

CHAPTER-II

THE GEOGRAPHIC PERSONALITY OF THE STUDY REGION.

2.1 LOCATION AND EXTENT.

I) PHYSICAL CHARACTERISTICS.

2.2 PHYSIOGRAPHY.

2.2.1 The Western Ghats.

2.2.2 The Central Ranges and the Plateau.

2.2.3 The Riverine Lowland.

2.3 DRAINAGE

2.4 CLIMATE

2.4.1 The Climatic Conditions.

2.4.2 Rainfall.

2.5 SOILS

2.6 VEGETATION.

II) ECONOMIC CHARACTERISTICS

2.7 The Pattern of Landuse.

2.8 Agriculture and Irrigation.

2.9 Power and Industries.

2.10 Transportation and Communication.

III) POPULATION AND SETTLEMENTS

2.11 Distribution of Population.

2.12 Distribution of Settlements.

2.13 Settlement Spectrum.

Summary

References.

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CHAPTER - II

THE GEOGRAPHICAL PERSONALITY OF THE STUDY REGION

The Western Maharashtra Plateau has been a fringe of the Western continuation of the plateau of peninsular India and mostly occupies the 'Desh' of the Western Maharashtra. The region under study is identifiable as a distinct unit of the State of Maharashtra. The study of the geographical personality of the Western Maharashtra Plateau region in the context of dynamics of urbanization is proceeded with a brief account of its physical and economic characteristics followed by distribution of population and settlements.

2.1 LOCATION AND EXTENT :-

The region under study extends between $15^{\circ}44'$ and $21^{\circ}15'$ north latitudes and $73^{\circ}16'$ and $76^{\circ}15'$ east longitudes. It is a part of the Maharashtra Plateau and forms the Western Maharashtra upland, with its local variations in relief. In the west, the average height is about 900 metres above sea-level. The central portion of the region is, by and large, 600 metres high while the eastern portion descends between 450 and 600 metres. The general slope of the region is eastwards and south-eastwards. Its maximum length in the east-west direction is about 296 kilometres and width in north-south direction measures about 622 kilometres. The region appears more vertically bell-shaped.

The western boundary of the region under study is well defined by the crest line of Sahyadris, commonly known as the Western Ghats. It separates the Konkan coastal lowland from the study region. The southern fringe runs along the inter-state boundary between Maharashtra and Karnataka States. The northern limit of the region is delimited by taking the 300 metres contour line. In the north-east, it is separated by Ajanta range and bordered by the course of the Godavari river. The boundary also runs along the left flank of the Balaghat ranges and the Manjara Plateau in the east. It may be mentioned here that the administrative boundaries and physical boundaries have been found to be mostly coinciding in the West. Only in the east and north-east some adjustment of administrative boundaries have been made for convenience.

The Western Maharashtra Plateau region covers an area of 96,988.9 sq.km., with 9968 rural, and 95 urban settlements and a total population of 1,99,74,020 persons according to the Census of 1981. Administratively, the 95 urban centres which form the subject of the study are spread over the tehsils of 9 districts consisting of the entire Nashik, Ahmadnagar, Pune, Satara, Sangli, Solapur and Kolhapur districts, Dhule and Sakri tehsils of Dhule district and Bhadgaon and Chalisgaon tehsils of Jalgaon district (Fig.2.1). The region is a better developed and more populous part of the State of Maharashtra.

I) PHYSICAL CHARACTERISTICS : -

An assemblage of both diverse natural and cultural elements has shaped the geographical personality of the region

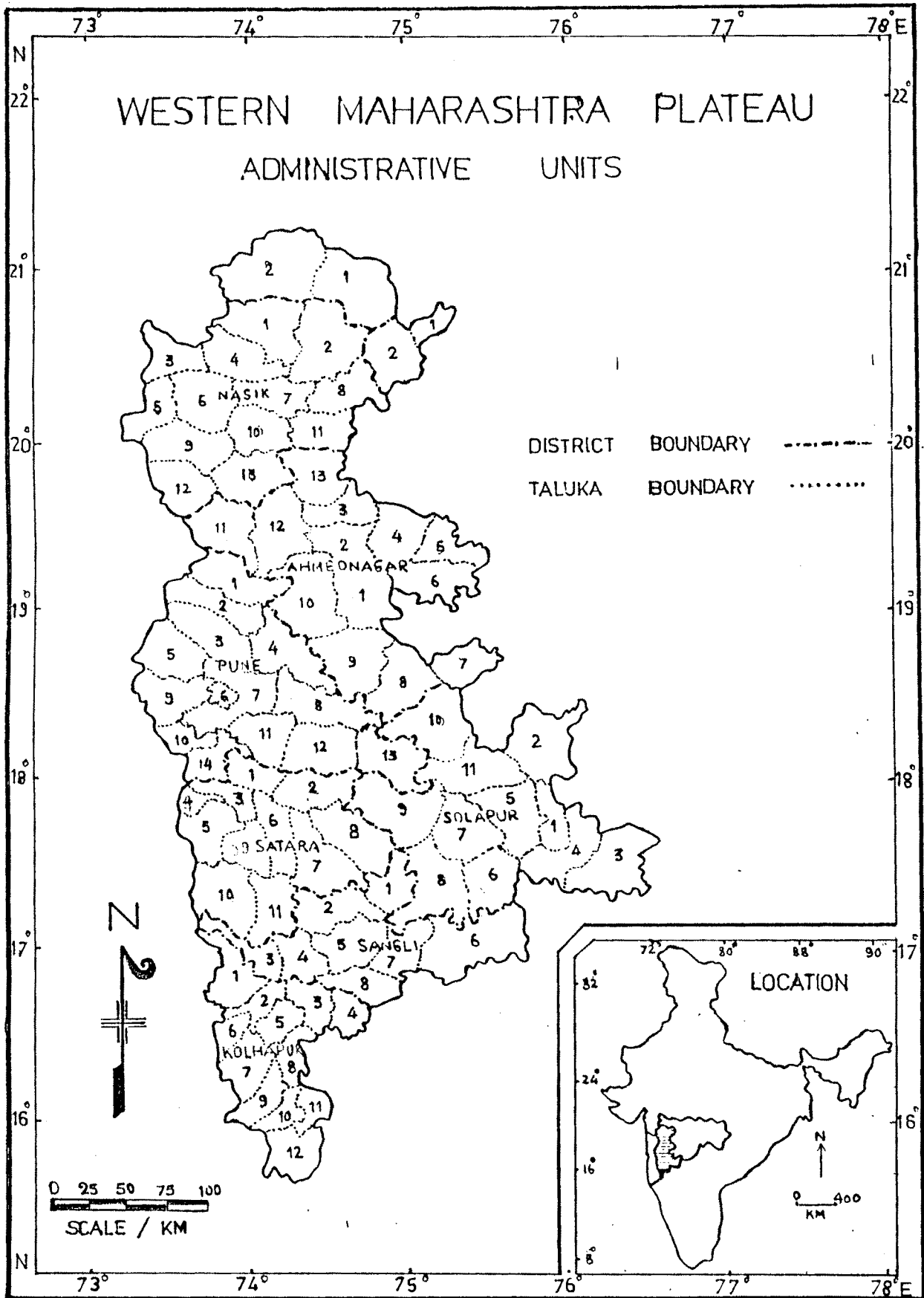


FIG.2.1

ADMINISTRATIVE UNITSDISTRICTS AND TALUKAS OF WESTERN MAHARASHTRA PLATEAU1) NASHIK DISTRICT

- | | |
|--------------------|----------------|
| 1. Baglan (Satana) | 3. Shrirampur. |
| 2. Malegaon. | 4. Newasa. |
| 3. Surgana. | 5. Shevgaon. |
| 4. Kalwan. | 6. Pathardi. |
| 5. Peint | 7. Jamkhed. |
| 6. Dindori. | 8. Karjat. |
| 7. Chandvad. | 9. Shrigonda. |
| 8. Nandgaon. | 10. Parner. |
| 9. Nashik. | 11. Akola. |
| 10. Niphad. | 12. Sangamner. |
| 11. Yeola. | 13. Kopargaon. |
| 12. Igatpuri. | |
| 13. Sinnar. | |

5) PUNE DISTRICT

- | |
|-------------------------|
| 1. Junnar |
| 2. Ambegaon (Ghodegaon) |
| 3. Khed. |
| 4. Shirur |
| 5. Mawal (Vadgaon) |
| 6. Pune city |
| 7. Haveli |
| 8. Daund |
| 9. Mulshi (Paud) |
| 10. Velhe |

2) DHULE DISTRICT

- | |
|-----------|
| 1. Dhule. |
| 2. Sakri. |

3) JALGAON DISTRICT

- | |
|----------------|
| 1. Bhadgaon |
| 2. Chalisgaon. |

4) AHMADNAGAR DISTRICT

- | |
|---------------|
| 1. Ahmadnagar |
| 2. Rahuri. |

11. Purandhar(Saswad)

12. Baramati

13. Indapur

14. Bhor.

6) SATARA DISTRICT

1. Khandala

2. Phaltan

3. Wai

4. Mahabaleshwar

5. Jaoli(Medha)

6. Koregaon.

7. Khatav(Vaduj)

8. Man(Dahiwadi)

9. Satara

10. Patan.

11. Karad.

7) SANGLI DISTRICT

1. Atpadi

2. Khanapur(Vita)

3. Shirala

4. Walwa(Islampur)

5. Tasgaon.

6. Jath.

7. Kavathe Mahankal.

8. Miraj.(Sangli)

8) SOLAPUR DISTRICT

1. Solapur North

2. Barshi.

3. Akkalkot.

4. Solapur South.

5. Mohol.

6. Mangalwedha

7. Pandharpur

8. Sangola.

9. Malshiras.

10. Karmala

11. Madha.

9) KOLHAPUR DISTRICT

1. Shahuwadi

2. Panhala

3. Hatkangale

4. Shirol

5. Karveer

6. Bawada.

7. Radhanagari.

8. Kagal.

9. Bhudargad(Gargoti)

10. Ajra

11. Gadhinglaj.

12. Chandgad.

* Serial numbers of the talukas conform to the taluka

numbers in the map showing administrative units.

under study. The physical setting of the region reveals some striking features of homogeneity and heterogeneity among the physical aspects. Such physical characteristics provide the necessary background for the planning and developmental activities of the region.

