-1- INTRODUCTION -1-

INTRODUCTION

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The study of small towns, in the present era of urbanization and industrialization in the country has not received due attention from the academicians, as well as the government organizations. While large cities have been growing at a very high rate, the small towns on the contrary have exhibited slow growth, stagnation and even decline in the population, as well as in the economic activities.

The small towns are in general characterized by their nodal location, administrative importance, demographic and functional characteristics. Some of the small towns have potential for their prospective growth and several generative forces influence the economic development of such towns. On the other hand there are few towns which indicate parasitic nature because they loose their functional importance in the passage of time.

The universal character of urbanization is manifested differently in different geographical conditions, in regions, with different type and levels of socio-economic development. Hence the geographical study of urbanization is closely linked with elaboration of typology of regions based on their specific ways of urbanization. The growth of towns in the developing

countries is strongly influenced by their economic and geographical positions and by those of their material forms which are also essential typologically.

For various reasons, concern may be shown when towns particularly small and medium size towns experience slow or accelerated trend of growth over a long period of times.

It is felt that urbanisation tends to occur more speedily when countries are in early stages of industrialization. Since India is also still in the early stage of technological development, a steady increase in the degree of urbanization is just natural. The rapid growth of urban population in the overwhelming majority of developing countries is due to both to its high natural growth rate and mounting scale of internal migration flows from rural localities to towns and particularly big cities. We can distinguish two main internal migrations, one from rural areas to big cities and industrial centres and the so called stage migration from rural areas to medium and small towns.

The growth character of towns is studied by David Clark (1982), made a distinction between what he calls parasitic and generative character of towns. The generative character of towns grows and exerts a favourable influence on economic development of the areas adjoining it, while the parasitic character on the other hand, either do not exert any influence on the growth of town itself and on the economic development of the surrounding

areas. These two classes of towns have different urban characteristics in respect of their location, occupational structure, demography and functional base. However, small and medium size towns in India have been existing for a very long time and the main incentives for their existance have been administrative, economic and also to some extent cultural.

The present study has an exploratory design, its main purpose is to delineate the growth pattern of small and medium size towns of South Maharashtra region. Further, it will also analyse the occupational and functional character of towns and also includes spatial distribution, zone of influence and generative and parasitic character of small and medium towns. The data used in this work are collected from various secondary sources like, district census handbook, general population tables, socio-economic abstract and district statistical abstract of five districts of Maharashtra. The entire work is arranged into five chapters.

The first chapter deals with an introduction to the study area, data base, and methodology. The second chapter deals with the spatial distribution of small and medium size towns. It also studies the levels of development at taluka level. It is essential to study spatial distribution of small and medium size towns because, it gives an idea of social, economic and political setup of the different parts of the study area. Third chapter analyses the

occupational and functional characteristics of small and medium size towns. It is essential to study this aspect, because it highlights the temporal changes of occupational characteristics and functional association of small and medium size towns. The fourth chapter discusses the temporal changes in the spatial linkage of towns. Such study visualises the growing or parasitic nature of towns. In order to understand the generative and parasitic character of small and medium size towns, the fifth chapter has been undertaken, in which, with the help of selected indicators the growth and nongrowth character of towns has been identified. Finally, a brief summary and conclusions with meaningful and viable suggestions are the subject matter of sixth chapter.

In the style of presentation, the references are given at the end of each chapter. Footnotes, wherever necessary are referred to the source of information. It was not possible to give all the data collected and processed, therefore, only important and relevant information is included in the form of table.

The maps and graphs have been drawn by author and are prepared in the departmental cartographic laboratory.

The author has tried to avoid errors and repetition, yet through oversight some errors might have crept in the text, for which the author may be excused. The author will be very happy, if the present work adds to the existing knowledge in the field of urban studies.

CHAPTER - I

INTRODUCTION TO THE STUDY AREA, OBJECTIVE OF THE PRESENT STUDY, DATA BASE AND METHODOLOGY

- Geographic personality of the study area
- Physical setting
- Drainage pattern
- Economy of the region
- Forest
- Mineral wealth
- Industrial structure of the region
- Data source
- Methodology

References

GEOGRAPHIC PERSONALITY OF THE STUDY AREA :

The region under investigation forms the southern part of Maharashtra. It stretches from 15°36' North to 18°35' North latitudes and 73°5' East to 76°25' East longitudes. The region covers an area of 55,174 sq.kms. of geographical area where according to 1981 census a population of 11,104,418 persons is habited in 6,008 villages and 53 urban centres. Administratively it covers 58 talukas of six districts namely, Kolhapur, Solapur, Sangli, Satara, Ratnagiri and Sindhudurg of Maharashtra. The region covers 17.88% of the total area of the state and shares 17.77% of the total population of the state. Out of the total population of the area 20.30% population is urban. It accounts for 10.11% share of the state's urban population.

