

CHAPTER - I  
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I N T R O D U C T I O N

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- Introduction
- Objective of the present study
- Data base & Methodology

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## INTRODUCTION

Cities are the nodes of mans greates impact on nature, the places where he has most altered the essential resources of land, air, organisms and water. Through urbanization, man has created new ecosystems within which the interactions of man, his work and nature are complex. Today, the majority of people are attracted towards cities and in the recent years the converging forces of population, urbanization, technology and environment have come to serious conflict.

A city is a special combination of a place and it people. In the definition of city, it is broadly stated that, it includes the totality of natural, social and artificial components aggregated in the population of places. The city may also be though of functionally - as an open ecosystem for perpetuating urban culture by exchanging and converting great quantity of material and energy. These functions require an efficient transport system and hinterland that can supply the resources required by the city. The city consists of two, components : urban man and urban environment. City functions place many demands on man and nature. The broad categories of requirements may be noted i) biological needs and ii) cultural requirements. The biological needs of man are air, water, space, energy, shelter and waste disposal. The cultural requirement includes political organization, economic system, technology, transport & communication, education and information, social activities and safety.

The 20th century has been called the Age of Urbanization. In 1900, about 8 percent of the world population lived in urban areas. By 2000, this percentage will rise to 50, and about 3 billion people will be living in the cities of the world. Jagmohan in his book, 'The Challenge of Our Cities' says, "India is no exception to this process of urbanization. Though our rate of urbanization is comparatively low, the size of our urban population is very large. According to the 1981 census, it is 156 million - fourth largest urban population amongst the countries of the world. In number, only three countries have more urban population than India. These are the U.S.A., the U.S.S.R. and China. By 1985, India will outpace both the U.S.S.R. and the U.S.A. and will have the second largest urban population in the world, next only to China.

By 2000, India will have 350 to 400 million people living in its urban areas. There will be 20 cities with more than a million population each, and 600 cities with population ranging from 50,000 to 500,000. Four of our cities- Calcutta, Bombay, Delhi and Madras will be amongst the 30 largest cities of the world, each with a population of more than 10 million".

The problems confronting our cities are similar to the problems which are being faced by other developing countries. What we do in India to solve these problems is of special interest to them. Any innovation provided by us will bring us closer to the developing countries most of whom are nonaligned.

The developing countries, by the turn of the century, will together hold about 75 percent of the world population.

In every aspect of city life - density of population; availability of land; housing; slums and squatters settlements; municipal services; the scale and character of migration; employment; transport; civic sense and general environment - the current conditions are far from satisfactory.

Quite a sizeable portion of this urban population lives in 12 major cities. In these cities 27 percent of the urban population is concentrated. They have the highest gross density of 85 persons per hectare as compared to 43 persons per hectare for the cities with population ranging from 1 to 5 lakhs, 32 persons per hectare for cities with population ranging from 50,000 to 100,000; 21 persons per hectare for cities with population ranging from 20,000 to 50,000, and one person per hectare for cities with a population of less than 20,000.

There is an acute scarcity of developed land in all the metropolitan cities. To meet the requirement of population that would be added to our cities during the period 1981-2001, over two million acres of urban land would be required.

The position in respect of availability of municipal services is equally depressing. Only 40 percent of our cities have protected water supply, and that too, of inferior quality. In respect of sewerage, only 8 percent have underground drainage system. About half of the inhabitants of the cities have no access to even public lavatories. The standard of open spaces in our

cities is distressingly low, it is only 0.83 acres per 1,000 population which is six times less than the proportion in the American cities and fifteen times the British towns.

The slums and squatters settlements have become the most serious problem of our cities. At present, about 30 percent of the cities population live in these settlements. About 8,000 acres of Bombay's land is slum where 3.5 million population live in a density of 400 persons per acre.

Urban indiscipline is creeping imperceptibly into our civic setup like a cancer and large scale violations of civic laws are taking place with a view to securing pecuniary benefits at the expense of public interest.