2.2 PHYSIOGRAPHY :-

Geologically, the Western Maharashtra Plateau is a part of the basaltic plateau of Maharashtra; extending eastwards from the Sahyadrian watershed. Topographically, the region under study is a plateau sloping gently towards south-east direction. The general topography of the region varies between 300 metres and over 1500 metres altitudes. The Western margin of the plateau is bounded by the Sahyadris attaining a height of over 1200 metres. To the east of the Sahyadris stretches a vast plateau intercepted by rivers which provide two topographical breaks. The first break is marked by the riverine lowlands of the major river system followed by a break of hill ranges carrying extensive high level plateaus or uplands on their tops. The Western Maharashtra Plateau has mostly developed rolling plains with the valleys of the Godavari, the Bhima and the Krishna are flanked by flat-topped and steep-sided hill ranges.

On the basis of elevations and physical features, the physical setting of the region can conveniently be divided into three distinct zones (Fig.2.2). The extreme western portion is the Sahyadrian escarpments forming the Western Ghats in the region. The second zone is the central hill

WESTERN MAHARASHTRA PLATEAU

RELIEF AND DRAINAGE

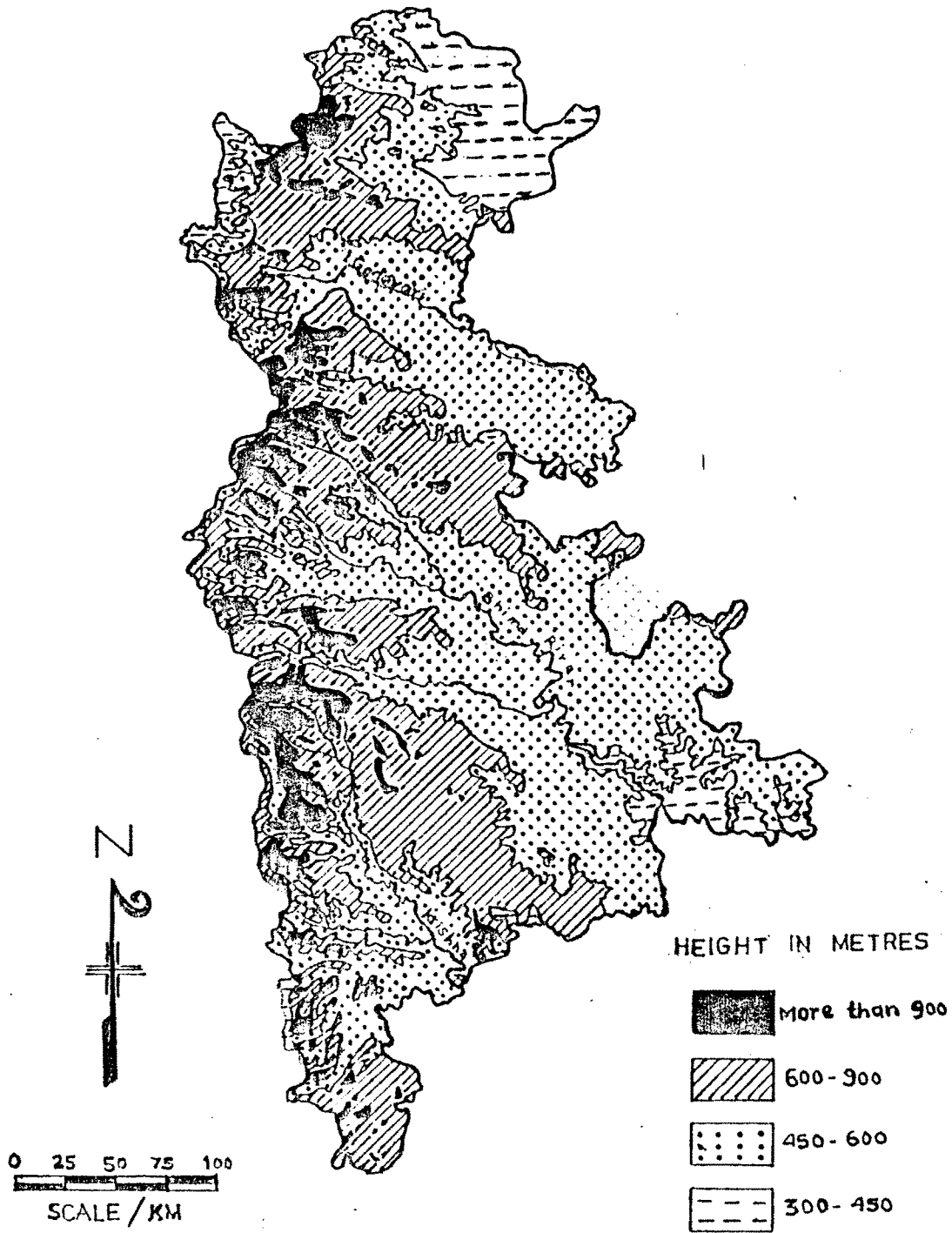


FIG. 2.2

ranges with flat-top stretching from the main Sahyadris and extending in east and south-east direction. The third zone mainly covers the major river valleys forming a riverine lowland.

2.2.1 THE WESTERN GHATS :-

The Western Ghats comprise of the main Sahyadri range with an average height of 1200 metres. The Sahyadri, commonly known as Western Ghats is the chain of hills running in its north-south course all along parallel to the coast. It marks the western edge of the Maharashtra plateau. The Western edge of the plateau ends abruptly with the 600 metres escarpment on the side of the Konkan. The eastern flank is more gently. The Sahyadri is a narrow crest zone of the divide with a width of 15km. to 25km. The crestline of Sahyadri fluctuates greatly in height from north to south. A height of 900 metres is most common. The relief and height of the Western Ghats vary with the degree of dissection caused by erosive agents rivers and the level of planation achieved.

The Western Ghats carry some of the high peaks like Kalsubai(1648m.), Salher (1567m.), Mahabaleshwar(1438m.), Harichandragadh(1424m.) and Torna (1403m.). They form the roots of the eastern spurs. The crestline of Sahyadri range has been extremely dissected by erosive agents, giving rise to a series of passes and saddles. They have served as the Ghat routes linking the coast with the Desh. Of these, the Bor-Ghat and the Thal Ghat are the most important. A few other gaps in the range like Kumbharli,

Amboli and Phonda etc. ghats are most difficult to access and used locally for traffic and commerce. Thus from west to east, the Western Ghats present a formidable barrier and are traversed by roads and railways only at a few points.

The Western Ghats serve as a watershed between the Arabian Sea and the Bay of Bengal drainage. In contrast to steep western face^{of} the Sahyadri, the range slopes gently eastward along the plateau. The eastern flank of the Sahyadri over a width of about 40 km. east of the divide forms a transitional belt of the Mawal between the dissected Sahyadri on the West and the open upland on the east. The three main eastward transverse spurs of the Sahyadri range branch off within the limit of the region under study define the major river basins of it.

The Western Ghats are distinguished by their height, relief, heavy rainfall, and forest cover and a precipitous west facing escarpment. Due to heavy rainfall, most of the major sites for generation of hydro-electricity are located in Sahyadri. The Sahyadris offer some attractive sites, that are being developed as tourist, resorts and hill stations. Soil of this zone is hard and infertile. The northern part of the Sahyadri is largely inhabited by tribal communities in small hamlets. The tribal population virtually disappears in the south of Mahabaleshwar and there are no large settlements due to unsound support to the base of agriculture. The Western Ghats cover about 22,126 sq.km.area accounting 22.81 per cent of the total geographical area of the region under study.

2.2.2 THE CENTRAL RANGES AND THE PLATEAU :-

To the east of the Sahyadri, extends a wide open country called the plateau which covers more than three-fourth area of the region. It is a vast plateau sloping eastward and framed by the Sahyadri running north-to south on the West and the Satmala range extending in west-east direction on the north. The plateau covers the western districts of Maharashtra, stretching along the eastern flank of Sahyadri. The Western Maharashtra Plateau is also called "Desh" which is the principal unit of the State.

The plateau rises westwards through a series of offshoots of the Sahyadri. It is sloping gently eastward about one metre per kilometre. The heights on the plateau vary between 400 metres and 700 metres above sea level. In the south-east part, especially south of Solapur, the average height varies between 300 and 450 metres above sea level. In the north the northern flank of the Satmala range and the Galna hills attain a height of 300 metres. The plateau is deeply dissected by the river valleys and their tributaries.

THE HILL RANGES :-

The monotony of the plateau is broken by the central hill ranges or uplands and the river valleys and their interflaves. The landscape of the plateau is marked with a number of small plateaus, the broad valleys and extensive flat-topped ridges which project eastward from the Sahyadri complex. The main Sahyadri range all along length stretches its transverse ranges across the plateau.

From north to south, the Satmala range, the Baleshwar range, the Harischandra range, the Ambala range, the Bamnoli range and the Mahadeo range, are the important ranges. A set of these hill ranges running in a north-west to south east direction forms the central ranges or uplands of the region under study. They reach the maximum height of about 900 metres. These ranges gradually lose their heights and become lower, rounder and bare as they extend eastward and south-eastward. From north to south, the plateau exhibits an alternate arrangement of hills and plateaus which form the divides and the river valleys.

