

CHAPTER VI

C O N C L U S I O N



CHAPTER [VI]CONCLUSION

The Sindhudurg district lies along the west coast forming the main part of the Konkan. Physiographically, this area is very rugged and complex one. The total area of the district is 5087.5 sq.km., having a total population of 8,30,726 persons according to 1991 census. In terms of area and population it makes 1.65 percent and 1.05 percent of the State respectively.

Physical space being of prime concern to geographers, various aspects of location and distribution of market centres have been studied since 1931. Market centres are the centres of distribution and collection of goods which required for the surrounding population. In India, rural market centres are fairly distributed in the agricultural areas, where urbanization has not making its effect, so the weekly market centres have got more importance from the view point of rural population.

In the chapter No. third, an attempt has been made to study the spatial distribution of market centres in the Sindhudurg district. The distribution of settlements and market centres, size distribution of market centres and various factors which affect on the distribution of market centres have been considered.

There is some relationship between distribution of rural settlements and market centres (except Sawantwadi

taluka). In the study region a market serves an average 14 settlements. The size of market centres is based on various factors, in the hilly areas the size of market centres found very small as compared to agriculturally prosperous region.

The size distribution of market centres shows that in the year 1981 there are 11 markets in the first category (below 1000 persons) but the number of market centres decreased by one market in the year 1991. In the second size group of market centres there are 17 market centres in the year 1981, the market centres are increased by 5 market centres in the year 1991. In the third category 13 market centres are in the year 1981 and only 8 market centres are in the year 1991. But in the next two categories, it is observed that the number of market centres have increased by two and one respectively.

There are various factors which affects on the distribution of market centres, natural and socio-economic factors influence on the distribution of market centres, in which physiography, drainage, rainfall, agriculture, irrigation, transportation and communication are the important factors.

The physiography and the distribution of the market centres in the study region have a positive co-relationship. Human settlements are always attracted by rivers and streams. In any region, where more number of rural settlements are found in these areas the drainage density is also found high. In the study region it is observed that, where the drainage density is found between 50 to 100 km. per 100 sq.km.,

covers an area about 92.05 percent of the total and accounts for 88.69 percent of the total market centres.

In the study region, the rainfall increases from west to east. A very different type of relationship between rainfall distribution and market centres has been observed, where the rainfall is found high, the number of market centres are found less, while the rainfall which is observed below 3000 mm, covers less area of the study region and more number of market centres.

The study of market centres in relation to density of population is very important because market centres provide the services and facilities to the population. In the study region, where the density of population is found between 100 to 300 persons per sq.km., covers an area about 70.21 percent of the total and accounts for 75.47 percent of the market centres of the total. It means that there is a positive co-relationship in between density of population and distribution of market centres. It is also observed that, where the low population density has observed, covers more area and less number of market centres, which are mainly found in the eastern part of the study region.

Agriculture is the main stay of the people of the study region, because nearly 76 percent of the population directly engaged in agricultural activities. It is also observed that, where the percentage of land under cultivation is found between 20 to 40 percent, covers an area about 40.25 percent of the total and accounts for 62.26 percent of the

total market centres. The percentage of land under cultivation is observed less than 20 percent, covers an area nearly 52.17 percent of the total and accounts for 22.64 percent of the total market centres. In this region the area under cultivation is found more where less number of market centres are found.

It is observed that, in the study region the land under irrigation is found very less. The study region is a part of Sahyadri hill ranges, where the physiography of the region is very rugged and complex, due to steep slopes of the region, irrigation facilities are not developed. It is also observed that, the agriculture is mainly depend on the monsoonal rainfall only. In the study region, there is no effect of land under irrigation and the distribution of market centres, because this area has absence of irrigation facilities. In this region, where the land under irrigation is found less than 2 percent, covers an area about 84.89 percent of the total and accounts for 81.14 percent of the total market centres.

