils, salinity, and lack of the adequate irrigation facilities, the rural settlements are smaller to medium size and distantly located.

The net work of roads is comparatively less developed in relation to Dabwali Plain.

Note : Code numbers are written within brackets after village names.

DISTRICT HISAR
REGIONAL DIVISIONS

The district is a part of the Western Haryana Plain (2.2.2). The district derives its name from its headquarters town, called Hisar which is an abbraviation of Hisar-e-Feroza, the name acquired by the original town of Warais, as a result of construction of a fort (Hisar) by Feroz Shah Tughlaq about A.D. 1354

The district lies between 28° 53' 45" and 29° 49' 15" North Latitudes and 75° 13' 15" and 76° 18' 15" East Longitudes. On its north are the districts of Bathinda and Sangrur of Punjab state. To its east is the district of Jind. Rohtak district lies on its south-east. On its south is the Bhiwani district. To its south-west is Ganganagar district of Rajasthan. Sirsa district lies on its west. In its physical features, the district is dotted with sand dunes of various shapes and size particularly in south western part where steppe type of vegetation is available. The geological structure of this district is consisted of Alluvium (Recent). The district is alluvial plain except Ghaggar Flood Plain in the north and sand dunes topography is the south-west. The soils in the district are sand and loamy sand (Bagar). The soils as classified by the NBSS & LUP (ICAR), Nagpur, the district has Ustalfs-Ochrepts, Orithids-Fluvents, Psamments-Fluvents-Orthids, Aquepts-Ochrepts and Ochrepts types of soils. The total area of the district is 6315.00 km^2 having a population of 1,496,534, of which 801,771 persons are male and 964,763 persons are female as per 1981 Census. Out of total population, 1,207,887 persons are residing in the rural areas, whereas 288,647 persons are living in urban areas. Literacy rate of the district is 29.97 per cent in 1981.

The present Hisar district comprises the tahsils of Fatehabad, Tohana, Hansi and Hisar. At the time of 1971 Census the two tahsils of Dabwali and Sirsa now forming Sirsa District and two tahsils of Bhiwani and Loharu now in Bhiwani district were part of this district. The Tohana tahsil is consisted of 88 villages and two towns namely, Jakhal mandi and Tohana. Fatehabad tahsil has 152 villages and two towns of Fatehabad and Ratia. Hansi tahsil comprises 103 villages and one town (Hansi) whereas Hisar Tahsil consists of 167 villages and three towns (Uklanamandi, Barwala and Hisar).

The district on the whole is sub-divided into following four sub-micro regions on the basis of soils, topography, climate and natural vegetation:-

2.2.2.1 Ghaggar Flood Plain

The region extends over the northern parts of the district, covering parts of Tohana and Fatehabad tahsils along the Ghaggar river. It makes its boundaries with Punjab state from west to north-east and Hisar Plain in the south. The flood plain is gently slopping from north-east to south-west, in which direction the river flows. The soils of the region are silty clay and relatively sandy loam. The soils are poorly permeable and their power of holding moisture is less. They need frequent application of water for plant growth. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ustalfs-Ochrepts types of soils. Climate is relatively less dry in comparison to Bagar area. With the introduction of canal irrigation, plantation of trees and crop production have gone up. The region is largely cleared off of natural vegetation for cultivation due to long human occupance. These soils are suitable for producing a variety of crops. It contains 92 villages and 2 towns namely, Ratia and Jakhalmandi, with an area of 624.94 km^2 and is inhabited by 129,669 persons, of which 11,995 reside in rural and 17,674 in urban areas. Its density is 207 persons per km^2. In view point of communication facilities a railway (Broad gauge) passes through the eastern part of the region. Sardulgarh to Tohana via Ratia, a main road passes through the region from west to east and another road Fatehabad to Bathinda via Ratia passes through the region from south to north.

2.2.2.2 Hisar Plain

Except the Ghaggar Flood Plain in the north, and Hisar Bagar and Balsmand Undulating Plain with sand dunes in the south-west, the entire Hisar district is plain area. It makes its boundaries with state of Punjab, Sirsa district and Hisar Bagar in the west, Balsmand Undulating Plain with sand dunes and Bhiwani district in the south, districts of Jind and Rohtak in the east and Ghaggar Flood Plain in the north.

The loam and relatively sandy loam are the main soils found in the region. The soils as classified by the NBSS & LUP (ICAR), Nagpur, Orthiods-Fluvents, Psamments-Fluvents-Orthids, Ochrepts, and Aquepts-Ochrepts types of soils are available in the region. Timely seasonal rainfall is very important for agriculture. Though the plain has come up as a fertile tract with the introduction of

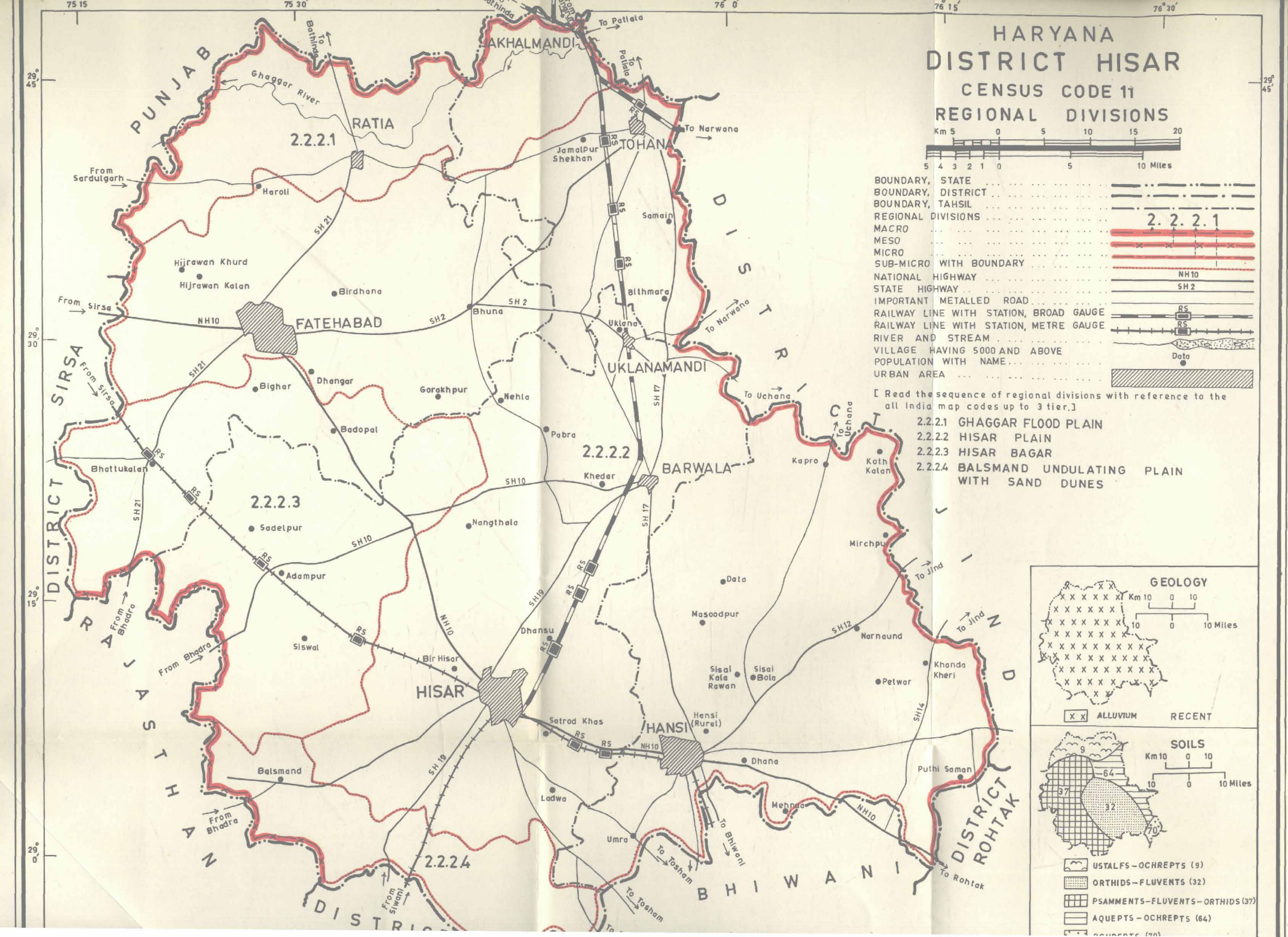
irrigational facilities, yet small size of sand dunes are found here and there. On the whole the soils are deep and capable of producing different crops. Plantation of trees have checked the shifting of sand dunes. Shisham, Kikar, Babul and bushes are its original vegetation. It contains 323 villages and 6 towns namely, Hisar, Hansi, Barwala, Uklanmand, Tohana and Fatehabad which have their historical importance. The region has an area of 4405.24 km^2 and is inhabited by 1,120,514 persons, of which 849,541 reside in rural and 270,973 in urban areas. Its density is 254 persons per km^2 which reflects its progress in the field of agriculture and agro-based industries. With regard to the means of communication facilities, the region is well developed. All the six towns are connected with each other, other parts of the region and with other regions of the district by major metalled roads and railways. Major metalled roads and railways found in the region are NH 10, and SH 2, 10, 12, 14, 17, 19, 21 and two railways one from Hisar to Jakhalmandi (Broad gauge) and another from Sirsa to Bhiwani (Metre gauge).

2.2.2.3 Hisar Bagar

The region extends over the south-western parts of the district, covering the parts of Fatehabad and Hisar tahsils. It makes its limits with state of Rajasthan and Sirsa district in the west, Balsmand Undulating Plain with sand dunes in the south and Hisar Plain in the east and north. Soils of the region are sandy and loamy sand. The soils as classified by the NBSS & LUP (ICAR), Nagpur, Orthids-Fluvents and Psamments-Fluvents-Orthids types of soils are available in the region. Due to its very permeability, drained and deep light characteristics, the crop yield is very poor in comparison to other soils. Coarse grains like grams, bajra and oil seeds are grown here. Due to scarcity of water, dry climate and saline water, scrubs and bushes are found in large areas. The sand dunes are found on large scale which are in line with Sirsa Bagar and along the border of Rajasthan. The sand dunes are moving in nature and their strikes may be parallel to the wind direction. The pattern of sand dunes frequently varies here and there. It contains 72 villages, with an area of 1177.356 km^2 and is inhabited by 197,833 persons, which is entirely rural. Its density is 168 persons per km^2 which reflects its agricultural backwardness. The region has communication facilities like railway (Metre gauge) which passage through the region from south-east to north-west, and metalled roads viz. NH 10, and SH 10 and 21.

2.2.2.4 Balsmand Undulating Plain with sand dunes

The region extends over the south western parts of the district, covering parts of Hisar Tahsil only. It makes its boundaries with the state of Rajasthan in the west, Bhiwani district in the south and south-east, Hisar Plain and Hisar Bagar in the north and north-east. The soil of this region is mostly sandy and loamy sand. Sandy soil allows water to flow through almost unimpeded. This characteristic causes the crops to suffer in the period of drought. These are suitable for inferior food cereals. Scattered bushes and scrubs are found due to poor soil and semi-arid climate. The soils as classified by the NBSS & LUP (ICAR), Nagpur, Psamments-Fluvents-orthids, types of soils are available in the region. It differs from Hisar Bagar, due to heavy concentration of sand dunes, sand flats, undulating surface and different directions of the sand dunes. It contains 23 villages with an area of 394.739 km^2 and is inhabited by 48,518 persons, which is entirely rural. Its density is 123 persons per km^2 which reflects its economic health. In view point of communication facilities the region has a railway (Metre gauge) from Siwani to Hisar. It also has the service of State Highway 19. Village Balsmand is an important place which is connected with a metalled road from Bhadra to Hisar.


HARYANA
DISTRICT HISAR
CENSUS CODE 11
REGIONAL DIVISIONS
Km 5 0 5 10 15 20
5 4 3 2 1 0 5 10 Miles
BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
REGIONAL DIVISIONS
MACRO
MESO
MICRO
SUB-MICRO WITH BOUNDARY
NATIONAL HIGHWAY
STATE HIGHWAY
IMPORTANT METALLED ROAD
RAILWAY LINE WITH STATION, BROAD GAUGE
RAILWAY LINE WITH STATION, METRE GAUGE
RIVER AND STREAM
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME
URBAN AREA
2.2.2.1
NH10
SH2
RS
Data
[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]
2.2.2.1 GHAGGAR FLOOD PLAIN
2.2.2.2 HISAR PLAIN
2.2.2.3 HISAR BAGAR
2.2.2.4 BALSMAND UNDULATING PLAIN WITH SAND DUNES
GEOLOGY
Km 10 0 10
10 0 10 Miles
ALLUVIUM RECENT
SOILS
Km 10 0 10
10 0 10 Miles
9
64
37
32
70
USTALFS-OCHREPTS (9)
ORTHIDS-FLUVENTS (32)
PSAMMENTS-FLUVENTS-ORTHIDS (37)
AQUEPTS-OCHREPTS (64)
PUNJAB
RAJASTHAN
DISTRICT SIRSA
DISTRICT JIND
DISTRICT ROHTAK
DISTRICT BHIWANI
DISTRICT
RATIA
TOHANA
FATEHABAD
UKLANAMANDI
BARWALA
HISAR
HANSI
AKHALMANDI
2.2.2.1
2.2.2.2
2.2.2.3
2.2.24
Ghaggar River
To Bathinda
To Patiala
To Narwana
From Sardulgarh
From Sirsa
From Bhadra
From Siwani
To Uchana
To Jind
To Tosham
To Bhiwani
To Rohtak
Haroli
Jamalpur Shekhan
Samain
Hijrawan Khurd
Hijrawan Kalan
Birdhana
Bithmara
Bhuna
Uklana
Bighar
Dhangar
Gorakhpur
Nehla
Badopal
Pabra
Khedar
Kapro
Koth Kalan
Bhattukalan
Sadelpur
Nangthala
Mirchpur
Adampur
Data
Masoodpur
Narnaund
Dhansu
Siswal
Bir Hisar
Sisai Kala Rawan
Sisai Bola
Petwar
Khanda Kheri
Satrod Khas
Hansi (Rural)
Balsmand
Dhana
Puthi Saman
Ladwa
Mehnaa
Umra
SH21
SH10
SH17
SH19
SH12
SH14
NH10
RS

DATA ON REGIONAL DIVISIONS

District Name HISAR Census Location Code No. 11 State HARYANA

Sl. No.	District	Region No and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Hisar	2.2.2.1 Ghaggar Flood Plain	92 Villages (51 Villages in Fatehabad Tahsil 41 Villages in Tohana Tahsil)	2 Towns Ratia M.C. in Fatehabad Tahsil Jakhalmandi M.C. in Tohana Tahsil	624.94	620.27	4.67	129 669	111 995	17 674
2.		2.2.2.2 Hisar Plain	323 Villages (76 Villages in Fatehabad Tahsil 47 Villages in Tohana Tahsil 97 Villages in Hisar Tahsil 103 Villages in Hansi Tahsil)	6 Towns Fatehabad M.C. in Fatehabad Tahsil Tohana M.C. in Tohana Tahsil Ulkanamandi Barwala M.C. M.C. Hisar U.A. (i) Hisar M.C. (ii) Hisar Agri. & Mini Sectt. out growth in Hisar Tahsil Hansi M.C. in Hansi Tahsil	4405.24	4336.37	68.87	1120 514	849 541	270 973
3.		2.2.2.3 Hisar Bagar	72 Villages (25 Villages in Fatehabad Tahsil 47 Villages in Hisar Tahsil)	—	1 177.356	1 177.356	—	197 833	197 833	—
4.		2.2.2.4 Balsmand Undulating Plain with Sand Dunes	23 Villages (All in Hisar Tahsil)	—	394.739	394.739	—	48 518	48 518	—