The Satmala range branches off from the Saptashringi peak(1416 m.) and extends eastward across Nashik district. It marks off the Tapi-Purna valley from the Godavari basin. The Harishchandra range forms the watershed between the drainage system of the Godavari and the Krishna. The Kalsubai spur stretches eastwards along the northern boundary of Ahmadnagar district. The Baleshwar range branches off from Ratanagad and divides the Purna and the Mula valleys.

The Mahadeo range emanates from the Sahyadri complex about 18Km. north of Mahabaleshwar and has an east and South-east trend. It covers the southern most area of the plateau. This spur acts as the divide of the Krishna and Bhima valleys. In addition to these major hill ranges, there are a number of isolated hills in Dhule district, Ankai-Tankai in Nashik district, Purandar hill in Pune district and Panhala and Chandgad hills in Kolhapur district etc. are some of the

notable hills. In this way, the central transverse hill ranges associated with flat-topped ridges and isolated hills justify its description as upland rather than as a plateau.

THE PLATEAUS :-

The Sahyadri throws out many lateral ranges which lose their heights as they extend eastward. Three main ridges branch off from the main Sahyadri range carry extensive plateaus on their tops like the Mahabaleshwar Panchgani plateau on the Mahadeo range, the Ahmadnagar plateau on the Harishchandra-Balaghat range and the Malegaon plateau on the Satmala range etc. within the limits of the study region. These flat-topped ridges highly dissected by the erosional activity of the rivers are fairly associated with a good number of tablelands or plateaus which finally merge into the broad river valleys.

The Ahmadnagar plateau with an average elevation of over 600 metres above sea level is a major divide between Godavari and the Krishna drainage systems. It forms the central portion of the Harishchandra range and covers the central part of the study region. The Malegaon plateau with a height varying between 450 and 600 metres is confined by the small Sahyadrian spurs on the west, the Nandurbar hills on the north and the northern flank of the Satmala range in the South. It is fairly dissected by the rivers of Girna and Panjhra draining the northern parts of Nashik and southern parts of Dhule districts.

The Saswad plateau lies just south of Ambala range

rising over Diwaghat escarpment. It attains a height of about 800 metres and drained by the river Karha, a tributary of the river Nira. The Man-Khanapur-Jath plateau with an average height of over 700 metres provides the base for the Mahadeo range. This group of small plateaus is a continuation of residual Mahadeo hills running in north-west south-east direction. The plateaus slope eastward and cover the eastern parts of both Satara and Sangli districts.

Away from the Sahyadri eastward, a sudden drop in the amount of rainfall has fostered aridity in the plateau region. The plateau receives rainfall between 400 and 1200mm. The soil is not very deep. Laterite soil covers the low plateaus and residual hills of Kolhapur district. This zone is the least productive.

2.2.3 THE RIVERINE LOWLAND :

This is the major and significant division of the Western Maharashtra Plateau. This region is well drained by the Godavari, Bhima and Krishna and their tributaries. These rivers which have carved their valleys in between the eastern spurs of the Ghats extending across the plateau, form the riverine lowland of the region. The broad valleys of these rivers bounded by 600 metres contour are separated by flat-topped divides which project eastward from the Sahyadrian range. The river valleys are wide open and shallow. The riverine lowland with the height varying between 300 and 600 metres is a broad alluvial undulating plain covered with black soil. The upper Godavari, the upper and lower Bhima and the

upper Krishna are the famous river basins of the region. These river basins cover an area of 91115 Sq.Km. of the northern and central parts as well as south-eastern and southern fringe of the region.

THE UPPER GODAVARI BASIN :-

The upper Godavari basin lies between the Satmala-Ajanta Chain on the north and the Bhimashankar-Balaghat range in the south. This valley area is narrow and flanked by hills in the West and opens out into a broad valley in the east. The Godavari has many tributaries both on its right and left banks. Within the limits of the study region among its main feeders, are the Pravara and the Mula on the right bank. The upper Godavari valley known as the Nashik basin covers the Southern tehsils of Nashik district and the northern tehsils of Ahmadnagar district drained by the Pravara and Mula rivers. Much of the upper Godavari basin experiences a moderate rainfall of about 650mm. The Godavari valley and its tributaries have fairly deep black soils.

THE BHIMA BASIN :-

The Bhima basin confines between the Ahmadnagar plateau on the north and the Mahadeo range in the south. The river Bhima drains a large area of the central and the south-eastern parts of the Western Maharashtra Plateau through its tributaries. The Western half of the Bhima basin is cut into a series of west-east narrow valleys and flat divides, while the valleys further east open out into flat undulating plains.

The Bhima rises near Bhimashankar at a height of about 1000 metres in the rainy Mawal region of the Sahyadri in Pune

district and joins the Krishna outside the State. It collects a number of tributaries like Kukadi, Ghod, Sina on the left bank from the north and Indrayani, Mula-Mutha, Nira and Man on the right bank from the south in the study region. The Bhima basin has an area of about 42251 sq.km. and extends over the entire Pune and Solapur districts, Khandala, Phaltan and Man tehsils of Satara district and six southern tehsils of Ahmadnagar district.

It can be looked upon the Bhima basin as an independent region as far as the Maharashtra is concerned and hence within the study region it can be broadly divided into the upper Bhima basin and the lower Bhima basin covering the Pune region and the Solapur region respectively. The whole of the Bhima basin is a dry area with an average rainfall varying between 480 and 750 mm. Black soils of rather uniform depth are found in the river valley and their larger streams.

THE UPPER KRISHNA BASIN :

The upper Krishna valley is the dominant feature of the southernmost region of the Western Maharashtra Plateau. It extends between the Sahyadrian spurs on the West and the Mahadeo range on the east. The upper Krishna basin is the extreme southern part of the basaltic plateau of Maharashtra with an average height of 600 metres above sea level. The extreme western part of the basin is rugged, with flat-topped mesas abutted by escarpments rising several hundred metres above the valley bottoms. The whole basin is a succession of

river valleys with intervening spurs shooting off south-eastwards from the Sahyadrian complex.

The river Krishna has its source in the eastern slopes of the Mahabaleshwar plateau at height of about 1500 metres. It collects a large number of tributaries descending from the Sahyadries or its small projecting spurs. The Venna, Kudali, Koyana, Urmodi, Tarali, Warna, Panchganga, Dhudganga, Vedganga, Hiranyakeshi and Ghataprabha are the major tributaries joining Krishna from the right bank. While the Vasna and Yerla draining the southern slopes of the Mahadeo ranges are the left bank tributaries.

The upper Krishna basin covers an area of 21,900 sq.km; spreading over the whole of the Kolhapur district, Sangli district excluding the eastern tehsils of Jath and Atpadi, Satara district excluding its northern and eastern tehsils of Khandala, Phaltan and Man. The basin receives 400mm. to 5000mm. of rainfall. The entire Krishna valley and the riverine plains of its tributaries are the areas of medium to deep alluvial or black Soil. The Krishna valley is the most fertile part of the Southern Maharashtra.

2.3 DRAINAGE :-

The Western Ghats are the source of all the principal rivers of the Western Maharashtra Plateau. The region is endowed with a well developed drainage system. The major rivers of the region are the Bhima, the Krishna and the Godavari. The entire region is drained by thee main rivers and their tributaries. The drainage is well developed and geared

to the base level of these major rivers. Almost all part of the region is drained to the Bay of Bengal and a few of the rest is drained to the Arabian Sea by the west flowing Tapi river. The drainage system of the region is the east flowing system which can be further divided into three drainage basins. In terms of area, the most important is the Bhima basin which covers about 46.66 per cent of the study region.

The Bhima, though a tributary of Krishna is equally important and the largest river of the Western Maharashtra Plateau region. It takes its rise in the Western Ghats at an elevation of 1000 metres near Bhimashankar in Pune district. It flows for a distance of 568 km. and commands 45,251 Sq.Km. area of the study region. The main tributaries of the Bhima are the Kukadi, Ghod, Sina, Indrayani, Pavna, Mula-Mutha, Nira and Man.

The Krishna is the second largest river of the Southern part of the Western Maharashtra Plateau. It takes its rise in the Sahyadri near Mahabaleshwar in Satara district. The river Krishna has a total length of about 364km. in the region and only 26.80 per cent of its total catchment falls in the study area. The important tributaries of the Krishna include the Venna, Koyna, Tarati, Urmodi, Yerla, Morna, Warna, Panchganga, Dudhganga, Vedganga and Hiranyakeshi.

The Godavari is the third largest river system in the study region. It debouches from an offshoot of Sahyadri range near Trimbak, 25Km. West of Nashik in Nashik district. The Godavari flows for a distance of about 180Km. within the

limits of the region under study. The Dorna, Pravara and Mula are the major feeders of the river Godavari.

The Western Maharashtra Plateau is drained by the Godavari in the north, the Bhima in the middle and south-east and the Krishna in the south. The entire drainage system of the whole region is clearly separated by the transverse ranges of the Sahyadris. All the river valleys have developed with their eastward and south-eastward drainage. The drainage network of the rivers present an ideal dendritic pattern.

2.4 CLIMATE :-

Climate is the most important physical factor influencing the economic activity of man. It almost determines the landuse and cropping pattern of a region. It has considerable influence on transport system and on settlement patterns too.

The climate of the Western Maharashtra Plateau is essentially a tropical monsoon type. The monsoonal rhythm dominates the climatic characteristics of the region. The climate of the region is marked for its seasonality characterised by different climatic conditions. In general, the region enjoys warm to hot climatic conditions during the summer season (February to May), cool and wet during rainy season (June to September) and cool during the winter season (October to January). Thus the region has an extreme and dry climate. The Western Maharashtra Plateau displays significant regional variations not only in thermal conditions but also in the amount and intensity of rainfall.