The western boundary of the area is defined by the west coast of Maharashtra. The southern fringe runs along the inter-state boundary Goa, Maharashtra and Karnataka state. In the north the study region is demarcated by the course of west flowing Savitri river and east flowing Nira river which joins the river Bhima near Akaluj. The boundary of Solapur district separates the region from Marathawada area. To the eastern side of the region lies Gulberga district of Karnataka.

PHYSICAL SETTING :

Depending on the physiography, the region can be resolved into five sub-regions. These are as follows :

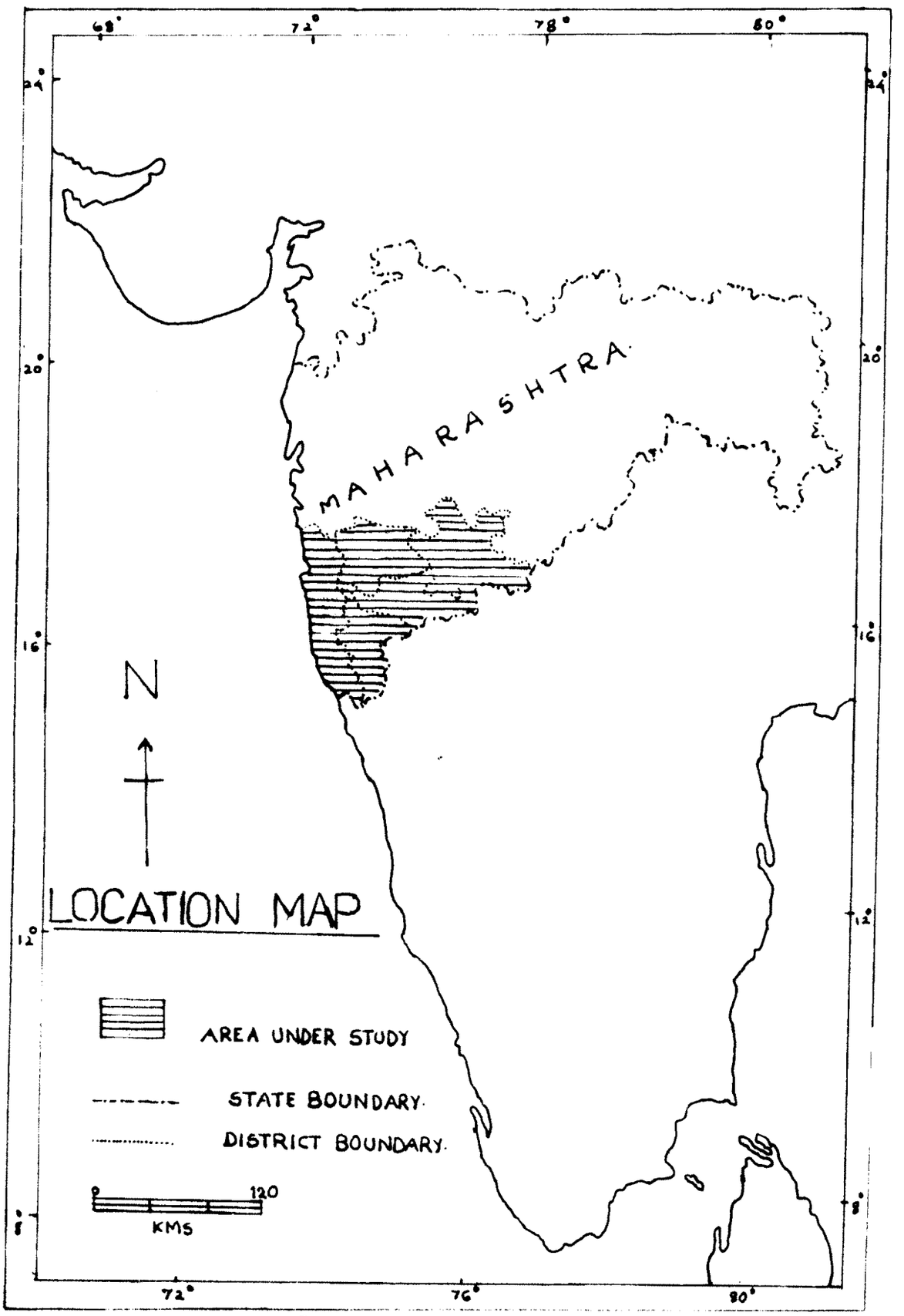
68°
72°
78°
80°
24°
20°
16°
12°
8°
MAHARASHTRA
N
LOCATION MAP
AREA UNDER STUDY
STATE BOUNDARY
DISTRICT BOUNDARY
0
120
KMS
72°
76°
80°