Most of our cities lack efficient transport system. Four major cities account for one eighth of the 16,000 annual road accident in our country. This is the highest motor casualty rate in the world. In Bombay, 3 to 4 persons die every day on the suburban trains, and two are killed on the road. In Delhi, 982 persons died in road accidents in 1982.

Congestion and traffic jams are rampant. More often than not, half the metalled road is encroached upon. Traffic staff is inadequate. For instance, in Delhi, there are 35 lakh commuters every day, and there are only 12,000 policemen to manage traffic. Primitive and modern modes of movement exist side by side. The bullock-cart, the car and the heavy trucks have to compete for the same limited space causing speed stagnation, pollution and

commercial bottle necks. For instance, in Delhi, there are twenty kinds of vehicles. There are 6.25 lakh registered motor vehicles and 13 lakh non-motorized vehicles.

Extreme congestion, high densities and use of inferior quality of charcoal and fuel wood by majority of the people to meet their needs of energy cause a high degree of air pollution. Contrary to general impression, concentration of suspended particulate matter, especially carbonmonoxide in our cities, is many times more than in the western cities at its worst.

Noise is another factor that lowers the quality of life in our cities. According to the survey conducted by the National Physical Laboratory, Delhi, Bombay and Calcutta are the noisiest cities in the world. Another study of the society for clean environment reveals that even on non-festive days, noise level in the city is 77 decibels as compared to WHO standard of 19 decibels.

It should be obvious from the above facts that the general state of our cities is not encouraging, and in many areas we have taken a wrong turn. There is inadequate understanding of the forces at work and we seem to have few ideas to prevent the situation from reaching a point of no return.

Our problems are formidable. So far, we have been soft pedalling the intricate issues involved. John F. Kennedy once observed : 'The cities, their needs, their future, their financing these are the great unspoken overlooked, underplayed problems of

our times'. This observation is more applicable to the Indian cities than to the cities of the west.

In our cities, economic problems loom large. Social problems are becoming increasingly acute and so are environmental problems such as congestion and pollution. It does not seem probable that developing countries like India can meet these problems squarely and provide a decent physical and social environment in the near future unless the international community agrees to a more equitable distribution of world resources. It is obvious that if 80 percent of the world's resources are cornered by 20 percent of the population, the remaining 80 percent of the population cannot have happy and healthy settlements with just 20 percent of the resources.

#### OBJECTIVE OF THE PRESENT STUDY

In the light of above discussion the objectives of the present study are as follows :-

- i) To study the growth dynamics of population and space of Kolhapur city.
- ii) To find out the growth of functions and services in relation to the population growth of Kolhapur city.
- iii) To find out the sphere of influence and delimit the fringe zone of Kolhapur city.
- iv) To identify the important problems of Kolhapur city.
- v) To suggest remedies for solving some of the urban problems.

## DATA BASE AND METHODOLOGY

The data regarding growth of population has been collected from various census records. The data regarding growth of functions and services has been collected from municipal record and records of shop inspector office. The data of slums, residential area development, water problem, land values, quarries have been collected by intensive fieldwork.

The data of drinking water has been collected from Environmental Engineering Office and Water works. The record of crimes has been collected from various Police stations. The data regarding traffic is collected from Municipal Corporation Office.

The zone of influence has been delimited by collecting the data of selected functions through intensive fieldwork. In order to understand the problems of city bus transport the interview of few passengers has been conducted randomly.

In the analysis of data various techniques have been adopted, zone of influence has been calculated by Empirical method as well as by V.L.S. Prakashrao's method. The fringe zone of the city has been delimited by method evolved by Dr.P.W.Deshmukh. Land values isopleth have been calculated by putting the land values in each grid for which the entire city area was divided into the different grids. In order to understand the relationship of the growth of population and growth of functions Karl Pearson's correlation technique has been used. The details of methodology are given at appropriate places in the text.



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