2.4.1 TEMPERATURE CONDITIONS :

The Western Maharashtra Plateau has significant variation in temperature conditions. Summers in the region are much hotter and the winters have warm days and cool nights. Temperatures are usually the lowest in January but the highest temperatures are not experienced during one and the same month all over the region. Temperature maxima occurs in the Western Ghats in May and in upland or plateau in April. The mean maximum temperature in the hottest months (April and May) rises above 45°C; while the mean minimum temperature of the coldest months (December and January) varies between 11^o to 15^oC. on the Western Maharashtra Plateau.

The range of temperature on the Western Ghats is low both diurnal as well as annual in contrast to the range on the plateau region. The daily range of temperature is least in the month of July. The increase in the daily range of temperature from July onward reaches a maximum in December or January. The Western Ghats show lower daily, monthly and annual range of temperature as compared to the stations on the plateau. The annual range of temperature is highest in the eastern part of the region, where summers are relatively hotter and winters colder.

Temperature in the region in general, increases gradually eastwards.

2.4.2 RAINFALL :

The region under study experiences a great contrast in the distribution of rainfall than of temperature. Its rainfall

is however characterised by great variability both in terms of space and time. Further the reliability of the normal rain is also low and hence the region is periodically faced with drought and scarcity conditions. A significant fact about rainfall in the region is its distribution over the four monsoon months, distinguished by a dry spell generally in August.

The region receives more than 80 per cent of total rain from the south-west monsoons during June to September. The rainfall in the Western Maharashtra Plateau varies from 450mm. in the eastern driest part to over 6000mm. in the hilly areas of the Western Ghats. The Western Ghat hills receive 4000mm. to 6000mm., the plateau region 700mm. to 800mm. and the dry area 400mm. to 500mm. rain (Fig.2.3). Most parts of the region except the Sahyadris, receives less than 1000mm. of rain. On an average July is the rainiest month with the largest number of rainy days.

The crest of the Ghats receives the highest rainfall. But the amount of rainfall on the eastern slopes and beyond to the east decreases rather rapidly. The Sahyadris really cast their shadow to create a rain shadow area. Within a distance of about a hundred kilometres from the crest of the Sahyadri, the rainfall shows a sharp decline from more than 5000mm. on the crest to about 500mm. in the parts of the districts of Ahmadnagar and Solapur. This is the driest zone of the region and receives very scanty rainfall. The intensity of rainfall, measured in terms of rainfall divided by the number of rainy

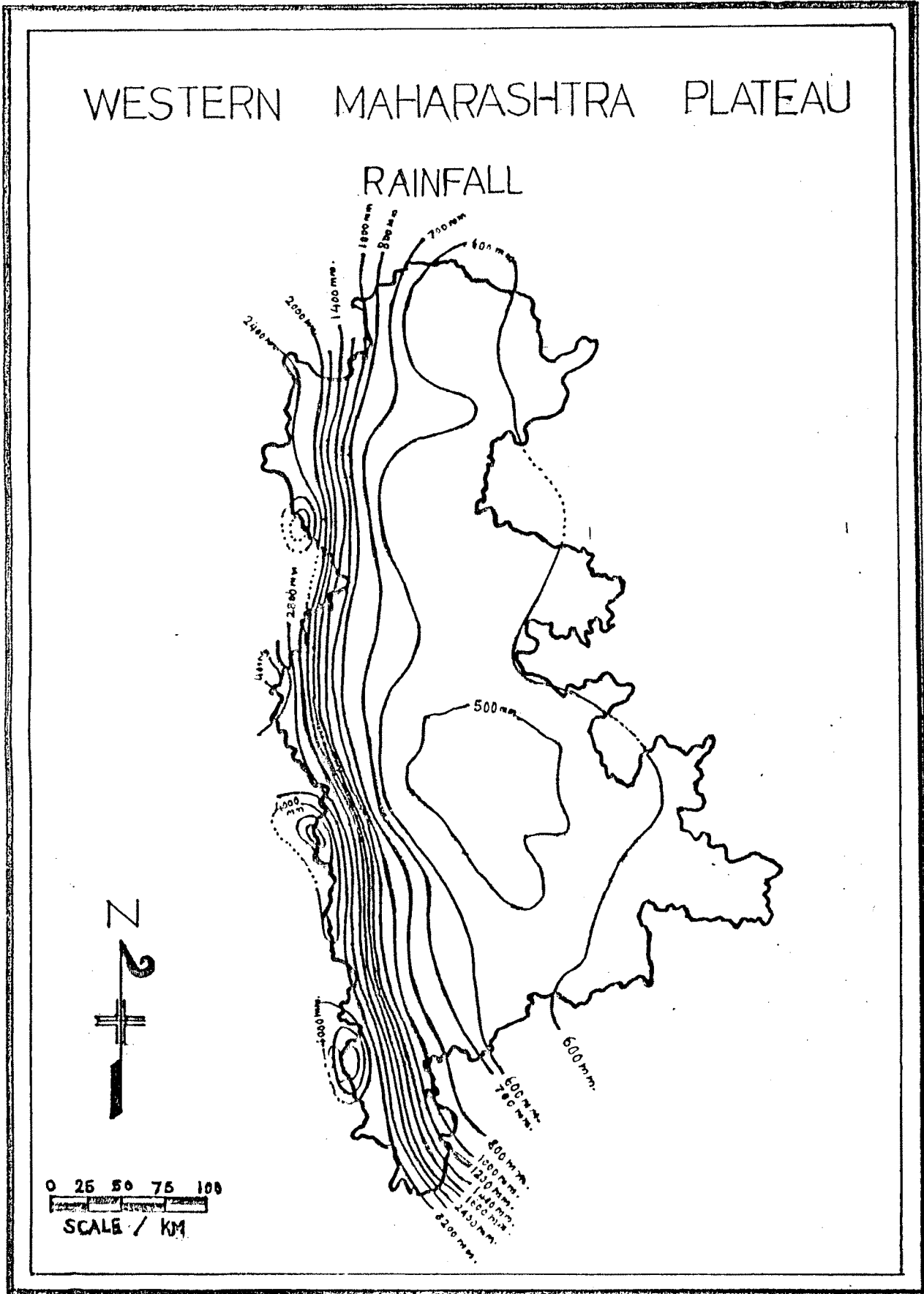


FIG. 2.3

days, is higher at the places in the Western Ghats with 100 to 125 days ; and is low in the dry zone of the region with 30 to 60 rainy days in the year.

The spatial differences in the total annual rainfall clearly reveals the influence of relief and helps in distinguishing three hyetal zone of the region namely the Wet, the intermediate and the dry zones. From west to east, there is a regular fall in rainfall in the region, havig a peak coinciding with the heavy rainfall zone of the Western Ghats, a steep drop coming with the rainshadow and its further downfall into dry tract.

The rainiest place in the region is Mahabaleshwar with 6226mm. It is located on the Sahyadrian spur in Satara district.

A great contrast in amount, seasonal and areal distribution of rainfall and the unpredictable nature of monsoonal rains are common all over the region.

2.5 SOILS :-

The soils of the Western Maharashtra Plateau have been commonly known for its black cotton soil of Deccan Trap origin. But a closer scrutiny shows that the fertile black cotton soil is confined to only the valleys of the region and the rest of the area carries a variety of soils. The soil of the region vary in its composition, colour, texture, fertility and depth and may range from laterite on the Western Ghats to deep black soils in the valleys.

The medium and deep black soils occupy the largest portion of the region. These soils cover the plateau and river valleys to the east of the Sahyadris; but attain their maximum

depth in the valleys. Agriculturally, the regur soils of these areas are very productive and give a good yield of a variety of food crops and cash crops in particular, depending upon the availability of irrigation. The patches of saline and alkaline soils occur in intensively irrigated tracts of Pune, Ahmadnagar, Satara and Sangli districts.

2.6 VEGETATION :-

The extent and types of natural vegetation of the Western Maharashtra Plateau shows clearly the influence of the distribution of rainfall over the region, topography, soil conditions, drainage systems, biotic factors and the extent of human interference on it. Today, the forests in the region lie conserved only in the hilly, rugged terrain and inaccessible areas with poor and infertile soils of the Western Ghats. Broadly speaking, the forests of the region are four types.

Tropical evergreen forests are confined to the high rainfall (more than 2500mm.) areas of the Western Ghats and high lateritic plateaus. These tropical wet evergreen forests of the Western Ghats are flanked on the eastern side by semi-evergreen forest. Tropical moist deciduous forests occur in areas with 1000 to 2500mm. of rain. These forests form a long strip of the Western Ghats occupying the slopes of the eastern offshoots of the Sahyadris. The rainshadow belt of the Western Ghats having a rainfall between 1000 and 1250 mm. is covered with tropical dry deciduous forests; occupying the lower foot-hills of the Ghats on the plateau side. Tropical thorn or scrub forests cover almost the whole dry tracts of the region having a rainfall of less than 500mm.

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The forests are mainly concentrated in the Western parts of Kolhapur, Satara, Nashik and Dhule districts of the region. The most conspicuous forest products of Western Maharashtra Plateau are many economically valuable species of trees like teak, Hirda, Bamboos, Bibla, Sissum, Kindal, Tendu, Palas etc. timber, fuel forage and a variety of medical plants and raw materials in many industries.

II) ECONOMIC CHARACTERISTICS :

After a brief account of the physical elements of the Western Maharashtra Plateau region, a study of its economic organisation may be attempted in order to project its geographical personality in correct perspective. The region under study is better in natural resources like soils, forest and water. Economically, the region has made significant progress in almost all the sectors of economy. The proceeding discussion outlines the broad aspects of the economy of the region.

2.7 THE PATTERN OF LANDUSE :-

Land is the fundamental asset of mankind and it proves to be one of the greatest resources. Its proper use becomes significant in the economy of the region. The pattern of land utilization differs with the differences in physical and Socio-economic factors. The physical factors like relief, climate and soils determine the capabilities of the land and the human factors like economic activities, density of population and socio-economic status etc. determine the extent of the land utilization.