FIG. 1.1

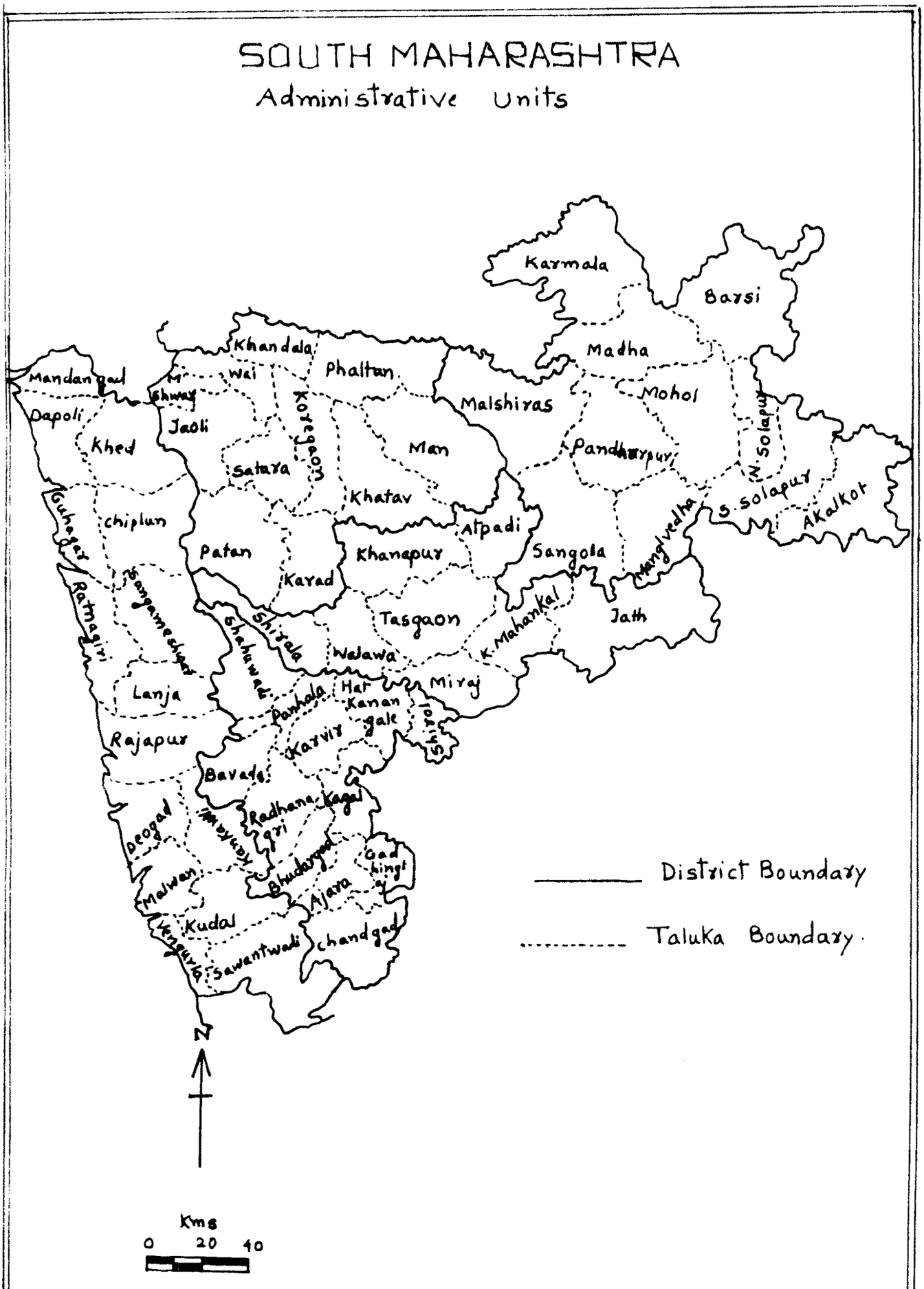
SOUTH MAHARASHTRA
Administrative Units
Karmala
Barsi
Madha
Mohol
Malshiras
Pandharpur
N. Solapur
S. Solapur
Akalkot
Mangalvedha
Sangola
Atpadi
Khatav
Man
Phaltan
Khandala
Wai
Mahabaleshwar
Koregaon
Satara
Jaoli
Khed
Dapoli
Mandangad
Guhagar
Chiplun
Patan
Karad
Khanapur
Tasgaon
Shirala
Walawa
K. Mahankal
Jath
Miraj
Ratnagiri
Sangameshwar
Lanja
Rajapur
Chalawadi
Panhala
Hatkanangale
Karvir
Shirol
Bavada
Radhanagri
Kagal
Devgad
Kankavli
Malwan
Kudal
Vengurla
Sawantwadi
Bhudargad
Ajara
Gadhinglaj
Chandgad
District Boundary
Taluka Boundary
N
Kms
0 20 40

FIG- 1.2

i) West coast region,

ii) Upland hilly region,

iii) Upper Krishna valley,

iv) Central dry plateau and

v) Bhima basin.