REGION-WISE VILLAGE CODES, 1911

Districts Name HISAR Census Location Code No. 11 State HARYANA

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.2.1 Ghaggar Flood Plain	Fatehabad Tahsil	2 to 5, 7 to 19, 23 to 53, 56, 57, 79	51 Villages			Code No. 6, 20 to 22, 54, 55, 58 to 78 are in region 2.2.2.2
		Tohana Tahsil	1 to 22, 30 to 48	41 Villages	92 Villages + 2 Towns	624.94	Code No. 23 to 29 are in region 2.2.2.2
2.	2.2.2.2 Hisar Plain	Fatehabad Tahsil	1, 6, 20 to 22, 54, 55, 58 to 78, 80 to 112, 128 to 134, 137 to 142, 146, 147	76 Villages			Code No. 2 to 5, 7 to 19, 23 to 53, 56, 57, 79 are in region 2.2.2.1 Code No. 113 to 127, 135, 136, 144, 145 are in region 2.2.2.3
		Tohana Tahsil	23 to 29, 49 to 88	47 Villages			Code No. 30 to 48 are in region 2.2.2.1
		Hisar Tahsil	1 to 58, 64 to 66, 70 to 81, 115, 125 to 136, 140 to 150	97 Villages			Code No. 59 to 63, 67 to 69, 82 to 114, 116 to 121 are in region 2.2.2.3 Code No. 122 to 124, 137 to 139 are in region 2.2.2.4
		Hansi Tahsil	1 to 103	103 Villages	323 Villages + 6 Towns	4405.24	
3.	2.2.2.3 Hisar Bagar	Fatehabad Tahsil	113 to 127, 135, 136, 143 to 145, 148 to 152	25 Villages			Code No. 128 to 134, 137 to 142, 146, 147 are in region 2.2.2.2
		Hisar Tahsil	59 to 63, 67 to 69, 82 to 114, 116 to 121	47 Villages	72 Villages	1177.356	Code No. 64 to 66, 70 to 81, 115 are in region 2.2.2.2
4.	2.2.2.4 Balsmand Undulating Plain with Sand Dunes	Hisar Tahsil	122 to 124, 137 to 139, 151 to 167	23 Villages	23 Villages	394.739	Code No. 125 to 136, 140 to 150 are in region 2.2.2.2

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name HISAR Census Location No. 11 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Hisar	2.2.2.1 Ghaggar Flood Plain	Fatehabad tahsil & Tohana tahsil	Alluvium	Ustalfs-Ochrepts	The region spreads over the northern part of Hisar district. It covers the northern parts of Tohana and Fatehabad tahsils along the flow of the Ghaggar river. The region is divided by the Ghaggar river into two parts, the northern and southern. The physiography of the region reveals that the northern part is relatively higher with the maximum height of 223 metres above mean sea level at village Bhurthali (14) in the Tohana tahsil whereas the southern part is lower with the minimum height of 208 metres above mean sea level near village Manak Pur (5) in Fatehabad tahsil. The flood plain is gently sloping from northeast to southwest, in which direction the river flows. The soils of the region are silty clay and relatively sandy loam. The soils are poorly permeable and their power of holding moisture is less. They need frequent application of water for plant growth. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Ustalfs-Ochrepts types of soils. Ustalfs : High base status-red loamy, red sandy & alluvial soils. Ochrepts : Shallow black, brown & alluvial soils of northern region. The region is largely cleared off of natural vegetation for cultivation due to long human occupance. With the installation of tubewells and introduction of Bhakra canal the crop yields have gone very high. These soils are suitable for producing a variety of crops.	
Haryana	Hisar	2.2.2.2 Hisar Plain	Fatehabad, Tohana, Hisar & Hansi tahsils	Alluvium	Orthids-Fluvents, Psamments-Fluvents-Orthids, Ochrepts & Aquepts-Ochrepts	Except the Ghaggar Flood Plain in the north and Bagar area and undulating plain with sand dunes in the south-west, the whole of remaining Hisar district is a plain area. It includes the Southern parts of Tohana tahsil, central parts of Fatehabad tahsil, eastern parts of Hisar tahsil and whole of Hansi tahsil. From relief point of view, the maximum height of the region is 223 metres above mean sea level, having position in between the village Bhodi (28) and Akanwali (29) in Tohana tahsil while the minimum height is 206 metres above m.s.l. near village Hijrawan Khurd (1) in the western part of Hisar plain on Punjab border. The region is not completely flat or plain due to undulations. Though the plain has come up as a fertile area with the introduction of irrigational facilities, yet some small sized sand dunes are found near villages Majra (100), Jhalnian (99) and Bhuna (69) in Fatehabad tahsil and Matloda	

1	2	3	4	5	6	7	8
						(10), Khumbha Khera (9), Bugana (29) and Dhingtana (28) in Hisar tahsil and Pinhari (9), Sunghwa Ragho (80), Channot (79), Masoodpur (93) in Hansi tahsil. The loam and relatively sandy loam are the main soils found in this region. Timely and seasonal rainfall is very important for agriculture. On the whole, the soils are deep, well drained, fertile and capable of producing different crops. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Orthids-Fluvents, Psamments-Fluvents Orthids, Ochrepts & Aquepts-Ochrepts types of soils. Orthids : Soils of arid region with some development. Fluvents : Alluvial soils (Recent alluvium). Psamments : Sandy soils (Recent). Aquepts : Brown soils (Hydromorphic). Ochrepts : Shallow black, brown & Alluvial soils of northern region.	
Haryana	Hisar	2.2.2.3 Hisar Bagar	Fatehabad & Hisar tahsils	Alluvium	Orthids-Fluvents and Psamments-Fluvents-Orthids	The region spreads over the southwestern parts of Hisar district. It makes its boundaries with Hisar Plain in the north and east, Balsmand Undulating Plain with sand dunes in the south and state of Rajasthan and Sirsa district in the west. From relief point of view, the maximum height is 220 metres above m.s.l. near village Malapur (62) in Hisar tahsil whereas the minimum height is 202 metres above m.s.l. at village Khabra Kalan (123) in Fatehabad tahsil. The sand dunes are found in large scale in this region which are in line with Sirsa Bagar and along the border of Rajasthan. The sand dunes are moving in their nature and their strikes may be parallel to the wind direction. The pattern of sand dunes frequently varies in the whole region. Mostly, sand dunes are flats and crescentic in their sizes and shapes. The clusters of sand dunes are found near villages Dayor (113), Jandwala (114), Dhabi Khurd (115), Ramsra (120), Godli (121), Sulikhera (124), Bhattu Kalan (126), Kirdhan (125), Mehuwalo (127), Dhingsara (135), Khara Kheri (151), Badopal (145), Kajal Heri (148) in Fatehabad tahsil while villages Risalu Khera (68), Kirmara (82), Sabarwas (84), Mahal Sara Mothsara (88), Chuli Khurd (100), Chuli Kalan (101), Kharabar Wala (103), Kholi (106), Bagla (110), Dobhi (116), Ghursal (118), Kutia Kheri (119) and Chudhriwali (120) in Hisar tahsil. Mostly sand dunes found in this region are in latitudinal besides at villges Ramsra (120) and Godli (121) in Fatehabad tahsil and at villages Risalu Khera (68), Kirmara (82), Kuleri (85) and Mahal Sara Mothsara (88) sand dunes are transverse in their extent. The soils of the region are sandy and loamy sand. Due to its very permeability, well drained and deep light characteristics, the crop yield is very poor in comparison to other soils. The coarse grains like grams, Bajra and oil seeds are grown here. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Orthids-Fluvents and Psamments-Fluvents-Orthids types of soils.	

1	2	3	4	5	6	7	8
						Orthids : Soils of arid region with some development Fluvents : Alluvial soils (Recent Alluvium). Psamments : Sandy soils (Recent).	
Haryana	Hisar	2.2.2.4 Balsmand Undulating Plain with sand dunes	Hisar tahsil	Alluvium	Psamments-Fluvents-Orthids	The region spreads over south-western parts of Hisar district, covering a few villages lying under Hisar tahsil. It makes its limits with Rajasthan state in the west, district Bhiwani in the south and east and Hisar Bagar and Hisar Plain in the north. The region changes its relief features with the amount of wind blown sands which piles up several metres high above the local flats and stretches for kilometres in length, forming a continuous strips of sandy billows along the Rajasthan border due to the effects of desert area of Rajasthan. It differs from other regions of Hisar district, due to its heavy cluster of sand dunes on undulating surface and they are lying in different directions also. The maximum height of the region is 228 metres above m.s.l. near village Chirand (155) while the minimum height is 207 metres at village Burak (122) in Hisar tahsil. The area is subject to excessive wind erosion and to overlying by drifting sand cover. The dune uplands with insufficient rainfall is generally difficult for agriculture. The cluster of sand dunes are found at villages Burak (122), Balsmand (123), Telwani Rukka (158), Daha (154), Bhari (153), Badon Brahmanan (162), Dobeta (163), Nalwa (167), Saherwa (164) and Bura (165) in Hisar tahsil. The soil is mostly sandy and laomy sand. Sandy soil allows water to flow through them almost unimpeded. These characteristics cause crops to suffer in period of drought. These soils are suitable only to the inferior food cereals. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Psamments-Fluvents-Orthids types of soils. Psamments : Sandy soils (Recent). Fluvents : Alluvial soils (Recent alluvium). Orthids : Soils of arid region with some development. Scattered bushes and scrubs are found as natural vegetation in the whole region. Noe : Code numbers are written within brackets after village names.	

DISTRICT BHIWANI
REGIONAL DIVISIONS

Bhiwani district is a part of the Western Haryana Plain (2.2.2). Bhiwani district is named after the headquarters town of Bhiwani, believed to a corruption of the word Bhani. From Bhani, it is supposed to have changed to Bhiani and then to Bhiwani. Tradition has another story after the name of Bhiwani. The present Bhiwani district was created in 1972.

The district lies between 28° 22' and 29°04'35" North Latitudes and 75°28' and 76°28'45" East Longitudes flanked by the districts of Hisar, Rohtak and Mahendragarh on its north, east and south respectively. On its south-west and west it has a common state border with Rajasthan.

In its physical features, the district is dotted with sand dunes of various shapes and sizes particularly in the south western parts which form a thirsty land covered with Steppe Vegetation. The district has a semi-arid type of climate. The rainfall is mainly concentrated during monsoon. The geological structure of this district is formed of Alluvium (Recent). The soils of the district are sandy, loamy, sand (*Bagar*) and relatively sandy loam.

The soils as classified by the NBSS and LUP (ICAR), Nagpur, district has Orthids-Fluvents, Psamments, Psamments-Fluvents-Orthids and Ochrepts types of soils. types of soils.

The total area of the district is 5099.00 km^2 having a population of 920,052, of which 484,702 persons are male and 435,350 persons are female as per 1981 Census. Out of total population, 772,683 persons are residing in the rural areas while 147,369 persons are living in urban areas. Literacy rate of the district is 33.07 per cent.

Bhiwani district is comprised of the tahsils of Bawani Khera, Bhiwani, Dadri and Loharu. The Bawani Khera tahsil consists of 43 villages and one town of Bawani Khera. Bhiwani tahsil has 120 villages and one town of Bhiwani. Dadri tahsil comprises 166 villages and one town of Charkhi Dadri, whereas Lohari tahsil has 99 villages and one town Loharu. The district, on the whole is sub-divided into following sub-micro regions on the basis of geology, soils, topography, climate and natural vegetation:—

2.2.2.1 Siwani Undulating Plain with sand dunes

It extends over the north western part of Bhiwani district, covering the parts of Bawani Khera, Bhiwani and Loharu tahsils. It makes its boundaries with Rajasthan state in the west, Loharu Bagar in the south, Bhiwani Plain with Aravalli Offshoots in the east and Hisar district in the north. The soils found in this region are sandy and loamy sand. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region hs Psamments-Fluvents-Orthids and Psamments types of soils. On the whole, the soils are very light and highly permeable which suit to the cultivation of of coarse grains like grams, bajra, and oilseeds with favourable rainfall. Due to severe aridity and meagreness of rainfall, the scattered bushes and scrubs, Kikar and Babul are found in this region. It slightly differs from Loharu Bagar because of the formation of sand dunes and their direction. The sand dunes are formed on undulating surface throughout the region. The sand dunes are both latitudinal and transverse in their extent. It contains 54 villages, with an area of 848,5530 km^2 and is inhavited by 102,843 persons, which is entirely rural. Its density is 121 persons per km^2 which is the lowest and reflects its economic health. There are only three major roads namely, Hisar-Siwani-Rajgarh, Bhiwani-Tosham-Hisar and Hansi-Tosham-Bahal in this region. Very few villages are interlinked with these main roads due to the availability of large scale sand dunes and undulating surface. Metre gauge railway line namely, Siwani-Rajgarh passes through this region.

2.2.2.2 Bhiwani Plain with Aravalli Offshoots

The region extends over the eastern half of the district covering the areas of Bawani Khera, Bihwani and Dadri tahsils. It makes its limits with Siwani Undulating Plain with sand dunes and Loharu Bagar in the west, Mahendragrh district in the south, Rohtak district in the east and Hisar district in the north. Although the region is a plain area but its southern part is little upland due to the presence of Aravalli Offshoots. The loam, relatively sandy loam and rocky surfaces are found in the region. Having more proportion of sand than silt and clay, it has an ideal degree of both permeability and water holding capacity, On the whole, the soils need frequent water and moderate rainfall throughout, for rich production and high yield. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Psamments-Fluvents-Orthids-Fluvents and Ochrepts types of soils. Climate is semi-arid and water table is relatively deep. Scruby type of vegetation is found in southern parts. Western parts of the region is thinly dotted with sand dunes. On the whole,

the region has satisfactory network of rails/roads. It contains 215 villages and 3 towns, namely, Charkhi Dadri, Bhiwani and Bawani Khera with an area of 2295.6191 km^2 and is inhabited by 622,937 persons, of which 482,315 reside in rural and 140,122 in urban areas. Its density is 271 persons per km^2 which reflects its development in the field of agriculture and industries.