The general landuse of the study region reveals that out of the total geographical area of 9,730,400 hectares, forest has a share of 1,221,000 hectares (12.55 per cent). The area not available for cultivation is 9.88 per cent. Uncultivated land excluding fallow has a share of 6.84 per cent. Fallow land covers 6.43 per cent. The region has a cultivated area of 69.63 per cent of the geographical area which is marginally higher than the State average of 63.84 per cent.

Diversity in the pattern of land utilization is the characteristic feature of the region. The pattern of land utilization differen in accordance with the physical resources of the region.

In the west, the hilly, dissected and forested area on the eastern slopes of the Western Ghats has less than half the area under cultivation.

Relatively speaking, the ratio of land under cultivation to total area is more in the central zone than any other parts of the region. In the northern part, most of the land is under dry cultivation where jowar, groundnut, rice and pulses are important crops. In the river valleys where irrigation is possible, the pattern of landuse shows stark countrast. Middle portion of the central zone is fertile area and irrigation has made it possible to obtain more crops in the area. Sugarcane, rice, jowar, tobacco, groundnut and pulses are the significant crops of the area. The Panchganga, Krishna, Nira, Bhima, Pravara and Godavari valleys are the major cane growing areas. The river valley-plains have made large area

cultivable. The valleys of Godavari, Krishna, Bhima and their tributaries have greatly supported agriculture. The fertility and productivity are observed relatively high in Panchanga and Krishna valleys.

The eastern zone of the region faces the problems of acute water shortage owing to the erratic and unreliable nature of the monsoon which is nearly always marginal. The whole eastern part has been a chronic scarcity zone and hence dry farming is normally practised on holdings of moderate size. Jowar, bajara, pulses and millets are the principal crops. Irrigation in these parts is by and large absent. Except a few parts of Ahmadnagar and Solapur districts, benefiting from some irrigation schemes, the rest of the eastern portion of the region is agriculturally backward. Recently, some tehsils of Solapur, Ahmadnagar and Sangli districts have developed grape-gardens.

2.8 AGRICULTURE AND IRRIGATION :-

The Western Maharashtra Plateau region has made commendable progress in the sector of agriculture. The importance of agriculture for the region can be assessed from the fact that as much as 68.08 per cent of the working population in the region is engaged in agriculture. Agriculture contributes over 50 per cent of income of the region and thereby constitutes the single most important economic activity of the region. So, the economy of the region can be described as predominantly agrarian.

Agriculture is the mainstay of the people of this study

region. Nearly 70 percent of the total area is devoted to cultivation. A study of the area and production figures of agriculture shows a dominance of food crops, with 82.07 per cent of the total cultivated area, over non-food crops. Among the food crops, foodgrains are by far the most important. They dominate the cropping pattern of the region. Of the total cultivated area, jowar occupies nearly 39.02 per cent followed by bajri occupying 14.53 per cent. The rest of the area is devoted to wheat, rice, maize etc. Over 17.93 per cent of the total cultivated area is under non-food crops. Sugarcane, oilseeds, tobacco etc. constitute the principal non-food crops of the region. The share of commercial crop is hardly 10.81 per cent of the total cultivated area. Sugarcane, tobacco and oilseeds are the major crops in this category. Sugarcane is one of the most important commercial crops and accounts for 3.79 per cent of the total cultivated land in the region. Nearly, 75.92 per cent of the total area under sugarcane in the state is shared by the region alone. It is grown in all districts where irrigation facilities are available.

The agriculture landscape of the region is well marked by a significant increase in both the area as well as agricultural production. Since 1985-86 the area under food crops has been increasing but the increase has been only in the case of the cereal crops. The area under pulses and oilseeds shows a declining trend. The maximum increase in area has been recorded in the case of sugarcane.

The region forms the core of the sugar belt of India

and shows the pre-eminence of cash crops in the agricultural economy of Maharashtra State. In the last twenty years, the most phenomenal growth in cropping pattern and agro-based industries has taken place in case of sugarcane cultivation and sugar factories. Clusters of nearly 100 sugar factories with over 75 per cent of the state, in sugarcane producing areas of the region have considerable significance in the economy and life of the people living in rural areas. Development of sugar industry and other agro-based industries have brought an overall development and prosperity to many parts of the region.

Other cash crops like grape, banana, pomegranate are relatively recent introduction. More recently, dairying confined to the vicinity of urban areas has proved an important subsidiary agro-based industry.

Land holdings, in general, are small in the region. Nearly three fourths of the landholdings are found below 2 hectares. Larger holdings are more prevalent in the dry zone of the Ahmadnagar and Solapur districts.

During the last three decades, there has been a considerable changes in agricultural productivity, cropping pattern and in the trend of agricultural production. Some of the changes have resulted from the development of irrigation, the provision of better agricultural inputs like fertilizers and improved seeds and diffusion of agricultural innovations.

The Western Maharashtra Plateau has significantly

improved upon its irrigation facilities. The region has 12.72 per cent of its net cultivated area irrigated. This is, however, above the State average of 9.34 per cent. Canal, well and lift irrigation constitute the three main sources of irrigation and of these, wells are predominantly controlling over 50 per cent of the irrigated area. Lift irrigation is most common in Kolhapur, Sangli, and Pune districts. The role of lifts in irrigation is significant in Panchanga basin. Kolhapur district virtually depends on lift irrigation and more than three-fourths of its irrigated area is irrigated by lifts. The sugarcane cultivation in Kolhapur region depends largely on lift irrigation while in Ahmadnagar and Pune districts, the main growers of sugarcane are the canal irrigated areas.

The regional distribution of irrigation shows that the plateau district of the region comprising Nashik, Ahmadnagar, Pune, Satara, Sangli and Kolhapur enjoy a high level of irrigation. Ahmadnagar district stands first in hectares of land under irrigation and second in the percentage of cultivated area under irrigation. A cluster of tehsils comprising the Panchganga basin in Kolhapur district, Krishna-Koyana plain in Satara, Mula-Mutha plain in Pune, Pravara-Mula lowland in Ahmadnagar and the upper Godavari plain ^yaversing through Nashik district can be clearly identified as intensively irrigated areas of the region. They have offered dependable sources of irrigation and many irrigation projects. The Ujjani project on Bhima in relatively dry area has a great prospect in changing the agricultural landscape of the south-eastern

parts of the region. So far as irrigation is concerned, these rivers are the veins of the region. Most irrigated areas in the region have switched over to high value commercial crops and these have experienced considerable economic progress.

2.9 POWER AND INDUSTRIES :-

Industrialisation is considered to be the key factor to economic development, and hence without it, the development of agriculture, commerce and trade and transportation and communication will almost be impossible. So, all the developing countries of the world have given top priority to industrial development.

The Western Maharashtra Plateau has made considerable progress in industrial development occupies important place on the industrial map of the State. Its industrial landscape has undergone considerable development during recent years mainly around few cities, like Pune, Nashik, Solapur, Kolhapur, Sangli and Ahmadnagar. The major industries and industrial development of the region have confined to these cities. Besides this, a large number of small and medium size industries have also developed at many urban centres of the region. With over 5320 working factories which constitute 29.04 per cent of the total number in the state, 24.4 per cent of industrial output and 25.47 per cent of the total employment.

During the last 25 years, the region has demonstrated a vigorous growth of new industries spread in several parts of it. One of the peculiarities of industrialisation in the region

is that the development of industries has taken place mostly in and around Pune, Nashik, Solapur and the area between Kolhapur and Sangli cities. The other areas of the region have remained industrially underdeveloped. Among the industrial areas, Pune is the second focal point of industries in Maharashtra and the home of some of the foremost industrial units in the region.

The region has a very diversified composition of industries ranging from textiles, engineering and chemical to plastics, electric goods, automobiles, transport equipment, machine tools, agricultural implements, food processing and pharmaceuticals. Engineering industry consists of a wide range of units producing automobiles, scooters, machine tools, metals, light engineering goods, agricultural equipments, machinery and other minor products are manufactured at Pune, Kolhapur, Nashik, Solapur, Sangli, Satara and Ahmadnagar etc. urban centres of the region. Walchandnagar and Kirloskarwadi are other secondary centres of engineering industry. Some giant firms producing a wide range of electrical goods and appliances are located at Pune.

The handloom and powerloom textile industry is localised at Solapur, Ichalkaranji, Pune, Kolhapur, Sangli, Nashik, Malegaon and Vita. Two urban centres namely, Solapur and Ichalkaranji are specialised textile centres of Maharashtra.

Agro-based industries dominate the industrial landscape of the region. Among these, the sugar industry is the most

important. The region has the largest number of sugar factories in the State. They produce nearly 30 per cent of the country's total sugar production.

It will be seen that there are three belts of major industrial development around Pune, Nashik and Kolhapur- Sangli cities. Pune is the most important industrial centre of the region. It has gained its industrial prominence with the establishment of some giant firms and expansion of a variety of industries.

The most spectacular aspect of industrial landscape is distinct industrial belt centred around Pune which forms the giant industrial complex of the region. Most of the industrial nodes of the region follow the major transport routes. Besides the Pune region, which is one of the most highly industrialised and urbanized areas in the region, the economy of the rest of the region is mostly associated with agricultural productivity.

With an ambitious plan for the growth of medium and small-scale industries, the Maharashtra Industrial Development Corporation (MIDC) has developed a number of industrial areas and industrial estates with all the infrastructural facilities in all districts of the region. But the efforts of the corporation to promote decentralization and dispersal of industries has not borne fruits.

An adequacy of power resources is critically important for development of both industry and agriculture. The industrial development depends to a considerable extent on the

availability of power resources. The Western Maharashtra Plateau is deficient in sources of energy like coal and petroleum. But it has been the pioneer in tapping its water power potentials. Hydroelectricity is the principal source of power in the region. The pattern of utilization of electricity in different sectors of economy shows that industry is the largest consumer followed by domestic consumption and power used for agricultural purposes. The rapid pace of industrialisation, rural electrification and substantial increase in the number of electrically operated pumps used for irrigation have mounted steadily increasing demand for electricity supply.