West coast region :

The western part of the study region is a coastal region of Konkan. This region is demarcated by Arabian sea to the west, the Sahyadries on the east, the river Savitri on the north and river the Terekhol to the south. The region coincides with Ratnagiri and Sindhudurg coastal region. Longitudinally the region can be divided into the piedmont plains at the foot of the Sahyadri, the lateritic plateau and the narrow coastal plain, a few hundred meters wide, abatted by the lateritic plateau. The entire region presents a desolate appearance of a parched plateau with short grasses which give it snowy appearance in October. It is laterite every where, all the way except in the valleys and on the shore.

The longitudinal piedmont plain, developed as a result of the recession of the Sahyadrian scarp, is a relatively low land with an average height of less than 200 metres above sea level. The weathering of the mountain fronts, their recession, and the amphitheaters made by the valley heads given rise to these plains, which are of recent origin. In fact, these plains are younger and genetically different from the lateritic

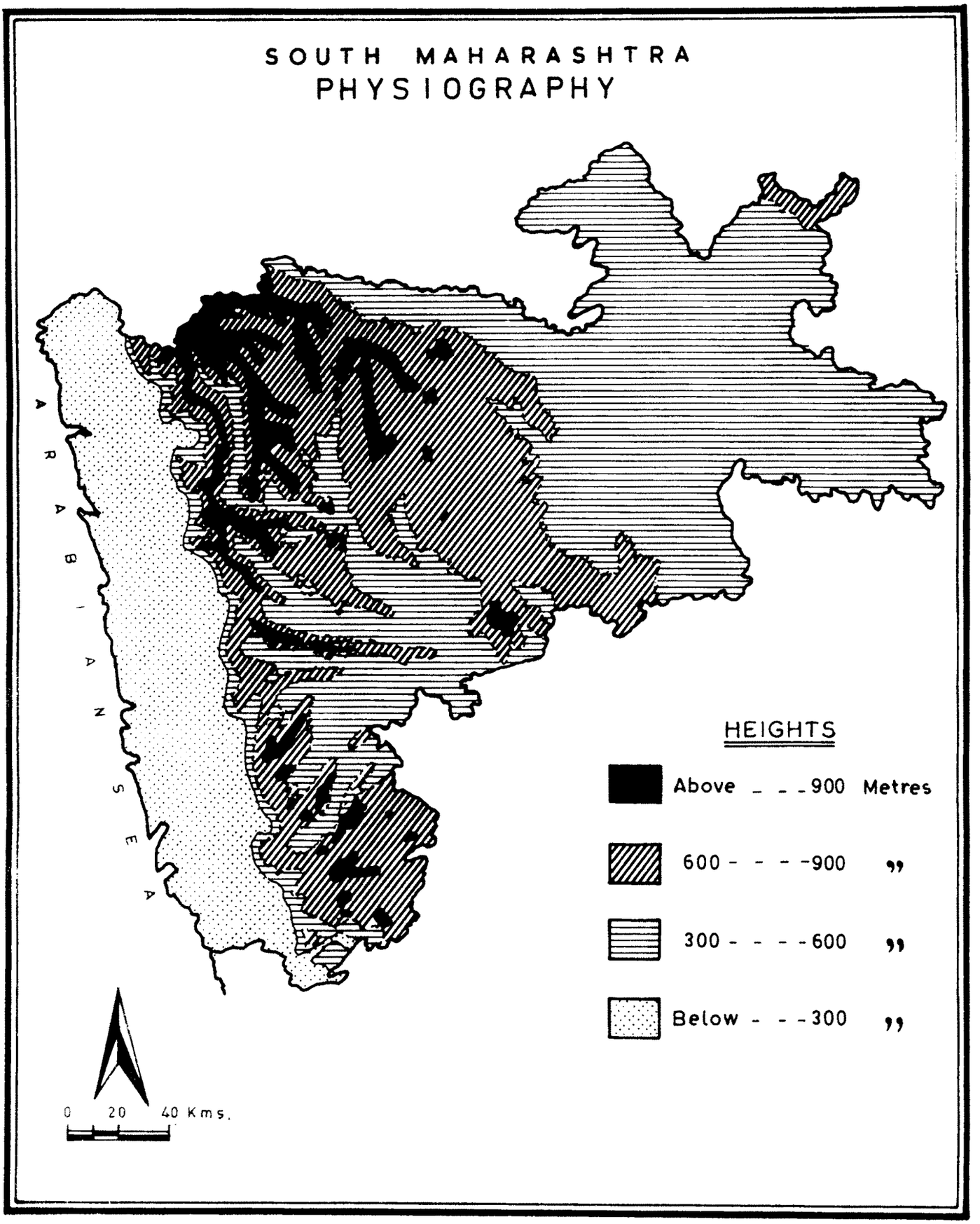
SOUTH MAHARASHTRA
PHYSIOGRAPHY
ARABIAN SEA
HEIGHTS
Above - - - 900 Metres
600 - - - - 900 "
300 - - - - 600 "
Below - - - 300 "
0 20 40 Kms.