2.2.2.3 Loharu Bagar

The region extends over the south-western part of the district, covering some parts of Bhiwani and Dadri tahsils and major portion of Loharu tahsil. It makes its limits with Rajasthan state in the west and south-west, Mahendragarh district in the south-east, Bhiwani Plain with Aravalli Offshoots in the east and Siwani Undulating Plain with sand dunes in the north. Heavy concentration of sand dunes which are of shifting nature, are found here. In this region, mostly the sand dunes are latitudinal in their extent The soils are mostly sandy and loamy sand. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Psamments-Fluvents-Orthids and Psamments types of soils. The area is subject to excessive wind erosion and to over laying by drifting sand cover. The main characteristics of the soils are that they are very deep, light and highly permeable. They suffer from drawback of maximum permeability causing excessive drainage, a tendency to dry up rapidly and a low water holding capacity. A steppe type of vegetation is found here. Its climate is semi-arid. Due to characteristics of soils, climate and under ground water, the region can raise only inferior and coarse cereals. It contains 159 villages and 1 town namely, Loharu which is the headquarters of Loharu tahsil also. The region has an area of 1415.8769 km^2 and is inhabited by 194,272 persons, of which 187,025 resides in rural and 7,247 in urban areas. Its density is 137 persons per km^2 which reflects its economic health. The net work of roads is relatively poor as compared to other regions of Bhiwani district because of availability of sand dunes. Siwani-Bahal-Bhiwani, Siwani-Loharu-Pilani and Charkhi Dadri-Loharu-Pilani are some important roads in this region. Metre gauge railway lines namely, Rajgarh-Loharu-Mahendragarh and Jhunjhunun-Loharu are important.

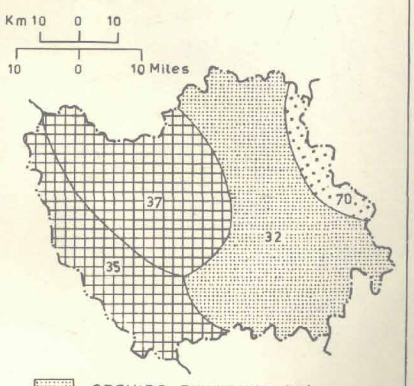
HARYANA
DISTRICT BHIWANI
CENSUS CODE 10
REGIONAL DIVISIONS

2.2.2.1 SIWANI UNDULATING PLAIN WITH SAND DUNES
2.2.2.2 BHIWANI PLAIN WITH ARAVALLI OFFSHOOTS
2.2.2.3 LOHARU BAGAR

BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
REGIONAL DIVISIONS 2.2.2.1
MACRO
MESO
MICRO
SUB-MICRO WITH BOUNDARY
NATIONAL HIGHWAY NH10
STATE HIGHWAY SH12
IMPORTANT METALLED ROAD
RAILWAY LINE WITH STATION, METRE GAUGE RS
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME Chang
URBAN AREA

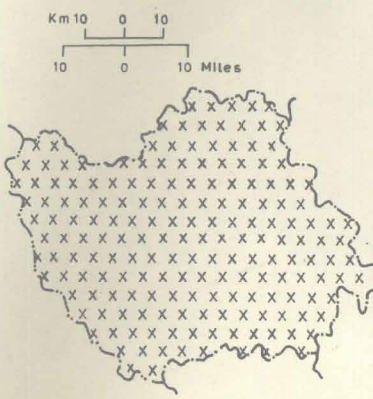
[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

SOILS



ORTHIDS–FLUVENTS (32)
PSAMMENTS (35)
PSAMMENTS–FLUVENTS–ORTHIDS (37)
OCHREPTS (70)

GEOLOGY



XX ALLUVIUM RECENT

75° 30′ East of Greenwich

DATA ON REGIONAL DIVISIONS

District Name BHIWANI Census Location Code No. 10 State HARYANA

Sl. No.	District	Region No and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Bhiwani	2.2.2.1 Siwani Undulating Plain with Sand Dunes	54 Villages (11 Villages in Bawani Khera Tahsil 32 Villages in Bhiwani Tahsil 11 Villages in Loharu Tahsil)	—	848.5530	848.5530	—	102 843	102 843	
2.		2.2.2.2 Bhiwani Plain with Aravalli offshoots	215 Villages (32 Villages in Bawani Khera Tahsil 52 Villages in Bhiwani Tahsil 131 Villages in Dadri Tahsil)	3 Towns Bawani Khera M.C. in Bawani Bhiwani M.C. in Bhiwani Tahsil Charkhi Dadri M.C. in Dadri Tahsil	2295.6191	2254.4591	41.16	622 937	482 815	140 122
3.		2.2.2.3 Loharu Bagar	159 Villages (136 Villages Tahsil 35 Villages in Dadri Tahsil 88 Villages in Loharu Tahsil)	1 Town Loharu M.C. in Loharu Tahsil	1415.8769	1413.2869	2.59	194 272	187 025	7 247

REGION-WISE VILLAGE CODES, 1981

District Name BHIWANI Census Location Code No. 10 State HARYANA

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.2.1 Siwani undulating Plain with Sand Dunes	Bawani Khera Tahsil	1 to 11	11 Villages			
		Bhiwani Tahsil	2 to 19, 21, 23 to 26, 40 to 47, 75	32 Villages			Code No. 1, 68 to 70, 72 to 74 are in region 2.2.2.2 Code No. 20, 22, 27 to 39, 48 to 67, 71 are in region 2.2.2.3
		Loharu Tahsil	1 to 11	11 Villages	54 Villages	848.5530	
2.	2.2.2.2 Bhiwani Plain with Aravalli Offshoots	Bawani Khera Tahsil	12 to 43	32 Villages			
		Bhiwani Tahsil	1, 68 to 70, 72 to 74, 76 to 120	52 Villages			Code No. 2 to 19, 21, 23 to 26, 40 to 47, 75 are in region 2.2.2.1 Code No. 20, 22, 27 to 39, 48 to 67, 71 are in region 2.2.2.3
		Dadri Tahsil	1 to 90, 119 to 121, 129 to 166	131 Villages	215 Villages +3 Towns	2295.6191	Code No. 91 to 118, 122 to 128 are in region 2.2.2.3
3.	2.2.2.3 Laharu Bagar	Bhiwani Tahsil	20, 22, 27 to 39, 48 to 67, 71	36 Villages			Code No. 21, 23 to 26, 40 to 47 are in region 2.2.2.1 Code No. 68 to 70 are in region 2.2.2.2
		Dadri Tahsil	91 to 118, 122 to 128	35 Villages			Code No. 119 to 121 are in region 2.2.2.2
		Loharu Tahsil	12 to 99	88 Villages	159 Villages + 1 Town	1415.8769	

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name BHIWANI Census Location No. 10 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Bhiwani	2.2.2.1 Siwani Undulating Plain with sand dunes	Bawani Khera, Bhiwani and Loharu tahsils	Alluvium	Psamments-Fluvents-Orthids and Psamments	The region lies in the north western part of Bhiwani district covering the parts of Bawani Khera, Bhiwani and Loharu tahsils. It slightly differs from the Loharu Bagar because of the sand dunes formations and their directions. The sand dunes are formed on undulating surface throughout the region with maximum height of 342 metres above mean sea level near village Nigana Khurd (45) in Bhiwani tahsil whereas the minimum height is 208.9 metres near village Barwa (1) in Bawani Khera tahsil. The sand dunes are both the latitudinal and transverse in their extents in this region. The length of sand dunes also varies from place to place. Typical concentrations of sand dunes are seen at villages Naloi (2), Dariyapur (8) & Panjokhra (11) in Bawani Khera tahsil and Miran (12), Saral (14), Thalod (15) & Jhuli (18) in Bhiwani tahsil. The soils of the region are sandy and loamy sand. On the whole, the soils are very light and highly permeable allow the cultivation of coarse grains like grams, bajra and oil seeds with favourable rainfall. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Psamments-Fluvents-Orthids and Psamments types of soils. Psamments : Sandy soils (Recent). Fluvents : Alluvial soils (Recent alluvium). Orthids : Soils of arid region with some development. Due to severe aridity and meagreness of rainfall the scattered trees such as *Kikar & Babul* are found in this region. There are only three major roads namely, Hisar-Siwani-Rajgarh, Bhiwani-Tosham-Hisar & Hansi-Tosham-Bahal in this region. Very few villages are interlinked with these main roads due to the availability of large scale sand dunes and undulating surface. Metre gauge railway line namely, Hisar-Siwani-Rajgarh passes through this region	
Haryana	Bhiwani	2.2.2.2 Bhiwani Plain with Aravalli Offshoots	Bawani Khera, Bhiwani and Dadri tahsils	Alluvium	Psamments-Fluvents-Orthids, Orthids-Fluvents and Ochrepts	The region spreads over the eastern half of Bhiwani district covering the areas of Bawani Khera, Bhiwani and Dadri tahsils. Although the region is plain land but the southern part of the region is a little upland due to the presence of Aravalli Offshoots, with maximum height of 448 metres above mean sea level at village Kalyana (151) in Dadri tahsil while the northern part is relatively lower with minimum height of 213 metres at village Chang (113) in Bhiwani tahsil. The contour of 300 metres is found near villages Kalyana (151) and Tiwana (150) in southern part of Dadri tahsil.	

1	2	3	4	5	6	7	8
						Some sand dunes are found in western most part of the region near villages Alakhpur (18), Bhurtana (19) and Baliali (24) of Bawani Khera tahsil and Sagban (1), Kohar (75) and Bajina (47) of Bhiwani tahsil. Some sand dunes are also seen in southern part of the region particularly at villages Chandani (133), Dagroli (131), Kadma (130),& Kanhra (129) in Dadri tahsil. Mostly sand dunes are latitudinal in their extent. The loam, relatively sandy loam and rocky surfaces soils are found in this region. Having more proportion of sand than silt & clay, it has an ideal degree of both permeability and water holding capacity. On the whole, the soils need frequent water and moderate rainfall througout, for rich production and high yield. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Psamments-Fluvents-Orthids, Orthids-Fluvents and Ochrepts types of soils. Psamments : Sandy soils (Recent) Fluvents : Alluvial soils (Recent Alluvium). Orthids : Soils of arid region with some development. Ochrepts : Shallow black, brown and alluvial soils of northern region. Scruby type of natural vegetation is found in southern part of the region particularly at villages Bondkhurd (6), Kheri Sanwal (50), Kalali (154), Asawari (148), Mahra (59), Kheri Battar (58), Atela Kalan (80), Barsana (60), Tiwala (150), Seeswala (149), Pichopa Kalan (82), Gudana (146), Badal (147), Bharvi (56), Kheri Bura (57) and Dadri (43) in Dadri tahsil. On the whole, the region has a good network of roads and railway lines. All the roads are metalled and mostly the villages are interlinked with the main roads because of the plain land except Aravalli Offshoots. The railway line (Metre gauge) namely, Rewari-Bhiwani-Hansi passes through the region.
Haryana	Bhiwani	2.2.2.3 Loharu Bagar	Bhiwani Dadri and Loharu tahsils	Alluvium	Psamments-Fluvents-Orthids and Psamments	The region spreads over the southwestern part of Bhiwani district covering some parts of Bhiwani and Dadri tahsils and major portion of Loharu tahsil. The maximum height of the region is 272 metres above mean sea level near village Nondha (126) in Dadri tahsil while the minimum height is 207 metres at village Leghan Hetman (48) in Bhiwani tahsil. The heavy concentration of sand dunes are found throughout the region. These sand dunes are of shifting nature. Peculiar sand dunes are seen at villages Surpura Khurd (26), Seheryarpur (38), Mandholi Khurd (18), Mithi (19), Matani (20), Dhigawa Jatan (53), Nakipur (58), Barhlu (72), Singhani (76), Dhani Mansukh (81) & Basirwas (85) of Loharu tahsil and Kari Modh (100), Bhopali (107), Govindpura (112) & Muthra (114) of Dadri tahsil and Khaparbas (34). Dharwanbas (35) & Aswlas Martha (68) of Bhiwani tahsil. In this region mostly the sand dunes are latitudinal in their extent. Sand dunes at villages Mandholi Kalan (17), Mandholi Khurd (18), Sarla (29), Surpura Khurd (26) Bithan (42) and	

1	2	3	4	5	6	7	8

Chaher Kalan (60) of Loharu tahsil and Dharwanbas (35) & Khariawas (37) of Bhiwani tahsil are transverse in their extent.

The soils are mostly sandy and loamy sand in this region. Due to characteristics of soils, climate and underground water, the region can raise only inferior and coarse cereals. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Psamments-Fluvents-Orthids & Psamments types of soils.

Psamments : Sandy soils (Recent).
Fluvents : Alluvial soils (Recent alluvium).
Orthids : Soils of arid region with some development.

The scattered bushes and scruby types of vegetation are seen in this region with heavy concentration near the villages Mandholi Khurd (18), Sarla (29), Kasni Khurd (32), Bidhnoi (30), Kasni Kalan (33), Dhani Laxman (51), and Sahzemanpur (69) of Loharu tahsil.

The net work of roads is relatively poor as compared to other regions of Bhiwani district because of the avilability of sand dunes. Siwani-Bahal-Bhiwani, Siwani-Loharu-Pilani and Charkhi Dadri-Loharu-Pilani are some important roads in this region. Very few villages are interlinked with the main roads. Metre gauge railway lines namely, Rajgarh-Loharu-Mahendragarh and Jhunjunun-Loharu are important.

Note : Code numbers are written within brackets after village names.

DISTRICT MAHENDRAGARH

REGIONAL DIVISIONS

The district is a part of the Southern Haryana Plain (2.2.3) The district takes its name from the town of Mahendragarh. The district headquarters are located, mainly because of availability of office accommodation, at Narnaul one of its sub-divisional towns. Mahendragarh, in fact, is one of the two districts in the state, which has its headquarters at a town different than the one from which the district takes its name.

The district lies between 27°47'50" and 28°28' North Latitudes and 75°54' and 76°51'30" East Longitudes. On its north are situated the districts of Bhiwani and Rohtak. To its east lies Gurgaon district. On the south-east, south, south-west and west, the district is surrounded by the state of Rajasthan. From relief point of view, the district abounds in sand dunes and barren low hills of the great Aravalli Chain. Aravalli Offshoots are scattered rocky outcrops and stand out distinctly against sandy swelling waves. These bare, bold, rounded formations depict a curiously wind-worn topography which illustrate the phenomenon of desert erosin. Tals and Tibbas of the district present desert look. The general slope of Haryana is from north-east to south-west and west, but the Southern Haryana Plain in which this district lies, the slope is towards north. That is why the rain fed streams of this district namely, Dohan, Kansaoti or Kansawati or Krishnawati and Sahibi flow towards north. These bring rainy water during monsoon from Rajasthan.

The very light soils (sandy and loamy sand-Bagar) are found in Mahendragarh and Narnaul tahsils whereas the light soils (relatively sandy loam) are found in Rewari and Bawal tahsils. Soils as classified by the NBSS & LUP (ICAR), Nagpur, the district has Orthids-Fluvents, Psamments and Psamments-Fluvents types of soils.

Total area of the district is 3010.00 km^2 with a populations of 959,400, of which 496,903 persons are male and 462,497 persons are female as per 1981 Census. Out of total population, 834,025 persons are residing in the rural areas whereas 125,375 persons are living in urban areas in 1981. Literacy rate of the district is 38.61 per cent in 1981.