Koyana hydroelectric generating project and Nashik thermal power station are the two major power generating units supplying electricity to the region. The Koyana is the largest hydroelectric generating project constituting 70.92 per cent installed capacity of the total hydroelectricity in the State. It plays a vital role in accelerating the growth of industries in the region. However, the imbalance in the regional patterns and levels of development is clearly indicated by the region's energy consumption pattern at the district level.

2.10 TRANSPORTATION AND COMMUNICATION :-

The transport and communication system plays a significant role in the development of a region by providing access to the local resources, facilitating trade and encouraging industrial development. In fact, accessibility is an important attribute of economic development.

In matters of development and transportation, the region presents better situation in the State. It has a relatively good network of transport and communication. It has over 1,700Km. of rail length and over 40,000Km. of road length. Most of the trunk routes like Bombay-Calcutta or Delhi, Bombay-Madras and Bombay-Bangalore passed almost through all districts of the region.

Road transport is far more important in the region from the stand point of quick goods transport for industries. In terms of areal distribution, the central and southern parts of the region which cover Pune, Ahmadnagar, Satara, Sangli districts are well connected with good pattern of roads. The length of roads in the entire region exceeds 525 Km. per 1,000Sq.Km. of area. Nearly all districts in the region are traversed by the five major National Highways with their total length over 978Km. Of these, the National highway No.4 (Pune-Bangalore) and No.3 (Bombay-Agra) have the maximum traffic density. These National highways are the life-lines of the industrial development in the region. In more recent years, few large industries have developed along the Pune-Bangalore highway at important centres like Satara and Karad.

The railway net carries remarkable imprint on the industrial development of the region. There are some nodes located along the railway route, around which the industrial areas are much developed than elsewhere. The major clusters of industries at Pune, Nashik, Solapur, Sangli, Kolhapur and

Ahmadnagar are all tethered to railway lines. Many large towns are also located on the main railway routes and thus they provide easy access to different parts of the region as well as to the other parts of the State. The region under study, thus, experiences transport route-oriented urban and industrial development especially along the railway lines.

The means of transport are one of the major factor influencing the initiation and development of economic activities of the region. The growth of road and railway transport initiates development of urban centres as trade centres. It is interesting to note that the four districts namely Sangli, Pune, Satara and Nashik with higher connectivity have better accessibility. Inaccessible areas are observed in the Western Zone of the region. The transport network is thus moderately developed in the region.

The accelerated growth of the region's economy and the increasing social contacts have led to a progressive increase in the communication facilities in the region. The number of post offices, telegraph offices, telephone exchanges and telephones etc. have increased by not less than 100 per cent since 1980-81. A number of leading newspapers are published from the region and circulated in and around the region. There are three radio stations in the region : Pune, Sangli and Solapur. In addition to these, there are seven low power relay T.V.centres. Pune and Kolhapur are the centres connected by airway.

III) POPULATION AND SETTLEMENTS :-

The development of an area depends largely upon the human resources who inhabit it. The natural resources can be of no use unless the people perceive their potentials and utilize them properly. The economic organization of a region has been a significant effect on the spatial distribution and characteristics of rural and urban settlements. Aspects of economic organization are mostly the economic attributes of the people which foster the growth and development of urban settlements. Thus, population and settlements are the basic fabric of economic activities in general.

2.11 DISTRIBUTION OF POPULATION :-

The Western Maharashtra Plateau region has a total population of 1,99,74,020 persons according to the 1981 census. The region with 31.52 per cent of the total State area, has about 31.81 per cent of the State's population. The distribution of population in the region bears an imprint of the interplay of physical and human factors. The total population is rather unevenly distributed among the tehsils of the region. The most populous tehsil is Pune city which is followed by Haveli in Pune. Nashik tehsil in Nashik and Solapur north in Solapur districts. While least populous tehsil is Mahabaleshwar in Satara district which is followed by Velhe in Pune, Bavada in Kolhapur and Khandala in Satara districts. But the area-population relationship is rather more balanced.

The Western zone contains 22.81 per cent of the total

area of the region and 15.31 per cent of the total population. The central part including entire Ahmadnagar and excluding Western portion of Satara and Pune districts supports 35.15 per cent of the total population and 31.76 per cent of the total area. Southern-eastern and northern parts contribute 26.57 and 18.86 per cent of the total area and 29.78 and 19.76 per cent of the total population respectively. There is gradual increase in number of people from west to east.

Population is concentrated in valley bottoms and the hilly portions remain unpopulated. Transport routes have facilitated the distribution of population. Where, transport routes are absent, population thins out. It is clear that the distribution of population is mostly influenced by the physiography of the region. The impact of physiography may thus be minimised by means of transportation.

The region under study has an average density of 206 persons per sq.km. The tehsil unit of analysis presents a complex pattern of density distribution of the general population (Fig 2.4). Tehsilwise density pattern indicates that overall low densities are found in hilly tehsils and the tehsils covering the central dry plateau area of the region. The pattern of population density shows that the lowest density of less than 100 persons per sq.km. is found in Surgana, Sakri and Velhe tehsils of Western Ghats; and Parner, Atpadi and Jath tehsils of central dry plateau. Twenty nine tehsils have low density of 100 to 150 persons per sq.km. Out of these 29 tehsils, 10 are from Western hilly zone, 9 tehsils from central dry plateau and 8 tehsils from Bhima valley and 2

WESTERN MAHARASHTRA PLATEAU

DENSITY OF POPULATION

1981

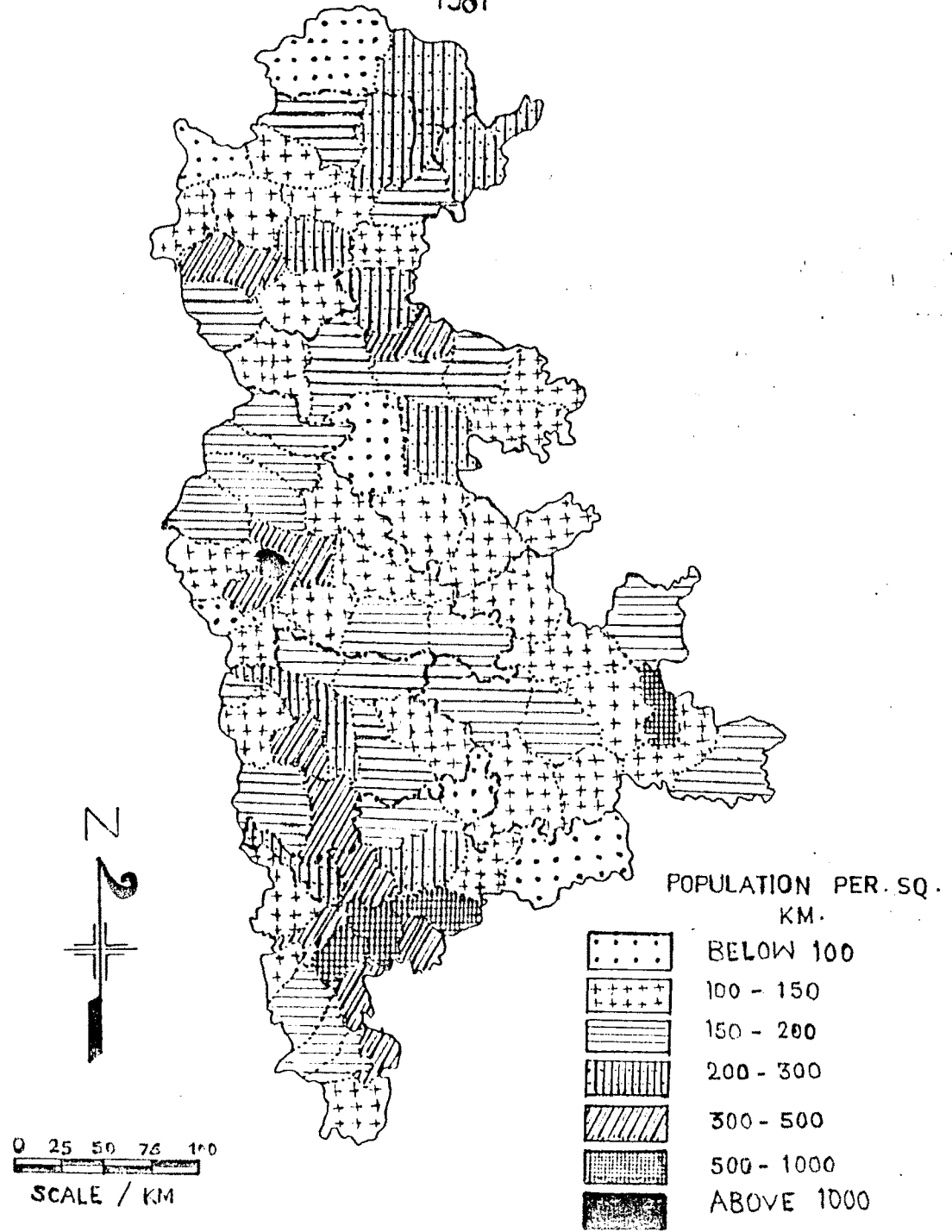


FIG.2.4

tehsils from Godavari Valley are included in this category.

Moderate density of population ranging from 150 to 300 persons per sq.km., is found in 36 tehsils, out of which 25 tehsils have the density of 150 to 200 persons per sq.km. and the rest of tehsils fall between the density of 200 and 300 persons per sq.km.