Fig _ 1·3

plateau further west and belonging to post lateritic phase. The weathered material brought from the mountains and spread in these plains, has led to the development of marrow enclosed basins associated with major west flowing streams. The Mahad plain on Savitri, Chiplun plain on Vashisti, Deorukh plain on Shastri and Kankavli plain on Gad belong to this category.

Oover 86 percent of this region is hilly. This region covers nearly 22 percent area of the study region where the soils are poor and annual rainfall is 2,000 to 3,000 mm.

Upland hilly region :

To the east of lowland coastal region there lies main Sahyadrian scarp with 900 to 1,100 metres in height. This hilly region covers nearly 17 percent land of the study region and includes eastern most edge of the Konkan districts and western talukas of Satara, Sangli and Kolhapur districts. Here the Sahyadri runs almost continuously in north-south direction with its major peaks and intervening saddles. Several hill ranges emerge from main Sahyadries and extend on the South Maharashtra plateau in south-east direction in Satara and Sangli districts and in north-east direction in Kolhapur district.

South of Mahabaleshwar, the height of Western Ghats in Maharashtra lingers around 1,000 metre and often it is less; in situation where the rivers have reached the crestline by headward erosion, the height of the Ghats is lowered to 600 metre. The passes from west to upland is difficult and the Ghats are crossed

only at a few points. There are a number of such passes which provide the site for laying of roads and railways; linking the coast with the upland. The most important of these passes are :

i) Rantondi Ghat - Mahad-Mahabaleshwar,
ii) Kumbharli Ghat - Chiplun-Karad,
iii) Amba Ghat - Ratnagiri-Kolhapur (via Malkapur),
iv) Phonda Ghat - Devgad-Radhanagari-Kolhapur,
v) Amboli Ghat - Vengurla-Sawantwadi-Nipani.

The region presents the heaviest rainfall zone of South Maharashtra and almost everywhere the upland receive more than 2,000 mm of rain, with some higher parts receiving even more than 5,000 mm. Mahabaleshwar and Amboli receive 6,226 and 7,477 mm of rains respectively. The region has hard lateritic soils.

Upper Krishna Valley :

The Krishna basin is the region of Maharashtra plateau occuping its western periphery. The valley is like a shallow basin confined between the Sahyadrian spurs on the west and Mahadeo plateau on the east. Upper Krishna basin with an average height of 600 metres above main sea level and covers nearly 16.5% area of study region. This valley has extented in parts of Satara, Sangli and Kolhapur districts of the area. Flowing almost parallel or sub-parallel to Sahyadris it collects a large number of tributories descending from the Sahyadries. The major tributories joining the Krishna, each in turn making a narrow but silt covered fertile plain. This region has

medium and deep black soils and annual rainfall of 600 and 1,000 mm.

Central dry plateau :

This plateau region covers 20 percent area of study region and includes northern and eastern parts of Satara and Sangli districts and Sangola taluka of Solapur district. This region is a transitional zone with two important hill ranges, namely Mahadeo range and Phaltan range. This Mahadeo-Khanapur-Jath plateau stands as a divide between Bhima and Krishna valleys. Aligned northwest-woutheast, the plateau slopes gently eastward, with an average height of over 700 metres, it provide the base for a much higher Mahadeo range which attains of over 1400 meter, where it branches off from Sahyadri. The plateau carries thin soils that permit only kharif crops. This region has shallow solid with black and brown patches. Rainfall here is about 55 mm. The area being semi-arid, is known for cattle and sheep grazing and presents a desolate picture in summer.