The district comprises four tahsils, namely, Bawal, Rewari, Mahendragarh and Narnaul. Bawal tahsil consists of 181 villages and one town of Bawal, Rewari tahsil has 283 villages and one town of Rewari. Mahendragarh tahsil comprises 157 villages and two towns (Kanina and Mahendragarh) whereas Narnaul tahsil has 222 villages and two towns (Narnaul and Ateli)

The district is sub-divided into four sub-micro regions on the basis of soils, topography, climate and vegetation cover:—

2.2.3.1 Satnali Bagar

The region extends over the north-western parts of Mahendragarh tahsil. It makes its boundaries with Rajasthan state in the south-west, Bhiwani district in the north and north-west and Mahendragarh Undulating Plain in the east. The geological structure of this region is consisted of Alluvium (Recent) and soil is sandy and loamy sand. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Psamments types of soils. Sand dunes are found in the region which are longitudinal and of shifting nature. The region resembles undulating send flats which is locally known as Bagar. Due to peculiar characteristics of the soils, climate, underground water level, and lack of irrigational facilities, the region can raise only inferior types of coarse cereals. Transport facilities are poor except a metre gauge railway line which passes through the area. It contains 19 villages, with an area of 187.5164 km^2 and is inhabited by 31,146 persons which is entirely rural. Its density is 166 persons per km^2

2.2.3.2 Mahendragarh Undulating Plain

The region extends over the 4 villages of Narnaul tahsil, major portion of Mahendragarh tahsil and some western parts of Rewari and Bawal tahsils. It makes its boundaries with the state of Rajasthan and Satnali Bagar in the west, Krishnawati Plain and again Rajasthan in the south, Sahibi Plain in the east and the districts of Bhiwani & Rohtak in the north. It is an undulating plain due to the presence of Tals and Tibbas. Some Aravalli Offshoots are also found in the region which make the region undulating. The geological structure of this region is formed of Alluvium and Delhi Group (Middle Proterozoic) formations. Sandy and loamy sand (Bagar) and relatively sandy loam are the main soils. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Orthids-Fluvents and Psamments types of soils. Semi-arid type of climate and deep water tables are main characteristics of the region. Dohan and Krishnawati rivers flow in the region during the rainy season and bring

rain water from Rajasthan. Most of the areas is agriculturally poor. Numerous patches of land are seen covered with scruby and bushy types of natural vegetation. Scattered trees of Babul and Kikar are found in the region. Cultivation of coarse grains is possible. It contains 195 villages and 2 towns namely, Mahendragarh and Kanina with an area of 1185.9746 km^2 and is inhabited by 297,828 persons, of which 276,209 reside in rural and 21,619 in urban areas. Its density is 251 persons per km^2. Mahendragarh is mainly interlinked with Narnaul and other towns viz., Ateli and Kanina by metalled roads. It has railway connection with Narnaul also. Most of the villages have link roads.

2.2.3.3 Krishnawati Plain

The region extends over Narnaul tahsil (except 4 villages) and nine village of Mahendragarh tahsil. It has a boundary with Rajasthan on three sides and with Mahendragarh Undulating Plain in the northern side. Krishnawati is the main river interlinked with many seasonal rivulets. Krishnawai river brings rain water from Rajasthan side during rainy season and remains dry otherwise. Most of the area is agriculturally poor. Some Aravalli Offshoots are also found in the region. The geological structure of this region is consisted of Alluvium and Delhi Group (Middle Proterozoic) formations. Soils found in the region are sandy and loamy sand (Bagar) and few places have rocky outcrops. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Psamments-Fluvents and Orthids-Fluvents types of soils. Water table is very deep. Semi-arid type of climate is responsible for its poor agriculture. Camel is the main animal, helpful in every field. District headquarters are located in this region. Development of means of communications is satisfactory. It contains 227 villages and 2 towns namely, Narnaul (which is district headquarters) and Ateli. The region has an area of 969.6535 km^2 and is inhabited by 308,370 persons, of which 263,936 reside in rural and 44,434 in urban areas. Its density is 318 persons per km^2.

2.2.3.4 Sahibi Plain

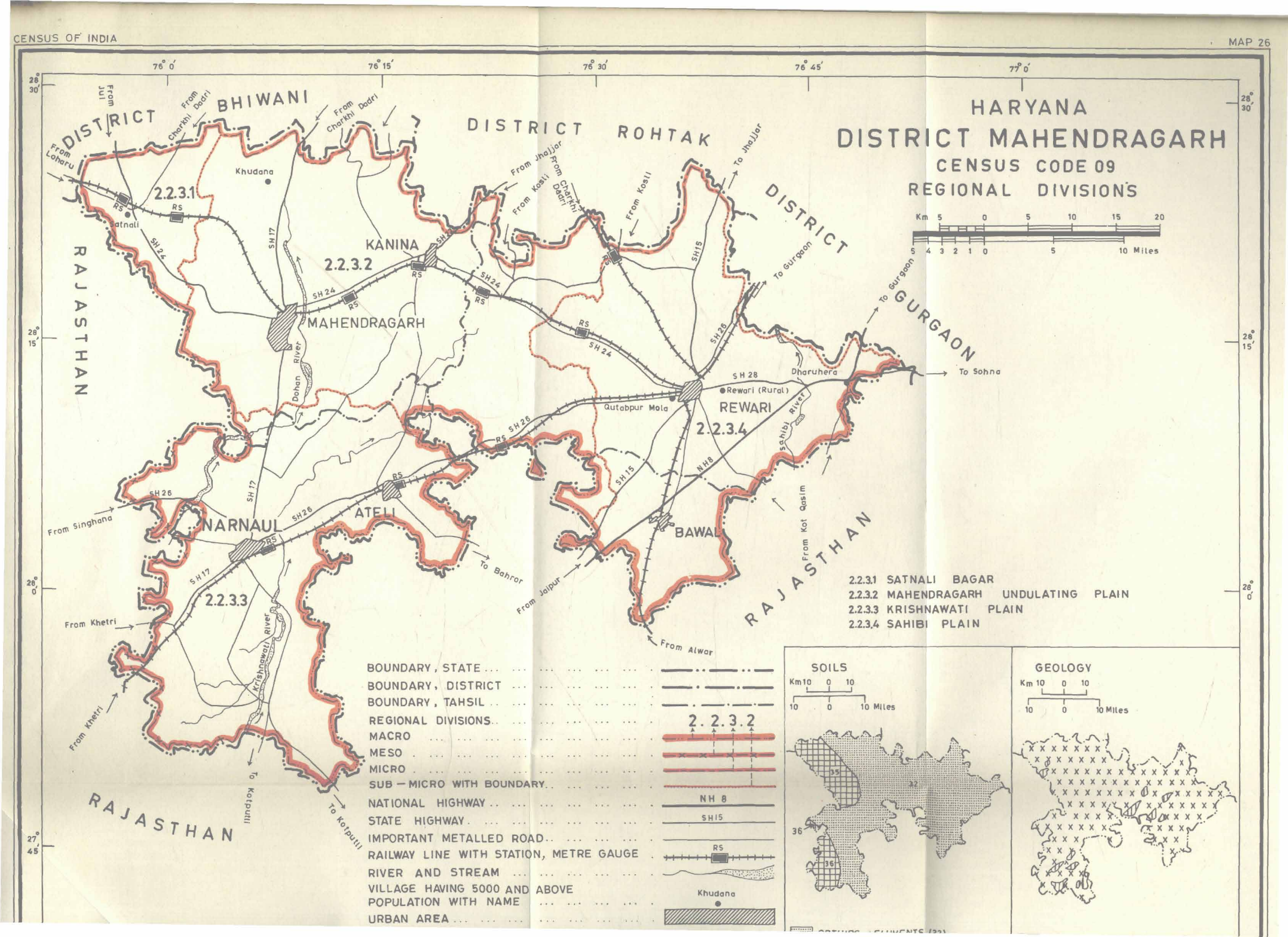
It extends over the eastern parts of Mahendragarh district, covering the most of the villages of Rewari and Bawal tahsils. It has its south eastern border with Rajasthan. Mahendragarh Undulating Plain in the west, Rohtak district in the north and Gurgaon district in the north-east. The geological structure of this region is formed of Alluvium and Delhi Group (Middle Proterozoric) formations. Relatively sandy loam and light loam soils are available. The relatively sandy loam is a soil in between the sandy soil and the loam. Being capable of retaining moisture, it is the best soil for dry farming. The sandy loam is granular and porous. It has a near crumb structure which is considered effective for plant growth. Having more proportion of sand than silt and clay, it has an ideal degree of both permeability and water holding capacity. These light soils have advantage over the medium soils because in the former, less moisture is required for germination growth and assured harvest. These soils are good for wheat, grams, barley and oil-seeds. The soil as classified by the NBSS & LUP (ICAR), Nagpur, the region has Orthids-Fluvents types of soils. Sahibi is an important river which bring water during rainy season from Rajasthan side and causing floods in the area. Its slope is towards north in which director the river flows. Sahibi Valley Project is coming up over this river which will change the shape of the area. It is relatively less dry. It contains 302 villages and 2 towns namely, Rewari and Bawal. (Both the towns are tahsil headquarters in Rewari and Bawal tahsils respectively) with an area of 912.0439 km^2 and is inhabited by 322,056 persons, of which 262,734 reside in rural and 59,322 in urban areas. Its density is 353 persons per km^2 which reflects its agricultural well-off. In view point of the means of communications facilities, Rewari town is a big railway junction and roadways depot. Northern railway main line (Metre gauge), Delhi-Alwar, Rewari-Charkhi Dadri, Rewari-Mahendragarh and Rewari-Narnaul and other major and minor metalled roads are preparing a complete net of communications. National Highway No. 8 passes through the region from east to south-west.

HARYANA

DISTRICT MAHENDRAGARH

CENSUS CODE 09

REGIONAL DIVISIONS



Km 5 0 5 10 15 20

5 4 3 2 1 0 5 10 Miles

2.2.3.1 SATNALI BAGAR
2.2.3.2 MAHENDRAGARH UNDULATING PLAIN
2.2.3.3 KRISHNAWATI PLAIN
2.2.3.4 SAHIBI PLAIN

BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
REGIONAL DIVISIONS 2.2.3.2
MACRO
MESO
MICRO
SUB – MICRO WITH BOUNDARY
NATIONAL HIGHWAY NH 8
STATE HIGHWAY SH15
IMPORTANT METALLED ROAD
RAILWAY LINE WITH STATION, METRE GAUGE RS
RIVER AND STREAM
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME Khudana
URBAN AREA

SOILS

Km 10 0 10

10 0 10 Miles

GEOLOGY

Km 10 0 10

10 0 10 Miles

DATA ON REGIONAL DIVISIONS

District Name MAHENDRAGARH Census Location Code No. 09 State HARYANA

Sl. No.	District	Region No. and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Mahendragarh	2.2.3.1 Satnali Bagar	19 Villages (All in Mahendragarh Tahsil)	—	187.5164	187.5164	—	31 146	31 146	—
2.		2.2.3.2 Mahendragarh Undulating Plain	195 Villages (129 Villages in Mahendragarh Tahsil 4 Villages in Narnaul Tahsil 55 Villages in Rewari Tahsil 7 Villages in Bawal Tahsil)	2 Towns Mahendragarh M.C. & Kanina M.C. in Mahendragarh Tahsil	1185.9746	1174.5446	11.43	297 828	276 209	21 619
3.		2.2.3.3 Krishnawati Plain	227 Villages (9 Villages in Mahendragarh Tahsil 218 Villages in Narnaul Tahsil)	2 Towns Narnaul M.C. & Anteli M.C. in Narnaul Tahsil	969.6535	958.3335	11.32	308 370	263 936	44 434
4.		2.2.3.4 Sahibi Plain	302 Villages (228 Villages in Rewari Tahsil 74 Villages in Bawal Tahsil)	2 Towns Bawal M.C. in Bawal Tahsil Rewari M.C. in Rewari Tahsil	912.0439	905.6239	6.42	322 056	262 734	59 322

REGION-WISE VILLAGE CODES, 1981

District Name MAHENDRAGARH Census Location Code No. 09 State HARYANA

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.3.1 Satnali Bagar	Mahendragarh Tahsil	133, 134, 136 to 138, 144 to 157	19 Villages	19 Villages	187.5164	Code No. 135, 139 to 143 are in region 2.2.3.2
2.	2.2.3.2 Mahendragarh Undulating Plain	Mahendragarh Tahsil	1 to 39, 41, 43 to 106, 109, 110, 115, 116, 118 to 132, 135, 139 to 143	129 Villages			Code No. 40, 42, 107, 108, 111 to 114, 117 are in region 2.2.3.3 Code No. 133, 134, 136 to 138 are in region 2.2.3.1
		Narnaul Tahsil	1, 2, 3, 4	4 Villages			
		Rewari Tahsil	1 to 17, 22 to 35, 250, 251, 259 to 266, 270 to 283	55 Villages			Code No. 18 to 21, 36 to 249, 252 to 258, 267 to 269 are in region 2.2.3.4
		Bawal Tahsil	6 to 9, 13 to 15	7 Villages	195 Villages + 2 Towns	1185.9746	Code No. 10 to 12 are in region 2.2.3.4
3.	2.2.3.3 Krishnawati Plain	Mahendragarh Tahsil	40,42, 107, 108, 111 to 114, 117	9 Villages			CodeNo. 41, 43, to 106, 109, 110, 115, 116 are in region 2.2.3.2
		Narnaul Tahsil	5 to 222	218 Villages	227 Villages + 2 Towns	969.6535	
4.	2.2.3.4 Sahibi Plain	Rewari Tahsil	18 to 21, 36 to 249, 252 to 269	228 Villages			Code No. 22 to 35, 250, 251, 259 to 266 are in region 2.2.3.2
		Bawal Tahsil	1 to 5, 10 to 12, 16 to 81	74 Villages	302 Villages + 2 Towns	912.0439	Code No. 6 to 9 13 to 15 are in region 2.2.3.2

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name MAHENDRAGARH Census Location No. 09 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Mahendragarh	2.2.3.1 Satnali Bagar	Mahendragarh tahsil	Alluvium	Psamments	The region spreads over the northwestern part of Mahendragarh tahsil of the district. It makes its bundaries with Rajasthan state in the south-west, Bhiwani district in the north and north-west and Mahendragarh Undulating Plain in the east. From relief point of view, the maximum height of the region is 308 metres above m.s.l. near village Bas (153) and minimum height is 278 metres near village Patharwa (150). Both the heights are found in the southwestern parts near Rajasthan border. Sand is found in a thick layer througout the region. The heavy concentration of sand dunes of shifting nature are found at villages Shampura (149), Patharwa (150) and Sureti Jakhar (156). Most of the sand dunes are latitudinal in their extent. Near villages Degrota (134) and Nanwan (138), these dunes are found in their uneven directions. The soils, found here are sandy and loamy sand. Due to peculiar characteristics of the soils, climate, under ground water level (brackish) and lack of irrigation facilities, the region can raise only inferior type of coarse cereals. Soils as classified by the NBSS & LUP (ICAR), Nagpur is Psamments type of soils. Psamments : Sandy soils (Recent). Transportaion facilities are not well developed in the region, except a metre gauge railway line which passes through the region. Village Satnali has railway station with a road link to Mahendragarh, to Loharu and to Badhara.	
Haryana	Mahendragarh	2.2.3.2 Mahendragarh Undulating Plain	Narnaul, Mahendragarh Rewari and Bawal tahsils	Alluvium and Delhi Group (Middle Proterozoic)	Orthids-Fluvents & Psamments	The region covers 4 villages of Narnaul tahsil major part of Mahendragarh tahsil and some western parts of Rewari and Bawal tahsils. The region makes its boundaries with the state or Rajasthan and Satnali Bagar in the west, Krishnawati Plain and again Rajasthan in the south, the districts of Bhiwani and Rohtak in the north and Sahibi Plain in the east. It is an undulating plain, due to presence or Tals and Tibbas. Some Aravalli Offshoots are also found in this region which provide undulating relief features to the region. Maximum height of the region is 525 metres above m.s.l. on a top of a hill near villlage Garhi (141) in Mahendragarh tahsil. The minimum height is 243 metres above m.s.l. near village Fatehpuri Tapar Dahina (26) in Rewari tahsil. Besides this, there are hills related to Aravalli outcrops having typical heights and slopes with rocky surfaces near villages Madhogarh (135) & Khudana (140) in Mahendragarh tahsil, Dhawana (14), Lohana (16), Siha (17), Masit (22), didoli (23), Bhalaki	