High density of 300 to 500 persons per sq.km. is observed in 7 tehsils of the major river valleys of the region i.e. the upper Krishna valley, covering 4 tehsils, Nashik, and Shrirampur tehsils in the upper Godavari Valley and Haveli tehsil of the Bhima Valley. Similarly, four tehsils including Miraj, Solapur north, Hatkangale and Karveer show higher population density ranging between 500 to 1000 persons per sq.km. Highest density of population i.e. above 1000 persons per sq.km. is found in only one tehsil, Pune city has a population density of 7502 persons per sq.km.

A great regional contrast in the distribution of population are noteworthy among the tehsils of Pune district, where the lowest density of 91 persons per sq.km. is found in Velhe tehsil and the highest density of 7502 persons per sq.km. occurs in Pune city tehsil. Despite this, Karveer, Solapur north and Hatkangale tehsils have one of the highest regional densities.

The study region is predominantly a rural area. Of the total population of over 19.97 million, only 5.57 million is classified as urban population which constitutes 27.89 per cent of the total population. The urban population is

concentrated mainly in the three major river valleys of the region. Out of the total urban population of the region, 53.03 per cent is concentrated in Bhima basin alone. The higher concentration of urban population is around Pune, Ahmadnagar and Solapur cities located in the Bhima valley. These three cities alone account for 34.03 per cent of the entire urban population. It is followed by the area in between Kolhapur and Sangli cities in upper Krishna valley and around Nashik city in the upper Godavari Valley. A large concentration of urban population in the cities of Pune, Kolhapur, Solapur and Ichalkaranji have the overall densities of their respective tehsils. The rest of the tehsils present an almost positive appearance of close association between soil productivity and density of population.

Most of the Western hilly zone and the central dry plateau area have very little urban population. It is surprising to find that almost 33 tehsils in the entire region have no urban population at all.

The ratio of urban and ^{rural} population in the study region is 387 urban population per 1000 of rural population.

2.12 DISTRIBUTION OF SETTLEMENTS :-

The Western Maharashtra Plateau is essentially rural with a predominance of rural settlements almost everywhere. According to the 1981 census, there are as many as 10063 total settlements in the region; of which 9968 are rural and 95 urban. Seventy two percent of population of the region lives in 9968 villages giving a rural population density of 152

persons per sq.km. Out of the total villages, 9968 are inhabited and 59 uninhabited villages.

The distributional pattern of settlements is much more influenced by physiography, agricultural pattern and economy of the region. The geographic conditions determine not only the distribution and types of rural settlement but also the size and spacing^{of} rural settlements. The region has three distinct distributional settlements patterns. The Western hilly zone has given rise to a pattern of small tiny villages and hamlets, where the mean size of village has a population of 1424 persons. The density of settlement in this zone is high. The rugged terrainⁱⁿ the west shares 28.42 per cent rural and 11.58 per cent urban settlements of the region.

In the cenⁿtral and northern parts, the settlements are closely placed along the river banks and roads. The riverine lowland has medium to large size of rural settlements. The mean size of the village is 2860 persons in this valley zone. It shares 49.48 per cent of rural and 71.98 per cent of urban settlements of the study region. Villages in the upper Krishna valley and upper Bhima valley are relatively large and compact. The mean size of villages in these valleys is 2937 persons and density of settlement is low. Villages are rather uniformly distributed.

The central dry plateau areas including the Ahmadnagar, Saswad, Khanapur-Man-Jath plateaus, have medium size villages. The mean size of rural settlement is 2188 persons in this zone. It accounts for 22.10 per cent of rural and 16.44 per cent of urban settlements.

The villages in these parts are by and large, compact

of large size and at a considerable distance from one another. Most of their site is invariably dependant on water supply points.

The general settlement pattern in the region can be described as small sized rural settlements. The villages in the study region, in general, are well nucleated units of homestead, hamlet or 'Wadi' and village or big village. However, dispersed homesteads and hamlets occur in the highlands of the Western Ghats. In the central dry plateaus, the villages are medium size nucleated habitations. The river valleys have comparatively large and compact villages. In general, the rural settlements in the region are characterized by hilly terrain, forested landscape, poor accessibility and water supply points etc. As a result, the region presents a variety of village patterns.

There are 95 urban settlements in the Western Maharashtra Plateau region. The distributional pattern of urban settlements in the region is marked for its unevenness which is substantial by the clustering of urban settlements in riverine lowland of the region. On the other hand, their sparsity is in the rugged terrain and forest area of the Western Ghats in the west of the region (Fig.2.5). The riverine lowland of the region contains 11 of the State's 25 Class-I urban settlements. Outside of the urban clusters of riverine lowland, towns are widely dispersed and relatively small in size (less than 20,000). These small towns constitute 76.84 per cent of the total number of towns and cities but

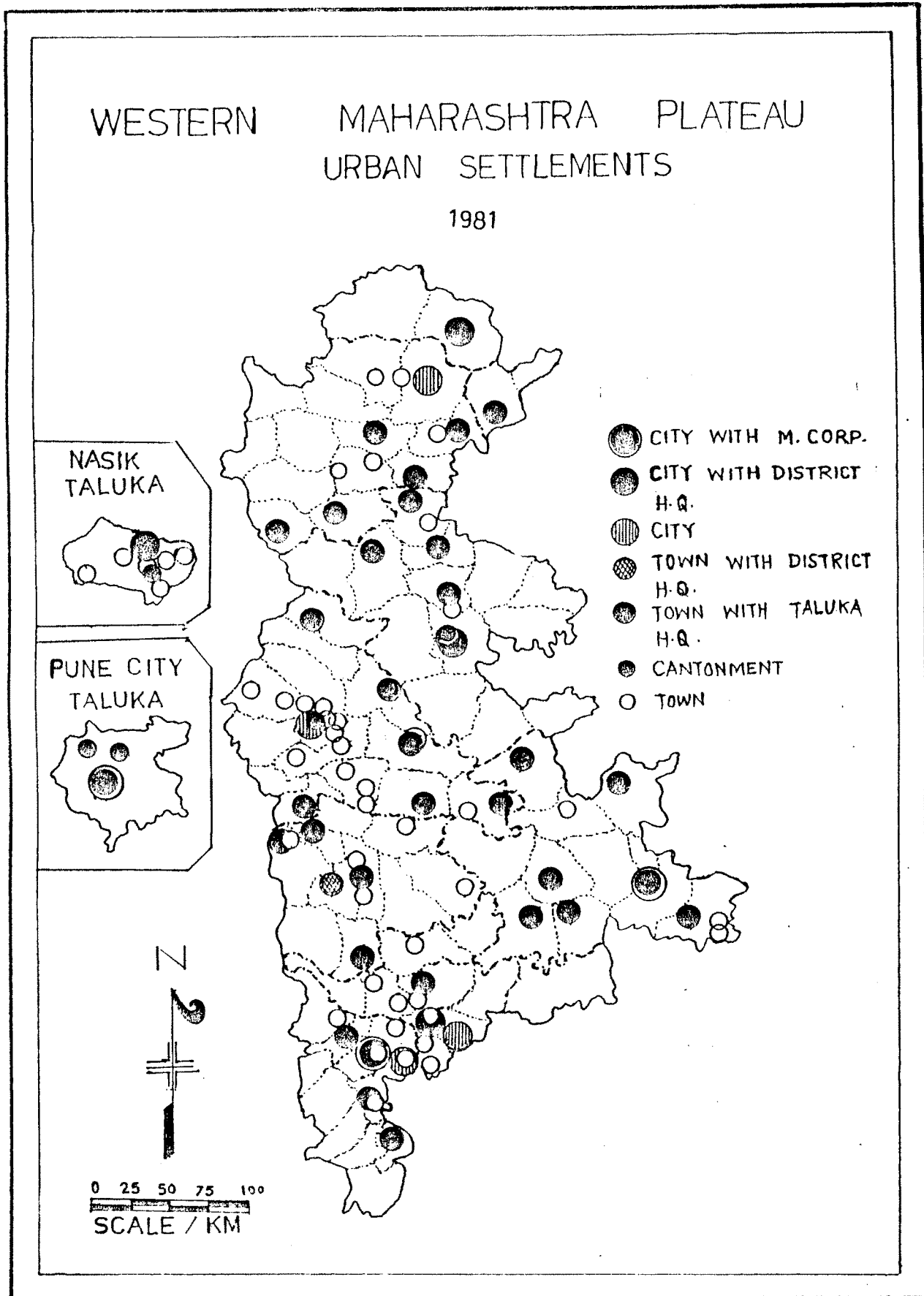


FIG. 2.5

contain only 26.99 per cent of the State's urban population.

The distribution of urban settlements in the region seems to be strongly aligned to the railway line and no major town of the region is located outside the range of rail accessibility.

2.13 SETTLEMENT SPECTRUM :-

The distributional pattern of population has an important bearing on the size pattern of settlements. The size of settlements depends very much on the inter-settlement distances and the functional characteristics of settlements. There are great variations in distribution of size classes of settlements (Table 2.1).

The size of villages ranges from less than 200 to over 10,000 persons. The average size of the village in the region is between 500 and 999 persons. The distribution of different sized villages reveals that per cent of the villages in the region are small. Small and medium sized villages are more common with 47.26 per cent and 46.81 per cent of the rural population living in such villages respectively. There are only 61 very large villages having more than 10,000 persons. They are few in numbers and have acquired such size due to the development of different functions, especially of markets. Of the villages of the region under study, 'Akluj' in Solapur district is the biggest village, with a population of 23,566 persons.

The study region includes 95 urban settlements of different size classes of population. There are 11 cities in

TABLE 2.1
SETTLEMENT SPECTRUM OF WESTERN MAHARASHTRA PLATEAU, 1981.