Upper Bhima Basin :

Down the Bhima-Nira confluence, extending right upto confluence with Krishna, on Karnataka-Andhra Pradesh border, the region is named Bhima Valley with wide riverine plains, insignificant relief, the alluvium filled valley of Bhima covers neerly 24.5 percent land of the study area and includes the entire district of Solapur excluding Sangola taluka. Northern and eastern part of Barsi taluka, central parts of Madha and Karmala

talukas and southern parts of Malshiras taluka is hilly. The region has deep black soil and rainfall of 600 to 800 mm.

DRAINAGE :

The drainage of the study area is influenced by two groups of rivers i) The Konkan rivers and ii) The plateau rivers. Sahyadri is the main water divide of the region separating Konkan rivers and plateau rivers.

Konkan Rivers :

The short and joint-oriented Konkan streams flow east-west roughly parallel to each other. Norms of the Konkan streams has a course longer than 100 kilometer. Kundalika, Savitri, Vashisti, Shastri, Kajvi, Waghothan and Gad are the principal rivers. It is paradoxical that in this heavy rainfall zone, the coastal streams are reduced to a thread of water. The rain water is easily and most expeditiously disposed on to the sea and after rains turn dry. These rivers have carved deep valleys. Some of them have developed amphitheater like basins under Ghats. Most of the Konkan rivers have creeks at their mouth.

Plateau Rivers :

Bhima and Krishna are the two main rivers of South Maharashtra. Both of them have their well developed drainage system and broad valleys graded to their base level.

The river Krishna, emerging from the Western Ghats near Mahabaleshwar. The river follows a straight south-easterly

course and has a length of 364 kilometer in study area. Krishna and its right bank tributories rise almost within the sight of Arabian sea but drains in east and south-east direction into the Bay of Bengal. Venna, Urmodi, Tarali, Koyana, Warana, Panchaganga, Dudhaganga, Vedganga and Hiranyakeshi are the right bank tributaries of the Krishna. River Yerala rising in Mahadeo range and flowing to southern direction is the only left bank tributory of Krishna. An important feature of Krishna basin in the state is the enormous amount of sedimentation. All the tributories coming from the Western Ghats, bring large quantities of very fine sediments and dump them in the main river, besides depositing it in their flood plains. Thus, the Karad basin and the Panchaganga basin have benefitted from an unparalleted sedimentation and have developed into some of the most productive areas of the state.

The Bhima river draining whole of Solapur district and parts of Satara and Sangli districts flows in south-eastern direction. Nira and Man rivers are main right bank tributories of Bhima while Sina is its main left bank feeder in the study area. River Nira rises in the eastern slopes of Sahyadri and flows to east while river Man rises in Mahadeo range and runs in eastern and north-eastern direction. The river has a course of about 289 kms. within the limits of tudy area. The Bhima Basin is economically the most prosperous region.