1	2	3	4	5	6	7	8
						(274), Majra Mustal Bhalaki (275), Nandha (276), Mayan (278), Khol (279) & Ahrod (280) in Rewari tahsil. Dohan river and Krishnawati river flow in the region from south to north. These rivers drain the area only in the rainy season and remains dry otherwise. These bring rainy water from Rajasthan side. Most of the area is not agriculturally rich. Many patches of land are seen covered with scruby and bushy types of natural vegetation. Scattered trees of *Babul* and *Kiker* are found in the entire region. Soils in the region, are sandy and loamy sand (*Bagar*) and relatively sand loam. Poor characteristics of the soils, availability of brackish water, undulating and low water level allow the cultivation of coarse grain as their main crops with poor yields. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Orthids-Fluvents & Psamments types of soils. Orthids : Soils of arid region with some development. Fluvents : Alluvial soils (Recent alluvium) Psamments : Sandy soils (Recent) Mahendragarh is grown up town in the region. The town is mainly inter-linked with Narnaul and other towns namely, Ateli and Kanina by metalled roads. Mahendragarh has railway connection with Narnaul also. Most of the villages have link roads. Main road like Charkhi Dadri-Mahendragarh-Narnaul passes through the middle of the region from north to south and Rewari-Narnaul, another road, links up the region from east to west. There are two railways, Rewari-Mahendragarh-Loharu and Rewari-Narnaul (Metre gauge).	
Haryana	Mahendragarh	2.2.3.3 Krishnawati Plain	Mahendragarh tahsil & Narnaul tahsil	Alluvium & Delhi Group (Middle Proterozoic)	Psamments-Fluvents & Orthids-Fluvents	The region spreads over the whole of Narnaul tahsil excepting 4 villages viz., Khairani (1), Mohalra (2), Rata Khurd (3) & Rata Kalan (4) and over nine villages of Mahendragarh tahsil. The region makes its boundaries with the state of Rajasthan from east to west and with Mahendragarh Undulating Plain in the north. From relief point of view, the maximum height of the region is 652 metres above m.s.l. on hill top near village Thana (118) while the minimum height is 287 metres near village Karia (30). Both the heights are in Narnaul tahsil. Krishnawati river is the main river interlinked with many seasonal streams. Krishnawati river brings rainy water from Rajasthan side during rainy season and remains dry otherwise. Most of the area is not agriculturally developed. Some Aravalli Offshoots are also found near villages Thana (118), Mukandpura (133), Tehla (134), Bayal (187), Govla (188), Nain (201), Nangal Nunia (213) and Dantal (214) which add typical relief features in the physiographic phenomenon. Many patches of lands are seen covered with scruby and bushy types of natural vegetation. Scattered trees of *Babul* and *Kikar* are found in the entire region. Soils found in the region are sandy and loamy sand (*Bagar*) and a few places of them have rocky surfaces.	

1	2	3	4	5	6	7	8
						Soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Psamments-Fluvents and Orthids-Fluvents types of soils. Psamments : Sandy soils (Recent). Fluvents : Alluvial soils (Recent alluvium). *Orthids : Soils of arid region with some development.* With regard to the means of communications and transportation the region is quite strengthen. All kinds of major and minor metalled roads are found in the region. Narnaul and Ateli are two towns in the region connected with each other by a major road and also by a railway (Rewari-Phulers branch, Metre gauge).	
Haryana	Mahendragarh	2.2.3.4 Sahibi Plain	Rewari & Bawal tahsils	Alluvium & Delhi Groups (Middle Proterozoic)	Orthids-Fluvents	The region spreads over eastern part of Mahendragarh district, covering the major parts of Rewari and Bawal tahsils. It makes its boundaries with the state of Rajasthan in the south-east, Mahendragarh Undulating Plain in the west, Rohtak district in the north and Gurgaon district in the north east. From point of view of physiography, the whole area is a plain land. Maximum height of the region is 308 metres above m.s.l. near village Chatal Mahani was (127) and minimum height is shown by BM 224.1 metres near village Chang (68) in Rewari tahsil. Sahibi river is the main river flows from south to north in the extreme east of the region. Relatively sandy laom and light loam are the main soils of the region. The relatively sandy loam is a soil in between the sandy soils and loams. Being capable of retaining moisture, it is the best soil for dry farming. The sandy loam is granular and porous. It has a near crumb structure which is considered effective for plant growth. Having more proportion of sand than silt and clay, it has an ideal degree of both permeability and water holding capacity. The light soils have advantage over the medium soils because in the former less moisture is required for germination, growth and assured harvest. These soils are capable of producing a variety of crops, such as wheat, grams, barley, cotton & oilseeds. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Orthids-Fluvents types of soils. Orthids : Soils of arid region with some development. Fluvents : Alluvial soils (Recent alluvium). There are two important towns namely, Rewari and Bawal in the region. Rewari town is a big railway junction and roadways depot. Northern railway main lines (Metre gauge), Delhi-Alwar, Rewari-Charkhi Dadri, Rewari-Mahendragarh and Rewari-Narnaul and other major and minor metalled roads are preparing a complete net of communications. National Highway No. 8 passes through the region from east to south-west. Communication facilities are well developed in the region. Note : Code numbers are written within brackets after village names.	

DISTRICT GURGAON
REGIONAL DIVISIONS

Gurgaon district is a part of Southern Haryana Plain (2.2.3). The district is named after its headquarters town, Gurgaon. It is said that the name Gurgaon is corruption of *Guru Gram*, i.e. village of a spiritual leader. The traditional account is that Yudhisthira the eldest of the Pandavas, gave this village to his *Guru,* Dronacharya in whose memory a tank still exists on the west side of road to the railway station. The tradition also has it that it was here that Dronacharya gave instructions in archery to the Kauravas and Pandavas. It may also be the case that on account of its associations with Dronacharya or otherwise, this gram was considered *Guru* or big.

The district lies between 27°39' and 28°32'25" North Latitudes and 76°39'30" and 77°20'45" East Longitudes. On its north are the district of Rohtak and Union Territory of Delhi. To its east is Faridabad district. On its south, the district has boundary with the state of Uttar Pradesh and Rajasthan. To its west are the district Mahendragarh and state of Rajasthan. From relief point of view, Gurgaon is rolling plain dominated by the extension of Aravalli. Aravalli Offshoots are along the western parts of the district and extend upto the Union Territory of Delhi in north-east to south-west direction. These rocks are one of the oldest mountain systems of the world. The hillocks are dissected by rainfed torrents. The district has light soils particularly the relatively sandy loam, medium soils particularly light loam(*Seoti*) and Loam (*Bhangar* and *Nardak*). Coarse loam (*Dahar* and *Chaeknote*) and rocky surfaces. Soils as classified by the NBSS & LUP (ICAR), Nagpur, the district has Orthids-Fluvents, Ochrepts-Usterts-Ustalfs types of soils.

The total area of the district is 2716.00 km^2 with a population of 849,598, of which 451,861 persons are male and 397,737 persons are female as per 1981 Census. Out of total population, 680,409 persons are residing in the rural areas and 169,189 persons are living in urban areas. The literacy rate of the district is 35.23 per cent in 1981.

This district comprises the tahsils of Gurgaon, Nuh and Ferozepur Jhirka. Gurgaon tahsil has 288 villages and seven towns namely, Gurgaon, Gurgaon (rural) Jharsa, Farrukhnagar, Haileymandi, Pataudi and Sohna. Nuh tahsil has 191 villages and two towns of Taoru and Nuh, whereas Ferozepur Jhirka tahsil comprises 242 villages and one town (Ferozepur Jhirka).

The district is sub-divided into four sub-micro regions on the basis of soils, topography, climate and natural vegetation:-

2.2.3.1 Gurgaon Plain

The region spreads over the northern and north—western parts of Gurgaon tahsil. It makes its boundaries with U.T. of Delhi in the north, Rohtak district in the northwest, Mahendragarh district in the southwest and Sohna Undulating Plain with Aravalli Offshoots in the east and southeast. The region as a whole is a plain area under extensive cultivation except some patches of land which are covered with scrubs and bushy types of vegetation the geological structure of this resion is Delhi Group (Middle Proterozoic) formations. Relatively sandy loam and light loam soils are available, The region is quite homogeneous to sahibi plain of Mahendragarh district. The relatively sandy loam belt stretches between the sandy soils and the loam. It requires little ploughing and readily ratains the moisture. Being capable of retaining moisture, is the best soil for dry farming. The light soils which are found here, have advantage over the medium soils because, in the former, less moisture is required for germination, growth and assured harvest. These soils are suitable for wheat, grams, barley and oilseeds. The soils as classified by the NBSS&LUP (ICAR),Nagpur the region has Orthids-Fluvents and Ochrepts types of soils. Transportation facilities are well developed in the region. The region is industrially developed. Sahibi river passes through the region. It contains 188 villages and 6 towns, namely, Gurgaon, Gurgaon (rural), Farrukhnagar, haileymandi, Pataudi and Jharsa. The region has an area of 775.5737 $km^2$and is inhabited by 348, 134 persons, of which 213,916 reside in rural and 134,218 in urban areas. Its density is 449 persons per km^2 which reflects its supporting capacity.

2.2.3.2 Sohna Undulating Plain with Aravalli Offshoots

The region extends over the parts of Gurgaon, Nuh and Ferozepur Jhirka tahsils. It makes it boundaries with the Gurgaon Plain in the north and north west , State of Rajasthan in the west, Faridabad district and Nuh-Punahana Plain in the north-east & east and south and U.T.of Delhi in the north. The geological structure of this

region is consisted of Alluvium and Delhi Group (Middle Proterozoic) formation. Relatively sandy loam, course loam soils are found in the region. The soils as classified by the NBSS & LUP (ICAR), Nagpur, Orthids-Fluvents and Ochrepts types of soils are available in the region. The entire region is covered with rocky surfaces of Aravalli Offshoots. On the whole, these form series of flat topped ridges. Only some patches of land are under cultivation. A tract of protected forest is found in between the Aravalli Offshoots and the boundary of Rajasthan on the western side. The region is undulating due to offshoots of Aravalli hills. There is little cultivation due to roughness of surface and negligible soil cover on rocky areas. Scruby and bushy types of vegetation are available. There is lack of link roads as compared to other regions of the district due to rocky surfaces and undulations. The region is agriculturally poor and industrially backward; but rich in mineral resources. It contains 256 villages and 3 towns namely Sohna, Taoru and Ferozepur Jhirka with an area of 967.5312 km^2 and is inhabited by 231,721 persons, of which 202,742 reside in rural and 28,979 in urban areas. Its density is 240 person per km^2.

2.2.3.3 Nuh-Punahana Plain

The region spreads over the district covering the parts of Nuh tahsil are northern, central and eastern parts of Ferozepur Jhirka tahsil. The region is divided into two parts in Ferozepur Jhirka tahsil because a region namely Ferozepur Jhirka Dissected Upland falls between them.

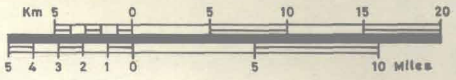
Its first part makes its limits with Sohna Undulating Plain in the north and west, State of Rajasthan in the southwest and Ferozepur Jhirka Dissected Upland and Faridabad district in the east.

Second part of the region makes its boundaries with the Faridabad district in the north and northeast, state of U.P. in the east, state of Rajasthan in the south and Ferozepur Jhirka Dissected Upland in the west. The giological structure of this region is consisted of Alluvium and Delhi Group (Middle Proterozoic) formations. The soils found in the region are coarse loam and loam or alluvial. The soil is compact and stiff because of the addition of silt over years. It is less granular and has low watr holding capacity. The soils as classified by the NBSS & LUP (ICAR), Nagpur, Orthids-Fluvents and Ochrepts types of soils are found in the region. On the whole, soil is deep, fertile and capable of producing a variety of crops such as wheat, grams, barley, pulses and sugarcane. The region as a whole in cultivated with variety of crops having medium yields. Concentration of rainfall is relatively adequate. Irrigational facilities with canals can turn this region into fertile one. Nuh and Punahana are important agricultural markets. Its contains 200 villages and 1 town of Nuh (tahsil headquarters), with an area of 693.2545 km^2 and is inhabited by 202,068 persons, of which 196,076 reside in rural and 5,992 in urban areas. Its density is 291 persons per km^2. Communication facilities in the region are good because a net of metalled roads thickly spreads over the region, connecting many villages with Nuh, the only town in the region. Roads are ratiating from Nuh town, Nut to Gurgaon, to Ferozepur Jhirka, to Taoru are important routes. Second important place is Punahana in the region which is a centre of communication and agricultural market.

2.2.3.4 Ferozepur Jhirka Dissected Upland.

The region spreads over the central and southeastern part of Ferozepur Jhirka tahsil. It makes its boundaries with Nuh-Punahana Plain in the west, and in the east, the State of Rajasthan in the south and Faridabad district in the north. Eastern parts of the region bordering with Rajasthan are containing Aravalli Offshoots and uplands like ridges. Ridges and uplands have been dissected by rainfed streams on both sides. The region is agriculturally poor. The geological structure of this region is consisted of Alluvium and Delhi Group (Middle Proterozoic) formations. The region has coarse loam soil and rocky surfaces. The soils as classified by the MBSS & LUP (ICAR), Nagpur the region has Ochrepts type of soils. The region is industrially backward and poor in transportation. It contains 77 villages with an area of 269.5796 km^2 and is inhabited by 67,675 persons which is entirely rural. Its density is 251 persons per km^2. With regards to the means of communications and transport, the region is not fully developed because of the hinderance caused by rocky surfaces and dissected uplands. A few villages are interlinked with each other by minor roads.