Population Size class.	No. of settle- ment	Per cent to total no. of settlements	Population	Per cent to total popula- -tion.
<u>RURAL</u>				
Less than 200	449	4.50	57791	0.40
200-499	1680	16.85	605187	4.20
500-999	2968	29.78	2164326	15.03
1000-19,99	2881	28.90	4036994	28.03
2000-4,999	1634	16.39	4780860	33.23
5000-9999	295	2.96	1955524	13.58
10000 and above	61	0.62	794973	5.53

TOTAL RURAL	9968	100.00	14403955	100.00

<u>URBAN</u>				
Less than 5000	4	4.21	14,749	0.26
5000-9,999	12	12.63	96,642	1.74
10,000-19,999	31	32.63	4,47,011	8.02
20,000-49,999	26	27.37	7,34,138	13.18
50,000-99,999	11	11.58	7,43,121	13.35
1,00,000-2,49,999	7	7.37	12,13,140	21.78
2,50,000-4,49,999	2	2.11	6,03,053	10.83
5,00,000-9,99,999	1	1.05	5,14,860	9.24
10,00,000 and above	1	1.05	12,03,351	21.60

TOTAL URBAN	95	100.00	55,70,065	100.00

Source : District Census Handbooks, 1981.

SETTLEMENT SPECTRUM

1981

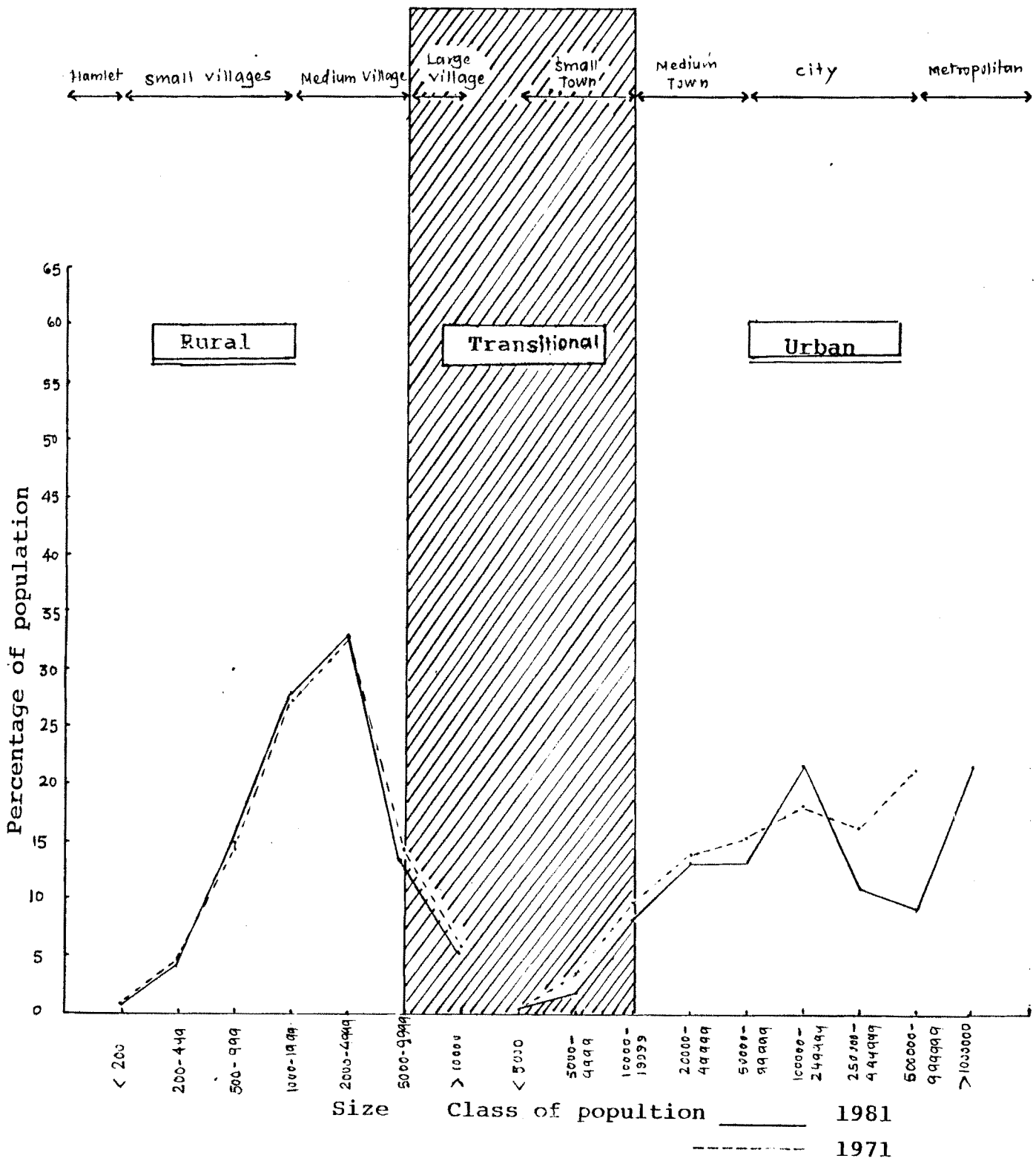


FIG. 2.6

the region and the equal number of towns that have a population of 50,000 or over. Sixty-nine of the total urban settlements are classed as small towns in size class of 5000 to 19,999 and 20,000 to 49,999, in the region. On the other hand, there are only 4 towns that have a population of less than 5000 persons. The average size of the town in the region is between 10,000 and 20,000 persons. In general, cities are dominant with 63.45 per cent of the total urban population in the study region. Owing to fast urban development around Pune, the district of Pune alone contributes 26 of the total towns and cities and 35.39 per cent of the total urban population of the region.

Distribution of all settlements and their population in different size classes presents anomalies in the population size band of villages (5000 to 10,000 and above), and towns (less than 5000 to 20,000) in the whole settlement spectrum (Fig.2.6). These transitional settlements form the rurban band of the spectrum (Bhaskara Rao,1977). In the band the functional structure remains more important than population size.

SUMMARY :-

The appraisal of the geographical personality of the Western Maharashtra Plateau brings out some salient features. This region is unique in the historic and geographical setting in the State. Physiographically, on the west it is well bordered by the Western Ghats, which have been a significant imprints on the drainage pattern, rainfall distribution and

vegetal cover of the region. The Western Ghats have been the chief source of natural resources like vegetation and water. The riverine lowlands are the most fertile parts and agriculturally prosperous areas of the region.

Economically, the region has made a significant progress in the fields of agriculture, industry and transportation. The region is the core of the sugar belt of India. It has made commendable progress in increasing the area under cultivation, yield of crops and total agricultural production. The region has significantly improved its irrigation facilities. During the last two decades, the region has demonstrated a vigorous growth of new industries spread in several parts of it. Agro-based industries dominate the industrial landscape of the region. The region has the largest number of sugar factories in the State. Three major industrial belts are developed around Pune, Nashik and Kolhapur-Sangli cities. The Koyana hydroelectric generating project plays a vital role in accelerating the growth of industries in the region. The study region enjoys a relatively good network of transport and communication. It experiences transport-oriented urban and industrial development.

The region under study shares about one-third population of the State. It has an average density of 206 persons per sq.km. The distribution of population reveals that population is highly concentrated in valley bottoms and the

hilly portions remain unpopulated. High density of population coincides with agricultural productivity, transport routes and development of industries and urban centres. The region is essentially a land of villages. Nearly 9968 rural and 95 urban settlements form the total scene of the human resources. The whole settlement spectrum presents an idealised graphic picture of the distribution of population and settlements in the region.

REFERENCES

1. Arunachalam, : Maharashtra, A.R.Sheth and Co.
B.(1967) : Bombay,pp.8-43.
2. Bhaskar Rao,B.(1977): 'Integrated Development of Rurban
Regions' adopted in Prakasha
Rao, V.L.S.
Urbanisation in India :
Spatial Dimensions, Concept Publi-
-shing Company,New Delhi, 1983
pp.2-5.
3. Deshpande,C.D.(1971): Geography of Maharashtra. National
Book Trust, New Delhi,pp.14-42.
4. Deshmukh, P.W.(1985): The Location of Service Activities:
A Study of Central Places in Upper
Krishna Valley, published Ph.D.
thesis, Ajab Pustakalaya, Kolhapur
pp.13-21.
5. Diddee,J.(1984) : Central Places in Western India,
Published Ph.D.thesis, University
of Pune, pp.14-21.
6. Dikshit,K.R.(1986) : Maharashtra in Maps,Maharashtra
State Board for Literature and
Culture Mantralaya, Bombay
pp.21-94.

7. Mulik,A.D.(1989) : Dynamics of Urbanization-A Geographical Perspective, Published Ph.D.thesis, Himalaya Publishing House, Bombay,pp.1-9.
8. Sabade,B.R.(Ed.) : Industrial Development of Maharashtra, Mahratta Chember of Commerce and Industries, Pune, pp.43-60.
9. Census of India : Series 12, Maharashtra, Part-II-A (1981). "General Population Tables", Directorate of Census Operations, Maharashtra.
10. —————(1981) : Series 12, Maharashtra, Part-III-A, "Economic Tables",Directorate of Census Operation, Maharashtra.
11. —————(1981) : Series 12, Maharashtra, Part XIII, District Census Hand books, Government of Maharashtra Census Office, Bombay.
District Census Handbooks and Dhule, Jalgaon,Nashik,Ahmadnagar, Pune,Satara,Sangli,Solapur and Kolhapur Districts(1971,81).
12. ————— (1961): Vol.X,Maharashtra,Part IX, "Census Atlas", Maharashtra Census Office, Bombay.

14. Statistical Abstract of Maharashtra.(1972-73)
Government of India, Directorate of
Economic and Statistics.
14. Socio-Economic Review and Statistical Abstracts of
Dhule, Jalgaon, Nashik, Ahmadnagar,
Pune, Satara Sangli, Solapur and
Kolhapur Districts(1984-85).
Directorate of Economic and
Statistics, Govt. of M.S. Bombay.
15. Season and Crop Report(1980-81) Directorate of
Agricuture, Government of Maharashtra,
1989.