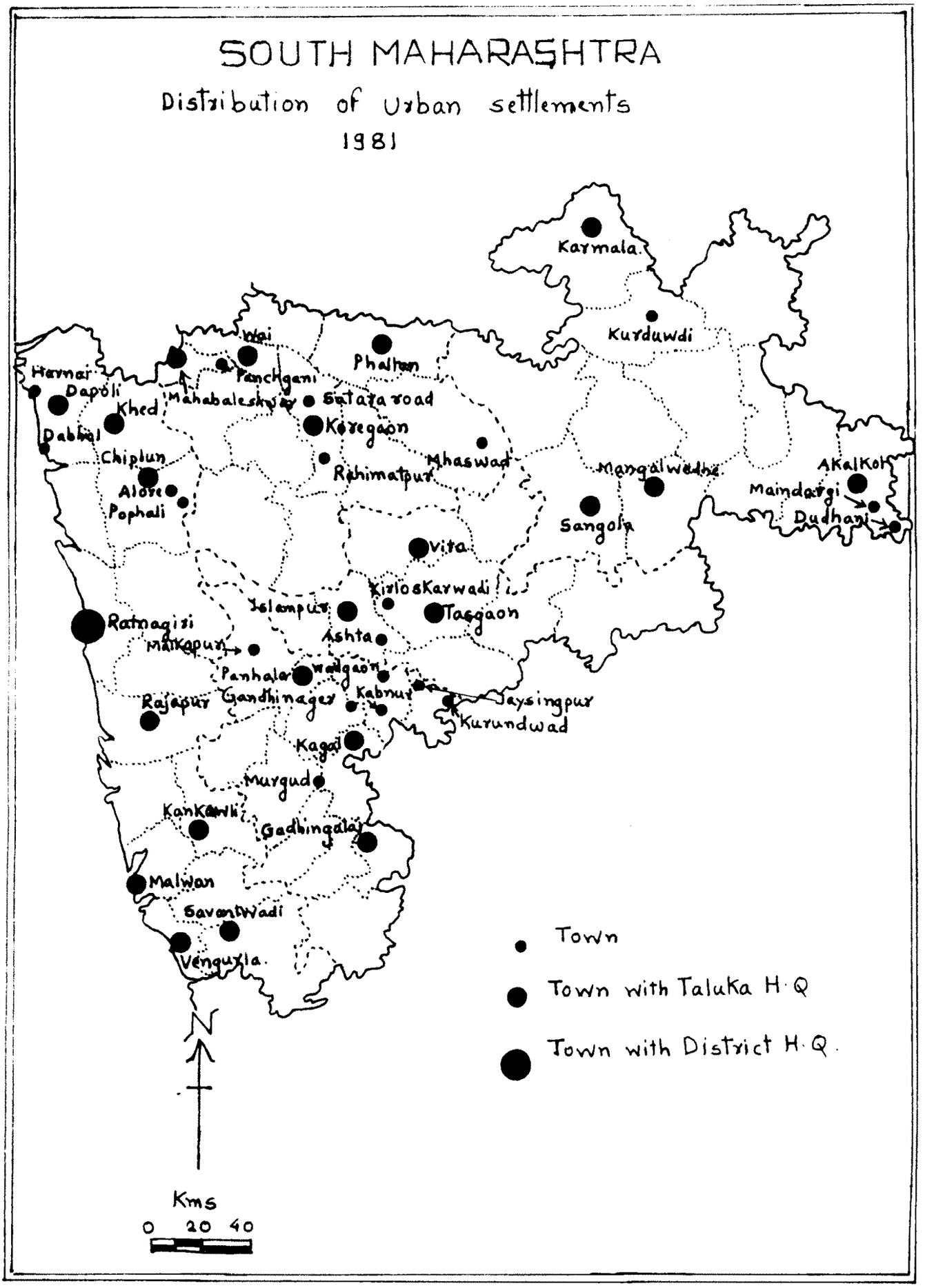
SOUTH MAHARASHTRA
Distribution of Urban settlements
1981
Karmala
Kurduwdi
Wai
Phaltan
Panchgani
Mahabaleshwar
Satara road
Dapoli
Khed
Koregaon
Dabhol
Chiplun
Rahimatpur
Mhaswad
Mangalwedhe
Akalkot
Maindargi
Dudhani
Alore
Pophali
Sangola
Vita
Kirloskarwadi
Islampur
Tasgaon
Ratnagiri
Malkapur
Ashta
Panhala
Walgaon
Rajapur
Gandhinagar
Kabnur
Jaysingpur
Kurundwad
Kagal
Murgud
Kankavli
Gadhinglaj
Malwan
Sawantwadi
Vengurla
Town
Town with Taluka H.Q
Town with District H.Q.
N
Kms
0 20 40

FIG- 1.4

ECONOMY OF THE REGION :

Agriculture is the main stay of the economy of the region. The diffusion of agriculture innovation has brought significant changes in the agricultural system of the area. In the study region the dominance of food crops is found in western hilly area, central dry plateau, the Bhima valley region and the coastal plains of South Konkan. In these parts nearly seventy percent of the cultivable land is under food crops. The Mahad plain on Savitri, Chiplun plain on Vashisti, Deorukh plain on Shastri and Kankavli plain on Gad are important in western coastal region, since the flat alluvial plains can grow paddy without much effort; which is staple food crop here. Rice is also dominant in the western hilly zone where 30 percent of land is under rice other crops includes Ragi and Jawar. In the central dry plateau region jawar, bajara, groundnut and pulses are the main crops. In the Bhima basin and Nira basin the agriculture landscape is dominated by jawar and cotton. Away from the fertile valley of Bhima and Sina, the cultivation of pulses assumes significance, since these can withstand moisture stress for a longer period than either jawar or cotton. Among the pulses tur and gram are important.

All along, from its source downward, the Krishna Valley carries rich alluvial soil, the depth and extent of which increases as one moves down stream with adequate water, either from the surface or ground source, thick and fertile soil, the Krishna

valley has become agriculturally the most prosperous region of the state. Double cropping is common in the irrigated tracts and has produced a landuse that ensures the maximum return from agriculture. Besides jowar, the main cereal of the region, sugarcane is the principal cash crop followed by tobacco, chillies, turmeric and other garden crops. The Panchaganga basin is known for the cultivation of sugarcane. The entire agrarian economy is oriented to cash crops and commercialization. In Konkan districts horticulture has developed during the last 20 years. Improved methods of coconuts cultivation, cashewnuts mangoes, condiments and spices have been introduced. Recently pineapple and rubber plantation is introduced in the area. The general landuse of the study area indicates that out of the total geographical area forest has a share of 9.24 percent. The area not available for cultivation is 10.83 percent. Fallow land covers 9.62 percent and out of the total geographical area 59.83 percent land is under cultivation. Of this only 7.2 percent land is sown more than once.