HARYANA
DISTRICT GURGAON
CENSUS CODE 08
REGIONAL DIVISIONS



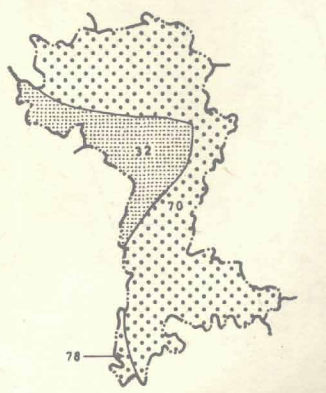


2.2.3.1 GURGAON PLAIN
2.2.3.2 SOHNA UNDULATING PLAIN WITH ARAVALLI OFFSHOOTS
2.2.3.3 NUH-PUNAHANA PLAIN
2.2.3.4 FEROZEPUR JHIRKA DISSECTED UPLAND

BOUNDARY, STATE ... ...
BOUNDARY, DISTRICT ... ...
BOUNDARY, TAHSIL ... ...
REGIONAL DIVISIONS 2.2.3.1
MACRO ... ...
MESO ... ...
MICRO ... ...
SUB-MICRO WITH BOUNDARY ... ...
NATIONAL HIGHWAY ... ... NH. 8
STATE HIGHWAY ... ... SH 28
IMPORTANT METALLED ROAD ... ...
RAILWAY LINE WITH STATION, METRE GAUGE ... RS
RIVER AND STREAM ... ...
LAKE ... ...
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME ... ... Nai
URBAN AREA ... ...

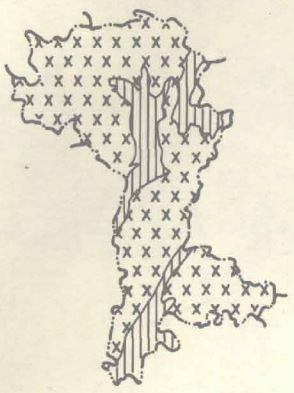
[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

SOILS



ORTHIDS – FLUVENTS (32)
OCHREPTS (70)
OCHREPTS – USTERTS – USTALFS (78)

GEOLOGY



ALLUVIUM — RECENT
DELHI GROUP — MIDDLE PROTEROZOIC

76°45′ East of Greenwich 77°0′

DATA ON REGIONAL DIVISIONS

District Name GURGAON Census Location Code No. 08 State HARYANA

Sl. No.	District	Region No. and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Gurgaon	2.2.3.1 Gurgaon Plain	188 Villages (in Gurgaon Tahsil)	6 Towns Gurgaon M.C Gurgaon C.T. Farrukhnagar M.C. Haileymandi M.C. Pataudi M.C. & Jharsa C.T. All in Gurgaon Tahsil	775.5737	732.0737	43.50	348 134	213 916	134 218
2.		2.2.3.2 Sohna Undulating Plain with Aravalli offshoots	256 Villages (100 Villages in Gurgaon Tahsil 140 Villages in Nuh Tahsil 16 Villages in Ferozepur Jhirka Tahsil)	3 Towns Sohna M.C. in Gurgaon Tahsil Taoru M.C. in Nuh Tahsil Ferozepur Jhirka M.C. in Ferozepur Jhirka Tahsil	967.5312	954.6212	12.91	231 721	202 742	28 979
3.		2.2.3.3 Nuh-Punahana Plain	200 Villages (51 Villages in Nuh Tahsil 149 Villages in Ferozepur Jhirka Tahsil)	1 Town Nuh M.C. in Nuh Tahsil	693.2545	692.9545	0.30	202 068	196 076	5 992
4.		2.2.3.4 Ferozepur Jhirka Dissected upland	77 Villages (in Ferozepur Jhirka Tahsil)		269.5796	269.5796	—	67 675	67 675	—

REGION-WISE VILLAGE CODES, 1981

District Name GURGAON Census Location Code No. 08 Satate HARYANA

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.3.1 Gurgaon Plain	Gurgaon Tahsil	1 to 22, 24 to 55, 58 to 60, 131, 132, 135 to 138, 144, 146 to 149, 162, 163, 167 to 176, 179, 182 to 288	188 Villages	188 Villages + 6 Towns	775.5737	Code Np. 23, 56, 57, 61 to 130, 133, 134, 139 to 143, 145, 150 to 161, 164 to 166, 177, 178, 180, 181 are in region 2.2.3.2
2.	2.2.3.2 Sohna Undulating Plain with Aravalli Offshoots	Gurgaon Tahsil	23, 56, 57, 61 to 130, 133, 134, 139 to 143, 145, 150 to 161, 164 to 166, 177, 178, 180, 181	100 Villages			Code No. 24 to 55, 58 to 60, 131, 132, 135 to 138, 144, 146 to 149, 162, 163, 167 to 176, 179 are in region 2.2.3.1
		Nuh Tahsil	1 to 123, 131 to 133, 171 to 179, 181, 182, 189 to 191	140 Villages			Code No. 124 to 130, 134 to 170, 180, 183 to 188 are in region 2.2.3.3
		Ferozepur Jhirka Tahsil	1 to 8, 192 to 196, 207, 222, 223	16 Villages	256 Villages + 3 Towns	967.5312	Code No. 9 to 47, 55, 59 to 64, 66, 68 to 73, 77 to 79, 88, 91 to 115, 121 to 162, 170, 187 to 191, 197 to 199, 205, 206, 208, 209, 219 to 221, are in region 2.2.3.3 Code No. 48 to 54, 56 to 58, 65, 67, 74 to 76, 80 to 87, 89, 90, 116 to 120, 163 to 169, 171 to 186, 200 to 204, 210 to 218 are in region 2.2.3.4
3.	2.2.3.3 Nuh-Punahana Plain	Nuh Tahsil	124 to 130, 134 to 170, 180, 183 to 188	51 Villages			Code No. 131 to 133, 171 to 179, 181, 182 are in region 2.2.3.2
		Ferozepur Jhirka Tahsil	9 to 47, 55, 59 to 64, 66, 68 to 73, 77 to 79, 88, 91 to 115, 121 to 162, 170, 187 to 191, 197 to 199, 205, 206, 208, 209, 219 to 221, 224 to 228, 235 to 238	149 Villages	200 Villages + 1 Town	693.2545	Code No. 192 to 196, 207, 222, 223 are in region 2.2.3.2
4.	2.2.3.4 Ferozepur Jhirka Dissected upland	Ferozepur Jhirka Tahsil	48 to 54, 56 to 58, 65, 67, 74 to 76, 80 to 87, 89, 90, 116 to 120, 163 to 169, 171 to 186, 200 to 204, 210 to 218, 229 to 234, 239 to 242	77 Villages	77 Villages	269.5796	Code No. 55, 59 to 64, 66, 68 to 73, 77 to 79, 88, 91 to 115, 121 to 162, 170, 187 to 199, 205, 206, 208, 209, 219 to 221, 224 to 228, 235 to 238 are in region 2.2.3.3 Code No. 207, 222, 223 are in region 2.2.3.2

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name GURGAON Census Location No. 08 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Gurgaon	2.2.3.1 Gurgaon Plain	Gurgaon tahsil	Alluvium & Delhi Group (Middle Proterozoic)	Orthids-Fluvents-Ochrepts	The region spreads over the north and northwestern parts of Gurgaon district. It makes its boundaries with U.T. of Delhi in the north, Rohtak district in the north west, Mahendragarh district in the southwest and Sohna Undulating Plain with Aravalli Offshoots in the east and southeast. From relief point of view, the maximum height of the region is 276 metres above mean sea level near village Ghausgarh(184) and minimum height is 217 metres near village Garhi Nathe Khan (208). Both the heights are found in the Gurgaon tahsil. Generally, 220 metres contour line is shown covering the entire region. The region, as a whole, is a plain land and is under cultivation except some patches of land which are covered with scrubs and bushy types of vegetation. Such type of land patches are found near villages Daboda (206), Mushedpur (213), Mubarikpur (275), Sultanpur (199) Budhera (2), Sadhrana (7), Garhi Harsaru (6), Hamirpur (8), Wazirpur (9) and Patil Hajipur (196). The soils found in the region are relatively sandy loam and light loam. The relatively sandy loam belt stretches between the sandy soils and laom. It needs little ploughing and readily retains the moisture. Being capable of retaining moisture is the best soil for dry farming. The light soils (sandy loam and light loam) which are found here, have advantage over the medium soils because in the former, less moisture is required for germination, growth and assured harvest. These soils are capable of producing a variety of crops, such as wheat, grams, barley and oilseeds. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Orthids-Fluvents & Ochrepts. Orthids : Soils of arid region with some development. Fluvents : Alluvial soils (Recent alluvium). Ochrepts : Shallow black, brown and alluvial soils of northern region. Transportation facilities are well developed in the region. A railway line, Delhi to Rewari (N.R.-Metre gauge) passes through the region from north east to southwest connecting the town of Gurgaon and Haileymandi. There is also rail line (Metre gauge) upto Farrukhnagar. Besides the other roads, a National Highway No. 8 is also passing through the region, parallel to the rail line.	

1	2	3	4	5	6	7	8
Haryana	Gurgaon	2.2.3.2 Sohna undulating Plain with Aravalli Offshoots	Gurgaon, Nuh & Ferozepur Jhirka tahsils	Alluvium & Delhi Group (Middle Proterozoic)	Orthids-Fluvents-Ochrepts. and Ochrepts-Usterts-Ustalfs	The region spreads over the parts of Gurgaon, Nuh and Ferozepur Jhirka tahsils of the district. It makes its boundaries with the Gurgaon Plain in the north and northwest, state of Rajasthan in the west, Faridabad district and Nuh-Punahana Plain in the northeast & east and south and U.T. of Delhi in the north. Physiographically, the maximum height of the region is 448 metres above m.s.l. on a top of a hill near village Bhond (223) in Ferozepur Jhirka tahsil while the minimum height is shown by BM 198.4 metres near village Nawli (192) in the same tahsil. The entire region is covered with rocky surface of Aravalli Outcrops. On the whole, these form series of flat topped ridges. Only some patches of land are under cultivation. A tract of protected forests is found in between Aravalli Outcrops and the boundary of this state of Rajasthan on western side of the region. The region is undulating due to offshoots of Aravalli hills. The soils found in the region are mostly rocky surface, except some area is under relatively sandy loam and coarse loam. Soils as classified by the NBSS & LUP (ICAR), Nagpur are Orthids-Fluvents, Ochrepts and Ochrepts-Usterts-Ustalfs types of soils. Orthids : Soils of arid region with some development. Fluvents : Alluvial soils (Recent alluvium). Ochrepts : Shallow black, brown & alluvial soils of northern region. Usterts : Deep black soils. Ustalfs : High base status, red loamy, red sandy and alluvial soils. There is little cultivation due to roughness of surface and negligible soil cover on rocky areas. Scruby and bushy types of vegetation are found in the entire region as natural vegetation. Sohna, Taoru and Ferozepur Jhirka are the main towns in the region. Roads radiating from Sohna town are connecting the towns of Gurgaon, Taoru, Delhi, Palwal, Nuh and Ferozepur Jhirka. There is lack of link roads as compared to other regions. It is because of undulation and rocky surface of the region. Railway line is not available in the region.	
Haryanr	Gurgaon	2.2.3.3 Nuh-Punahana Plain	Gurgaon, Nuh, and Ferozepur Jhirka tahsils	Alluvium & Delhi Groups (Middle Proterozoic)	Orthids-Fluvents-Ochrepts & Ochrepts-Usterts-Ustalfs	This region spreads over the district covering parts of Nuh tahsil and northern central and eastern part of Ferozepur Jhirka tahsil. The region is divided into two parts in Ferozepur Jhirka tahsil because a region namely, FerozepuJhirka Dissected Upland falls between them. Second part of the region makes its boundaries with the Faridabad district in the north and northeast, state of Uttar pradesh in the east, state of Rajasthan in the south and Ferozepur Jhirka Dissected Upland in the west. From relief point of view, the maximum height of the region is 236 metres above m.s.l. near village Hathan	

1	2		4	5	6	7	8
						Gaon (142) in the tahsil of Ferozepur Jhirka, while the minimum height is 205 metres above m.s.l. near village Umra (61) in the same tahsil. The entire region is a plain land with a general height of 190 metres above m.s.l. because of contour line of 190 metres covers the whole area of the region. The soils found in the region, are coarse loam and loam or alluvial. The soil is compact and stiff because of the addition of silt over years. It is less granular and has low water holding capacity. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Orthids-Fluvents-Ochrepts and Ochrepts-Usterts-Ustalfs types of soils. Orthids : Soils of arid region with some development. Fluvents : Alluvial soils (Recent alluvium). Ochrepts : Shallow black, brown & alluvial soils of northern region. Usterts : Deep black soils Ustalfs : High base status-red loam, red sandy and alluvial soils. On the whole, soil is deep, fertile & capable of producing a variety of crops, such as wheat, grams, barley, pulses and sugarcane. The region as a whole, is cultivated with variety of crops having medium yields. Communication facilities in the region are good because a net of mettalled roads thickly spreads over the region connecting many villages with Nuh, the only town in the region. Roads readiating from Nuh town, Nuh to Gurgaon, to Ferozepur Jhirka, to Taoru are important routes. Second important place is village Punahana in the region, which is a centre of communication and agricultural market.	
Haryana	Gurgaon	2.2.3.4 Ferozepur-Jhirka Dissected Upland	Ferozepur Jhirka tahsil	Alluvium and Delhi Groups (Middle Proterozoic)	Ochrepts	The region extends over southeastern and middle parts of Ferozepur Jhirka tahsil. It makes its boundaries with Nuh-Punahana Plain in the west and in the east, the state of Rajasthan in the south and Faridabad district in the north. From relief point of view, the region has its maximum height 371 metres above mean sea level near village Ghatashamasabad (215) in Ferozepur Jhirka tahsil while the minimum height is shown by a contour line of 200 metres. Eastern parts of the region bordering to the state of Rajasthan are covered with rocky surfaces of Aravalli outcrops and upland. Dissected lands are found on the both sides of the ridge because the rainy seasonal streams come down from uplands and make erosion abruptly on both sides of the bank. The region is not agriculturally rich due to lack of installation of canals for irrigation and rain water is not sufficient for the agriculture. The region has coarse loam type of soils. A few parts of it are also covered with rocky surfaces. Soils as classified by the NBSS & LUP (ICAR), Nagpur, it has Ochrepts type of soils. Ochrepts : Shallow black, brown & alluvial soil of northern region.	

1	2	3	4	5	6	7	8
						With regard to the means of communications and transportation the region is not fully developed because of the hinderances caused by rocky surfaces and dissected lands. A few villages are interlinked with each other by minor roads. Note : Code numbers are written within brackets after village names.	

DISTRICT FARIDABAD
REGIONAL DIVISIONS

Faridabad district is a part of the Southern Haryana Plain (2.2.3). The district is named after the town Faridabad which is said to have been founded in A.D. 1607 by Shaikh Farid, treasurer of Jahangir, with the object of protecting the highway which passed through the town. Later it came to be the headquarters of a pergana which was held in *Jagir* by the Ballabgarh ruler. The present Faridabad district has been created in 1979, was a part Gurgaon district.

The district lies between 27° 51'15" and 28°30'52" North Latitudes and 77° 04'30" and 77° 32'50" East Longitudes. On its north is Union Territory of Delhi, to its northeast, east and southeast is the state of Uttar Pradesh. On its southwest and west is the district of Gurgaon.

From relief point of view, the district is a plain area with a perennial Yamuna river on its eastern part which has formed its flood plain. Soils particularly loam (*Bhangar & Nardak*) and silty loam (*Khadar*) are found in the district. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the district has Aquents-Fluvents and Ochrepts types of soils.