The road transportation network plays an important role in the distribution and growth of market centres in developing country like India and particularly in the Konkan region. Transport routes are the arteries, they act as the links between the people and market centres. In the study region, it is observed that, more number of market centres are developed on the roads or on the nodal points, where the density of road is found more, covers more area and more

number of market centres, it means that, there is positive co-relationship between density of road and distribution of market centres in the study region. It is also observed that, where the density of road above 60 km per 100 sq.km. is found, covers an area about 64.12 percent of the total and accounts for 77.36 percent of the total market centres. It means that higher the road density, higher the number of market centres.

To study the spatial distribution of market centres of the study region the technique 'Nearest-Neighbour Analysis' has been applied and the 'Rn' values from the market centres have been calculated.

The north-eastern part of the Vaibhavwadi taluka, northern part of Devgad taluka, south-east part of Kankavli and eastern part of Sawantwadi taluka shows absolute clustering distributional pattern. Linear clustering distributional pattern found in the east and west part of Kudal taluka, north Vengurla and few part of Malvan taluka.

The southern part of Sawantwadi and Vengurla talukas, the Malvan taluka, the south Devgad and the central part of Kankavli taluka, shows complete random distributional pattern of market centres. The south and eastern part of the Devgad taluka, east and south Malvan taluka, western part of Kankavli and Kudal taluka indicates nearer to uniform distributional pattern of the market centres.

The growth of market centres in number into different decades, talukawise growth rate of market centres, the

individual growth of market centres in relation to population and their population sizes have been considered. The population is one of the important factor which affected the overall growth character of the region. Population is a dynamic factor whichr reflects the social and economic change in the study region.

In the study region, it is observed that, the decadal growth rate of market centres shows very less in number. In the decade 1961, there were 45 market centres, it increases upto 48 market centres in the decade 1971. In the decade 1981 and 1991 there were 51 and 53 market centres respectively. There is very slow growth of market centres in the study region in general, but if we observed the talukawise growth of market centres it is found that, only Kudal and Devgad talukas shows growth in market centres. In general the growth of population is found throughout the region, but according to growth of population the number of market centres have not increased more, it means that, these market centres are more capable to serve more population than the existing population

The growth of population in any region is influenced by various factors, which includes soils conditions, development of agriculture, growth of industries, growth of urbanization and development of transport facilities. In the study region, all over mentioned factors have influenced the growth of population has observed in every settlements and it shows changes in population and this change is one of the dynamic factor to study the market centres in relation to population of individual market centres.

It is observed that, nearly 34 percent market centres shows declining growth rate in population except Sawantwadi taluka. The Vengurla, Kudal and Malvan talukas show minus growth rate in population of market centres in four markets. In Devgad (3), Kankavli (2), and Vaibhavwadi (1) talukas show decrease rate in population of market centres.

The growth rate below 10 percent is observed in 14 market centres which are distributed in the study region except Devgad and Vaibhavwadi talukas. The growth rate of population between 10 to 20 percent is observed in 6 market centres, the growth rate of population between 20 to 40 percent is observed in 7 market centres. The growth rate of population above 40 percent is observed in 6 market centres of the study region. In the decade 1991 two new market centres have exist.

To study the market centres talukawise according to their population size, the market centres have been classified into five categories, then it is observed that, in the first category of market centres i.e. below 1000 persons, there are 11 market centres in the decade 1981, which shows decline by one market centre in the decade 1991. In the second category of market centres there are 17 market centres in the decade 1981, which shows increased by 5 market centres in the decade 1991. In the third category, there are 13 market centres in the decade 1981, which shows decline by 5 market centres in the decade 1991. In the fourth and fifth category of market centres, there are 3 and 7 market centres

in the decade 1981, which have increased by two and one market centres in the decade 1991 respectively. It is also found that, in total only two market centres have increased.

Talukawise growth of population of market centres for the decade 1981-1991, it is observed that, the Devgad and Vengurla taluka shows declining growth rate of population of market centres. The Malvan taluka shows growth rate of population of market centres by 6.5 percent, Sawantwadi, Kudal and Vaibahwadi talukas show growth rate of population of market centres by 15.68 percent, 18.37 percent and 18.37 percent respectively. The Kankavli taluka shows higher growth rate of population of market centres (i.e. 49.11%) than the other talukas.