FOREST :

The forest covers an area of 413,277 hectares and most of the forest area lies in western parts of Satara, Sangli, Kolhapur districts and eastern hilly area of Konkan districts. The annual income from different species of forest wealth has collected nearly a revenew of 1.4 crores.

MINERAL WEALTH :

In respect of mineral wealth Kolhapur and Konkan districts are very rich. Konkan is rich in minerals with reserves of iron, manganese and bauxite and large quantity of silica. Iron ore occurs at Redi, Tak, Asola, Ajgaon, Shiroda and Nanos in Vengurla taluka and Talavane, Gulduwe, Kinhala, Kaothani, Satarda, Sateli, Aros, Thakurwadi, Malewadi, Matond, Dabhol, Tendoli and Gale in Sawantwadi taluka. Manganese also occurs in Sawantwadi and Vengurala talukas of Ratnagiri district. The region though having deposits of bauxite, is not so rich as Kolhapur region. These bauxites are of high grade and contain 45 to 52% aluminium oxide. Besides, the above metallic minerals, silica and associated with Kaladgi quartzites occur in Konkan. Very rich deposites of bouxite are found in Radhanagari and Chandgad talukas of Kolhapur district. It is also reported in western parts of Satara district. Some lime stone deposits are also present in Miraj taluka.

INDUSTRIAL STRUCTURE OF THE REGION :

Konkan is relatively poor in industries. Besides industries based on local raw materials, like fruit and fish canning and processing of cashewnuts, ther are a few scattered industries. Of these chemical industries at Roha, Mahad and Chiplun are noteworthy. At present there are two fish canning factories at Ratnagiri, one cashewnut processing factory at

Vengurla and three fruit canning industries in region. There was a proposal, a few years ago, to set up an aluminium plant. There is every possibility of developing fish canning and other agro-based industries in South Konkan. One has to think in terms of industries with local resource base, like fishing and tourism, or of industries which are footloose and have the ability to develop anywhere, if manpower, energy resources and transport are assured.

Though not as important as Bombay and Pune, the Krishna Valley has its own share of industries, both large and small scale. Cotton textile, no doubt, was a major industry in the early decades of the century. Today, the textile mills located at Kolhapur, Miraj, Sangli and Madhavnagar, depending on cotton brought from other areas, provide employment to a large number. Kirloskarwadi, specializing in engineering goods producing agricultural implements and Ogalewadi with its glass works, are important industrial towns. During the last 25 years the region has acquired about a score of sugar factories, run on co-operative basis, and a large number of engineering workshops. Other agro-based industries are oil crushing groundnuts and the processing of tobacco and bidi making at many places.

Kolhapur is particularly reputed for iron casting works and the foundaries here are commissioned for precision moulding by large industrial firms in Bombay and Pune. Jaysingpur and Ichalkaranji are traditional centres of handloom and powerloom

industry. Some of the early industries, particularly the cotton textile, in the Bhima Valley, developed at Solapur which is the focal point of the region. The region had a traditional handloom industry with weavers spread over at Solapur, Barsi and Akkalkot. It is also for its dal mills. Solapur with 5 textile mills, over 80,000 handlooms and 3,500 powerlooms, the city could truly boast of being textile town. Akluj, the driest place in Maharashtra, is today known as a town producing sugar and carrying out retail trade and regulating cotton and groundnut sale. Barshi, located on Latur-Miraj light gauge, is known for its 'Dal' and oil mills.

DATA SOURCE :

The basic data pertaining to the urban centre and other demographic and socio-economic aspects of the region is collected through various census tables of 1961, 1971 and 1981 census, socio-economic abstracts, statistical abstracts, district census handbooks and district gazetteers of Maharashtra State.

METHODOLOGY :

In the present study various methods and techniques have been used. The details of the various methods and techniques will be discussed in the text wherever they are used. Here only the mention of various methods and techniques is made. For the functional classification of towns Doi's

method has been used. The spatial distribution of small and medium size towns has been studied by Nearest Neighbour Analysis. Further the zone of influence of towns and changes therein have been calculated by modified method based on V.L.S. Prakashrao's formula. Levels of development have been calculated by using a method previously used by P.W.Deshmukh (1980). The generative and parasitic character of small and medium size towns has been assessed by using weighted scores for the various parameters considered in the study. All methods and techniques used in the present study will be discussed at appropriate places.

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