The total area of the district is 2150.00 km^2 with a population of 1,000,859, of which 552,163 persons are male and 448,696 persons are female as per 1981 census. Out of the total population 592,265 persons are residing in the rural areas and 408,594 persons are living in urban areas. Literacy rate of the district is 39.19 per cent in 1981.

The present Faridabad district is comprised of the tahsils of Ballabgrh and Palwal which were part of Gurgaon district in 1971. Ballabgarh tahsil has 210 villages including 4 villages added due to riverian action from Uttar Pradesh during the decade 1971-81 and one town of Faridabad Complex Administration whereas Palwal tahsil comprises 295 villages and four towns of Palwal, Hathin, Hodal and Hassanpur.

The district is sub-divided into three sub-micro regions on the basis of soils, topography, climate and natural vegetation:—

2.2.3.1 Faridabad Undulating Plain

The region spreads over the northwestern parts of Ballabgarh tahsil and some villages of Palwal tahsil. It makes its boundaries with the Union Territory of Delhi in the north, Gurgaon district in the west, Palwal Plain in the south and south-east and the Yamuna Khadar and the state of U.P. in the east. The physiography reveals the presence of residual offshoots of Aravalli hills. The geological structure of this region is consisted of Alluvium and Delhi Group (Middle Proterozoic). formations. Soil found in the region is mainly loam except some rocky surfaces. Silty loam soil is also found near Yamuna river. Initially the north-eastern part of the region was *Khadar* area but now has come within the limits of Faridabad Complex Administration. The area is fertile for producing of wheat, sugarcane and rice. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ochrepts and Aquents-Fluvents types of soils. The area has well developed means of communications. Faridabad is an industrial hub, not only of the region but of the state as a whole, added by its close proximity to Delhi which provides a ready market for its industrial products. The region is industrially rich. It contains 88 villages and 1 town namely, Faridabad Complex Administration with an area of 306.2172 km^2 and is inhabited by 381.381 persons,of which 50,517 reside in rural and 330,864 in urban areas. Its density is 963 persons per km^2 which reflects its industrial strength, attracting male selective inmigration.

2.2.3.2 Palwal Plain

The region covers the central, western and southwestern parts of the district. It makes its boundaries with the Faridabad Undulating Plain in the north-west, district Gurgaon in the west and southwest, state of U.P. in the extreme south and Yamuna Khadar in the northeast and east. The difference in relief is mainly due to the appearance of frenzy offshoots of Aravalli. The geological structure of this region is formed of Alluvium and Delhi Group (Middle Proterozoic) formations. The soils of the region are loam (*Bhangar*) and relatively sandy loam. Except north-western tip of Palwal tahsil, where the relatively sandy loam is found, loam is the main soil of the region. The loam is more fertile and capable of producing a variety of crops like wheat, bajra, jowar, pulses and oilseeds as per climatic conditions. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Ochrepts and Aquents-Fluvents types of soils. Concentration of rainfall is relatively satisfactory. The region has better means of communications and agriculturally well off. It contains 299 villages and 3 towns, namely, Palwal, Hathin and Hodel with an area of 1340.8172 km^2 and is inhabited by 526,161 persons,of

which 453,540 reside in rural and 72,621 in urban areas. Its density is 392 persons per km^2.

2.2.3.3 Yamuna Khadar

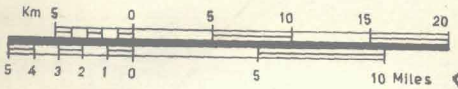
The region extends over the eastern side of the district along the Yamuna river. It makes its limits with the state of U.P. in the northeast, east and south, Palwal Plain in the southwest & west and Faridabad Undulating Plain in the northwest. Its slope is towards south. The geological structure of this region is consisted of Alluvium (Recent). Loam and silty loam soils are found in the region. The proportion of silt and clay components in silty loam is higher than in loam, hence it has a blocy structure which reduces its water holding capacity. The soil is difficult to work upon when dry and tillage needs more drought power per unit area.It gives good yields under efficient soil management. The soils as classified by the NBSS & LUP (ICAR), Nagpur, the region has Aquents-Fluvents types of soils. On the whole, the soils are fertile. Therefore, the variety of crops can be raised on these soils. Transportation facilities are poor. It contains 118 villages and 1 town namely, Hassanpur with an area of 440.4077 km^2 and is inhabited by 93,317 persons, of which 88,208 reside in rural and 5,109 in urban areas. Its density is 212 persons per km^2.

HARYANA

DISTRICT FARIDABAD

CENSUS CODE 07

REGIONAL DIVISIONS

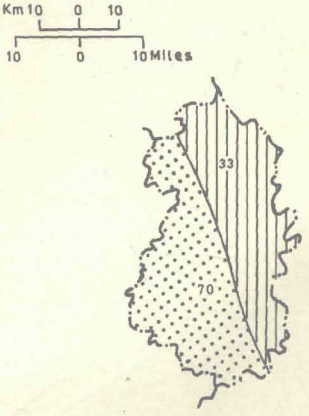


2.2.3.1 FARIDABAD UNDULATING PLAIN
2.2.3.2 PALWAL PLAIN
2.2.3.3 YAMUNA KHADAR

BOUNDARY, STATE
BOUNDARY, DISTRICT
BOUNDARY, TAHSIL
REGIONAL DIVISIONS — 2.2.3.1
MACRO
MESO
MICRO
SUB-MICRO WITH BOUNDARY
NATIONAL HIGHWAY — NH2
STATE HIGHWAY — SH 28
IMPORTANT METALLED ROAD
RAILWAY LINE WITH STATION, BROAD GAUGE — RS
RIVER AND STREAM
LAKE
VILLAGE HAVING 5000 AND ABOVE POPULATION WITH NAME — Dhoj
URBAN AREA

[Read the sequence of regional divisions with reference to the all India map codes up to 3 tier.]

SOILS



AQUENTS–FLUVENTS (33)
OCHREPTS (70)

GEOLOGY



ALLUVIUM — RECENT
DELHI GROUP — MIDDLE PROTEROZOIC

77° 0′ East of Greenwich 77° 15′

DATA ON REGIONAL DIVISIONS

District Name FARIDABAD Census Location Code No. 07 State HARYANA

Sl. No.	District	Region No. and Name	No. of villages in each region as evolved	No. of towns in region	Area in km²			Population (1981 Census)		
					T	R	U	T	R	U
1	2	3	4	5	6	7	8	9	10	11
1.	Faridabad	2.2.3.1 Faridabad Undulating Plain	88 Villages (68 Villages in Ballabgarh Tahsil 20 Villages in Palwal Tahsil)	1 Town Faridabad Complex Administration in Ballabgarh Tahsil	396.2172	217.9772	178.24	381 381	50 517	330 864
2.		2.2.3.2 Palwal Plain	299 Villages (63 Villages in Ballabgarh Tahsil 236 Villages in Palwal Tahsil)	3 Towns Palwal M.C. Hathin M.C & Hodal M.C. in Palwal Tahsil	1340.8172	1331.0572	9.76	526 161	453 540	72621
3.		2.2.3.3 Yamuna Khadar	118 Villages (79 Villages in Ballabgarh Tahsil 39 Villages in Palwal Tahsil)	1 Town Hassanpur M.C. in Palwal Tahsil	440.4077	439.4777	0.93	93 317	88 208	5 109

REGION-WISE VILLAGE CODES, 1981

District Name FARIDABAD Census Location Code No. 07 State HARYANA

Sl. No.	Division Number & Name	Tahsil	Location Code No. of Census villages as per 1981	Total No. of villages of Tahsil	Total No. of villages and towns in division	Area of regional division in Km^2	Remarks
1	2	3	4	5	6	7	8
1.	2.2.3.1 Faridabad Undulating Plain	Ballabgarh Tahsil	2 to 42, 44 to 52, 54, 55, 110, 111, 174 to 177, 196, 198 to 205, 210	68 Villages			Code No. 69 to 72, 101 to 104, 106 to 109, 112 to 119, 121 to 123, 142, 156, 157, 159 to 162, 165 to 173, 178 to 195, 197, 206 to 209 are in region 2.2.3.2 Code No. 43, 53, 56 to 68, 73 to 100, 105, 120, 124 to 141, 143 to 155, 158, 163, 164 are in region 2.2.3.3
		Palwal Tahsil	51, 52, 54, 55, 253 to 268	20 Villages	88 Villages + 1 Town	396.2172	Code No. 53, 56 to 101, 104, 105, 108, 119, 121 to 252 are in region 2.2.3.2 Code No. 102, 103, 106, 107, 109 to 118, 120 are in region 2.2.3.3
2.	2.2.3.2 Palwal Plain	Ballabgarh Tahsil	1, 69 to 72, 101 to 104, 106 to 109, 112 to 119, 121 to 123, 142, 156, 157, 159 to 162, 165 to 173, 178 to 195, 197, 206 to 209	63 Villages			Code No. 2 to 42, 44 to 52, 54, 55, 220, 111, 174 to 177, 196, 198 to 205 are in region 2.2.3.1 Code No. 43, 53, 56 to 68, 73 to 100, 105, 120, 124 to 141, 143 to 155, 158, 163, 164 are in region 2.2.3.3
		Palwal Tahsil	1 to 8, 32 to 34, 36 to 50, 53, 56 to 101, 104, 105, 108, 119, 121 to 252, 269 to 295	236 Villages	299 Villages + 3 Towns	1340.8172	Code No. 51, 52, 54, 55, 253 to 268 are in region 2.2.3.1 Code No. 9 to 31, 35, 102, 103, 106, 107, 109 to 118, 120 are in region 2.2.3.3
3.	2.2.3.3 Yamuna Khadar	Ballabgarh Tahsil	43, 53, 56 to 68, 73 to 100, 105, 120, 124 to 141, 143 to 155, 158, 163, 164	79 Villages			Code No. 44 to 52, 54, 55, 110, 111 are in region 2.2.3.1 Code Np. 69 to 72, 101 to 104, 106 to 109, 112 to 119, 121 to 123, 142, 156, 157, 159 to 162 are in region 2.2.3.2
		Palwal Tahsil	9 to 31, 35, 102, 103, 106, 107, 109 to 118, 120	39 Villages	118 Villages + 1 Town	440.4077	Code No. 32 to 34, 36 to 50, 53, 56 to 101, 104, 105, 108, 119 are in region 2.2.3.2 Code No. 51, 52, 54, 55 are in region 2.2.3.1

STATEMENT ON REGION-WISE PHYSIO-CULTURAL DETAILS

District Name FARIDABAD Census Location No. 07 State HARYANA

State	District name	Division Number & Name	Name of Administrative Division	Geology	Soils	Physio-Cultural Characteristics	Remarks
1	2	3	4	5	6	7	8
Haryana	Faridabad	2.2.3.1 Faridabad Undulating Plain	Ballabgarh tahsil and Palwal tahsil	Alluvium and Delhi Group (Middle Proterozoic)	Ochrepts & Aquents-Fluvents	The region spreads over the nothern part of Faridabad district covering the northwestern part of Ballabgarh tahsil and a few villages of Palwal tahsil. It makes its boundaries with the Union Tarriitory of Delhi in the north, Gurgaon district in the west, Palwal Plain in the south & south-east and the Yamuna Khadar and the state of U.P. in the east. The physiography depicts the presence of residual offshoots of Aravalli hills in the northwestern part where the maximum height of the region is 305 metres above m.s.l. near the border with Gurgaon district, while the minimum height is 197.7 metres above m.s.l. near the village Aghwanpur (52) in the north eastern part of the region. Northwestern part is relatively more high as compared to southeastern part of the region. Contour lines of 229 metres and 305 metres are often found in the northwestern part of the region. The soil found in the region is mainly loam, except some rocky surfaces which are available in the northwestern part of the region. In the northwestern part where the depth of soil is very thin is not capable for agricultural farming but the loam soil is fertile which is found in the remaining part of the region. In the northeastern parts, the soil is silty loam near Yamuna river. With the aid of timely rain, it is very productive for producing a variety of crops like wheat, sugarcane, rice, etc. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Ochrepts and Aquents-Fluvents. Ochrepts : Shallow black, brown and alluvial soils of northern region. Aquents : Recently formed hydromorphic alluvial soils. Fluvents : Alluvial soils (Recent alluvium). There are some patches of scrubs and bushes near villages Sirohi (9), Khori Jamalpur (10, Kot (11), Nurpur Dhumaspur (16), Selakhari (17), Gothda Mohbtabad (19), Pali (21), Ankhir (34), Anhgpur (35) and Lakarpur (36) in the northwestern part of the region due to the presence of rocky surfaces. Except northwestern part, the means of communications are well developed in the region. The National Highway No. 2 & N.R. Main line (Broad gauge) from Delhi to Mathura Pass through the region, connecting the city of Faridabad Complex Administration with the National capital. Other roads rediate from Faridabad to serve the neighbourhood. Faridabad is an industrial hub not only in the region but in the whole state of Haryana.	

1	2	3	4	5	6	7	8
Haryana	Faridabad	2.2.3.2 Palwal Plain	Ballabgarh and Palwal tahsils	Alluvium & Delhi Group (Middle Proterozoic)	Ochrepts and Aquents-Fluvents	The region covers the central, western and southwestern part of Faridabad district. It makes its boundaries with the Faridabad Undulating Plain in the northwest, district Gurgaon in the west and southwest, state of Uttar Pradesh in the extreme south and Yamuna Khadar in the northeast and east. Physiographically, the region is a plan land with the maximum heigh, of 231 metres near village Deola Nangli (224) and the minimum height of 188 metres at village Banchari (145). Both the heights fall in the southwestern part of Palwal tahsil. The difference in relief is mainly due to the appearance of a frenzy offshoots of Aravalli in the southwestern part near village Deola Nangli (224), otherwise region is a plain area without any remarkable relief features. The souls of the region are loam (*Bhangar*) and relatively sandy laom. Except northwestern tip of Palwal tahsil, where the relatively sandy loam is found, loam is the main soil of the region. The loam is more fertile and capable of producing a variety of crops, like wheat, bajra, jowar, , barley, pulses and oilseeds as per climatic conditions. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Ochrepts and Aquents-Fluvents. Ochepts : Shallow black, brown and alluvial soils of northern region. Aquents : Recently formed hydromorphic alluvial soils Fluvents : Alluvial soils (Recent alluvium). Some small patches of scruby type of natural vegetation are found near villages Mahmoodpur (105), Dayalpur(169) & Piala (192) in Ballabgarh tahsil and Chhaprola (54), Devli (64), Mandkol (65), Lohagarh (75), Mitnol (82), Amroli (92), Bata (93), Gorauta (128), Nangal Jat (150), Patli Khurd (270), Rehrana (288), Phulwari (289), Bahrola (290) and Dholagarh (292) in Palwal tahsil of the region. The communication facilities are well developed over the region. All the roads found in the region are metalled and most of the villages are interlinked with these metalled roads. The National Highway No. 2 and N. R. Mainline (Broad gauge) from Delhi to Mathura pass through the region in north-south direction. Palwal, Hathin and Hodal towns are the important commercial centres in the region.	
Haryana	Faridabad	2.2.3.3 Yamuna Khadar	Ballabgarh and Palwal tahsils	Alluvium	Aquents-Fluvents	The region spreads over in northsouth direction along Yamuna river, covering eastern parts of Ballabgarh and Palwal tahsils. It makes its boundaries with the state of Uttar Pradesh in the north-east, east & south, Palwal Plain in the south-west & west and Faridabad Undulating Plain in the northwest. The region as a whole, is a plain land with a maximum height of 220 metres above m.s.l. near village Tilpat (53) of Ballabgarh tahsil in the north and minimum height of 185 metres near village Ramgarh (120) of Palwal tahsil in the extreme south. The variation in heights explains the slope of the region.	