In the study of centrality and hierarchy of market centres, it is observed that, most of the rural market centres are small in size in respect of their population and functional capacity. Though these small market centres holding very few functions and services play an important role as rural service centres in economic organization of land scape.

Centrality is measure of importance of places in terms of its functional capacity to serve the surrounding region. Centrality depends upon the important central functions, which served the population of command area. In the present study, 52 various functions have been considered for calculating the centrality values. The centrality values have been obtained by using W.K.D.Davices Method.

Centrality scores of individual market centres of the study region, Sawantwadi a taluka place has found very high centrality value (i.e. 431.83), because it is a large town of the study region, which has very large service area and it serves more population of the study region. Kankavli stands second in ranking of centrality (381.78). It is also a large rural market centre of the study region. Kudal is a district place but it ranks on third number in centrality score (i.e.328.14), because it established newly. Vengurla, Malvan and Devgad are the taluka places and they stand fourth, fifth and sixth rank number in centrality score respectively. Other remaining market centres are grouped into various categories of centrality scores, then it is observed that, out of 53 market centres only 6 market centres have centrality score below 20. Nearly 12 market centres have centrality score between 20 to 40. The centrality score between 40 to 60 and 60 to 120 have been observed in 14 market centres in each category. Seven market centres have centrality scores above 120.

Hierarchies of settlements as general service centres have been described in many different parts of the world, in the more advanced countries and in a historical context as well as the modern day setting. The study of hierarchical class system is a very important part of the spatial model of central place. In the present study, an attempt has been made to study the orders of hierarchy of market centres, the Zipf's, Rank-Size-Rule has been adopted.

In the study region, it is observed that, nearly

18.87 percent and 45.51 percent of the total market centres are grouped into fifth and fourth order of market centres respectively. Third order market centres, accounts for 28.3 percent of the total market centres of the study region. Second number market centres, accounts for only 9.4 percent of the total market centres.

The service areas of the market centres are influenced by their functional importance. The spacing between market centres, size of market centres are the important factors which affects the zone of influence areas of the market centres. In the present study, the first order market centre, i.e. Sawantwadi town has been omitted from the study, because it serves whole district area and population. All the market centres, except Sawantwadi have been studied in respect to their service areas and their functional linkages.

In the present study, the empirical method has been used for the analysis of hierarchic linkage of market centres to the area served, population served and settlement served by market centres. All 53 market centres have been considered in the fifth hierarchic order of market centres. In spatial distribution of market centres, it is observed that, in the eastern part of the study region, where the topography of the area is hilly and rugged, high rainfall, dense forest, low population density and small size market centres served large area than the average. Some market centres of the Kudal, Malvan and Sawantwadi talukas have less service areas and more population than the average.

There are 22 market centres, included in the fourth order of hierarchy. The spatial analysis shows that, the higher concentration of fourth order market centre is found in Kudal taluka. In Vaibhavwadi taluka, there is not a single fourth order market centre. In Devgad taluka, all the market centres (except taluka head quarter) are included in fourth hierarchic order of market centres. In general, it is observed that, in the north-western part and south-central part of the study region have more number of market centres of fourth hierarchic order.

In the third hierarchic order of market centres, 15 market centres have been included. The higher concentration of third order of market centres are found in Kankavli taluka. There is not a single third hierarchic order of market centre in Devgad taluka. In the north-eastern part of the study region, particularly Vaibhavwadi and north Kankavli taluka have more number of third order market centres.

There are five market centres involved in the second hierarchic order of market centres. These market centres served very large area and more population of the study region. The spatial analysis shows that, in Vaibhavwadi taluka there is not a single second order market centre, in remaining talukas there is a one second order market centre i.e. taluka head quarter.

In the present study, the hierarchic relationship between the market centres and their functional linkages have been studied. Most of the lower and higher order of the

market centres are more connected to the Sawantwadi, an important first order market centre of the study region. The second order market centres have a moderate linkage with third order market centres. Third order market centres have their linkage with fourth and fifth order market centres located in the neighbourhood. The lower order market centres depend on higher order market centres for their functional needs. The lower order market centres i.e. fifth order, are also functionally linked with rural settlements. These market centres also served as a rural service centres for these settlements.