1	2	3	4	5	6	7	8

Loamy and silty loam soils are found in the region. The proportion of silt and clay components in silty loam is higher than in loam, hence it has a blocy structure which reduces its water holding capacity. The soil is difficult to work upon when dry and tillage needs moe drought power per unit area. It gives good yields under efficient soul management. On the whole, the soils of the region are fertile. Therefore, the variety of crops can be raised on these soils. Soils as classified by the NBSS & LUP (ICAR), Nagpur, are Aquents-Fluvents.

Aquents : Recently formed Hydromorphic alluvial soils.
Fluvents : Alluvial soils (Recent alluvium).

There are some patches of scrubs found near village Bindapur (61), Mohiapur (154) & Mohna (155) in Ballabgrh tahsil and Gurwari (12), Rampur Khor (27), Kulina (30), Amarpur (31), Jalhaka (35) and Rahimpur (102) in Palwal tahsil of the region.

The transport facilities found in the region, are relatively poor being in the eastern most part of the state and also dug to Yamuna river which restricts the transport facilities owing to non-existence of bridges.

Note : Code numbers are written within brackets after village names.

APPENDIX

APPENDIX

Showing administrative constituents by districts with reference to the sub-Micro regions in Haryana and other states namely, J & K, Himachal Pradesh, Uttar Pradesh, Punjab, Rajasthan, Gujarat and Union Territories of Chandigarh

Macro Region with Code No. & Name	Meso Region with Code No. & Name	State	Macro Region with Code No. & Name	District	Sub-Micro Region with Code No. & Name
1	2	3	4	5	6
1. The Northern Mountains	1.1 Jammu & Kashmir Himalaya	Jammu & Kashmir	1.1.3 Jammu	Jammu	1.1.3.1 Jammu Siwalik West
				Kathua	1.1.3.2 Kathua Siwalik
				Jammu	1.1.3.3 Jammu Siwalik East
				Rajauri	1.1.3.3 Rajauri Siwalik
				Udhampur	1.1.3.5 Siwalik Forested Range
				Udhampur	1.1.3.6 Siwalik Foot Hills
	1.2 Himachal Pradesh Himalaya	Himachal Pradesh	1.2.3 Central Himachal Pradesh	Una	1.2.3.1 Una Siwalik
				Hamirpur	1.2.3.1 Western Hamirpurt Forested Siwalik
				Hamirpur	1.2.3.2 Eastern Hamirpur Siwalik
				Kangra	1.2.3.4 Kangra Siwalik
			1.2.4 South Himachal Pradesh	Bilaspur	1.2.4.2 Bilaspur Siwalik
				Solan	1.2.4.3 Nalagarh Siwalik
				Sirmaur	1.2.4.3 Sirmaur Siwalik
				Solan	1.2.4.4 Solan Forests
	1.3 Uttar Pradesh Himalaya	Uttar Pradesh	1.3.1 Kumaon Himalaya North	Pithoragarh	1.3.1.7 Siwalik
			1.3.2 Western Kumaon Himalaya	Dehra Dun	1.3.2.5 Siwalik
			Siwalik & Doons	Garhwal	1.3.2.5 Siwalik
			1.3.3 Kumaon Himalaya East	Nainital	1.3.3.3 Nainital Siwalik
2. The Great Plains	2.1 Punjab Plain	Punjab	2.1.1 Ravi-Beas Inter -fluvial Plain	Gurdaspur	2.1.1.1 Gurdaspur Siwalik
		Chandigarh	2.1.2 Hoshiarpur-Chandigarh sub-Montane Plain	Chandigarh	2.1.2.1 Chandigarh Siwalik
				Rupnagar	2.1.2.2 Rupnagar Siwalik
				Hoshiarpur	2.1.2.3 Hoshiarpur Siwalik
	2.2 Haryana Plain	Haryana	2.2.1 Eastern Haryana Plain	Ambala	2.2.1.1 Kalka Siwalik
	2.4 Upper Ganga Plain	Uttar Pradesh	2.4.1 Northern Upper Ganga Plain	Saharanpur	2.4.1.6 Saharanpur Siwalik

GHAGGAR FLOOD PLAIN

2. The Great Plains	2.1 Punjab Plain	Punjab	2.1.4 Punjab Malwa Plain	Patiala	2.14.2 Ghaggar Flood Plain
				Bathinda	2.1.4.3 Ghaggar Flood Plain
				Sangrur	2.1.4.4 Ghaggar Flood Plain
	2.2 Haryana Plain	Haryana	2.2.1 Eastern Haryana Plain	Ambala	2.2.1.3 Ghaggar Flood Plain
				Kurukshetra	2.2.1.4 Ghaggar Flood Plain
			2.2.2 Western Haryana Plain	Hisar	2.2.2.1 Ghaggar Flood Plain
				Sirsa	2.2.2.3 Ghaggar Flood Plain
	2.3 Arid Rajasthan Plain	Rajasthan	2.3.1 Ghaggar Plain	Ganganagar	2.3.1.2 Anupgarh-Ghaggar Green Belt

1	2	3	4	5	6
			YAMUNA BASIN/KHADAR		
1. The Northern Mountain	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	Tehri Garhwal	1.3.2.1 Yamuna Basin
			Siwalik & Doons	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	2.2.1.1Yamuna Khadar
				Karnal	2.2.1.3Yamuna Khadar
				Ambala	2.2.1.5 Yamuna Khadar
		Haryana	2.2.3 Southern Haryana Plain	Faridabad	2.2.3.3 Yamuna Khadar
		Delhi		Delhi	2.2.3.3 Yamuna Khadar
	2.4 Upper Ganga Plain	Uttar Pradesh	2.4.1 Northern Upper Ganga Plain	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
			2.4.2 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
				Mainpuri	2.4.2.4 Yamuna Ravines
2. The Great Plains	2.5 Middle Ganga Plain	Uttar Pradesh	2.5.1 Middle Ganga Plain WEst	Fatehpur	2.5.1.3 Yamuna Ravines Tract
				Kanpur	2.5.1.5 Yamuna Ravines
				Allahabad	2.5.1.5 Yamuna Khadar
3. The Deccan Plateau	3.2 Uttar Pradesh Upland	Uttar Pradesh	3.2.1 Jhansi Upland	Jalaun	3.2.1.4 Yamuna Ravine Tract
			PLAIN		
2. The Great Plains	2.1 Punjab Plain	Punjab	2.1.1 Ravi-Beas Inter-fluvial Plain	Amritsar	2.1.1.2 Tarn Taran Plain
				Amritsar	2.1.1.3 Amritsar Plain
				Gurdaspur	2.1.1.4 Batala Plain
		Chandigarh	2.1.2 Hoshiarpur-Chandigarh	Chandigarh	2.1.2.2 Chandigarh Plain
		Punjab	Sub-Montane Plain	Rupnagar	2.1.2.3 Kharar Plain
			2.1.3 Beas-Satluj Doab	Jalandhar	2.1.3.1 Bhogpur-Adampur Plain
				Jalandhar	2.1.3.2 Jalandhar-Nawashahr Doaba Plain
				Kapurthala	2.1.3.2 Kapurthala Plain
			2.1 4 Punjab-Malwa Plain	Patiala	2.1.4.1 Patiala Plain
				Sangrur	2.1.4.1 Western Sangrur Plain
				Faridkot	2.1.4.1 Muktsar Plain
				Sangrur	2.1.4.2 Eastern Sangrur Plain
				Ludhiana	2.1.4.2 Western Ludhiana Plain
				Bathinda	2.1.4.2 Rampura-Mansa Plain
				Firozpur	2.1.4.2 Firozpur Plain
				Ludhiana	2.1.4.3 Eastern Ludhiana Plain
				Sangrur	2.1.4.3 Southern Sangrur Plain
				Faridkot	2.1.4.3 Moga Plain

1	2	3	4	5	6
2. The Great Plains	2.2 Haryana Plain	Haryana	2.2.1 Eastern Haryana Plain	Jind	2.2.1.1 Narwana Plain
				Karnal	2.2.1.1 Asandh Plain
				Rohtak	2.2.1.1 Maham Plain
				Rohtak	2.2.1.2 Rohtak Plain
				Ambala	2.2.1.2 Naraingarh Plain
				Kurukshetra	2.2.1.2 Kaithal Plain
				Jind	2.2.1.2 Jind Plain
				Karnal	2.2.1.2 Karnal Bhangar
				Sonipat	2.2.1.2 Eastern Sonipat Plain
				Sonipat	2.2.1.3 Western Sonipat Plain
				Kurukshetra	2.2.1.3 Bet Kurukshetra
				Rohtak	2.2.1.3 Jhajjar Low land
				Ambala	2.2.1.4 Ambala Plain
			2.2.2 Western Haryana Plain	Sirsa	2.2.2.1 Dubwali Plain
				Hisar	2.2.2.2 Hisar Plain
			2.2.3 Southern Haryana Plain	Gurgaon	2.2.3.1 Gurgaon Plain
		Delhi		Delhi	2.2.3.1 Najafgarh Plain
				Delhi	2.2.3.2 Bawana Alluvial Plain
		Haryana		Faridabad	2.2.3.2 Palwal Plain
				Mahendragarh	2.2.3.3 Krishnawati Plain
				Gurgaon	2.2.3.3 Nuh-Punhana Plain
				Mahendragarh	2.2.3.4 Sahibi Plain
2. The Great Plains	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		3.3.1 Aravalli Range associated uplands	Alwar	3.1.1.1 Behror-Salawas Plain

SADY PLAIN/BAGAR

2. The Great Plains	2.1 Punjab Plain	Punjab	2.1.4 Punjab-Malwa Plain	Bathinda	2.1.4.1 Bathinda Sandy Plain
				Faridkot	2.1.4.2 Faridkot Sandy Plain
				Firozpur	2.1.4.2 Abohar Sandy Plain
	2.2 Haryana Plain	Haryana	2.2.2 Western Haryana Plain	Sirsa	2.2.2.2 Ellanabad-Nathohar Sandy Plain
2. The Great Plains	2.2 Haryana Plain	Haryana	2.2.2 Western Haryana Plain	Hisar	2.2.2.3 Hisar Bagar
				Bhiwani	2.2.2.3 Loharu Bagar
				Sirsa	2.2.2.4 Sirsa Bagar
			2.2.3 Southern Haryana Plain	Mahendragarh	2.2.3.1 Satnali Bagar
	2.3 Arid Rajasthan Plain	Rajasthan	2.3.1 Ghaggar Plain	Ganganagar	2.3.1.1 Ganganagar Canal Region
				Ganganagar	2.3.1.4 Nohar-Bhadra Sandy Plain
2. The Great Plains	2.3 Arid Rajasthan Plain	Rajasthan	2.3.2 Rajasthan Bagar	Jhunjhunun	2.3.2.1 Jhunjhunun Sandy Plain
				Churu	2.3.2.2 Sardarshahar Sandy Plain
				Nagaur	2.3.2.2 Eastern Nagaur Sandy Plain
				Sikar	2.3.2.2 Sikar Sandy Plain
				Jhunjhunun	2.3.2.3 Chirawa, Leekha Sand Plain
			2.3.3 Extremely Arid Tract	Jaisalmer	2.3.3.2 Ramgarh Plain of flat Sand
				Bikaner	2.3.3.4 Bikaner Sandy Plain

1	2	3	4	5	6
			2.3.4 Luni Valley	Jodhpur	2.3.4.1 Western Sandy Plain
				Jodhpur	2.3.4.2 Phatodi-Bilara Sandy Plain
				Pali	2.3.4.2 Central Sandy Plain
3. Deccan Plateau	3.1 Semi Arid	Rajasthan	3.1.2 Semi-Arid Uplands of Eastern Rajasthan	Tonk	3.1.2.3 Tonk-Behotha Sandy Plain
			UNDULATING PLAIN WITH SAND DUNES		
2. The Great Plains	2.2 Haryana Plain	Haryana	2.2.2 Western Haryana Plain	Bhiwani	2.2.2.1 Siwani Undulating Plain with Sand Dunes
				Hisar	2.2.2.4 Balasmand Undulating Plain with Sand Dunes
	2.3 Arid Rajasthan Plain	'Rajasthan	2.3.1 Ghaggar Plain	Ganganagar	2.3.1.3 Suratgarh Sand Dunes Region
			2.3.2 Rajasthan Bagar	Churu	2.3.2.1 Western Churu Sand Dunes Zones
				Churu	2.3.2.3 Eastern Churu Shifting Sand Dunes
				Churu	2.3.2.4 Central Churu Sand Dunes
			2.3.3 Eastern Arid Tract	Bikaner	2.3.3.2 Sandy Plain of Longitudal Dunes
				Bikaner	2.3.3.3 Sandy Plain of Scattered irregular Dunes
			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
			2.2.3 Southern Haryana Plain	Faridabad	2.2.3.1 Faridabad Undulating Plain
				Gurgaon	2.2.3.2 Sohna Undulating Plain with Aravalli offshoot
				Mahendragarh	2.2.3.2 Mahendragarh Undulating Plain
				Gurgaon	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	2.3.2.3 Central Sikar Aravalli Hills
				Sikar	2.3.2.4 Eastern Sikar Aravalli
				Nagaur	2.3.2.5 Nagaur Aravalli Region
			2.3.4 Luni Valley	Jalor	2.3.4.3 Jalor Aravalli
				Pali	2.3.4.5 Pali Aravalli
3. The Deccan Plateau	3.1 Semi-Arid Rajasthan		3.1.1 Aravalli Range and Associated Uplands	Udaipur	3.1.1.1 Western Aravalli
				Udaipur	3.1.1.2 Central Aravalli
				Ajmer	3.1.1.2 Aravalli Hills
				Sirohi	3.1.1.2 Mount Abu Hills
				Sirohi	3.1.1.4 Sirohi Aravalli
				Ajmer	3.1.1.5 Ajmer Aravalli
			3.1.2 Semi-Arid Uplands of	Bhilwara	3.1.2.1 Bhilwara Aravalli
				Bundi	3.1.2.3 Bundi Hills

1	2	3	4	5	6
			Eastern Rajasthan	Jhaluwar	3.1.2.3 Mukandara Hills
				Kota	3.1.2.5 Mukandara Hills
			3.1.3. Banas-Chambal Basin	Sawai Modhopur	3.1.3.2 Godhwara Hills
4. Coastal Plains and Islands	4.1 Gujarat Region	Gujarat	4.1.1 Gujarat Plain	Sabarkantha	4.1.1.2 Sobarkantha Aravalli
				Mahesana	4.1.1.3 Mahesana Aravalli
				Kheda	4.1.1.3 Aravalli Forested Rock Outcrops
				Banaskantha	4.1.1.4 Banaskantha Aravalli Range
				Banaskantha	4.1.1.5 Jasor-Chhotila Hills